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China

Foreign Trade Reform



A WORLD BANK COUNTRY STUDY

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CURRENCY EQUIVALENTS

Currency Unit: Yuan (Y)

\$1.00 = Y 5.73

Y 1.00 = \$0.175

FISCAL YEAR

January 1 - December 31

WEIGHTS AND MEASURES

Metric System

ACRONYMS AND ABBREVIATIONS

ACP	African, Caribbean and Pacific (Countries of the Lomé Convention)
BESD	(World) Bank Economic and Social Database
BOC	Bank of China
CES	Constant Elasticity of Substitution
CET	Constant Elasticity of Transformation
CGE	Computable General Equilibrium (Model)
CCPIT	China Council for the Promotion of International Trade
CETDC	China External Trade and Development Council
CNC	Computer Numerically Controlled
COEs	Collectively Owned Enterprises
COFERT	Commission of Foreign Economic Relations and Trade
COMTRADE	Commodity Trade (System)
DIP	de facto import promotion
DL/C	Domestic Letters of Credit
EC	European Community
EP	Export Promotion
EPOs	Export Promotion Office
ERP	Effective Rate of Protection
ETCs	Export Trading Companies
ETDZs	Economic and Technology Development Zones
ETE	Export Tax Equivalent
FDI	Foreign Direct Investment
FEACs	Foreign Exchange Adjustment ("Swap") Centers
FFEs	Foreign-Funded Enterprises
FIEs	Foreign-Invested Enterprises
FT	Free Trade
FTA	Free Trade Area
FTCs	Foreign Trade Corporations
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GNP	Gross National Product
GSP	Generalized System of Preferences

GTCs	General Trading Companies
GVIO	Gross Value of Industrial Output
HKDTC	Hong Kong Trade Development Council
HS	Harmonized System
HTDZ	High Technology Development Zone
IMF	International Monetary Fund
IS	Import Substitution
ISO	International Standards Organization
ITCs	Import Trading Companies
JETHRO	Japanese Export Trading Organization
KOTRA	Korea Trade Promotion Corporation
LFS	Linear Expenditure System
LTCs	Large Trading Companies
MFA	Multifibre Arrangement
MFN	Most-Favored-Nation (status)
MOFERT	Ministry of Foreign Economic Relations & Trade
MOFTEC	Ministry of Foreign Trade and Economic Cooperation
MPS	Materials Product System
NAFTA	North American Free Trade Area
NIEs	Newly Industrialized Economies
NTB	Nontariff Barrier
OECD	Organization for Economic Cooperation and Development
PBC	People's Bank of China
PEP	Protected Export Promotion
PNEs	Production Networks for Exports
PTA	Phthalic Anhydride
QCC	Quality Control Circle
RAS	Richard A Stone (algorithm)
RCA	Revealed Comparative Advantage
REER	Real Effective Exchange Rate
RMC	Resident Mission in China
SCEIMO	State Council Machinery and Electronics Import Office
SCETO	State Council Economics and Trade Office
SCETC	State Council Economic and Trade Commission
SAECs	State Administration of Exchange Control
SEZs	Special Economic Zones
SITC	Standard International Trade Classification
SMART	Software for Market Analysis and Restrictions on Trade
SOEs	State-Owned Enterprises
SPC	State Planning Commission
SRC	System Reform Commission
STDB	Singapore Trade Development Board
TVEs	Township and Village Enterprises
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
US	United States
USSR	Union of Socialist Soviet Republics
XTB	Xizmen International Bank

EXECUTIVE SUMMARY

A. OVERVIEW

Since the launching of the reform program in 1979, the promotion of external trade has been central to China's efforts to modernize its economy. The policy has met with remarkable success, with exports having increased ninefold and imports more than sevenfold over the period. This has been accompanied by rapid changes in the institutional support system for foreign trade and in the incentive framework. But China has a long way to go in replacing direct administrative intervention with indirect price-based instruments for managing its trade policy, and much is still unclear about the functioning of China's trade regime.

Historically, China's approach to trade policy has been aimed at achieving export growth for the sake of generating foreign exchange without sufficient regard to its costs, while import policy has featured controls to regulate import growth. Although, as a result of the "open-door" policies of the 1980s, decisions concerning exports have become increasingly determined by the market rather than administrative fiat, reform of the import regime has, by comparison, remained neglected and is now taking on some urgency. The report addresses key issues in import as well as export policy for accelerating the country's transformation into a market based economy. Four important conclusions emerge.

First, while the role of planning in China's foreign trade sector has been declining, several problems of transition remain. The report recommends reforms that would enable China to transform what remains of its trade and foreign exchange planning systems into instruments for the indirect management of trade policy.

Second, the report finds that despite a complex array of tariff and nontariff barriers to trade, China has become a relatively open economy, with evidence of considerable tariff redundancy. It demonstrates that the present is, not least for this reason, an opportune time for China to embark on a substantive program of trade liberalization. Import competition would be an important instrument for helping China make its state-owned sector more responsive to market forces—an issue of mounting concern for the country. Import liberalization would also contribute to the growing momentum of China's drive to become a full member of the international trading community. Moreover, in view of its remarkable export performance so far and its comfortable reserves position, China would appear to be well positioned to launch such a program at this time.

Third, notwithstanding the diminishing reliance on export planning, the Chinese government has been actively involved in export development. Aside from financial assistance and incentives, the government has directly provided a variety of other support services, including marketing and quality control. Such support should be maintained. However, as China continues its drive towards a market economy, the way in which export assistance is

delivered will need to be refined. The report proposes a program of action for making the institutional support structure for exports, and public support for export development in general, more effective.

Finally, the success of China's continued reforms in the area of foreign trade depends on its ability to sustain a healthy rate of export growth. The report finds that, even in today's uncertain global trading environment, China should be able to maintain its export performance through quality improvements and some product and market diversification. On the other hand, there is little doubt that the successful conclusion of the Uruguay Round would be very helpful for China, or that the discontinuation of China's Most-Favored-Nation (MFN) status in the United States would lead to significant trade dislocation.

B. MAIN FEATURES OF CHINA'S TRADE PERFORMANCE

Over the decade of the 1980s, China's exports outperformed those of most other countries, including such newly industrialized economies (NIEs) as Malaysia. The only economies that registered average annualized export growth rates higher than China were Thailand (13.2 percent), the Republic of Korea (12.8 percent), Taiwan, China (12.1 percent) and Portugal (11.7 percent). China is now the eleventh largest exporting nation in the world. It exports about 17 percent of the gross value of industrial output (GVIO) of its overall manufacturing sector. Institutional decentralization, foreign investment (especially from Hong Kong), depreciation of the real effective exchange rate, and duty-free access to imported inputs for export assembly all seem to have contributed to this strong performance. Whereas in 1978 all trade was monopolized by only 12 Foreign Trade Corporations (FTCs) and their branches, today over 3,600 FTCs compete increasingly fiercely for export business. From no foreign direct investment (FDI) in 1978, the total has risen to over 90,000 approved projects with a contracted value of \$58.1 billion. Since 1985, the real effective official exchange rate has depreciated more than 100 percent, and almost two thirds of China's manufacturing exports are now based on processing activity that utilizes duty-free imports.

Another development which has had a bearing on China's export performance over the decade of the 1980s has been the declining importance of trade planning. Direct subsidies for exports have been more or less phased out, and export targeting has become progressively more macro in nature (it now operates essentially only through the foreign trade contract system). As a result, the composition of China's exports has been allowed to evolve increasingly along the lines of the country's comparative advantage, with the contribution of nonstate and foreign-invested enterprises also growing very fast. Nonstate and foreign-funded enterprises now account for at least one third of China's exports. Manufactures as a whole constitute 80 percent of exports, with labor-intensive manufactures contributing almost three fourths of total exports. As in many other East Asian economies, clothing, toys, sporting goods and footwear have emerged as among the most dynamic of China's export sectors.

Unlike exports, imports seem to have remained subject to much stronger government management. Over the 1980s, import trends closely followed trends in planned domestic economic activity and appear also to have been sensitive to changes in administrative controls such as foreign exchange retention and import licensing. Overall, the pattern of China's imports remained very stable and reflected the country's import strategy of assuring supply of key raw materials and acquiring embodied technology while minimizing imports of consumer goods. The degree of central government control over imports has been diminishing, but even

today, over 50 percent of the country's foreign exchange earnings are subject to central government control, and 50 percent of imports are subject to some form of nontariff barriers (NTBs).

On the whole though, China's economy has become increasingly open. Most remarkably, the share of merchandise trade in China's gross domestic product (GDP) went from 10 percent in 1978 to 31 percent in 1991, with imports accounting for 15 percent.^{1/} Based on this measure, China appears to be more than twice as open as India and Brazil, and significantly more open than the United States or Japan. Moreover, import penetration in certain sectors is extremely high. For example, in 1990, imports amounted to an estimated 28 percent of GVIO in China's machinery and transport equipment sector.

While the growing openness of the Chinese economy has had a perceptible impact on the quality of a range of Chinese products, it is noteworthy that the structure of China's industry hardly changed between 1985 and 1990, despite a nonnegligible degree of import penetration and rising export ratios over the same period. Thus, the respective shares of light and heavy industries in total industrial output remained virtually unchanged at around 47 and 53 percent between 1985 and 1990. Likewise, the share of consumer manufactures (with such heavily export-oriented sectors as clothing, footwear and travel goods) has also stayed remarkably stable at around 8 percent of GVIO. This suggests that investment in China remained heavily directed, at least until the late 1980s, such that the *allocation* of investment across sectors went largely unaffected by the country's changing patterns of external trade. As open as the Chinese economy is today, trade still does not appear to play a sufficient role in domestic resource allocation.

C. TRADE AND FOREIGN EXCHANGE PLANNING: THE REMAINING ISSUES

Trade Planning: What Next?

China's trade system has moved from one in which, at the start of the reform period, almost all trade was planned and carried out through a handful of FTCs, to one in which the role of planning is much diminished. Similarly, pricing has moved from a position of wide-ranging subsidy and cross-subsidy, to one in which, in 1992, only import subsidies remain, and these are really enterprise subsidies. Such export planning as exists now takes place through the foreign trade contract system in the form of value targets for export earnings.

The present foreign trade contract system, although intended to be fixed on a "bottom-up" basis, still takes on a compulsory quality for several reasons. First, the value targets negotiated in the contract for exports and the amount of foreign exchange to be remanded to the center are still mandatory. Second, fulfillment of the targets in the contract is a precondition for awarding bonuses to officials responsible for carrying out the export plan. Each province's contractually determined targets are in turn disaggregated and assigned as targets to

^{1/} This figure needs to be treated with caution. First, China's GNP is likely to be underestimated. Second, customs statistics on exports include the full value of exports based on processing of imported inputs, which tends to exaggerate the role of trade in the Chinese economy. Excluding the latter would reduce the value of China's exports in 1990 by about \$11.9 billion, and the trade to GDP share to about 28 percent. Depending on what estimate of China's GDP is taken, the trade to GDP share could be anywhere between 18 and 26 percent.

various provincial trading companies. Third, rebates for domestic taxes levied on export goods have now been linked to fulfilling targets for exports. The problem is that these targets have to be met by FTCs that are not entirely free to choose what goods they can trade and are no longer eligible for subsidies to cover their loss-making exports. As a result, FTCs cannot pay full attention to profitability while at the same time meeting their obligations under the foreign exchange contract. Available evidence suggests that the incidence of bad bank loans to FTCs has gone up sharply since the contract responsibility system was introduced and subsidy payments began to be phased out in 1988.

In order to address this problem, the authorities need to take the reforms of the export planning system to their logical conclusion as soon as possible. The trade contract responsibility system should be abolished and FTCs should be allowed to work towards maximizing profits rather than foreign exchange earnings. Linking bonuses to profits, instead of to foreign exchange targets, would motivate FTCs to market only profitable exports, thereby generating export earnings for the country without concomitant domestic currency losses. Such measures will, however, not be effective without further institutional reform of the FTCs themselves. FTCs need to be granted greater autonomy (along the lines of the recent regulations pertaining to the operating mechanism of state-owned enterprises) so that they can function as truly independent profit centers. At a minimum, FTCs must be granted the right to choose their own product scope.

On the import side too, as noted above, the importance of planning has declined, with the coverage of the trade plan having fallen to under 20 percent of all imports (from 40 percent in 1988), and this trend can be expected to continue. However, a large proportion of nonmandatory plan imports continues to be subject to administrative regulation through tight control of foreign exchange allocations. The central government still controls 50 percent of all foreign exchange earnings. Funding for key projects and for their associated imports is already allocated as part of the government's investment program and the state industrial policy. It is, therefore, redundant to also administratively assign foreign exchange for the purpose of procuring these imports (which account for more than 30 percent of all imports). All concerned state-owned enterprises (SOEs) or government agencies ought simply to purchase the foreign exchange they need in the foreign exchange adjustment ("swap") centers (FEACs) instead of having local enterprises surrender 30 percent of their foreign exchange earnings to the central government at the swap rate and then having these funds allocated to them administratively.

The Exchange Rate Regime: Toward Convertibility

Since the establishment in 1986 of FEACs, which created an official two-tier exchange rate system, the volume of FEAC transactions has grown rapidly; it reached \$25 billion in 1992, or about one-half of all cash imports. The FEAC system has served two key functions: it has provided critical relief to exporters in maintaining export incentives, and it has forced the government to move the official rate to more market-determined levels. Nevertheless, important defects remain.

For one, the existing system of quota retention is flawed. Quotas are monopolized by FTCs, with most local manufacturing enterprises being left with little or none of the foreign exchange they help generate. Since FTCs themselves do not have any direct import requirements, they have tended to hoard retention quotas for speculative purposes. More importantly, the system of trading predominantly in quotas instead of cash has denied the

People's Bank of China (PBC) an instrument for intervening in the foreign exchange market for purposes of stabilizing the exchange rate.

Second, although 80 percent of foreign exchange earnings are now priced at the swap rate, the market for foreign exchange remains thin and fragmented, in large part because the government still does not purchase its foreign exchange requirements through the FEACs. Besides, the differential between the swap market and the official exchange rate, down to under 10 percent in 1991, has once again become significant. The differential exceeded 45 percent at the end of the first quarter of 1993 (despite attempts, later abandoned, to enforce price ceilings in the FEACs).

Structural reform of the exchange regime has therefore become urgent. It is the stated objective of the authorities to unify the exchange rates and make the renminbi a convertible currency. This process needs to be accelerated through the speedy implementation of the following recommended measures:

- (a) Replacement of the system of retention quotas with a system of cash retention that would allow enterprises to retain their foreign exchange in resident bank accounts, reduce the incidence of hoarding and allow the PBC to intervene, if necessary, to stabilize the swap market rate;
- (b) Elimination of remaining restrictions on access to FEACs (reflecting either the status of the purchaser or the purpose of the transaction), and parallel creation of an integrated national swap market;
- (c) Widening of the scope of FEACs to cover all current account transactions (including nontrade transactions), and parallel abolition of all remaining surrender requirements, with the government having to purchase all its current account foreign exchange needs (including for mandatory imports) through the swap market; and
- (d) Abolition of administered foreign exchange allocation for priority investment projects, and phasing out of that for mandatory imports.

The above measures would make the renminbi convertible on the current account, strengthen the links between the monetary and the external sector of the economy, and thereby place a greater burden on monetary policy as an instrument for influencing the balance of payments outcome. It is important, particularly in light of the recent trends in monetary aggregates, that the authorities adopt a disciplined monetary policy stance while these measures are being implemented.

Finally, as concerns the question of moving towards full convertability on the capital account, the experience of other countries in general suggests that a measured pace is advisable, although there are some exceptions. Generalized opening of the capital account often leads to exchange rate instability. As such, the prudent course of action would be to leave liberalization of the capital account until after important remaining structural reforms, such as those relating to the import regime, have been implemented.

D. REFORMING CHINA'S TRADE REGIME

Priorities and Perspectives on Reform

Despite the declining importance of trade planning, China still operates a relatively complex trade regime. Apart from continued reliance on the mandatory import plan and the use of controls over the allocation of, and access to, foreign exchange, imports are regulated through tariffs, canalization (monopoly or limited import rights), licensing and direct controls. Overall, more than 50 percent of China's imports were subject to some form of nontariff administrative control in 1992, with imports under the mandatory plan covering 18.5 percent of imports. The import regime, therefore, bears the marks of considerable government management. In addition, licenses, quotas and taxes are maintained to regulate the exports of a variety of products.

After seeing a substantial increase over the last few years, China's weighted average tariff in 1992 was back to its pre-1987 level, with a trade-weighted average of 32 percent. On average, however, China's tariffs remain higher, more numerous and more dispersed than those of most other large developing countries, with 69 rates and a standard deviation of 30 percent, compared with, for example, 34 rates and 17 percent for Brazil at an identical, average tariff rate. The multiplicity of objectives seems to account for the high dispersion of China's tariff structure, with a desire both to protect sectors in which domestic production is significant and to penalize nonessential consumption. This has kept import penetration in certain sectors very low and has provided high margins of protection to local production.

The most important method of nontariff control of imports is to assign import rights to one or a few FTCs, such as for timber, cement and fertilizers. This process we label canalization. An estimated 32 percent of total imports are subject to control through canalization. Of these, two thirds are imports under the mandatory trade plan. For the remaining 13.5 percent of imports, therefore, canalization is used as an instrument for controlling import demand for reasons that have nothing to do with the trade plan.

In addition to canalization, import licenses are used to serve multiple objectives. On the one hand, licensing is used as an administrative device to allocate a fixed quantity of planned imports and centrally/provincially controlled foreign exchange. Here it functions as a quota allocation mechanism. On the other hand, licensing is also used for protecting domestic economic activity as well as for regulating, for balance of payments purposes, the demand for imports financed through retained foreign exchange. In all, there are presently 53 broad categories of products subject to import licensing. These accounted for 12 percent of all HS tariff lines in 1992 and covered 25.1 percent of China's total imports. Of these imports, however, more than half were *also* subject to canalization and there appears to be some redundancy. In 1992, those imports for which licensing requirements applied in a nonoverlapping manner accounted for an estimated 11.7 percent of China's total imports.

Import controls (distinct from import licenses) are primarily used to protect the machinery and electronics sector, through the State Council Machinery and Electronics Import Control Office (SCEMIO), and such controls currently apply to about 7.7 percent of total imports. The combined effect of licensing and controls serves primarily to control three groups

of products: agricultural raw materials subject to domestic price control, critical domestic production such as steel and textiles, and nonessential consumer goods.

Export quotas/licenses covered 15 percent of China's exports in 1992. A large set of commodities subject to export licensing was agricultural goods, such as beef, pork and vegetables, exported to Hong Kong. Here, the objective of the licensing arrangements is to increase the prices received for these commodities by controlling supply. The same is true for export licensing in the case of such commodities as tungsten, in which China has a very large share of the international market (40 percent). On the other hand, export controls on such products as rice and maize have been used to ensure the adequate availability of these goods domestically. The scope of export controls was reduced somewhat this year. Even so, 38 broad categories of products still remain subject to export quotas/licenses.

The use of export licenses to increase the domestic availability and/or depress the price of a variety of key planned commodities has, however, been more significant. The government's objective seems to be not only to fix official prices below international levels but also to maintain the secondary market price of selected exportables, such as coal, petroleum, maize and rice, below world parity by restricting exports through the widespread use of export licensing. The rationale for these controls will disappear as China phases out the implicit subsidies to consumers and industry that its policies of price control entail.

In summary, China's import and export regimes appear to operate essentially to raise the price of final consumer goods relative to producer intermediates, mirroring basic biases in China's general industrial policy. Prices of many agricultural goods appear to be depressed through the use of implicit export taxes and their equivalents. Prices of basic producer inputs to manufacturing, such as coal, oil and timber, are likewise depressed. On the other hand, the prices of most intermediate and capital goods are maintained above import parity. The prices of some intermediate inputs, especially petrochemicals and textile yarns, that account for a significant proportion of China's total industrial output are exceptionally high. This no doubt penalizes the competitiveness of some downstream sectors, such as apparel and footwear, in which China has obvious comparative advantage and seems to contribute to the low domestic content of export-processing activity. Import licensing is also used to reinforce the price-increasing effect of even higher tariffs on a selection of "higher-tech" manufactured goods.

Notwithstanding the formal regulatory system that survives *de jure*, China's import regime is *de facto* more open than the above description might suggest. First, despite the 32 percent average nominal tariff rate (which is not dissimilar to average tariff levels in other developing countries), China's actual duty collection ratio is only 5.6 percent (more akin to the situation in industrial countries). The gap between nominal and effective rates indicates very high levels of duty exemption in China. China operates a relatively well-developed system of duty exemptions for exporters, and duty concessions of 50 percent are provided for foreign-funded enterprises. About half of all imports are treated as concessional in this sense. In addition, it seems that a range of imports for priority projects is also exempted. The rate of duty collection as a share of total imports has declined from 9.7 percent in 1986 to today's very low level, which is only about one-third of the average rate of collection of other developing countries. The rapidly declining duty collection ratios are in fact cause for some concern to the extent that they are caused by (a) increasing evasion on products for domestic consumption, or (b) increasing exemptions on imports for use on domestic (as opposed to export) production. On the other hand, the small revenue contribution of China's tariffs endows it with much greater

flexibility than most other developing countries. In particular, it enhances China's options with regard to the sort of fundamental restructuring of its tariffs suggested by the report's analysis.

Second, price comparison data suggest that such protective devices as high nominal tariffs and nontariff barriers (NTBs) are not binding for many products (particularly for a range of mature consumer manufactures), i.e., their domestic prices, although still higher than world prices, are nevertheless below the duty-inclusive prices of competing imports. For these products, import licenses are redundant as a protective instrument and there would also appear to be considerable "water in the tariff" caused in part by smuggling. Examples of such products include automobile tires, small gasoline engines, cassette recorders, televisions and domestic refrigerators. In the case of cassette recorders, domestic prices are still close to two-thirds above import parity, although they are 35 percent below the duty-inclusive price of competing imports. Likewise, domestic prices of color and black-and-white televisions are between 80 and 40 percent above import parity but between one-fifth and two-thirds below the duty-inclusive price of imports.

The foregoing analysis of the trade regime underlines the need for substantive reform. Aside from simplification and reduction in the number of instruments of control and the dispersion of tariff rates, significant overall lowering of tariffs (but with fewer exemptions, except for export production) would seem to be in order. There could be a number of strategies for such a reform effort, and the report examines six alternatives through a simulation exercise.

The results of the simulations provide several useful pointers. First, they suggest that China should be able to undertake deep cuts in tariffs and NTBs without this resulting in any major contraction of even the most protected sectors such as textiles and machinery. In a country of China's size, domestic consumption relative to imports can be expected to remain large and domestic dislocations are likely to be limited because of the considerable differentiation between imports and domestic production. Import liberalization should improve China's export performance, particularly of its machinery sectors. The conditions for successful liberalization, however, are that activities within each sector be allowed and able to switch to the more export-oriented segments and that macromanagement remain disciplined. Second, it seems that radial import liberalization (e.g., a 50 percent across-the-board reduction in nominal tariffs) is a superior option to selective liberalization limited to the currently most protected sectors. Nonetheless, among the possibilities for selective liberalization, the option of reducing import protection on only the machinery sector is likely to produce the best results for the least effort and dislocation. Third, notwithstanding possible dislocation to downstream industries, significant gains could be derived from the reduction of export controls and taxes in addition to the reduction of import protection.

Timing, Sequencing and Linkages

It is evident that trade reform on its own is unlikely to yield the desired results. For it to succeed, progress in and coordination with, other areas of policy and reform will be essential. This does not mean, however, that reform of China's trade regime should wait. While it is true that trade reform needs other reforms to make it fully effective, it is also true that progress in trade is likely to generate important momentum for reforms in other areas. Moreover, a number of factors relating to both the domestic situation and the international trading environment suggest that the time is indeed ripe for China to embark on a bold program of trade liberalization.

Trade reform in China cannot proceed without the further dismantling of the country's trade and investment planning apparatus. In addition to the elimination of the current system of foreign exchange planning and allocation, the system of foreign exchange contracting needs to be replaced with one in which FTCs are free to pursue profits rather than foreign exchange targets. Further, it is imperative that investment (especially nonplan investment) be allocated in accordance with market signals. One step that should be taken immediately in this context is to substantially raise the minimum level of investment requiring central government approval.

Trade policy is an integral part of overall macroeconomic policy. The evidence from other countries is clear about the importance of a real depreciation of the currency for the success of programs of trade liberalization. It is critical that the steps recommended above for unifying the exchange rate and making the currency convertible for all current account transactions be implemented as quickly as possible and certainly before trade liberalization proceeds too far, not least so that the impact of reduced protection on the domestic industrial sector can be moderated through an appropriate depreciation of the exchange rate. Action on reforming the exchange rate regime is all the more important now, given the most recent tendency of the gap between the official and the swap market exchange rate to widen again. The experience of other countries also indicates that trade reform will go much better if carried out during a period of relative macrostability. At the same time, by acting as a "safety valve," a more liberal trade regime can itself contribute to the management of aggregate demand. This is a pertinent consideration for China. With its comfortable level of international reserves and a current account surplus, China is well placed at present to use trade liberalization as a means of addressing the threat of overheating and the emerging shortage of essential industrial raw materials.

An important objective of reforming the trade regime is to rationalize the structure of incentives for domestic economic activity and thereby improve resource allocation. If domestic price controls remain in place, however, the trade regime would be of little help in accomplishing this objective. This is not to say, in the case of China, that trade liberalization should await further price liberalization. China has already made very considerable progress with regard to price reform. The incidence of subsidies for imported commodities has declined substantially. Moreover, the widespread application of the two-tier pricing mechanism has meant that a large measure of price flexibility exists for much of nonplan domestic economic activity. Under the circumstances, import liberalization can be expected to be effective for an important segment of the economy even without removing such price controls as still remain.

Enterprise efficiency is not only a micro but also a significant macro problem in China. With losses equivalent to almost 5 percent of GDP, and financed in good part through loans from the banking sector, SOEs are the largest contributors to the government's fiscal and quasi-fiscal deficit. Trade liberalization can be a valuable reform tool for altering the behavior of enterprises and improving the efficiency of resource allocation. To be successful, it requires enterprises to be able to shift patterns of production and investment in response to changing incentives. In this context, the growing volume and importance of nonstate enterprises and the increasing flexibility being accorded to SOEs are encouraging trends which suggest that the time is right for initiating trade liberalization. Indeed, import liberalization should not wait because, once initiated, it can play a key role in exerting competitive pressure on SOEs and in maintaining the momentum for enterprise reform.

It should be emphasized that rationalization of China's industry will require much more than just import liberalization. Parallel efforts will need to be made in such areas as support for export development, quality control, worker training, technology policy and competition policy. If China wishes to have a targeted program of support to its export sector and, indeed, if it wishes to have a meaningful industrial policy, then these two policies will have to become the mirror image of each other and be very closely coordinated, preferably within a single agency.

Finally, as China's presence in global markets continues to grow, it must become increasingly responsive to the demands of trade diplomacy. In its bid to attain full membership status in the General Agreement on Tariffs and Trade (GATT), China has already made significant efforts to conform to the expectations of the international community in general and the United States in particular. However, the requirements for GATT membership are not precise and are a matter for some negotiation. If the treatment of recent applications to the GATT is any guide, China is likely to be called on to go further in relaxing its import regime. From the perspective of the emerging international trade environment, therefore, this appears to be an opportune time for China to pursue a substantive program of trade liberalization.

Defining a Bold Program of Trade Liberalization

Over the last decade and a half, China has achieved a phenomenal upsurge in exports and trade. Most recently, however, its success in raising investment, growth and trade surpluses has raised the specter of overheating and inflation. Besides, enterprise inefficiency remains an important micro and macro problem for China, and its dramatic entry into export markets has raised concerns amongst its major trading partners about its responsibility for opening up to imports. The launching of a program of trade liberalization could help China address all three of these issues. What is more, given (a) its comfortable reserves position, (b) the advanced state of price reform, (c) the expanding role of the nonstate sector and growing flexibility in domestic resource allocation in general, and (d) evidence of tariff redundancy and the de facto openness of the economy, China is particularly well positioned to implement bold measures in the area of import liberalization at this time.

China has begun to move in the right direction. Recent import liberalization initiatives undertaken as part of China's bid to attain full membership status in the GATT and as part of its bilateral trade negotiations with the United States include publication of regulations, some reduction of tariffs (tariffs on 3,371 tariff lines were reduced an average of 7 percent in December 1992), abolition of import substitution lists, and limited removal of import licenses and controls, with a commitment to eliminate two-thirds of these over time. However, no announcements have yet been made on import planning, canalization or phased tariff reduction. Considering the opportunity that China has to liberalize trade at this time, these measures seem quite incomplete and need to be complemented by other measures over the immediate and medium term. The report makes the following recommendations:

Phaseout of Canalization. The distinction between Category I and II imports should be abolished immediately, such that a single list of only those products that are subject to mandatory import planning remain subject to canalization for an interim period. All other imports should be made open to any FTCs or enterprises with direct trading rights. Beyond this, as reliance on import planning declines, China should phase out the practice of canalization altogether.

Phaseout of Licensing and Controls. Nonbinding NTBs (as in the case of a range of consumer manufactures) should be removed immediately. The discretionary element of remaining import licenses and controls should be reduced by ensuring that all decisions with regard to import licensing and controls are made only by central government authorities according to criteria that are uniform and transparent.

The Memorandum of Understanding (MOU) that China recently concluded with the United States is an important initiative intended to reduce NTB coverage significantly by 1997. China must implement this agreement on a multilateral basis. Only then would this initiative constitute significant progress.

Tariff Simplification and Reduction. The number of rates and the level of tariffs applying to consumer goods should be reduced right away. Immediate steps could be taken on a range of mature consumer products for which there is evidence of "water in the tariff" (i.e., a partially redundant level of protection). On the basis of available data, it appears that reductions in the order of 20 to 40 percent should be possible, depending upon the product, without resulting in any significant dislocations in domestic production. Where tariffs are currently being used as a way to discourage consumption, these tariff reductions should be accompanied by the imposition of an appropriate sales tax.

In parallel with the implementation, on a multilateral (not merely bilateral) basis, of the program of NTB reduction agreed to in the MOU with the United States, China should pursue an equally bold program of tariff reduction. A reasonable target would be to implement a 50 percent radial cut in tariffs as soon as possible. Such a tariff cut would bring China's tariff structure into line with that for Korea, for example, with average rates on consumer goods declining to about 32 percent, those on intermediate and capital goods to around 14 percent, agricultural goods to 17 percent and mining to 10 percent.

Given that trade diplomacy is likely to remain an important part of China's future trade strategy, the actual phasing of these tariff reductions could be linked to progress in negotiations with trading partners, most notably within the context of the GATT.

Tariff Exemptions. It is recommended that all tariff exemptions (including those for foreign-invested enterprises) on imports for use in domestic production not as yet on-stream should be abolished, while exemptions on imports for use in domestic production already on-stream should be phased out over the shortest period possible.

Reduction in Export Controls. Wherever China's existing price control policies necessitate the use of export regulation, export taxes should be used in place of licenses because the latter allow the few FTCs designated to handle such products to capture sizable rent which would more appropriately accrue to the Government budget. Such export regulatory devices as remain should in any case be eliminated progressively and in tandem with ongoing price reform efforts.

E. POLICIES FOR EXPORT DEVELOPMENT: PRIORITIES FOR THE 1990S

China's past export support structure, centered on national foreign trade corporations, a very active and interventionist Ministry of Foreign Economic Relations and

Trade (MOFERT),^{2/} and some foreign partners, such as entrepreneurs from Hong Kong, that were allowed to play an active role in the export sector, has served it very well during the first decade and a half of reform. Its experience has provided another example of the lesson observed elsewhere in East Asia that appropriate public intervention in export development and provision of explicit public support to the export sector can yield substantial dividends. While successful reform and continued success in export markets may require a change in the way in which China provides this support, it does not imply the removal of this support. Rather, it requires reform in the way support is provided in such areas as marketing, quality control, export promotion, export credit and the fostering of appropriate trade intermediaries.

International experience offers a rich set of options from which China can learn in drawing up future reform plans in this regard. The most important issue will be how to deepen the reform of FTCs, which are likely to remain at the core of China's export support structure, without losing the considerable body of expertise that has been accumulated over the past. In order to meet its diverse needs, China should encourage the development of a variety of trading firms, ranging from small, flexible Hong Kong-type trading companies (best suited to handle its rapidly growing export segments such as garments and light industrial goods) to large trading companies similar to the Japanese *sogo sosha* or Korean *chaebol* (suitable for developing efficient production systems or promoting the trade of affiliated conglomerate groups). To help achieve this objective, the report offers the following suggestions: subject FTCs to greater competition by removing remaining barriers to cross-provincial transactions, granting more producing enterprises the right to trade directly, and allowing entry to foreign trading firms; make FTCs operate as independent *profit* centers, with bonuses linked to profits rather than to foreign exchange targets; eliminate all restrictions on the product scope of FTCs and permit them to participate in domestic commerce; allow ailing FTCs to exit and permit mergers between FTCs and, for example, emerging enterprise groups.

At the same time as FTCs are being converted into competitive enterprises, the government should also assist manufacturing enterprises to export directly if they so choose, given the well-accepted benefits of direct contact between producers and overseas buyers. There are four essential elements in such support:

- (a) **Export Marketing.** At present, direct trading rights are not often granted to domestic manufacturing enterprises themselves, on the grounds that they are inexperienced in matters pertaining to international trade. Public support for export marketing (similar to that provided in Hong Kong, for example) could help ensure not only that those domestic enterprises that wish to export directly learn how to establish direct contact with foreign buyers but also that FTCs compete more vigorously to earn the business of local enterprises. Given the economies of scale involved, MOFERT could easily develop, with the support and participation of the nonstate owned sector, an effective intelligence network worldwide and channel information services to small firms that would otherwise be denied the opportunity to trade directly.
- (b) **Quality Control.** China is well aware of the importance of export quality control, and has devoted a lot of attention to developing the State Commission

^{2/} Now called the Ministry of Foreign Trade and Economic Cooperation (MOFTEC).

for Import and Export Commodity Inspection, but despite this effort, it appears that rejection rates remain high. Success in this area will depend on more general economic reform, but progress could be achieved, as in Taiwan (China), by making the present inspection system less extensive while increasing the intensity of the inspections. At the same time, the government could encourage the creation of quality control institutions by business associations and by accredited quality control agencies, including foreign ones, and it could then focus its attention on inspecting these. In short, China should focus on the *efficacy* of its quality control apparatus, rather than its coverage.

- (c) **Other Support Services.** The general promotion of an efficient, competitive service sector, which is now a key element of China's development strategy, will do most of what is required. Care must be taken to avoid monopolies in services for exports, and restrictions on the use of foreign service suppliers should (as has already begun to happen) be dismantled.
- (d) **Export Financing.** The Bank of China already provides a large volume of credit to support China's exports. Four measures seem necessary to improve the effectiveness of the export financing system. First, steps must be taken to ensure that firms with direct trading rights enjoy the same access to trade credits as FTCs. Second, if FTCs are to take responsibility for their own profits and losses, they must not be allowed to benefit from a soft budget constraint by tapping without restraint into the banking sector. Third, export insurance should be made available to all local enterprises as a way of encouraging and enabling them to acquire and exercise direct trading rights.

Product selection has been an inherent part of China's export strategy, with special schemes and incentives being used to promote the exports of specific sectors. The experience of Korea suggests that export selection is a risky business and success requires that it be accompanied by an active and focussed policy of assistance for industrial restructuring to the targeted sectors. Unlike Korea, however, where decision making on trade and industrial policy issues has been highly centralized, the focus of China's industrial policies has been dispersed. This is partly due to the involvement of a large number of agencies, and partly to differences in priorities across provinces. As a result, China's efforts at export selection do not appear to be adequately supported by matching initiatives in industrial assistance. Given the country's size and diversity, such a strategy may prove to be difficult to pursue at the national level, except perhaps for a few strategic sectors. In such cases, greater national coordination between trade policy measures and assistance for industrial restructuring would seem to be warranted. The establishment of the State Council Economic and Trade Office (SCETO) in early 1992 (and its subsequent elevation to the status of a Commission), and ongoing efforts to create enterprise groups free from multiple channels of supervision and control, could prove to be important initiatives in this regard.

A fundamental feature of China's past success in attracting FDI and generating exports has been its policies towards geographical targeting in general and the Special Economic Zones (SEZs) in particular. A key lesson is the importance of the policy environment in attracting export-oriented FDI. In this context, Pudong is potentially an important new initiative. As long as Pudong can offer a policy environment that is as flexible as the SEZs, it can be

expected to attract more investment flows and inject an important measure of vitality in the greater Shanghai area.

The policy environment, though important, has by no means been the only attraction for export-oriented FDI. Thus, despite their new open cities, inland provinces would seem to offer limited prospects for attracting FDI flows because of the relatively longer distance of these provinces from international markets. By the same token, provinces such as Liaoning and Shandong, should be actively encouraged to exploit their proximity to Korea and Japan along lines similar to what Guangdong has done with Hong Kong and Macao and Fujian is pursuing with Taiwan (China).

The tax and import duty concessions of China's SEZs and open cities have served their purpose in helping generate a momentum for export-oriented FDI flows. Their application has now become counterproductive. The ubiquitous use of such incentives has resulted in serious resource misallocation, with numerous domestic firms changing location merely to reduce their tax burden. These incentives should be phased out at the soonest possible opportunity and a standard national corporate tax should be adopted with local and foreign-invested enterprises being accorded equal treatment in the future. Instead, SEZs should focus on expanding their role as economic laboratories. Experiments with market mechanisms in China are still at an early stage, and adequate rules and regulations to prevent the abuse of market power and rent seeking are conspicuously absent. SEZs should be at the forefront of experimentation with the introduction of such checks and balances. Specifically, the System Reform Commission could be asked to develop a program along these lines in cooperation with the SEZ authorities. Meanwhile, plans to increase the number of SEZs should be resisted, and proposals to develop Hainan, Shenzhen and Xiamen as free ports should not be pursued. The creation of free ports would only exacerbate the problem of smuggling, which is already quite severe with regard to goods from Hong Kong and those being channeled through existing SEZs.

F. THE INTERNATIONAL ENVIRONMENT AND CHINA'S EXPORT PROSPECTS

In order for China to successfully implement the program of import liberalization proposed above, it is critical that world market conditions allow it to sustain the momentum of its export growth. With a sluggish world economy, growing protectionism and trends towards regionalism, it is clearly relevant to assess China's prospects for continued high export growth. In this regard, the analysis of the report shows that while China faces a relatively low set of tariffs in its export market, it does face a significant number of nontariff barriers, primarily because of the importance of products such as clothing, textiles and footwear. However, this does not imply that China's export prospects are poor, nor does it suggest that China needs to reorient its export structure rapidly toward higher technology or knowledge-based products. The report finds that even in today's global trade environment, there exist opportunities, in terms of both markets and of other products that China could pursue in order to sustain high export growth rates.

Although it can in general be concluded that import penetration issues will not act as a constraint on China's exports, two external factors could have an enormous impact: (a) the outcome of the Uruguay Round of the GATT; and (b) the possible loss of MFN status in the United States.

Most observers anticipate that a successful Uruguay Round could reduce protection levels in the European Community (EC), the United States and Japan by up to 50 percent. In such an event, China's exports would increase by an estimated 38 percent, or \$11.4 billion, in terms of 1988 prices. Moreover, China would fare considerably better than other developing countries, the exports of which are projected to rise by only about 15 percent from a Uruguay Round liberalization. This is because the Uruguay Round tariff cuts would erode the preference margins that exports from other countries currently enjoy (through schemes such as the Generalized System of Preferences) and that China does not receive. China would benefit from trade *diverted away* from those countries. In addition, China would gain a lot due to the relatively high share of textiles and clothing products in its total exports. China has thus much to gain from the successful conclusion of the Uruguay Round.

Although China's MFN status in the United States has, by executive order, been renewed for another year, uncertainty remains about its future and the impact of its possible discontinuation. The report finds that complete MFN loss would lead to severe dislocation of China's exports to the United States. For example, the increase of roughly three and one-half times in the clothing duty (from an MFN rate of 15.3 percent to a general rate of 55 percent) would significantly reduce, if not eliminate, exports of this key product (its projected decline is between 50 and 100 percent, depending on the assumptions, from its present level of \$2.2 billion). Overall, China's annual export losses to the United States are likely to be between 42 and 96 percent, i.e., between \$7.0 and \$15.2 billion. Chinese exporters are, however, not the only ones that would lose. According to one estimate, United States consumers could end up paying as much as \$14 billion per year in higher prices, resulting from a combination of costlier substitutes from alternative supply sources, and higher tariffs on the products that would continue to be imported from China. On the whole, it appears that the dislocation of trade flows likely to result from withdrawal of China's MFN status by the United States would range from the dramatic to the disastrous, with the associated costs being high for both parties.

Other aspects of China's export prospects remain entirely within its own hands. Revealed comparative advantage calculations suggest that China's exports have been moving in line with its comparative advantage, which lies in labor-intensive (and especially in skilled labor-intensive) exports as well as in higher technology exports that can be assembled locally. Over the medium term (three to five years), China's present comparative advantage is unlikely to change significantly. The report's analysis indicates that China does not yet have a broad-based comparative advantage in machinery and electronics, despite all the programs of support to this sector, and it is unlikely to develop, for a few years yet, any significant advantage in the exports of heavy industrial equipment or in high technology exports that cannot be assembled locally. On the other hand, the report finds that there exist both underexploited geographical markets and new products that China could pursue without trying to alter the nature of its comparative advantage, while reducing the risk of market access problems.

In conclusion, therefore, priorities over the next few years should lie in upgrading quality, diversifying into other skilled labor-intensive products and assembly-type exports, diversifying into underexploited geographical markets, and participating as fully as possible in initiatives to promote multilateral trade liberalization.

I. CHINA'S MERCHANDISE TRADE—TRENDS AND PERSPECTIVES

A. INTRODUCTION

Since the initiation of its "open-door" policy in 1979, the contribution of foreign trade to China's economy has grown at an extraordinary pace. For the last fourteen years, China's average annualized rate of export growth has been about 17 percent and its imports have grown at over 15 percent per year. Over the period, China's total exports (on a customs basis) increased almost ninefold and in 1992 were estimated at \$85 billion, while imports grew more than sevenfold, and stood at \$80.6 billion. In 1991, China was the thirteenth largest exporting nation in the world and it ranked as the sixteenth largest importer; its trade accounted for 1.8 percent of world merchandise trade.¹

The World Bank analyzed China's trade regime in 1987. The objective was to assess the status of China's foreign trade and capital system and make suggestions for improvements. Since then, much has happened. On the one hand, there has been an increase in trade frictions the world over. China itself has been engaged in bilateral trade negotiations with the United States, even as it has been pressing its case for resuming its membership of the General Agreement on Tariffs and Trade (GATT). On the other hand, after seeing a temporary slowdown in 1988, China's trade has picked up momentum again. The fast paced growth in China's merchandise trade since 1988 is in part explained by the economy's recovery that has followed the austerity program of 1988/89, but two major spurts of foreign trade system reform, in 1988 and 1991, respectively, have no doubt also contributed to it. These reforms have been far reaching in scope and substance, and their implications are still unfolding. China's "Hong Kong connection" has also developed very rapidly over this period, and is another contributing factor to the country's impressive trade performance. Given these developments, China's foreign trade regime and prospects merit a second in-depth look. This report takes stock of the rapid changes that have occurred in China's trade performance and evaluates the country's emerging trade policy and the prospects for its exports. It is also the report's objective to propose directions for future policy. In order to do so, it seeks to address a number of questions that have not as yet been tackled.

First, China's continuing shift from a planned to a market economy poses important challenges for the country's foreign trade policy. Of particular relevance is the question of how China's trade and foreign exchange planning systems should evolve so as to allow the use of indirect as against direct instruments of trade policy. *Second*, China's approach to trade policy so far as been "mercantilist," i.e., motivated by achieving export growth for the sake of generating foreign exchange without sufficient regard to its costs and linked with attempts to contain import growth. China has not used its trade regime as a well defined instrument of industrial policy and, as a result, reform of the import regime has hitherto been neglected. Much is still unclear about the functioning of China's import regime. The issue is

not merely to examine the extent of market access that the regime provides, but also to define an approach for (i) making the import regime more rational from the point of view of incentives to domestic industry; and (ii) liberalizing the regime over time, and thereby exposing a greater cross-section of domestic economic activity to international competition.

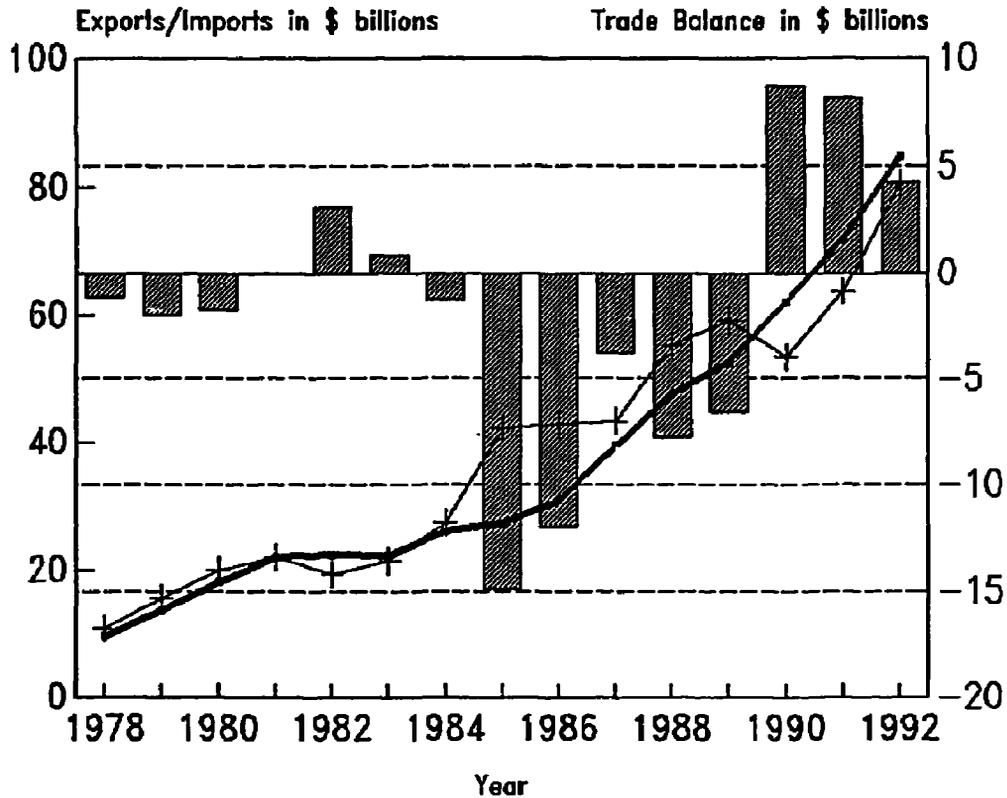
Third, so far the Chinese government has played a very active role in providing support for exports. Aside from regulating trade activity and providing financial assistance for exports, the government has also directly provided a variety of other support services including marketing and quality control. As China continues its drive towards a market economy, an important question that needs to be addressed is the future role for public intervention in export development. *Finally*, growing uncertainties in world markets and a marked trend towards regionalism in international trade relations make the question of the prospects for China's exports a pertinent one. Whether world markets can absorb China's exports, and how vulnerable are Chinese exports to trade barriers in partner country markets are issues that need to be reexamined as China becomes a more important presence in world trade.

With these issues in mind, the report is structured as follows: this chapter reviews the trends in China's merchandise trade, and provides an appraisal of the evolving composition and character of China's trade with the rest of the world. Chapter 2 traces the recent evolution of China's trade and foreign exchange planning system and analyzes the remaining problems. Chapter 3 provides a quantitative evaluation of China's current system of foreign trade controls, particularly from the point of view of protection of the domestic market. Chapter 4 explores options and strategies for future reform of this system of trade controls. Based on the analysis of previous chapters, Chapter 5 seeks to elaborate a program of trade liberalization for China. Chapter 6 focusses on export support measures. Lessons are drawn from the experience of other East Asian countries for defining the future role of public intervention for export development in China. Finally, Chapter 7 examines future prospects for China's exports and issues relating to access to international markets.

B. TRENDS IN THE TRADE BALANCE

Although trade grew over the 1979-89 period as a whole at very high rates, it is since 1984 that the most impressive growth has been observed. In 1983, total trade was only \$43.6 billion. It then exploded over the next two years, to reach almost \$70 billion in 1985 (Figure 1.1). Since then, trade has more than doubled, reaching \$149.6 billion in 1992. Throughout this period, the trade balance has followed other macro economic variables with a lag of about 6 months to a year. In general, there has been a tendency for imports to rise faster than exports, except when the government has intervened. Thus, over the last decade, a trade deficit has been recorded in every year except 1982/83 and 1990/91, the years immediately following the two retrenchment programs of 1981 and 1989, respectively. In 1988, the trade deficit was almost down to zero, following a third period of retrenchment which lasted from 1985 to 1987. In the early 1980s, exports were driven by the trade plan. Export performance was, therefore, largely explained on the basis of the availability of an exportable surplus. Excess aggregate demand translated into a poorer export performance and a larger trade deficit. This provoked the government's first retrenchment program, which involved scaling down import requirements through the import plan and other administrative controls. The results of this program manifested themselves in the form of a temporary trade surplus of 1982/83.

Figure 1.1: CHINA: TRENDS IN TRADE, 1978-91



— Merchandise exports + Merchandise imports ■ Trade balance

Note: In current prices and on customs basis (exports are f.o.b. and imports are c.i.f.).

Since then, China's macroeconomic management has remained plagued by sharp cycles. While the reform of the country's trade regime has progressed considerably, the government has continued to resort to all manner of administrative controls in order to address macro imbalances. In 1984/85, major trade reform initiatives were implemented.^{1/} These had the effect of liberalizing imports and the foreign exchange allocation system, and reducing the importance of the trade plan. As a result, a greater proportion of China's imports and exports were left to be determined by market forces. The very rapid growth rates that China experienced in 1984/85 were accompanied by a deteriorating trade balance. The trade balance reached a record deficit of \$15 billion in 1985, as exports remained stagnant, while imports surged by over 50 percent. In response, the government resorted to stricter controls. Credit was tightened, and heavy use made of administrative controls such as import bans, quotas and licenses, the importance of such instruments having gone up as that of the import plan had diminished. As a result of these various measures, import growth was stabilized. Meanwhile, exports finally "took off," growing at the dizzying pace of 20 percent per annum, and by mid-1988, the trade balance was virtually restored. At that time, controls were relaxed and imports were allowed to pick up again. However, the underlying macroeconomic trends were such that export growth, though rapid, could not keep up with imports. A major austerity program was

^{1/} The Ministry of Foreign Economic Relations and Trade's (MOFERT's) report on the reform of the trade system approved by the State Council in September, 1984.

launched in 1988. By mid-1989, the trade deficit was back up at \$12.3 billion, not far from the record of 1985, prompting the major austerity program of 1989. As on previous occasions, the trade balance responded, but with a lag. Thus, although in mid-1989 the trade deficit was still \$12.3 billion, close to the record of 1985, 1990 saw a surplus of \$13.1 billion, reflecting an 18.1 percent growth in export value and a 9.8 percent decline in merchandise imports. As the recovery continued in 1991, there was yet again a sharp reversal in pattern, with exports continuing to grow at 15.8 percent to \$71.8 billion, but with imports rising sharply by 19.5 percent to \$64 billion. However, unlike in previous years, China was able to maintain a surplus on the trade balance in 1991.

All the evidence suggests that over the decade of the 1980s, export performance has become increasingly independent of the level of within-plan domestic economic activity. The secular growth of exports can no longer be explained merely on the basis of the availability of an exportable surplus, resulting from an excess of planned output over domestic demand. Since the mid-1980s the overall export trend has been much more stable than it was in the early 1980s. In fact the growth rate of the few key sectors such as clothing and footwear that have underpinned China's recent export performance was hardly affected by the excess domestic demand of 1988/89. This trend is likely to continue, and it is safe to assume that export performance will depend much more on such factors as the exchange rate, policies for export development, and the prospects for world trade.^{2/}

On the other hand, imports appear to be explained by a combination of three factors. Recent analyses (Figure 1.2)^{3/} have confirmed a strong correlation between broad money and currency, industrial production and imports. The level of domestic industrial activity appears to be the most important determinant of import demand in China. In parallel, the expansion of the system of foreign exchange retention has undoubtedly also made imports more sensitive to the exchange rate.^{4/} Finally, the trend in the trade balance discussed above demonstrates how important administrative controls still are in managing China's import demand. The one important lesson that emerges is that, as long as China is unable to better manage macroeconomic balances, it will be very difficult to dismantle the array of discretionary controls that still distort the country's import regime.^{5/}

C. PERSPECTIVES ON CHINA'S EXPORT PERFORMANCE

Over the decade of the 1980s, China's exports outperformed those of most other economies, including such Newly Industrialized Economies (NIEs) as Malaysia. The only exporters that registered average annualized export growth rates higher than China were Thailand

^{2/} Chapter 2 examines the evolving link between the exchange rate and export performance, Chapter 6 explores China's policies of export development, and Chapter 7 examines the prospects for China's exports.

^{3/} International Monetary Fund (IMF) (1991).

^{4/} The renminbi recorded an effective devaluation in the swap market rate of over 13 percent between the third quarter of 1989 and end 1990, while access to swap centers reached new heights (the volume of transactions on the foreign exchange adjustment centers (FEACs) rose 53 percent to reach \$13 billion in 1990). Imports fell by around 10 percent in 1990.

^{5/} See Chapters 3 and 4.

Table 1.1: STRUCTURAL CHANGES IN CHINA'S MAJOR EXPORTS: SELECTED YEARS FROM 1965 TO 1990 /a

Commodity group /b	1965	1975	1980	1985	1990
(value of trade in terms of \$ million)					
Total exports	1,718	6,303	18,237	27,764	80,541
All foods	642	2,088	3,272	4,073	6,862
Agricultural raw materials	189	450	1,170	1,810	2,198
Mineral fuels	32	897	3,974	7,158	5,290
Crude petroleum	13	778	2,572	5,347	3,654
Refined petroleum	7	92	1,246	1,556	1,070
All manufactures	783	2,632	8,521	13,657	64,220
Chemicals	75	322	1,176	1,460	3,420
Textiles and clothing	364	1,140	4,089	7,304	23,204
Nonelectric machinery	20	107	248	282	1,930
Electrical machinery	14	78	240	536	8,666
Transport equipment	15	74	71	88	574
Ores, minerals and metals	68	212	560	760	1,486
Miscellaneous goods	4	24	740	303	485
(as a percentage of total exports - %)					
Total exports	100	100	100	100	100
All foods	37	33	18	15	9
Agricultural raw materials	11	7	6	7	3
Mineral fuels	2	14	22	26	7
Crude petroleum	1	12	14	19	5
Refined petroleum	-	1	7	6	1
All manufactures	46	42	47	49	80
Chemicals	4	5	6	5	4
Textiles and clothing /c	21	18	22	26	29
Nonelectrical machinery	1	2	1	1	2
Electrical machinery	1	1	1	2	11
Transport equipment	1	1	-	-	1
Ores, minerals and metals	4	3	3	3	2
Miscellaneous goods /d	-	-	4	1	1

/a Data used here are based on imports of partner countries from China. This procedure was necessitated by the fact that China did not begin reporting exports to the United Nations until the mid-1980s.

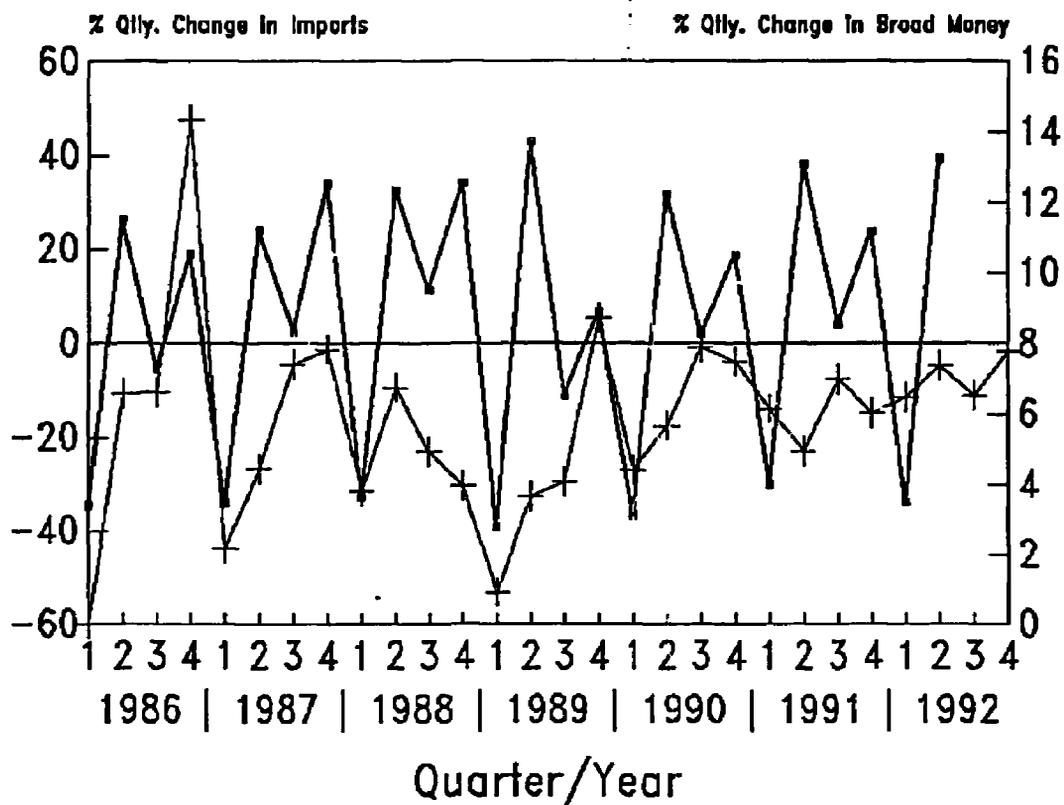
/b Total exports consist of all products classified in Standard International Trade Classification (SITC) 0 to 9; foods are groups (0+1+22+4); agricultural raw materials (2 less 22, 27, 28); mineral fuels (3); crude petroleum (331); refined petroleum (332); manufactures (5 to 8 less 68); chemicals (5), textiles and clothing (65 + 84); nonelectrical machinery (71); electrical machinery (72); transport equipment (73); ores, minerals and metals (27+28+268); miscellaneous goods (9).

/c The share of clothing alone went from 13.1 percent in 1985 to 19.6 in 1990.

/d The share of footwear went from 1.2 percent in 1985 to 4.5 percent in 1990.

Source: Statistics are compiled from the United Nations Commodity Trade System (COMTRADE) database.

Figure 1.2: BROAD MONEY AND IMPORTS



→ % Gr. Imports + % Gr. of Broad Money

Source: IMF and Bank Economic and Social Database (BESD).

(13.2 percent), Korea (12.8 percent), Taiwan (China) (12.1 percent) and Portugal (11.7 percent).² Institutional decentralization, depreciation of the real effective exchange rate, foreign investment (especially from Hong Kong), and duty free access to imported inputs for export assembly, all seem to have contributed to this strong performance.

The Changing Composition of China's Exports ^{6/}

Table 1.2 shows the value and share (in total trade) of China's major export products for selected years from 1965 to 1990 (on the basis of import data from partner

^{6/} Unless stated otherwise, all data pertaining to sectoral composition of merchandise trade are presented throughout the report per classifications of Standard International Trade Classification (SITC) Revision 1. This was done for the purpose of historical continuity.

Table 1.2: THE VALUE AND SHARE OF MAJOR THREE-DIGIT SITC PRODUCTS IN CHINA'S EXPORTS—SELECTED YEARS FROM 1965 TO 1990

Product (SITC)	1965		1975		1980		1985		1990		1965-90 Share change
	Value (\$ mill.)	Share of total (%)									
Total trade (0 to 9)	1,718	100.0	6,303	100.0	18,237	100.0	27,764	100.0	80,541	100.0	-
Clothing (841)	54	3.1	266	4.3	1,592	8.7	3,629	13.1	13,760	19.6	12.3
Toys and sporting goods (894)	14	0.8	38	0.6	108	0.6	653	2.4	6,049	7.5	6.7
Telecommunications equipment (724)	1	-	11	0.2	51	0.3	256	0.9	4,715	5.9	5.9
Crude petroleum (331)	13	0.8	778	12.3	2,572	14.1	5,347	19.3	3,654	4.5	3.7
Footwear (851)	18	1.0	60	1.0	201	1.1	330	1.2	3,632	4.5	3.5
Travel goods (831)	1	-	23	0.4	92	0.5	458	1.6	2,987	3.7	3.7
Other miscellaneous manufactures (899)	22	1.3	135	2.1	403	2.2	534	1.9	2,060	2.6	1.3
Woven textile articles (653)	53	3.1	148	2.3	500	2.7	923	3.3	2,443	3.0	-0.1
Domestic electrical equipment (725)	1	-	8	0.1	32	0.2	74	0.3	1,725	2.1	2.1
Cotton fabrics (652)	174	10.1	327	5.2	697	3.8	973	3.5	1,652	2.1	-8.0
Fresh fish (031)	44	2.6	150	2.4	347	1.9	348	1.3	1,583	2.0	-0.6
Sound recording equipment (891)	2	0.1	8	0.1	25	0.1	62	0.2	1,472	1.8	1.7
Articles of plastic (893)	1	-	6	-	27	0.1	87	0.3	1,367	1.7	1.7
Made-up textile articles (656)	43	2.5	181	2.9	554	3.0	586	2.1	1,290	1.6	-0.9
Watches and clocks (864)	3	0.2	18	0.3	76	0.4	186	0.7	1,270	1.6	1.4
Electric power machinery (722)	2	0.1	24	0.4	54	0.3	102	0.4	1,233	1.5	1.4
Textile yarn (651)	24	1.4	117	1.9	278	1.5	753	2.7	1,101	1.4	-
Refined petroleum products (332)	7	0.4	92	1.5	1,246	6.8	1,556	5.6	1,070	1.3	0.9
Organic chemicals (512)	8	0.5	52	0.8	285	1.6	334	1.2	805	1.0	0.5
Other electrical machinery (729)	8	0.5	30	0.5	79	0.4	84	0.3	766	1.0	0.5
Prepared or preserved vegetables (035)	14	0.8	93	1.5	279	1.5	338	1.2	713	0.9	0.1
Machinery and appliances, nes (719)	4	0.2	22	0.3	86	0.5	111	0.4	703	0.9	0.7
Office machinery (714)	-	-	2	-	8	-	51	0.2	696	0.9	0.9
Furniture (821)	3	0.2	29	0.5	127	0.7	157	0.6	633	0.8	0.6
Vegetables fresh or frozen (054)	45	2.6	97	1.5	311	1.7	293	1.1	631	0.8	-1.8
Scientific instruments (861)	12	0.7	10	0.2	27	0.1	43	0.2	583	0.7	-
Floor coverings (657)	8	0.5	54	0.9	270	1.5	277	1.0	565	0.7	0.2
Oil seeds and nuts (221)	92	5.4	135	2.1	165	0.9	413	1.5	556	0.7	-4.7
Coal and coke (321)	13	0.8	26	0.4	155	0.8	249	0.9	547	0.7	-0.1
Pottery and ceramics (666)	15	0.9	71	1.1	140	0.8	147	0.5	548	0.7	-0.2
Total of above items	699	40.7	3,013	47.8	10,787	59.1	19,354	69.7	62,805	78.0	37.3
Other three-digit exports	1,019	59.3	3,290	52.2	7,450	40.9	8,410	30.3	17,736	22.0	-37.3

Source: Statistics are compiled from the United Nations COMTRADE data base using the reported imports of partner countries from China.

countries).^{7/} The top half of the table indicates that China's total exports roughly tripled three times over this period; between 1965 and 1975; from 1975 to 1980, and thirdly between 1980 and 1990. In the early years, China's exports were guided by the philosophy of exporting only surplus commodities. Thus, initially, China's export growth was dominated by crude petroleum and nonstaple foods. Raw materials that could have been exported very profitably in view of domestic price distortions—such as coal—were restrained by tightly administered export quotas. As the reforms have progressed, the structure of China's exports has changed dramatically. Most importantly, the share of China's traditional exports, foods, agricultural raw materials and petroleum, has declined progressively since 1975 from 52 percent down to 18 percent in 1990. On the other hand, the share of manufactures has grown by 34 percentage points from 46 percent of total exports in 1965 to 80 percent in 1990.^{8/} What is noteworthy is that China's manufacturing exports did not "take-off" until after 1985. Just within the five year period 1985-90, the share of manufactures in total exports rocketed by 31 percentage points. The explanation for this sudden upturn in the performance of manufacturing exports lies undoubtedly in two factors: (i) the specific foreign trade reforms that were initiated at around that time including in particular, the decentralization of FTCs, the creation of swap markets for foreign exchange and the introduction of foreign exchange retention for exporters³; and (ii) the quantum jump in the utilization of foreign direct investment.⁴ The steady depreciation of the swap market exchange rate certainly provided a strong boost to exports in general and to exports of sectors entitled to higher retention rates in particular.^{9/} The sector whose share in China's exports grew the fastest over the 1985-90 period was electrical machinery (SITC 72), which recorded a 10 percentage point expansion of its share, going from 1 percent of China's exports in 1985 to 11 percent in 1990. However, clothing and footwear also enlarged their share by 9 points over the same period, to reach 23 percent of China's exports, more than double that of the share of electrical equipment.

^{7/} China did not officially begin reporting trade data to the United Nations until 1984. Historical statistics on China's *exports* were, therefore, reconstructed from reported *imports* from China by other countries. Several points need to be borne in mind when interpreting the data. First, partner country data on China's exports are systematically higher than the value of exports reported by China, because the former are in most cases based on the c.i.f value of partner country imports from China, whereas the latter are based on the f.o.b value of China's exports. Thus, while Table 1.1 shows China's total exports in 1990 as \$80.5 billion, the value of exports reported by China for the same year was \$62 billion (see Table A1.2)—the difference between the two being in large part the value of transport and insurance payments. Second, for some product categories, the difference between partner country and Chinese data is difficult to explain. In the case of transport equipment (SITC 73), for example, China's exports per partner country records were \$0.6 billion in 1990, whereas Chinese data indicate a total export value of \$4.1 billion. Third, some of China's trading partners—particularly the (former) socialist countries of Eastern Europe—did not report to the United Nations (UN) during the full 1965-80 period so some of China's trade (perhaps about 10 percent) is not accounted for in those years. In general though, statistics on imports are thought to be more accurate than those for exports (particularly since the former are used for applying import tariffs) so the partner country (import) information should provide a more accurate profile of China's exports.

^{8/} Based on Chinese reported data, the share of manufactures reached 71 percent in 1990 and 80 percent in 1992.

^{9/} Between 1985 and 1990 the real effective exchange rate (REER) applying for exports depreciated by over 120 percent (measured in yuan per dollar, see Chapter 2).

Table 1.2 provides a more detailed look into the factors underlying China's changing export structure over 1965 to 1990 by ranking the 30 largest three-digit SITC products (in terms of 1990 values). Crude petroleum ranked as China's most important export as recently as 1985, when it was replaced by clothing. Clothing more than doubled its share in ten years to account for 19.6 percent of China's total exports in 1990. Toys and sporting goods were the second most important export item for China in 1990, followed by footwear, accounting for 7.5 and 3.7 percent, respectively, of China's exports. Both these subsectors saw their shares more than treble between 1985 and 1990. The rapidly expanding share of electrical equipment in China's exports seems to be accounted for in large part by telecommunications equipment (comprised essentially of black-and-white televisions, radio receivers, and telephone equipment) and by domestic electrical equipment (which includes washing machines, air conditioners and refrigerators). These two subsectors saw their share of China's exports rise from zero in 1975 to 7.3 percent in 1990, with almost all the growth coming after 1985.

**Table 1.3: THE VALUE AND SHARE OF VARIOUS TYPES OF PRODUCTS
IN CHINA'S MANUFACTURED EXPORTS: SELECTED YEARS 1965 TO 1990**

Product category	1965	1975	1980	1985	1990	Growth rate (%)	
						1965-90	1980-90
(Value of China's exports in terms of \$ millions)							
Total exports	1,718	6,303	18,237	27,764	80,541	16.6	16.0
Labor-intensive manufactures	570	2,253	7,168	12,319	59,787	20.5	23.6
Unskilled labor-intensive goods	454	1,557	5,254	9,742	41,222	19.8	22.9
Capital-intensive manufactures	1,113	3,128	6,353	7,984	14,978	10.9	8.9
Human capital-intensive goods	148	473	1,292	1,708	12,325	19.3	25.3
Natural resource-based products	961	3,665	9,116	13,339	16,585	12.1	6.2
Coal, petroleum and gas	32	897	3,974	7,157	5,290	22.7	2.9
(as a share of total exports - %)							
Total exports	100	100	100	100	100	-	-
Labor-intensive manufactures	33	36	39	44	74	-	-
Unskilled labor-intensive goods	26	25	29	35	51	-	-
Capital-intensive manufactures	55	50	35	29	19	-	-
Human capital-intensive goods	9	8	7	6	15	-	-
Natural resource-based products	56	58	50	48	21	-	-
Coal, petroleum and gas	2	14	22	26	7	-	-

^{/a} The procedures used for identifying labor and capital-intensive goods (as well as a broad list of the former) can be found in [Annex 1.1](#). Note that although the two classes of goods are mutually exclusive, they do not encompass all product categories, some of which are excluded from both classifications. See [Annex 1.1](#) for details. Unskilled labor intensive, human capital intensive, and natural resource based products are defined in Lawrence B. Krause, *United States Economic Policy Toward the Association of Southeast Asian Nations* (Washington: Brookings Institution, 1984). [Annex 7.2](#) to this report provides a complete tabulation of all the SITC codes that are included in the category of labor-intensive manufactures' product groups.

The sectors that have emerged as China's most dynamic exports appear to conform well to the country's natural comparative advantage. The analysis of Table 1.3 confirms this impression. The important point that emerges is that the composition of China's exports has become increasingly labor intensive over the years. Over 1965 to 1990 the share of labor-intensive products in China's exports has grown from roughly one third to about 75 percent.^{10/} Over the same period, the share of capital-intensive products was cut down to less than 20 percent, less than a third of what it was in 1965, and that of natural resource-based exports was more than halved, declining from 56 percent in 1965 to 21 percent in 1990.

A second point to note is that, within the category of labor-intensive manufactured exports, the share of products using *unskilled* labor has been declining since 1985. That China has begun to turn to products requiring higher skill levels for its exports is evident from the rapid rise in its exports of relatively simple telecommunications equipment and domestic electricals since 1985.

Table 1.4 compares changes in the concentration of Chinese exports (i.e., the range of products involved) over the years with that of selected East Asian economies. Some

Table 1.4: CONCENTRATION OF CHINA'S AND COMPARATOR COUNTRY EXPORTS

	No. of three-digit products exported (Hirschmann index in parentheses)			
	1962 (Rev. 1)	1972 (Rev. 1)	1980 (Rev. 2)	1988 (Rev. 2)
<i>Exporter</i>				
Singapore	144 (0.324)	176 (0.234)	232 (0.235)	231 (0.143)
Rep. of Korea	30 (0.245)	162 (0.262)	207 (0.085)	215 (0.098)
Hong Kong	91 (0.337)	128 (0.374)	164 (0.164)	173 (0.141)
Taiwan, China	44 (0.429)	57 (0.401)	210 (0.117)	217 (0.093)
China	47 (0.411)	58 (0.390)	190 (0.156)	211 (0.120)
<i>Memo Item</i>				
Japan	174 (0.103)	176 (0.158)	224 (0.118)	220 (0.142)
United States	175 (0.084)	180 (0.107)	236 (0.064)	235 (0.086)

Source: United Nations Conference on Trade and Development (UNCTAD) Handbook of International Trade Statistics, various issues. Indices for China estimated by the World Bank. To be counted a three-digit product must have exports of more than \$50,000 in 1980 or \$100,000 in 1988 or be more than 0.3 percent of total exports. The 1962 and 1972 statistics are based on SITC Revision 1 data while 1980 and 1988 employ Revision 2 data. About 180 three-digit products are defined in the former and 240 in the latter.

indication of concentration is provided by the number of three-digit SITC products exported by each country. Another indicator used is the Hirschmann concentration index.⁵ This index

^{10/} See Annex 1.1 to this report for an explanation of how these products were identified and defined and for a complete tabulation of all SITC codes that comprise each product category. It should be noted that the groups are not necessarily mutually exclusive and some double counting is involved in the tabulations shown in Table 1.3.

ranges between 0 and 1.0, with higher values representing more concentrated exports. Two points are evident from these tabulations. First, in all countries a progressive deconcentration of their exports has occurred, although the rate of deconcentration appears to slow down appreciably (or in the case of Korea was even reversed) over time as the export drives of these countries reach maturity. China appears to be following the same trend. After its Hirschman concentration index more than halved over the 1970s, the index registered a decline of only 20 percent over the 1980s. Second, China's exports have shifted from being far more highly concentrated than those of the East Asian NIEs to a point where they are no longer significantly more or less concentrated than other East Asian economies. In 1988, China's Hirschman concentration index was smaller than that of Hong Kong or Singapore, but somewhat higher than that for Taiwan (China) or Korea.

The Role of Assembly Operations

In 1984, the State Council approved two schemes designed to facilitate exports based on processing or assembly type activity. The schemes are known as "processing with supplied materials" and "processing with imported materials," respectively. The former entitles a local enterprise to import free of duty all raw materials provided to it by an overseas supplier to help the firm meet an export contract. The latter exempts a local firm from import duties on all raw materials that it uses to manufacture its exports.^{11/} These schemes have proven to be enormously successful. They have contributed in a major way to the marked rise in manufactured exports from China since 1985, and have helped China move into product categories such as telecommunications equipment, whose exports appear to have grown in large part based on assembly type operations using cheap yet reasonably skilled labor. Exports based on processing of imported or supplied materials accounted for 23 percent of total exports in 1988 (Table 1.5). Since then they have almost doubled their share, and now account for 45 percent of all exports or 64 percent of all of China's manufactured exports.^{12/}

Although a substantial proportion of exports based on processing activity was generated in Special Economic Zones (SEZs), over the years such activity has spread to firms outside the zones. Thus, while SEZs accounted in 1986 for over 27 percent of exports based on processing of supplied or imported materials, their share of such exports declined to 19 percent in 1991.

Complete data on the sectoral composition of exports based on processing activity were not available. It is estimated, however, that the share of machinery and electronics exports is the largest, at about a third of all exports based on processing activity, followed by clothing (24 percent) and then toys (11 percent). It appears, therefore, that processing-based exports of machinery and electronics were in the order of \$10 billion or almost 80 percent of all Chinese exports from these sectors in 1991. Much of this activity is clearly low in domestic value added. This is evident from estimates of the import content of exports based on processing activity. In

^{11/} The details of these schemes and how they operate are discussed in Chapter 3. It should be noted that these schemes are distinct from compensation trade. Compensation trade is similar to processing with supplied raw materials, except that the local firm gets paid in kind and does not receive any foreign exchange. The value of exports under compensation trade schemes in 1991 was \$221 million (Source: Customs Directorate).

^{12/} Based on export data reported by China. The share of manufactured exports on this basis was 70.9 percent in 1991, as opposed to an estimated 80 percent based on partner country data.

Table 1.5: EXPORTS FROM ASSEMBLY OPERATIONS
(\$ billion)

	1988	1991
1. Exports processed with supplied materials	6.5	12.9
2. Exports processed with imported materials	6.4	19.5
3. Total value of processed exports	12.9	32.4
of which, from SEZs	2.6	6.2
4. Imports of materials for export processing	13.7	25.0
of which, into SEZs	2.6	5.1
<i>Memo Item</i>		
Total merchandise exports	47.5	71.8
Total merchandise imports	55.3	63.8

Source: Customs Directorate.

1991, imports for processing activity represented 77 percent ^{13/} of the value of processed exports.

Markets for China's Exports

China would appear to have experienced a marked increase in the geographical concentration of its export markets (Table A1.3 ^{14/}), due to the more than doubling of Hong Kong's share and the disappearance of Eastern European markets.^{15/} However, this is misleading because Hong Kong has served increasingly as a conduit for Chinese exports rather than as a consumer of such products. China reports having exported 53 percent of its exports to Hong Kong alone in 1990, this share having risen from 26.5 percent in 1984. In fact, almost all of the growth of China's exports to Hong Kong is due to the fast growth in reexports of Chinese goods to other countries—only a small and rapidly declining proportion of China's

^{13/} This is likely to be somewhat of an overestimate of the import content of processed exports. Time lags in the utilization of imports mean that not all inputs imported in any one year are likely to be used in the export production for that year.

^{14/} The statistics in Table 1.7 are based on data reported to the United Nations by China. A longer time perspective was not possible since China did not report trade to the UN prior to 1984.

^{15/} While, in 1984, five Eastern European countries, including the then Union of Socialist Soviet Republics (USSR), were amongst China's top thirty markets, absorbing a little under 5 percent of its exports, by 1990, and not surprisingly, their share of China's exports had become negligible.

exports to Hong Kong is actually consumed in Hong Kong. Of the \$6.9 billion that China exported to Hong Kong in 1984, \$3.3 billion was reexported. In 1990, of the \$32.9 billion exported from China to Hong Kong, \$29 billion was reexported to countries other than China. The major markets for these reexports were the United States, which in 1990 absorbed 36 percent, followed by the European Community (EC) (17 percent), and Japan (7 percent). Taking into account the final destination of Hong Kong's reexports of Chinese products (Table 1.6), it turns out that Hong Kong's share of Chinese exports has in fact declined from about 14 percent in 1984 to only 6 percent in 1990. The fastest growing market for China has been the EC, whose share more than doubled to reach an estimated 19 percent in 1990, followed closely by the United States (US) whose share went from 13.6 to 25.6 percent between 1984 and 1990. As the share of the US and EC markets has grown, that of Japan has shrunk. Japan went from being the largest importer of Chinese products in 1984, to being the third largest in 1990, after the US and the EC. All these changes have made the market structure for China's exports very similar to that of other East Asian economies. For each of these countries the US is the largest export market, absorbing anywhere from 28 to 34 percent of their exports, followed by the EC and then Japan (Table A1.6).

Table 1.6: MARKETS FOR CHINA EXPORTS, 1990

Export market	Share of China exports (%)	
	Adjusted for reexport thru Hong Kong	Unadjusted for reexport thru Hong Kong
Japan	11.5	8.2
USA	25.6	8.7
EC	19.2	9.2
Other		
of which: Hong Kong	6.2	53.9
<i>Memo Items</i>		
Value of China's exports to Hong Kong (\$ billion as reported by China)		32.9
Value of Hong Kong reexports of Chinese products to the rest of the World (\$ billion as reported by Hong Kong)		29.0
Value of China's total merchandise exports		62.1

Source: United Nations COMTRADE data base, China's Customs Statistics and Hong Kong Review of Overseas Trade, various years.

The Role of the Nonstate Sector

Definitional issues pertaining to ownership make it difficult to pin down the contribution of China's burgeoning nonstate sector to exports. However, data are available on

certain types of nonstate enterprises.^{16/} The share of township and village enterprises (TVEs) in total exports, for example, increased fivefold between 1985 and 1990 (Table 1.7), and their share was estimated to have exceeded 25 percent by 1992. An estimated 90 percent of TVE exports are manufactured products, of which a little less than half are spread evenly between textiles, clothing and arts and crafts. Also, not surprisingly, almost all TVE export earnings (88 percent in 1990) are generated in Eastern China, with the coastal provinces of Guangdong, Jiangsu, Shanghai, Zhejiang, Shandong, Tianjin and Hebei accounting for the lion's share.

Table 1.7: TOWNSHIP AND VILLAGE ENTERPRISE EXPORTS

	Exports (\$ billion)	As share of total (%)	Export-oriented enterprise (number)
1985	1.20	4.4	8,500
1986	2.67	8.6	9,000-11,000
1987	4.35	11.0	18,000-20,000
1988	8.03	16.9	n.a.
1989	10.00	19.1	n.a.
1990	12.50/a	20.2	56,000

/a Beijing Review, Vol. 24, No. 4, January 24, 1992, p. 29.

Source: For exports 1985-88: A. Ody (1992).

Data for foreign-invested enterprises (FIEs) indicate that the contribution of these to China's exports has also been growing. The share of FIEs in total exports went from less than half of 1 percent in 1984 to 5 percent in 1988, and then quadrupled to reach \$17.4 billion or 20 percent in 1992. All FIE exports have been in manufacturing, and 94 percent were generated in the coastal provinces in 1990.⁶

It can be concluded from the above that the contribution of the nonstate sector to China's exports has become very important. The share of this sector, taking account only of the exports of TVEs and FIEs, stood at a minimum of 40 percent of China's total exports or

^{16/} Broadly speaking, the nonstate sector is considered to comprise urban collectives, rural collectives, private enterprises, individual businesses and foreign-invested firms. See Yusuf (1992). Township and village enterprises (TVEs) are distinct from foreign-invested enterprises or urban collectives, but constitute a subset of the other categories. Foreign-invested enterprises include equity joint ventures, wholly foreign-owned ventures, cooperative operations and cooperative development ventures. See Khan (1991).

50 percent of its manufacturing exports,^{17/} with the bulk of the contribution of nonstate enterprises originating in the coastal provinces.

The Role of Hong Kong

China's "Hong Kong connection" has been vital to the success of its export drive. It was noted earlier that more than half of China's exports to the rest of the world are now handled by Hong Kong. Although the role of Hong Kong as trade intermediary is critical, its contribution to the development of China's exports goes much further.⁷ Most importantly, 70 percent of the cumulative value of \$58.1 billion in foreign direct investment (FDI) commitments to China has come from Hong Kong and been mostly directed to export-oriented joint-ventures in the coastal provinces, Guangdong in particular. Guangdong has attracted an estimated 50 percent of all the country's foreign investment commitments and the province accounted for almost 40 percent of China's total exports (and certainly a much higher proportion of manufacturing exports) in 1992. Hong Kong's involvement in export-oriented production in China is not just limited to joint ventures. A lot of Guangdong's export production is supervised under contract by partners in Hong Kong. Much of Guangdong's success with processing using supplied or imported materials is based on partnerships with counterparts in Hong Kong. It is no wonder that Guangdong recorded \$16.6 billion in exports from processing activity or about 70 percent of the country wide total for such exports in 1991.⁸ All evidence suggests that the economies of Hong Kong and Guangdong are becoming increasingly integrated with one another. As exports of certain products such as toys and clothing, from Guangdong have increased, those of similar products from Hong Kong have declined.⁹ This suggests that production of a variety of low value products has been displaced from Hong Kong to the hinterland, where wages are lower and the labor force is reasonably skilled. This has enabled resources in the very tight labor market in Hong Kong to be reallocated to higher value products such as office machines, for example, the share of which in its domestic exports has been rising steadily. Clearly, the growing interdependence between Guangdong and Hong Kong is working to their mutual benefit, and to the benefit, of course, of China's overall export performance.

D. TRENDS IN CHINA'S MERCHANDISE IMPORTS

The Structure of Merchandise Imports

The story of China's merchandise imports since the "open-door" policy is much simpler than that of its merchandise exports. Three tendencies are noticeable (Table 1.8). First, the share of foodstuffs in China's imports has seen a marked decline—compared to shares of between 16 and 23 percent in the early 1980s, foodstuffs now account for around 6 percent of total imports. Second, the share of intermediates and raw materials, although smaller now than in the early 1980s, appears to have stabilized at a little over a third of total imports. And third, capital goods (machinery and transport equipment) have seen a steady increase in their shares. Capital goods now account for roughly 43 percent of total imports, compared to 19 percent at the start of the reforms. The share of mineral fuels has increased somewhat, while that of consumer goods did not exceed 5 percent at any time during the decade of the 1980s.

^{17/} Prybala (1992), reported in Yusuf (1992) estimates that about half of China's total exports originate in the nonstate sector.

**Table 1.8: CHINA: STRUCTURAL CHANGE IN CHINA'S IMPORTS (CIF) CUSTOMS BASIS
(% share to Total)**

Commodity	1984	1987	1988	1989	1990
Food	9.8	7.2	7.7	9.1	8.6
Mineral fuels	0.5	1.2	1.4	2.8	2.4
Intermediate	53.8	43.2	46.1	43.1	39.4
of which:					
Chemicals	16.6	11.8	16.7	13.1	12.9
Crude materials	10.0	7.8	9.6	8.4	7.6
Iron and steel	17.1	11.1	8.4	9.8	5.3
Consumer goods	2.3	4.5	4.1	3.7	4.7
Capital goods	33.5	43.5	40.1	41.0	44.3
of which:					
Transport equipment	7.7	9.4	8.7	9.0	11.2
Miscellaneous	0.0	0.4	0.6	0.4	0.5

Source: Chinese Trade Data (SITC Revision 1), Customs Directorate.

In the earlier years of reform, the import plan explained much of China's import structure. The plan has been used, by and large, to ensure minimum imports of key foodstuffs, intermediate goods and raw materials.^{18/} The products most subject to planning have been typically ones with the largest domestic price distortions. Quantities to be imported have been determined through a "gap-filling" exercise, rather than on the basis of relative prices or quality. The importance of the plan has been declining, however. Less than a third of imports are now subject to mandatory planning or to canalization, i.e., the practice of restricting the imports of such commodities to a few designated foreign trade corporations (see Chapter 2). Whereas, in 1984, over 80 percent of the imports of food and intermediate goods came under the plan, by 1991, only half of food imports and only two thirds of intermediate good imports, respectively, were comprised of planned commodities. Within the category of foodstuffs, cereals remain by far the most important planned commodity. Chemical fertilizers, plastic materials (mainly plastic sheeting), textile yarn, iron and steel and wood are the largest intermediate goods imports that remain subject to import planning. Meat and dairy products, along with animal feed, account for the bulk of the growth in nonplanned commodities in the food group. Within the category of intermediate goods, chemical elements and paper products have underpinned the rising share of nonplanned imports. This changing composition of imports suggests that an increasing proportion of food and raw material imports has become market driven.

Although the share of import planning has declined progressively, China's import structure still bears the mark of management. Thus, although capital goods are not part of the import plan, the steady rise in their import share is due in large part to a systematic

^{18/} Almost none of the planned/canalized commodities fall into the category of consumer or capital goods. The only exceptions are televisions, cathode ray tubes and diesel engines.

government strategy of using imports as a way of importing embodied technology for modernization. Over the last decade, China has imported the equivalent of about 3 percent of GDP in capital goods, accounting for about 7.5 of all investment, and about 15 percent of all investment in equipment.¹⁰ The growth in such imports reflects, more than anything else, trends in directed domestic investment, and has been supported by controlled access to foreign exchange. The central government still directly controls over 50 percent of the country's foreign exchange earnings, which are allocated to planned imports and imports of materials and equipment needed for priority projects (Chapter 2).

The inconsequential share of consumer goods in China's total imports also suggests the use of administrative controls and foreign exchange allocation. Consumer goods have to a significant degree been the "residual" component of imports, their share falling in years of retrenchment and rising in years of relaxed controls. The managed nature of China's import structure is reflected quite clearly in recent shifts in import shares. Over the 1985/87 period, which was a period of retrenchment following the build up of domestic excess demand, the share of consumer goods fell from 5.5 to 4 percent of imports, while that of capital goods and critical commodities subject to import planning, such as cereals, petroleum and fertilizers, and textile yarn was allowed to rise. Again, the immediate effect of the retrenchment of 1989 was to restrain the growth in consumer goods imports, while the share of cereals, textile yarn, iron and steel and machinery and transport equipment went up.

China's import structure thus clearly reflects a conscious import strategy, which has been to ensure the supply of key raw materials and to acquire embodied technology through the import of capital goods, while imports of consumer goods have been regarded as a residual. Overall, however, China's import structure resembles that of its East Asian neighbors, except that its share of food imports is somewhat larger. What is significant is the relative openness of China, like Korea, Taiwan (China) and Malaysia to the imports of capital goods. In fact, the share of capital goods in China's imports is not excessive by the standards of these other economies. On the other hand, this is what sets China and the East Asia NIEs apart from other large developing countries such as India and Brazil, where the share of capital goods imports is significantly smaller.

Finally, a word about the origin of China's imports. As in the case of exports, Hong Kong plays an important role of intermediary in the procurement of China's imports. In 1990, 27 percent of China's imports were recorded as having come from Hong Kong, when in fact almost all these were reexports from other places of origin. A large proportion (45 percent) of Chinese imports coming in as reexports through Hong Kong are from Taiwan (China) and Japan. Until the normalization of diplomatic relations earlier this year, China's imports from South Korea were also handled in this manner. Taking account of the country of origin for products reexported from Hong Kong, Japan emerges as the single largest supplier of China's imports accounting for one fifth of total imports (Table 1.11). In this regard China is hardly different from other East Asian economies although overall, China's dependence on Japanese imports is markedly smaller than for the other countries of the region and appears to be declining fast. The second largest supplier of Chinese imports is the United States which has had a more or less stable 15-percent share since 1984. The US share of China's imports is higher than in other East Asian countries, such as Thailand, and Indonesia, but it remains substantially lower than in Taiwan (China) and Korea. The EC is the only bloc of member countries of the Organization of Economic Cooperation and Development (OECD) countries that has posted even modest gains in its share of China's imports. Between 1984 and 1990, the EC's share of

**Table 1.9: STRUCTURE OF CHINA'S IMPORTS (CIF) CUSTOMS BASIS
(A Comparison with Other Importers for 1990)
(%)**

Commodity	China	Korea	Taiwan (China)	Brazil	India	Malaysia
Food	8.6	5.2	5.5	9.3	3.2	6.8
Food	6.5	4.7	4.7	8.7	2.4	6.1
Beverages	0.3	0.3	0.6	0.2	0.0	0.4
Animal fat	1.8	0.3	0.2	0.3	0.8	0.3
Petroleum (mineral fuels)	2.4	15.8	11.0	26.8	27.3	5.3
Intermediate	39.4	36.4	34.6	27.3	40.4	24.3
Chemicals and related products	12.9	10.7	13.0	15.9	12.9	8.8
Crude materials (nonfood)	7.6	12.4	8.2	5.3	9.4	3.4
Leather	0.7	1.1	0.5	0.9	0.3	0.1
Cork	1.1	0.6	0.6	0.1	0.0	0.1
Textile yarn (yarn, fabrics, etc.)	9.9	2.8	1.9	1.1	1.0	3.4
Nonmetallic minerals	0.8	1.3	1.2	0.7	9.1	1.1
Iron and steel	5.3	4.7	5.4	1.3	4.9	5.3
Nonferrous metals	1.1	2.8	3.8	1.9	2.6	2.1
Consumer Goods	4.7	3.4	5.3	4.7	2.3	6.3
Paper and related products	1.4	0.6	1.2	1.2	1.0	2.0
Rubber	0.1	0.3	0.3	0.5	0.2	0.3
Furniture	0.1	0.2	0.2	0.0	0.0	0.2
Travel goods	0.0	0.0	0.1	0.0	0.0	0.1
Clothing	0.1	0.2	0.5	0.3	0.0	0.3
Footwear	0.0	0.0	0.1	0.1	0.0	0.1
Photo supplies	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous	2.9	2.1	2.7	2.5	1.0	3.5
Capital goods	44.3	38.8	41.2	31.9	20.5	57.1
of which:						
Transport equipment	11.2	3.9	7.2	3.5	3.9	10.0
Miscellaneous	0.5	0.4	2.4	0.0	6.2	0.2
<u>Total</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: United Nations COMTRADE Data (SITC Revision 1).

**Table 1.10: ORIGIN OF CHINA'S IMPORTS: A COMPARISON WITH OTHER ECONOMIES OF EAST ASIA
SELECTED YEARS
(%)**

Year	Origin of imports	Thailand	Indonesia	Taiwan	Korea	China /a	
		Share of imports (adjusted for reexports thru Hong Kong)	Share of imports (unadjusted for reexports thru Hong Kong)				
1984	Japan	27	24	29	25	35	31
	USA	13	18	23	22	16	15
	EC	13	15	9	9	13	13
	Other	47	42	39	44	29	41
	of which: Hong Kong	-	-	-	-	-	12
1990	Japan	31	24	30	27	21	14
	USA	11	12	24	24	15	12
	EC	15	19	13	12	15	15
	Other	44	46	33	37	49	59
	of which: Hong Kong	-	-	-	-	4	27

/a Discrepancies between these and figures reported by China possible because of transport margins and period different information reporting lags.

Source: China's Customs Statistics, Hong Kong Review of Overseas Trade, various years, and United Nations COMTRADE data base.

	1984	1990
<i>Memo Items:</i>		
Value of China's imports from Hong Kong (\$ billion as reported by China)	3.1	14.4
Value of Hong Kong's reexports to China from other places (\$ billion as reported by Hong Kong, of which:	3.3	12.4
Share of reexports originating in Taiwan (China) (%)	13	23
Share of reexports originating in Japan (%)	36	22
Share of reexports originating in USA (%)	11	9

China's imports went from 13 to 15 percent. It appears that the more advanced East Asian economies are the ones that have made the largest inroads into China's market by exporting through Hong Kong. The joint share of Taiwan (China) and South Korea in China's imports went from an estimated 4 percent in 1984 to over 9 percent in 1990.

**Table 1.11: SHARE OF MERCHANDISE TRADE IN GDP:
SELECTED COUNTRIES
(%)**

China	31
USA	16
Japan	18
India	14
Brazil	12
Mexico	36
Turkey	34

Source: Data for China are for 1991 (see World Bank, 1992c). Data for other countries are from the General Agreement on Tariffs and Trade (GATT) (1992b), Volume 1, Appendix Table 5.

E. TRADE IN CHINA'S ECONOMY: SOME CONCLUDING OBSERVATIONS

The trends in exports and imports discussed above illustrate how far China's approach to trade has evolved since the open door policy was first announced. Traditionally, China viewed exports as a surplus over domestic production, to be sold in order to generate financing for the purchase of commodities, such as grain, in short supply at home, and of imported technology for purposes of modernization. This philosophy of "gap filling" led to an autarkic approach to trade, with the handful of foreign trade corporations (FTCs) granted permission to carry out external trade operating an "airlock" between the outside world and the domestic economy.¹⁹ Since then, the number of FTCs has gone from 12 to a peak of 6,500 in 1989, and 3,600 at the present time. From no foreign investment in 1978, the total has risen to over 29,000 joint ventures with a contracted value of \$45 billion. And most remarkably, the share of merchandise in China's Gross Domestic Product (GDP) went from 10 percent in 1978 to 31 percent in 1991.^{19/} This is a significant and permanent change in the face of the Chinese economy. As compared to other large countries, China has become a very open economy (Table 1.11)—by this measure, China appears to be more than twice as open as India and Brazil, and significantly more open than USA or Japan. China now exports about 17 percent of the gross value of industrial output (GVIO) of its overall manufacturing sector, and imports an estimated 28 percent of the GVIO of its machinery and transport equipment sector (Table 1.12).

^{19/} This figure needs to be treated with caution. First, China's Gross National Product (GNP) is widely regarded as underestimated. Second, customs statistics on exports include the full value of exports based on processing of imported inputs, which tends to exaggerate the role of trade in the Chinese economy. Excluding the latter would reduce the value of China's exports in 1990 by about \$11.5 billion, and the trade to GDP share to about 28 percent. Depending upon what estimate of China's GDP is taken, the trade to GDP share could be anywhere between 18 and 26 percent.

Table 1.12: CHINA: THE STRUCTURE OF PRODUCTION, IMPORTS AND EXPORTS, 1985 AND 1990

Sector	Share in total GVIO (%)		Imports/GVIO (%)		Exports/GVIO (%)	
	1985	1990	1985	1990	1985	1990
Food, beverages & tobacco	11.6	11.6	5.0	8.0	10.6	14.7
Raw materials	20.8	20.9	8.2	8.4	15.4	10.8
Manufactures	67.5	67.5	16.6	16.2	5.0	16.9
of which:						
Intermediates	39.4	40.2	12.6	11.3	4.9	10.2
Machinery & transport	20.0	19.2	28.0	28.5	1.3	14.4
Consumer goods	8.1	7.9	8.0	10.8	14.6	56.9
<i>Memo Items</i>						
Light Industry	49.1	47.0				
Heavy Industry	50.9	53.0				
Clothing	2.0	2.1	0.2	0.6	34.9	118.0/a
Travel goods	0.1	0.1	0.9	1.5	27.0	90.5
Footwear	1.2	1.2	0.2	0.2	7.3	41.3

/a An export share of greater than 100 percent indicates large export volumes from outside the independent accounting sector of the Chinese economy.

Source: Based on Table A3.3. GVIO shares pertain to output of firms with independent accounting only. These firms accounted for 77.8 percent of total GVIO in 1990. Data on light and heavy industry are from China's Statistical Yearbook, various years.

On the one hand, the growing openness of the Chinese economy has had a perceptible impact on the quality of a range of Chinese products that have benefited from the use of updated technologies and exposure to the demands of consumers in external markets. On the other hand, it is also noteworthy how little the structure of the China's industry has changed, despite a non-negligible degree of import penetration and high export ratios. Table 1.12 compares the sectoral share of GVIO between 1985 and 1990 and the import penetration and export ratios of each board sector over the same period. It indicates that, while import penetration ratios have remained more or less stable across sectors, the share of exports in GVIO has grown more than threefold in the case of manufacturing in general, and almost fourfold in the case of consumer manufactures. Despite these very substantial increases in export ratios, however, the overall sectoral composition of output, including the share of consumer manufactures (with such heavily export-oriented sectors as clothing, footwear and travel goods) has remained virtually unchanged. While it is probable that capital-output ratios in the more export-oriented sectors have fallen during this period, it appears that the *allocation* of investment

has remained unaffected by the growing openness of the economy. Investment is evidently still heavily directed, resulting in a "planing" phenomenon, such that investable resources are divided more or less equally amongst all sectors instead of being channelled to the most efficient ones.^{20/} As open as the Chinese economy is today, trade still does not yet play a sufficient role in domestic resource allocation. An important challenge for the future will be to allow a stronger link to be established between trade and investment.

^{20/} See I. J. Singh (1992).

Endnotes

1. GATT (1992b). The figures for shares in world trade include exports, imports and reexports and the trade of Eastern European countries.
2. World Bank (1992e).
3. MOFERT's report on the reform of the trade system was approved by the State Council on September 15, 1984. The system of foreign exchange retention, though first introduced on an experimental basis in 1979 was formalized in January 1984, and was subsequently modified in January 1985 such that the retention rights were shared equally between the exporting enterprise and the province. See World Bank (1987).
4. FDI annual utilization, sluggish until then, doubled from \$0.6 billion in 1982 to \$1.3 billion in 1983, and grew at an average rate of over 34 percent per annum thereafter till 1989. See Khan (1991).
5. Hirschmann index normalized to make values ranging from 0 to 1 (maximum concentration), according to the following formula:

$$H_j = \frac{\sqrt{\sum_{i=1}^{239} \left(\frac{x_i}{X}\right)^2} - \sqrt{1/239}}{1 - \sqrt{1/239}}$$

where:

j = country index;

x_j = value of exports of commodity i; $x = \sum_{i=1}^{239} x_i$

and 239 = number of products the three-digit SITC, Revision 2 level.

6. Almanac of China's Foreign Economic Relations 1991/92, page 88.
7. See Yun-Wing Sung (1991).
8. Almanac of China's Foreign Economic Relations 1991/92, page 88.
9. While Hong Kong's domestic exports of toys declined from \$1.5 to \$1.3 billion between 1985 and 1988, reexport of toys, almost all originating in China, rose from \$0.6 billion to over \$2.1 billion over the same period. Similarly, from 1986 to 1988, while the share of clothing in Hong Kong's domestic exports declined from over 40 percent to 31 percent, reexports of garments from China almost doubled, rising from \$1.6 billion to \$3.1 billion over the same period.
10. World Bank (1992c).
11. See World Bank (1987a).

II. THE TRADE PLANNING AND FOREIGN EXCHANGE SYSTEMS—REFORMS THROUGH A PERIOD OF TRANSITION

Until recently, the fundamental feature of the Chinese foreign trade system was the planning mechanism used to control exports and imports and to allocate foreign exchange to priority uses. Since the launching of the open-door policies, this mechanism has undergone significant change. In general, the thrust of successive waves of system reform has been to reduce the importance of the plan. Although remarkable in its impact on China's foreign trade, the process has not been an entirely smooth one. Numerous difficulties have arisen along the way, most stemming from the unique circumstances of China's transition from a rigidly planned economy to a more market-oriented one. Since the mid-1980s the Chinese authorities have launched two major reforms of their foreign trade and exchange planning system, one in 1988 and the second in 1991. The basic objectives of the two major reforms were similar. They were designed to increase the role of the market in determining the pattern of imports and exports and the use of foreign exchange, and to reduce the burden of financial subsidies imposed by the external sector on the state budget. This chapter takes stock of the reforms of the trade planning and foreign exchange management system that have occurred since 1986 and makes recommendations for the future.

A. FOREIGN TRADE PLANNING, FOREIGN TRADE CORPORATIONS, AND SUBSIDIES

Foreign trade planning has entailed not only formulating the export and import plans, but also defining the role of China's foreign trade corporations that have been used as an institutional vehicle for implementing the plans. The original objective of trade planning was to identify the key raw materials and commodities that were in short supply and had therefore to be imported, and then ensure that sufficient foreign exchange was generated through selected exports—the plan was thus driven by the country's import requirements. In 1978, all trade was handled by a dozen FTCs and their branches, which had the responsibility of executing the plan.

Following approval of the reform plan of the Ministry of Foreign Economic Relations and Trade (MOFERT), now called the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) in 1984, the foreign trade system was decentralized very considerably, with the provincial branches of national FTCs allowed to become independent financial and operating bodies, and each province allowed to create its own FTCs. By 1986 there were already 1,200 FTCs in operation. The foreign trade plan also became more export driven. A target for exports would be fixed, and the objective of the planning exercise became one of managing imports within the foreign exchange constraints implied by this target. The export plan was split into two components: the command plan and the guidance plan. The command plan was mandatory, fixed in quantitative terms, applied to specific products, and was accompanied by an assured supply of necessary inputs to the producing enterprises. In contrast,

the guidance plan contained value targets assigned to provincial authorities, which were accorded considerable flexibility in determining how to achieve them. Products subject to the command export plan were in turn split into two lists: the list of so-called Category I exports, comprising products that could be handled only by a few designated national FTCs, and Category II exports that could be handled by a wider range of FTCs, including local and provincial ones. An estimated 60 percent of exports were subject to the mandatory export plan and 20 percent to the guidance plan in 1986, with the balance being "above plan" exports.

The import plan was comprised of three components: a mandatory plan for key raw materials, the steady supply of which was considered essential—these imports were to be handled only by designated national and/or provincial FTCs (see also Chapter 3); a system of foreign exchange allocation for imported raw materials and spare parts for key established national projects, and for the import component of priority new investment projects ^{1/}; and an import licensing system (see also Chapter 3). As in the case of exports, commodities subject to the mandatory import plan were divided into two lists: Category I imports that could only be handled by a few designated national FTCs; and Category II imports that could be handled by several FTCs, including local and provincial ones. In 1986, an estimated 40 percent of imports fell under the mandatory import plan, and another 30 percent were procured under the foreign exchange allocation mechanism for priority projects—the remaining 30 percent, financed either out of retained foreign exchange or foreign borrowing by noncentral authorities, were subject to selective import licensing.¹

All procurement for the mandatory export and import plans took place at fixed prices. For the export guidance plan, the price could be fixed, floating or free market, depending on the how each province decided to meet the value targets of the guidance plan,^{2/} and on the negotiating position of producing firms vis-à-vis the procuring FTCs. Given that all export transactions still had to be routed through FTCs, which in many cases were designated, the link between international prices and the procurement price offered to exporters was still not systematic. On the other hand, such a link was much better established for nonmandatory import transactions. The widespread use of the so called agency system for imports meant that importers were free to choose any FTC for procuring nonmandatory imports and would pay the import price plus the FTC's costs.

Under such a system, with pervasive domestic price distortions on the one hand, and FTCs bound by obligations of the mandatory export and import plans on the other, domestic currency losses on some international transactions were inevitable. FTCs incurred financial losses measured in domestic currency each time they were required, under the import plan, to procure imports of such products as food grains and chemical fertilizers, which were purchased at international market prices, but then had to be sold on the domestic market at the state fixed price applicable to domestic producers of the same products. Likewise, they incurred losses when the export plan required them to purchase relatively high priced domestic goods, such as certain types of machinery and electronic products, and then to sell them on the international market.² In 1986 direct fiscal subsidies to foreign trade companies to cover their losses were

^{1/} This included imports of complete plant for industrial expansion, and centrally funded general investment projects.

^{2/} Some provinces essentially converted the guidance plan into a provincial command plan with fixed quantities and prices.

more than Y 24 billion, more than two percent of China's gross national product and larger than the size of the official budget deficit. By 1988, total fiscal subsidies to FTCs had reached an annual level of over Y 26 billion (Table 2.1).

**Table 2.1: LOSSES OF FOREIGN TRADE CORPORATIONS
FINANCED BY CENTRAL GOVERNMENT BUDGET
(Y 100 million)**

Year	1986	1987	1988	1989	1990	1991
Losses	249.6	282.1	268.5	336.4	224.4	176.1
<i>Memo Item</i>						
Total losses of SOEs within budget	417.1	481.7	520.6	749.6	932.6	931.1

Source: Industrial and Commercial Department, Ministry of Finance.

The 1988 and 1991 Reforms

The Foreign Trade Contract. The key institutional feature of the 1988 reform of the foreign trade system was the contract system. Every provincial level administrative unit and all specialized national FTCs signed contracts with MOFERT. These specified three targets: the amount of foreign exchange earnings; the amount of foreign exchange to be remitted to the central government; and a fixed amount of domestic currency that the center would provide to subsidize losses on export sales. MOFERT, the Ministry of Finance, and the State Planning Commission jointly determined the values of each of these targets and the State Council approved these numbers before they were incorporated in the signed contracts.³ The contract was the key policy instrument the central government used to control indirectly the increasing amount of decentralized trade that was to be undertaken by local government while, at the same time, controlling the magnitude of export losses for which the central government was responsible.⁴

Starting in 1991, the foreign trade contracting system was modified so that targets for the value of exports, foreign exchange earnings, and foreign exchange remitted to the central monetary authorities are now set annually, rather than every three years.^{3/} Also, the process of setting targets, though still involving some negotiation, has become "bottom up." Typically targets are proposed by enterprises and local authorities based conservatively on growth trends from previous years.

^{3/} In the case of contracts between the center and national FTCs specialized in Category I exports, quantitative targets are still specified.

Fiscal Subsidies. One of the important features of the foreign trade contracts introduced in 1988 was its attempted limitation of the size of the fiscal subsidies that the central government would provide to offset domestic currency losses incurred on the sale of exports. Nationally the aggregate amount of export subsidies was fixed at an amount equal to four percent of the value of exports in 1988 or around Y 7 billion. This total was divided among all of the contracts signed so that each provincial level government received a fixed amount of export subsidies.

Not only did the government try to put a cap on export-related subsidies, but in 1991, it went further and eliminated such subsidies altogether. The key provision of the 1991 reform made all specialized national foreign trade companies and all provincial-level administrative units responsible for their own domestic currency profits and losses, at least on exports. Central government fiscal subsidies for money-losing exports were said to be cut to zero beginning in 1991.

In parallel, the central government has also moved to reduce the burden of fiscal subsidies to offset money-losing import transactions. If the cap of Y 7 billion on export subsidies was in fact respected in 1988, Table 2.1 suggests that central government subsidies for import transactions amounted to Y 20 billion. Efforts to reduce this burden focussed on price increases for domestic products that historically had been sold at low prices.

During the course of 1989 the state raised the domestic prices of steel, nonferrous metals and several other products to near world market prices. And the procedure for fixing the domestic prices of imports of these goods was changed. Beginning in 1989, they began to be priced like noncommand imports, i.e., on an agency basis, meaning that the world price converted to domestic currency at the official exchange rate formed the basis of the domestic price. To this the authorities added import duties, port fees and other costs. The reform meant that the domestic prices of these goods would change in response to changes in either world market prices or the exchange rate. Previously domestic users of these imported products were fully insulated from these changes. These changes reduced the value of import subsidies paid by the central government by Y 2.5 billion in 1989. Overall, however, subsidies on import transactions went up substantially in 1989 owing to the devaluation of the renminbi which aggravated FTCs losses on the imports of important items such as food grains for which no price adjustments had been made at that time. This presumably explains why total subsidies to FTCs reached a record Y 33 billion in that year.

In April 1990, the domestic prices of six other imported goods, soda ash, caustic soda, aniline, cattle hides, tallow, and coconut oil were raised and imports of these goods were priced to fully reflect international market prices. That action reduced the value of import subsidies paid by the central government by Y 270 million. Action was also taken on China's single largest money-losing import product—food grains.⁵ In the spring of 1990, the internal distribution price of imported grain increased by Y 30 per ton. The state followed this up in the spring of 1991 by raising the retail prices of edible vegetable oils, flour, and rice for the first time in 25 years. The increases were large. The average price paid by urban residents for wheat flour, rice, and corn rose by 0.2 yuan per kilogram or 71 percent. The average price for edible vegetable oil (peanut oil, sesame oil, rapeseed oil, refined cottonseed oil, and soybean oil) rose by even more—Y 2.70 per kilogram or 160 percent. The main effect was to reduce the losses incurred on the retail sale of domestically produced output. But the reduction of subsidies on imported food grains and vegetable oils in 1991 was also significant—Y 1.27 billion. Even

so, financial losses on import transactions are far from eliminated. The internal distribution price of food grains still remains below the import cost plus handling and transportation costs, and although overall subsidies to FTCs have declined substantially from their peak in 1989, they still amounted to Y 17.6 billion in 1991. If all export subsidies were indeed eliminated as claimed starting January 1991, all this Y 17.6 billion can be assumed to be on account of subsidies on import transactions.

The Export and Import Plans. Perhaps the most important feature of the reform introduced in 1988 was a reduction in the importance of the foreign trade plan. The number of so-called Category I export products that were subject to mandatory planning was reduced to 21, roughly half the number previously falling in that category.⁶ Category II exports, comprised an additional 91 commodities, down from 120 in 1986. The reform initiatives of 1991 went further in this area and it seems that all mandatory export planning has been abolished. However, the state still retains some control through the continued use of canalization and licensing. Exports that used to be subject to mandatory planning are still channelled through a few designated FTCs if they are classified as Category I or II exports. In the first quarter of 1992 about 15 percent of China's exports were either Category I or Category II.

The import plan has also been scaled down since 1988, although not to the same extent as the export plan. The number of import products in Category I, largely under the control of specialized national FTCs, has been cut almost in half, and was down to 14 in 1992. Only an additional six imports now fall in Category II. In the first quarter of 1992, mandatory planned imports constituted only 18.5 percent of all imports compared to 40 percent in 1986, and covered 11 broad product categories.⁷

The process of scaling down the plan has been accompanied by the decentralization of responsibility for implementing the plan and an expanding number of foreign trade companies, mostly at the local level. The number of FTCs allowed to handle Category II imports and exports has grown over the years as has the total number of FTCs authorized to undertake trading activity. From about 800 in 1986, the number of FTCs has increased to over 3,600 FTCs in operation, more than 300 times the number existing at the start of the reforms.

B. THE EXCHANGE RATE REGIME

From 1981 until 1984, China had dual exchange rates: official and secondary. The official rate depreciated gradually under a system of managed floating while the secondary rate was fixed at a more depreciated rate. The secondary rate, termed the internal settlement rate, was used for settlement of payments between FTCs and the supplying enterprises. In January 1985, the official exchange rate was set at the internal settlement rate, and the latter was abolished. However, dual exchange rates reappeared with the establishment of foreign exchange adjustment or "swap" centers (FEACs) in late 1986. At present, the administered official rate is used for foreign trade and other external transactions included in the annual foreign exchange plan, including probably, debt transactions. A second, more depreciated rate is determined in FEACs, where enterprises are permitted to buy and sell foreign exchange as well as retention quotas which can be used to acquire foreign exchange at the official rate to finance primarily trade transactions not included in the plan.

Between July 5, 1986 and December 15, 1989, the official exchange rate was pegged de facto at Y 3.72 per US dollar, leading to a real appreciation of the yuan in the face

of rising inflation. At the same time, the exchange rate in the FEACs depreciated, allowing exporting enterprises to maintain their profitability. The devaluation of the official rate by 21.2 percent (to Y 4.72 per US dollar) in December 1989 and by a further 9.6 percent in November 1990 returned the real exchange rate to the level prevailing in 1986; the nominal bilateral rate was maintained at Y 5.22 per US dollar from November 1990 till April 1991.

On April 9, 1991, a new system of a managed float was adopted, under which the administered official rate is adjusted frequently through small periodic changes based upon several factors including: (a) developments in the balance of payments, (b) developments in foreign currency markets, (c) developments in FEACs, and (d) changes in the domestic resource cost of earning foreign exchange. Although the rate has been adjusted in both directions, it has tended to depreciate and, as of end-March 1993, had reached to Y 5.73 per US dollar.

In the FEACs, the average exchange rate depreciated by about 21 percent to a peak of Y 6.7 per US dollar in early 1989. It appreciated to about Y 5.9 per US dollar in December 1989 in the wake of the devaluation of the official rate. Since then it appreciated slightly to Y 5.7 per US dollar in December 1990, before depreciating to about Y 6.9 per US dollar towards end-September 1992, and further to Y 8.4 per US dollar, by the end of the first quarter of 1993. Thus, as of end-March 1993, the spread between the two exchange rates had once again become substantial and stood at over 45 percent.

Foreign Exchange Plan

The annual plan for foreign exchange receipts and expenditures has been, and continues to be, formulated by the State Planning Commission (SPC) and approved by the State Council. The State Administration of Exchange Commission (SAEC) is responsible for supervising the implementation of the plan, which has traditionally taken explicit account of the foreign exchange implications of the mandatory export and import plans for trade in key products. With the elimination of mandatory export planning in 1991, the foreign exchange plan now takes account of the foreign exchange targets negotiated with each province in the context of the foreign trade contracting system. Importers of goods included in the import plan are allotted quota accounts by the SAEC and a quota notice form that is required by MOFERT before import licenses are issued. When payment for the import is due, foreign exchange is made available to the importer upon surrender of local currency against the quota account in the SAEC. In addition, the foreign exchange plan is used to allocate foreign exchange to finance part of the import requirement of priority investment projects. This would appear to be redundant given that funding for key projects and their associated imports is already allocated as part of the government's investment program.

Retention Scheme

China traditionally combined an inconvertible currency with a rigid system of exchange control requiring all exporters to turn over all of their foreign exchange receipts to a specialized bank, the Bank of China, in exchange for domestic currency. Exporters thus were left with no foreign exchange to finance their imports. Like any other would-be importer they had to depend on the State Planning Commission, which allocated all foreign exchange earnings via an annual import plan. The government began to decentralize the administration of foreign exchange earnings in 1979 by allowing local authorities, departments, and enterprises to retain

the rights to buy back a certain proportion of their foreign exchange earnings.^{4/} Initially, retention quotas,³ which are transferable between enterprises, were transacted at the administered exchange rate, but by 1988, all FIEs and domestic enterprises with retention quotas were permitted to operate in the FEACs.

Retained foreign exchange can be sold at the FEACs for renminbi or used to purchase imports. Retention quotas can be traded in the foreign exchange centers or used for acquiring foreign exchange at the official rate to purchase approved imports. Because of the premia that swap market rates fetch over the official exchange rate, the right to retain foreign exchange has constituted an important financial inducement for beneficiary enterprises.

The original retention rates, or the proportion of its foreign exchange earnings that enterprises can retain as their quota, were relatively low. In 1984/85, local authorities and enterprises retained rights to only 25 percent of their planned export earnings while the remaining 75 percent went to the central authorities. Over time, the government has adapted the foreign exchange retention system to further its industrial policy objectives. Beginning in early 1988, corporations trading in priority sectors—light industries, arts and crafts, clothing, machinery, and electrical products ^{5/}—were permitted to retain considerably higher proportions (between 70 and 100 percent) of foreign exchange retention quotas in order to give greater incentives to those sectors.⁹ A higher rate of retention was also allowed on foreign exchange earnings above planned targets.^{6/} Likewise, special higher retention rates applied to certain provinces such as Guangdong and Fujian, several of the autonomous regions populated by minority peoples, and the SEZs, the latter enjoying retention rates of up to 100 percent.

Although the specific arrangements varied from locality to locality and depended on the type of good involved, retained foreign exchange was in general split evenly between the FTC handling an export transaction and the firm producing the good. In the case of general commodities exported from ordinary provinces, for example, of the 25 percent of foreign exchange earnings that could be retained, 12.5 percent would normally go to the FTCs and the remaining 12.5 percent to the producing enterprise.¹⁰

Several important modifications were made to the retention scheme in 1991. First, the retention system, as it had evolved, had given rise to considerable distortions and provided an unfair competitive advantage to some coastal provinces. Thus, in February 1991, a uniform retention rate was set throughout the country.^{7/} For general commodities,^{8/} this rate

^{4/} The full amount of the foreign exchange receipts was required to be surrendered to the state at the official rate by exporters.

^{5/} In the case of light industry, arts and crafts, and clothing this provision seems to have been a *quid pro quo* for them having taken on responsibility for their own profits and losses.

^{6/} These disappeared in 1991, with the elimination of the mandatory export plan.

^{7/} Tibet, the only exception, was allowed to retain a 100 percent retention quota for its modest exports.

^{8/} For commodities such as crude oil and petroleum derivatives which are in effect monopolies of the State, retention rates are set very low (less than 5 percent).

was set at 80 percent. Of the 80 percent, 10 percent accrues to local government, 10 percent to the producing enterprises and the remaining 60 percent to the foreign trade corporation.^{9/}

Second, special rates for certain sectors were retained and adjusted upwards. For machinery and electronics products, the retention rate is now 100 percent of which 10 percent accrues to the producing enterprises and 90 percent to the foreign trade corporation. FIEs and joint ventures can still retain 100 percent of their export earnings in foreign currency accounts in resident banks. The retained share of new foreign exchange earned in processing activities was pegged at 90 percent, up significantly from the 30 percent rate prevailing in 1985.

Third, although retention ratios were raised across the board, the central government ensured access to foreign exchange sufficient to meet its own requirements by reserving the right to purchase, albeit at the prevailing FEAC rate, an additional 30 percent of the foreign exchange initially retained—20 additional percent points from the FTCs and 10 from export producers. All indications are that the center fully exercised this option in 1991. In effect, therefore, 50 percent of the overall foreign exchange earnings of the local authorities and enterprises was still appropriated by the central government, and producers of export goods were left with no retained foreign exchange (Table 2.2) with which to directly buy nonplan imports. If a firm producing export goods wanted to purchase imports outside the plan it had to seek access to the FEACs in order to do so.^{10/}

Finally, the authorities have started experimenting with a cash retention system on a limited scale in several centers around the country. In such a system, the enterprise would only be required to surrender a portion of their foreign exchange earnings to the SAEC and would be allowed to keep a portion of their foreign exchange earnings in resident bank accounts.

Foreign Exchange Markets

As early as 1980, in some localities, companies with excess retained foreign exchange were allowed to sell it to other firms who sought access to foreign exchange to purchase imports outside the plan. Initially the volume of transactions in these local secondary foreign exchange markets was limited, perhaps in part because the state sought to constrain the price at which these swaps occurred to the official exchange rate which highly overvalued the domestic currency. More regularized markets formally opened in several cities in 1985. However, following a rundown in its foreign exchange reserves in 1984, the central government effectively froze the cumulative foreign exchange retention rights of exporters and used the underlying foreign exchange to finance its own imports. As a result, the volume of transactions on the swap market was limited, and the major participants were FIEs which from the outset had been allowed to retain one hundred percent of their foreign exchange earnings from exporting.

^{9/} In the case of those selected producing enterprises which have been granted direct trading rights (i.e., not required to deal through FTCs), the share of the foreign trade corporations accrues to the producing enterprises. This also applies to producing enterprises which export under the agency system.

^{10/} All of the foreign exchange sold to the State is eventually credited to the state reserves at the People's Bank of China (PBC), although large amounts are in transit on the books of the Bank of China (BOC) (the amounts in transit on the books of the specialized banks are aggregated in the PBC data).

Table 2.2: FOREIGN EXCHANGE RETENTION RATES, 1991

Category	Percent to central government	Of which market rate	Percent retained ^{/a}	Of which
I. General commodities	50	30	50	8 provincial govt 2 municipal/local 40 foreign trade co
II. Machinery & electronic products and science and technology products	30	30	70	5 provincial govt 65 foreign trade co
III. Petroleum (including crude oil and refined petroleum products)				
Unified plan amounts	96	0	4.0	2.7 local govt 1.3 Sinochem
Over plan amounts	30	30	70	
IV. Fees from processing contracts	10	0	90	10 provincial govt 45 foreign trade co 35 enterprise

^{/a} The distribution of retentions is that prevailing after the central government exercises the right to purchase, at the swap market rate, some of the initial distributions of retained foreign exchange.

The 1988 reform linked expanded foreign exchange retention rights with a liberalized foreign exchange market. Liberalization of the FEACs was assured by several measures. First, quota controls on the utilization of retained foreign exchange, which had been imposed by the central government in 1985, were abolished beginning in 1988. Second, the number of authorized local foreign exchange markets increased. Each province, autonomous region and centrally administered city was authorized to establish at least one foreign exchange swap center within its territory. By end-December 1992, there were over 100 FEACs in operation. Third, a national foreign currency swap center was also to be established in Beijing to facilitate currency transactions between central government agencies and to facilitate transactions between local swap markets in different administrative jurisdictions. Finally, the swap markets were opened formally not only to foreign-invested enterprises but to state-owned and collectively owned enterprises as well. These reforms led to significant increases in the volume of foreign currency transactions on secondary markets. Volume rose from \$4.2 billion in 1987 to \$6.3 billion in 1988, \$8.6 billion in 1989, and then \$25 billion in 1992. However, inter-market transactions appear still to be restricted, leading to nonnegligible differentials in rates across markets in different parts of the country.

Criteria for Access to FEACs. Sales of foreign exchange at the swap rate have been virtually unrestricted since December 1991, when all domestic residents were allowed to start selling foreign exchange at the swap rate at designated branches of banks.^{11/} Sales of foreign exchange consist of sales of actual foreign exchange mainly by FIEs and of foreign exchange retention quotas by Chinese enterprises (the actual foreign exchange having been surrendered to the state).

By contrast, access to FEACs to purchase foreign exchange is subject to approval and is restricted mainly to enterprises which need foreign exchange either to service their foreign currency debt or to import goods which are not inconsistent with the industrial policy of the state. Purchases of actual foreign exchange are usually limited to sums needed by FIEs which, according to the terms of their contracts as approved by MOFERT, can be used for designated purposes including their own operating needs, debt repayment, and remittances.^{12/} Domestic enterprises, which are approved by MOFERT to import, can purchase retention quotas in the FEACs; the purchased quotas must be used within a six-month period to acquire foreign exchange from the state reserves at the prevailing official rate. SAEC authorization is dependent on conformity with the priority uses of foreign exchange as set out in current government regulations. The priority list (Annex 2.1) reflects plan objectives regarding key commodities, and it provides for favorable treatment for exporting activity as well as for the acquisition of advanced technology. On the other hand, requests for foreign exchange to finance imports of consumer durables, luxury goods or goods judged to be speculative in nature are not permitted.

Two points are essential to understanding the manner in which enterprises can have access to foreign exchange to conduct import operations outside the plan.^{13/} First, applications for foreign exchange are checked by the local MOFERT office, the Commission of Foreign Economic Relations and Trade (COFERT), for conformity with the purposes of the enterprise, as specified in its business license.^{14/} Enterprises are allowed to import products that are not subject to import licensing, provided that COFERT verifies that they are within the scope of the enterprise's business license. Second, every enterprise authorized in this manner has a foreign exchange budget (or quota) assigned to it by the local SAEC based upon its export targets and expected demand for imports, debt service, and remittances. Each application for foreign exchange is also checked against the enterprise's foreign exchange quota before access to the FEAC is approved. Only after the documentation of the applicant is checked and an import license is obtained, where required, are buy orders processed or the applicant allowed to trade in the swap market. For applicants with retention quotas, the procedures are simpler, since only verification of the enterprise's foreign exchange retention quota is required.

^{11/} In at least one local branch of the Bank of China, the rate at which domestic residents can sell their foreign exchange was fixed by the bank at about 3½ percent below the rate prevailing in the local swap center.

^{12/} Also individuals are allowed to purchase foreign exchange for foreign travel and foreign language examination fees.

^{13/} See Annex 2.2 for more detail on the operation of FEACs.

^{14/} In establishing an enterprise, its basic license sets out its purposes and stipulates if it is allowed to import to carry out its activities which would be clearly specified. MOFERT approval of this license (or a contract with a foreign-invested enterprise) is required. Authorization of the ministry responsible for that activity is also required.

These guidelines on access do not appear to have inhibited the development of the market in foreign exchange.¹¹ It was noted earlier that transactions volume jumped more than 25 percent in 1992 to reach \$25 billion. Equally significant, interregional transactions expanded even more rapidly and exceeded \$6 billion, resulting in greater competition among exporters of general commodities in different regions, and thereby in a reduction in the spread among various regional markets in the price of foreign exchange. However, it is clear that the regulations on market access did lead to pent-up demand for many of the products for which foreign exchange could not be purchased legally.^{15/} This was evident not so much in an active black market for foreign exchange as in rampant smuggling from Hong Kong to Guangdong of a variety of consumer goods including automobiles, motorcycles, household electronic appliances, cigarettes and liquor. Estimates of the magnitude of smuggling are necessarily unreliable. But it appears that most transactions involving smuggled goods, at least at what might be called the wholesale level, are carried out in Hong Kong dollars. By the early 1990s, an estimated fifth of the total value of Hong Kong currency and coins outstanding was believed to be in circulation over the border in South China.

C. BROAD IMPACT OF RECENT DEVELOPMENTS

Impact of Developments in the Exchange Rate Regime

Impact on Exports. In a dual exchange rate system such as China's, the effective exchange rate received by exporters is a weighted average of the official and swap market rates, the weights being determined by the size of the foreign exchange retention ratio.^{16/} Overvaluation of the official exchange rate is equivalent to imposing a tax on exporters in the amount of the difference between the swap market rate and the effective exchange rate received by exporters (see Annex 2.3 for analytical explanation). Figure 2.1 illustrates how wide the gap between the secondary and the official rates had become in the 1988 to 1989 period—in the fourth quarter of 1988, for example, the secondary market rate was 79 percent above the official rate and the implied tax exports at the time was at a peak of 33 percent (Table

^{15/} In response to a deteriorating trade balance, the authorities began tightening up administrative measures to regulate swap market activity in February 1993. In particular, attempts were made to enforce price ceilings by severely restricting access to swap markets. As a result, trade volumes in swap markets fell off and the black market became more effective. These price ceilings were, however, removed on June 1, 1993.

^{16/} The effective exchange rate facing an exporter is determined by a weighted average of the official and swap rate as follows:

$$r * \text{eswap} + (1-r) * \text{eoff},$$

where "r" is the retention ratio, "eswap" the swap center rate and eoff the official exchange rate. If the marginal retention is higher—as was the case for many exporters—then the marginal exchange rate facing the exporter is correspondingly higher. Prior to 1991, FTCs and direct exporters of most products had to surrender more than 75 percent of their foreign exchange earnings, all valued at the official exchange rate, to the central government and provincial authorities. Since 1991, not only are these same exporters able to retain a higher share of foreign exchange, but they also get compensated at the higher FEAC rate for a good part of the foreign exchange that they are required to surrender to the central government. In effect, 80 percent of the export earnings of local enterprises is now valued at the FEAC market rate, even though a substantial portion of these (30 percentage points) is surrendered to the central government and does not explicitly go through the secondary market. See Annex 2.3 for details.

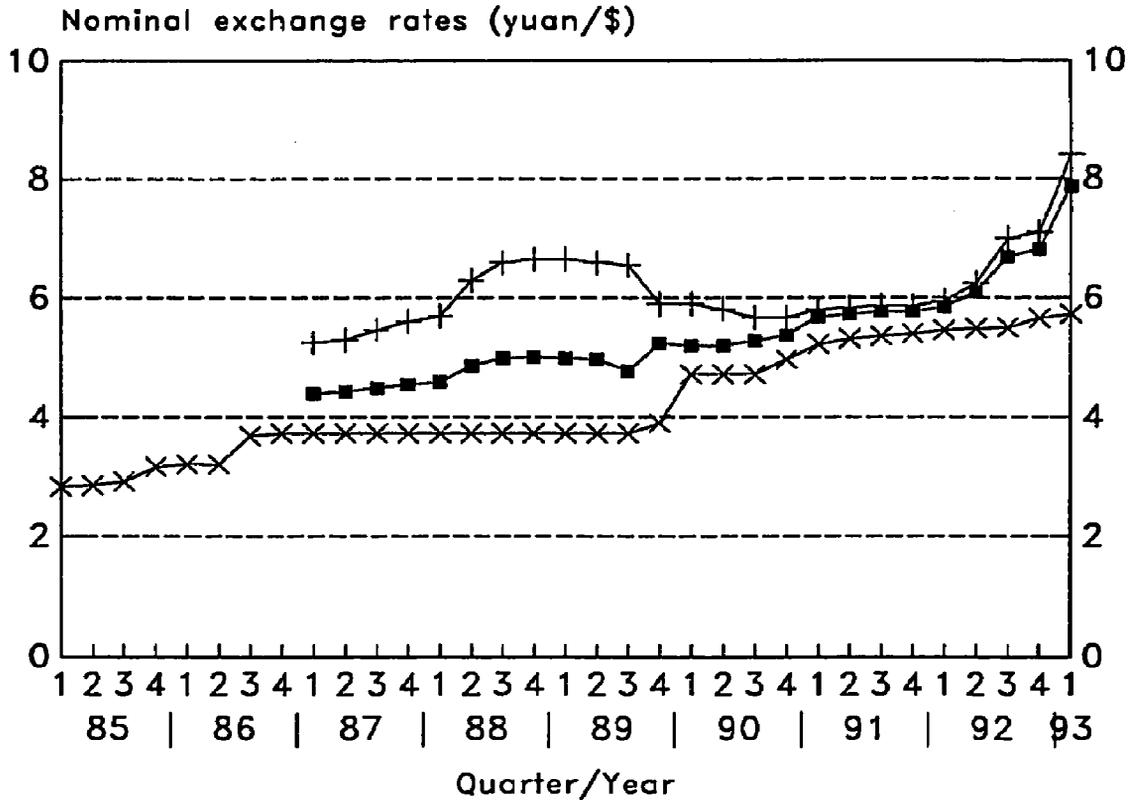
**Table 2.3: EXCHANGE RATE AND TRADE TAX RELATIONSHIPS
UNDER CHINA'S EXCHANGE RATE SYSTEM**

Year-quarter	Official exchange rate (Yuan/\$)	Secondary market rate (Yuan/\$)	Implied export tax (%)	Weighted exchange rate for exports (Yuan/\$)
1987-I	3.72	5.25	20	4.39
1987-II	3.72	5.3	20	4.42
1987-III	3.72	5.46	22	4.49
1987-IV	3.72	5.61	23	4.55
1988-I	3.72	5.7	24	4.59
1988-II	3.72	6.3	30	4.86
1988-III	3.72	6.6	32	4.99
1988-IV	3.72	6.65	33	5.01
1989-I	3.72	6.65	33	5.01
1989-II	3.72	6.6	32	4.99
1989-III	3.72	6.55	32	4.97
1989-IV	3.89	5.9	24	4.77
1990-I	4.72	5.91	13	5.24
1990-II	4.72	5.81	12	5.20
1990-III	4.72	5.8	12	5.20
1990-IV	4.97	5.7	8	5.29
1991-I	5.22	5.8	2	5.68
1991-II	5.31	5.84	2	5.73
1991-III	5.36	5.87	2	5.77
1991-IV	5.39	5.87	2	5.77
1992-I	5.46	5.95	2	5.85
1992-II	5.50	6.25	2	6.10
1992-III	5.50	7.0	4	6.70
1992-IV	5.66	7.11	4	6.82

Source: IMF and Staff estimates.

2.3). During the same period the real effective (official and swap) exchange rates also saw a significant appreciation (see Figure 2.2). Under these difficult circumstances, the foreign exchange retention system appears to have provided critical relief to exporters. Figure 2.3 suggests that the effective exchange rate to exporters successfully insulated export performance from the overvaluation of the official exchange rate. Indeed, exports have followed very closely the trend in the weighted average exchange rate since 1987. Thus, access of exporters to a more depreciated swap market rate has helped preserve the profitability of exporting. Moreover, it is probable that the availability of foreign exchange has also been enhanced from a reduction in the incidence of boarding as exporters have been more willing to sell their retention quotas and foreign exchange at the more depreciated swap rate.

Figure 2.1: TRENDS IN THE OFFICIAL AND SWAP MARKET EXCHANGE RATES



Source: IMF

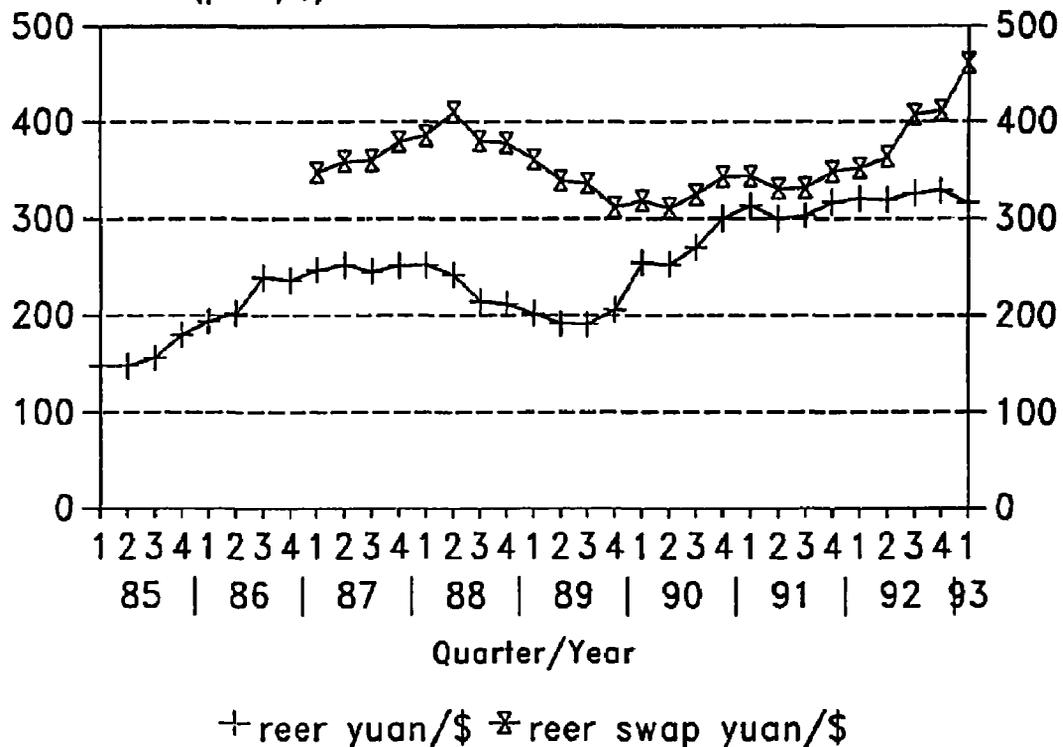
The series of devaluations of the official exchange rate starting in 1989 had a significant impact in reducing the burden on exporters of the overvaluation of the currency. The implied export tax due was brought down to 8 percent by the final quarter of 1990. However, the impact on exports of official devaluations was attenuated by the accompanying appreciation of the secondary market rate. The gap between the official and secondary rates narrowed as much due to the depreciation of the former as to the appreciation of the latter. An inevitable consequence of having introduced the retention scheme for exporters has been to reduce the responsiveness of exports to the official exchange rate.^{17/}

Impact on Imports. Unlike exports, imports can be divided into three categories. First there are the imports that qualify for the official exchange rate. These consist mainly of mandatory imports and imports for key investment project and their volume is determined to a large extent by administrative means and they are not responsive to changes in the swap market rate.

Second, there are the central government imports that are financed from the 30 percentage points of retained foreign exchange that are bought back by the central government from local enterprises. These imports, although *priced* at the swap market rate, are not financed

^{17/} In the extreme case of 100 percent retention, devaluation of the official rate would have no impact on exports (See Annex 2.3).

Figure 2.2: TRENDS IN REAL EFFECTIVE OFFICIAL AND SWAP MARKET RATES
REER (yuan/\$) Index 1980 = 100



Source: IMF

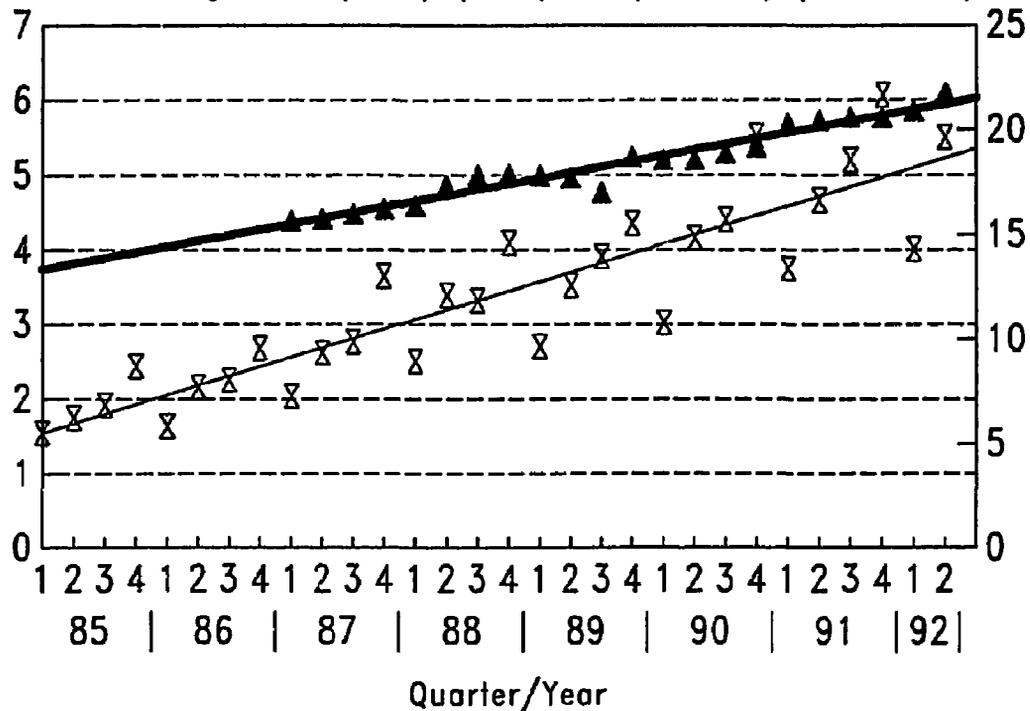
through it, and are unlikely to be responsive to relative prices, because they are driven primarily by plan targets and administrative requirements.

Finally, there are the nonplan, nonpriority project imports that are financed through the swap market. These are all valued at the secondary market rate, and are the most responsive to changes in the relative price of foreign exchange. It is estimated that such imports accounted for 50 percent of total imports in 1991.^{18/}

Under this situation, the more depreciated swap market rate has, by increasing their price, helped to curtail the demand for at least 50 percent of total imports, i.e., the imports purchased through the swap market. Without the FEACs, the demand for such imports would have been much stronger, while the availability of foreign exchange would have been less. For the remaining imports, the requirements of the investment plan are still the primary driving force determining demand. Pricing at least a part of central government imports at the swap rate is a step in the right direction, but as long as there is no discipline imposed on the government's

^{18/} Estimated as a residual on the basis that (a) about 20 percent of imports are subject to the mandatory plan; and (b) the percentage of imports comprising inputs for priority projects is 30 percent, i.e., has remained roughly the same as in 1986 and is financed in part from the 30 percentage points of foreign exchange retained by enterprises (equivalent to roughly 35 percent of imports) that is bought back by the central government at the swap rate, and in part from the government's holding of foreign exchange from the sale of invisibles and from foreign loan proceeds, each valued at the official exchange rate.

Figure 2.3: THE WEIGHTED AVERAGE EXCHANGE RATE AND EXPORTS
 Wtd. Average Rate (Yuan/\$) Exports (\$billions) (Thousands)



▲ Wtd. Rate for Export ✕ Exports

Source: IMF, BESD

own import requirements, the secondary market will have only a limited effect on import demand.

Overvaluation of the official exchange rate has had the impact of favoring planned versus above-plan imports by making the former relatively cheaper. This has only accentuated the problem of insufficient discipline on administratively driven import demand. Moreover, the presence of the FEACs has made the implications for overall import demand of a depreciation of the official rate more ambiguous. Depreciation of the official rate has, as noted earlier, been accompanied by an appreciation of the swap rate. The latter has lowered the price of imports purchased in the FEACs and has thereby increased the demand for nonplan imports, and although the former has raised the cost of planned imports, it is unlikely to have lowered demand. Under the circumstances, it has been difficult for the central government to resist turning to administrative controls as a means of managing import demand, an unsatisfactory outcome from the point of view of the import regime (Chapter 3).

Impact of Reforms in Trade Planning

The effectiveness of the exchange rate in influencing the trade balance is dependent on its ability to affect the domestic price of export and import products. The link between international and domestic prices of imported goods has become stronger over the years

because of the declining share of mandatory and priority imports and the increasing share of imports conducted through the agency system.

Unlike imports, the agency system has not taken hold as strongly in the export sector and the link between domestic and international prices is still intermediated by the FTCs. In principle, there could still be a strong linkage between international and domestic prices if FTCs are competitive and profit maximizing agents who are responsible for their own profits and losses. However, until the trade reform in 1991, FTCs were able to receive subsidies from the state to cover losses sustained on certain exports. As a result, many FTCs were relatively insensitive to the relation between the export price and the price at which they purchased those products from domestic producers. In 1991, export subsidies were abolished and FTCs were made responsible for their profits and losses; as a result, it appears that there is increased competition among FTCs, particularly at the local and provincial level. They no longer have fixed relations with an unchanging group of production enterprises. Many of them buy a significant share (up to 30 percent) of the goods they sell on international markets from producers located outside the province in which they primarily operate. All this has meant that the links between international and domestic price of export products have become stronger as FTCs have become pressured into offering better prices to export suppliers.^{19/}

D. REMAINING PROBLEMS AND RECOMMENDATIONS FOR FUTURE REFORM

As much as the reforms initiated in 1988 and 1991 have improved China's trade and exchange planning system, they have fallen short in certain critical respects. Certainly, reforms can and should go further. More importantly, however, is the fact that the latest round of reforms has created special problems of transition of its own. These need to be addressed immediately.

Export Planning and the Foreign Trade Contract

While it may be true that mandatory export planning no longer exists, it must be recognized that such planning has essentially been replaced by the foreign trade contract system, which has the effect of holding local authorities and FTCs to what are in effect mandatory export targets.

Foreign trade contracts, although supposedly fixed on a "bottom-up" basis, take on a compulsory quality for several reasons. First, the State Council document spelling out the provisions of the 1988 foreign trade reform states categorically that the value targets negotiated in the contract for exports and the amount of foreign exchange to be remanded to the center are mandatory.^{20/} There has been no official pronouncement to the contrary and provincial officials responsible for trade still clearly see targets in the post-1991 reform contracts as mandatory. Second, fulfillment of the targets in the contract is a precondition for awarding bonuses to officials responsible for carrying out the export plan. Each province's contractually determined targets are in turn disaggregated and assigned to various provincial trading companies. These targets too are treated as mandatory and the personnel of these firms are not eligible for wage

^{19/} In some cases, however, FTCs are still able to command monopsony power (see Chapter 6).

^{20/} Until 1991, the amount of losses on export transactions that would be covered by a central government subsidy was also fixed in the contract.

bonuses unless all export targets have been fulfilled. Third, rebates for domestic taxes levied on export goods, introduced in 1990 as an automatic benefit for exporters, have now been linked to fulfilling targets for exports and the delivery of foreign exchange to the central authorities.

The compulsory nature of these export value targets is of itself not so problematic. The problem arises because these targets have to be met by FTCs that are not entirely free to choose what goods they can export, and are no longer eligible for subsidies to cover their loss making exports. As a result, FTCs cannot pay sufficient attention to profitability and at the same time meet their obligations under the foreign exchange contract. Some evidence suggests that the incidence of bad bank loans to FTCs may have gone up sharply since the contract responsibility system was introduced and subsidy payments began to be phased out in 1988 (Table 6.1). If no changes are made to the rules by which FTCs operate, their losses are likely to build up and infect the portfolio of the banks, much like those of state-owned enterprises, many of which appear to survive because of the soft-budget constraint that recourse to the banking sector provides them.

Under present circumstances, FTCs cannot be expected to take full responsibility for their own profits and losses. The elimination of direct subsidies seems merely to have transferred the burden of supporting FTCs from the government budget to the banking sector. In order to address this problem, the authorities need to take the reforms of the export planning system to their logical conclusion at the soonest possible. The trade contract responsibility system should be abolished and FTCs should be allowed to work towards maximizing profits rather than foreign exchange earnings. Linking FTC bonuses to profits instead of foreign exchange targets would motivate FTCs to market only profitable exports, thereby generating export earnings for the country without concomitant domestic currency losses. Such measures, however, will not be effective without further institutional reform of the FTCs themselves. FTCs need to become truly independent profit centers. In effect, they need to be granted greater management autonomy along lines similar to the July 1992 "Regulations for Transforming the Operating Mechanism of State-Owned Enterprises."^{21/} In particular, they must as a first step be given the freedom to choose the products they deal with.

Import Planning ^{22/}

Although the size of the mandatory import plan has shrunk, administrative control over imports has not declined to a significant degree. A large proportion of nonmandatory plan imports continues to be subject to control through tight control of foreign exchange allocations. All imports of inputs for priority projects come under this category. These still account for an estimated 30 percent of imports over and above those under the

^{21/} These regulations are intended to protect, through law, the autonomous rights of SOEs in 14 key areas. These management rights are: (a) production management and decision-making powers, (b) the right to decide prices, (c) the right to sell products, (d) the right to purchase goods and materials, (e) import and export rights, (f) the right to make investment decisions, (g) the right to determine application of reserve funds, (h) the right to dispose of assets, (i) the right to operate joint ventures or undertake mergers, (j) the right to hire workers, (k) the right to determine personnel management, (l) the right to determine distribution of wages and bonuses, (m) the right to decide the organization of internal units, and (n) the right to refuse proration (demand for resources from government departments).

^{22/} The question of import licensing is tackled in Chapters 3, 4 and 5.

mandatory import plan. In addition, the imports that are procured on an agency basis and financed with foreign exchange bought in the FEACs, are controlled through the screening of access of purchasers to the FEACs and through the widespread use of discretionary import controls such as licenses.

The use of their right to buy back an additional 30 percentage points of retained foreign exchange from local enterprises in order to finance part of the import requirements for priority projects represents one of the several cases of "double planning" by the central government and is not necessary. Funding for key projects and for their associated imports is already allocated as part of the government's investment program and the state industrial policy. It is, therefore, inappropriate to go one step further and also administratively assign foreign exchange for the purpose of procuring these imports by having local enterprises surrender to the central government an additional 30 percent of their retained foreign exchange at the swap rate. This results in needless distortion of the foreign exchange allocation system in the country. It would be more logical for the concerned state-owned enterprises (SOEs) and government agencies to simply purchase the needed foreign exchange in the FEACs (directly, or through FTCs). Not only would this be less distortionary, but it would significantly increase the volume of transactions handled through the FEACs, and help reduce the risk of volatility that is often associated with thin markets. Over time, as mandatory imports are phased out, all administrative allocation of foreign exchange should be eliminated.

Exchange Rate Issues

The reforms introduced in 1991, which dramatically increased the share of foreign exchange transactions occurring at the market price, are clearly a step in the right direction. However, significant problems remain. The present system of retention quotas has several defects. First, the quotas are in effect monopolized by FTCs, with most local manufacturing enterprises being left with little or none of the foreign exchange they help generate (Table 2.2). To the extent that there is still insufficient competition between them, FTCs have been able to appropriate a disproportionate share of the benefits from exports, and have not fully passed these on to the manufacturing enterprises.

Second, since FTCs themselves do not have any direct import requirements, they have tended to hold onto retention quotas for speculative purposes. Hoarding of foreign exchange by FTCs has been facilitated by the fact that retention quotas held by exporters have no expiration date. The very rapid rise in the swap rate in early 1992 and again in 1993, was probably fueled in part by an artificial shortage of foreign exchange caused by potential sellers, especially FTCs, withholding their quotas in the expectation of further depreciation of the swap rate.

Third, and most importantly, the present system of trading predominantly in retention quotas instead of cash has meant that the People's Bank of China (PBC) has not been able to intervene in the foreign exchange market in order to stabilize a sometimes volatile rate. Moving to a system of cash retention would provide the authorities with an effective instrument for exchange rate stabilization.

As a transitional arrangement FEACs have served the economy well because they have provided flexibility to an otherwise rigid exchange and trade system. However, the FEACs have also resulted in a dual exchange rate system. Although only 20 percent of all foreign

exchange earnings are now handed over to the central government at the official exchange rate, the coverage of transactions at the official exchange rate is considerably wider, and includes debt service payments and all the central government imports that are financed from foreign loan proceeds, the draw down of reserves, or foreign exchange earnings from the exports of invisibles.

The economic significance of the dual exchange rate was perhaps marginal in most of 1991, when the differential between the two rates was well under ten percent on average. But as the gap between the two rates widened in 1992, and again in the first quarter of 1993, the distorting effect of the dual exchange rate has become more apparent again. By midyear 1992 the average rate of Y 6.3 per dollar meant a 15 percent premium over the official rate and in some regional markets the price had reached Y 6.8 per dollar, implying a premium of one quarter. Rates of over Y 8.5 were reported by end-March 1993. While the resulting implicit tax on exports is still low at about 7 percent, the widening gap has more important consequences for distortions on the import side for it accentuates the bias in favor of planned imports.

Although there has been an increase in the volume of transactions between different FEACs, intermarket differentials in swap market rates remain. In March 1993, for example, swap market rates across the country ranged from between Y 8.0 to Y 8.5 to the dollar. This suggests that significant administrative barriers remain to interprovincial transactions in the market for foreign exchange. In fact, as pressure on foreign exchange resources mounted in the first quarter of this year, local authorities became clearly more parochial, restricting access to the foreign exchange resources generated within their respective jurisdictions. This has proven to be a setback for the central government's efforts to create a nationwide unified market for foreign exchange, for it has the effect of selectively suppressing demand for foreign exchange and impeding the allocation of excess funds to where they may be needed most.

It is the stated objective of the authorities to unify the official and swap market exchange rates and eventually to make the renminbi a convertible currency. To achieve this, it would be necessary for the exchange rate to be set at a realistic level determined by supply and demand. The FEACs have contributed towards the realization of this objective by providing a market mechanism for determining the exchange rate and for allocating foreign exchange for a significant segment of the foreign exchange market. It would be desirable to widen the scope of this market as widely and as quickly as possible so that it covers virtually all current account transactions in the economy and becomes the equilibrium market exchange rate.

To meet this objective, the authorities are encouraged to adopt the following measures:

- (a) Effective immediately, all retention quotas should have an expiration date (say three months from the date they are created), with the possibility of an extension for certain valid reasons. This would reduce the incidence of hoarding of retention quotas for speculative purposes.
- (b) The system of retention quotas should itself be abolished as soon as possible and replaced with a system of cash retention that would allow enterprises to retain their foreign exchange earnings in resident bank accounts. This would provide

an important boost to exporters and foreign investors, while taking the foreign exchange regime a step closer to current account convertability. In addition, such a measure would enable the monetary authorities to intervene, should the need arise, in swap markets to maintain an orderly and stable market for foreign exchange.

- (c) Access to FEACs should be liberalized by eliminating all restrictions on entry to the swap centers.^{23/} In parallel, an integrated national swap market should be developed by abolishing all local restrictions on trading across different FEACs, i.e., enterprises should be able to trade in any FEAC without seeking prior permission from local SAEC authorities.^{24/}
- (d) The role of FEACs in the allocation of foreign exchange should be expanded by channeling an increasing proportion of all current account transactions through the swap markets, including nontrade transactions such as travel and other services and transactions relating to the foreign exchange requirements of the central government. This would involve the elimination of the existing requirement for exporters to provide 20 percent of their foreign exchange to the state at the official rate. Exporters should be allowed to receive retention quotas for 100 percent of their foreign exchange earnings,^{25/} and the authorities should purchase all their current account foreign exchange needs through the swap market, whether it is for imports of goods related to the mandatory plan or for priority state projects. This will eliminate a source of price distortion in the existing system and ensure that the domestic cost of foreign exchange is more accurately reflected in the costing of projects and the attendant decision to borrow abroad to finance some projects. In this regard, there is no reason why the central government's noncurrent transactions should continue to be priced at the official rate. The application of the swap market rate could be extended to these.
- (e) Administrative allocation of foreign exchange for priority investment projects through the foreign exchange plan should be eliminated and that for mandatory imports should be phased out. Only when SOEs and local authorities are faced with the prospect of accessing the swap market whenever they need foreign exchange will the overall demand for imports become more responsive to relative prices than to the administrative requirements of the plan. Such measures would enhance the role of market forces in the allocation of foreign exchange which would lead to more efficient use of foreign exchange.

^{23/} It appears that, effective June 1, 1993, the authorities relaxed restrictions imposed earlier during the year.

^{24/} One way to achieve this would be, as suggested by the Chinese authorities, to set up an electronic trading system linking all the FEACs.

^{25/} The authorities can still maintain a 100 percent surrender requirement of export earnings at an official rate. However, the official rate will become of little relevance from an economic standpoint, since virtually all transactions will be taking place at the swap rate.

Full implementation of the above measures would be tantamount to achieving unification of the exchange rates and convertability of the renminbi for current account transactions. Such limited convertability would strengthen the links between the monetary and the external sector and put a greater burden on monetary policy to play an effective role in influencing the balance of payments outcome.

Finally, as concerns the question of moving towards full convertability on the capital account, the experience of other countries suggests that a measured pace is advisable. Generalized opening of the capital account often leads to exchange rate instability. Without very effective sterilization it could undermine efforts to keep inflation under control at a time when the government is moving towards freeing up the current account. As such, the prudent course of action would be to leave liberalization of the capital account till after important remaining structural reforms, such as those relating to the import regime (Chapter 5), have been implemented.^{26/}

^{26/} What this implies is that although the system of cash retention could be generalized to all foreign exchange earnings, restrictions on where this cash can be held would need to remain in place.

Endnotes

1. World Bank (1987a).
2. These losses arose from domestic price distortions, not a disequilibrium exchange rate. Thus, a devaluation would not have necessarily led to a reduction of domestic currency losses on trade transactions. Given the traditional procedures used to price traded goods on the domestic market, currency devaluation would have reduced losses traders incurred on exports, but increased those incurred on import transactions. Partially offsetting these losses were profits that FTCs incurred when they were able to purchase certain goods, such as crude oil, that were underpriced on the domestic market for resale on the international market. Similarly, they could earn domestic currency profits from the sale of imported goods when the domestic price level for the goods was set relatively high.
3. World Bank (1990b).
4. Lardy (1992).
5. Domestic farmgate prices of food grains and edible vegetable oilseeds were raised significantly after 1978. But the retail prices of wheat flour, rice, and edible vegetable oils sold to the urban population through the rationing system remained fixed at close to the prices the state had set in the mid-1950s. Inevitably financial losses on these transactions rose steadily. The state incurred losses as well on the grain it imported for resale to the urban population since the price of grain products sold through the rationing system was identical regardless of whether the product originated domestically or was imported.
6. GATT (1991), p. 14.
7. However, the coverage of Category I and II imports was considerably larger. Category I and II imports accounted for 32 percent of total imports and so included a good proportion of imports not subject to mandatory planning. (See Chapter 3).
8. The foreign exchange retention quotas are noninterest bearing quota accounts held at the SAEC or its local offices. A retention quota constitutes a right to purchase foreign exchange in the future for renminbi at the prevailing official exchange rate. They determine the amount of foreign exchange each enterprise is entitled to obtain from the state at the official rate and are denominated in US dollars. Retention quotas are transferable among firms.
9. Exporters in the light industry, arts and crafts and garments sectors were allowed to retain a relatively high 70 percent of their foreign exchange earnings; only 30 percent was remitted to the central government. Because retained foreign exchange could be sold in the secondary or so-called swap market where the exchange rate in 1988 was at a two-thirds premium over the official rate, the favorable retention rate boosted domestic currency earnings from exporting. Foreign exchange retention in the machinery and electronic equipment sectors was more complex, reflecting both the heavy reliance of these sectors on imported components and parts and an explicit state policy of promoting exports of machinery and electronic equipment. Exporters of these goods were allowed

to retain the first 30 percent of their foreign exchange earnings to cover these imports. Then the remaining 70 percent was divided with half going to the central government and the other half to be retained and divided among the producing enterprise, the local government and the department responsible for supervising the enterprise. However, certain electronics and vehicle enterprise groups (not specifically identified) were allowed to retain all of the foreign exchange they earned in exporting. The state also allowed exporters of military products to retain 100 percent of their foreign exchange earnings.

10. In practice the arrangements appear to have been varied and complex with FTCs frequently agreeing to pay producers somewhat higher domestic currency prices than they otherwise would, but then retaining most or even all of the foreign exchange.
11. Some modifications were made in 1992. On the one hand, access to FEACs was liberalized somewhat, with Chinese enterprises and other organizations being allowed to purchase foreign exchange to finance trips abroad to attend exhibitions or carry out inspections. Authorized banks and nonbank financial institutions can also now purchase foreign exchange for use as working capital and management funds. On the other hand, strict controls were placed on the purchase of foreign exchange to import cotton and wool textiles, ethylene, polyester, sodium carbonate, sodium hydroxide, penicillin, vans, small trucks, photocopy machines, calculators, color television monitors and receivers, video cameras, microwave ovens, meridian tires, compact discs, compact disc players, video disc players and video discs.

III. CHINA'S SYSTEM OF FOREIGN TRADE CONTROLS: A QUANTITATIVE EVALUATION

The institutional features of China's trade regime are relatively well understood by now.¹ This chapter attempts to provide a detailed quantitative analysis of China's system of foreign trade controls, covering not only the tariff regime, but also the complex system of nontariff barriers to imports, and export taxes and controls.

A. OBJECTIVES AND INSTRUMENTS OF CHINA'S SYSTEM OF FOREIGN TRADE CONTROLS

Prior to 1978, China's trade system was highly centralized and its objective were pursued in a relatively nontransparent way through the decisions of planning and trade officials. The process of reform has involved the gradual development of instruments for indirect control and has resulted in a progressive restructuring of China's foreign trade system into one whose basic operation is more comparable to the foreign trade systems of developing market economies.

The desirable characteristics of any foreign trade regime depends heavily upon the objectives for which it is intended. China's system of foreign trade controls appear to have the following objectives:

- (a) stimulating national economic development and the growth of exports;
- (b) stimulating the upgrading of technology and the development of new industries through price incentives and foreign investment;
- (c) maintaining and developing particular industrial sectors which may not otherwise exist at China's current stage of development;
- (d) redistributing incomes by insulating the prices of goods "necessary for the peoples' livelihood" from world market prices;
- (e) improving China's terms of trade by restricting the export of particular goods; and
- (f) implementing international agreements such as the Multifiber Arrangement.

Some of these objectives are a legacy of the prereform foreign trade regime. However, as China's open-door policy has progressed, the objectives of trade policy have evolved from a focus on self sufficiency to one which reflects a greater appreciation of the role of trade in the process of growth and development.

Interestingly, despite the continuing pressures on the state budget, the role of the trade regime as a source of government revenues does not appear to be widely viewed within China as an important policy objective for the trade regime. Compared to most other developing countries, the contribution of tariffs to total central government revenues is small (less than 5 percent). Another significant omission from the stated objectives of trade policy is its potential use for domestic stabilization, although as in 1988/89, for example, it has sometimes been used for this purpose.

The policy instruments used to pursue China's policy objectives include the following:

- (a) import tariffs and export duties;
- (b) the foreign exchange regime;
- (c) the import plan and foreign exchange contracting; and
- (d) licensing, quotas, import/export canalization, and other quantitative controls on imports and exports.

Although there are four instruments, they cannot be used to achieve all the various objectives of China's trade regime simultaneously because, to a large degree, they each affect trade flows in the same way, i.e., by changing the domestic price of traded goods. In this situation, conflicts and overlap are inevitable. One example of conflict arising from the use of the existing set of instruments is the use of an import duty to raise the price of "luxury" consumer goods. While this discourages the consumption of luxury goods, it also stimulates the development of assembly industries which are high cost and import intensive, drawing resources away from competitive export industries and from the development of efficient, high technology production. In contrast, maintaining low prices for essential consumer goods through import subsidies or an overvalued exchange rate may inhibit the growth and upgrading of efficient local industries. A challenge of reform will be to rationalize and reorient the objectives of the trade regime, with some of the objectives being reassigned to other, more appropriate, policy instruments. For example, redistributing incomes is not an appropriate objective for the trade regime. Instead, trade policy will need to be used more effectively as an instrument for enhancing domestic efficiency.

B. TARIFFS

Tariff Structure

The broad structure of the present tariff system is similar to what it was in 1987. Based on the 1992 Harmonized System tariff schedule, the average unweighted tariff rate was 43 percent, up 5 percent from the corresponding average reported in 1986 and 4 percent above the UNCTAD estimate of the unweighted average tariff rate in 1987.^{1/} When weighted by the value of trade in each category (at world prices), the average tariff rate was 32 percent, approximately three percent above the 1987 UNCTAD estimate of 29 percent. The current tariff

^{1/} World Bank, 1988, p. 149, and UNCTAD, 1987, p. 77.

structure would be higher than computed if not for (a) the sizeable reductions in tariff levels on 225 tariff lines implemented on January 1, 1992,^{2/} and (b) the abolition, effective March 1992, of the Import Regulatory Duty. The latter, an import surcharge of between 20 and 80 percent, was introduced on fourteen product groups, including a range of textile products and elaborately transformed manufactures.^{2/} Until these measures were announced, the trend in the tariff schedule between 1986 and 1991 was clearly to increase the average rate of protection. However, taking account of these recent reductions, the weighted average tariff in 1992 was back to the same level as the 1987 tariff *inclusive* of the then still applicable Import Regulatory Duty.^{3/}

An indication of the structure of the tariff system is provided by the average rates of tariff protection presented by Harmonized System (HS) section and chapter in Tables 3.1 and 3.2, respectively. For comparison purposes, both the trade-weighted and the unweighted averages are presented.

Table 3.1 indicates that the trade weighted average tariff rate is in general lower than the unweighted average. This may reflect in part the substitution effect of higher tariffs on the composition of imports: higher tariffs on individual commodities reduce the demand for those goods and hence their trade share. Another possible cause of this difference might be the presence of "water in the tariff"; of situations where high tariff rates are applied on categories where there is no, or very little, trade. A look at the tariff structure at a more disaggregated level (Table 3.2) suggests that the latter may be the relevant explanation in the case of products categories such as food preparations, perfume and cleaning products, leather products and wood manufactures, the import shares of which are small or negligible. On the other hand, the former explanation seems the valid one for products with sizable import shares, such as office machinery, telecommunications equipment and electrical machinery

In order to examine the structure of protection implied by the tariff schedules it is useful to make the data on tariff rates comparable to production and trade data. Figures 3.1 to 3.3 plot China's trade weighted average tariffs by 2 digit SITC (Revision 2) categories, the share of each category in the 1990 gross value of the industrial output (GVIO) of all Chinese enterprises with independent accounting,^{4/} and its share in China's merchandise imports in 1990. First, within the broad category of food, beverages and tobacco products (Figure 3.1), the tariff escalates as the products become less essential and so represents a consumer focus. Essential foodstuffs (basically cereals and animal feedstuff, both still subject to mandatory planning) have the lowest tariff rates (under 10 percent). A cluster of nonessential foodstuffs, including dairy products, fish preparations, meat products, vegetables and fruit, coffee and tea, are subject to tariffs in the range of 20 to 50 percent. Finally, products considered least essential are subject to high tariffs, reaching punitive levels of over 140 percent in the case of tobacco products. Of

^{2/} GATT, 1992. These items account for 4.4 percent of China's total import tariff lines.

^{3/} With this surcharge included in addition to scheduled tariffs, the UNCTAD weighted average of total import charges in 1987 was 32 percent, the same as the present estimate for the 1992 tariff schedule. Since March 1992, further tariff cuts have been undertaken. In December 1992, tariffs on 3,371 tariff lines (mostly agricultural commodities and raw materials), bringing the average unweighted tariff down by 7 percent (see Chapter 5).

^{4/} These enterprises account for about 80 percent of China's total GVIO in 1990 (see Table A3.3).

**Table 3.1: AVERAGE TARIFF LEVELS BY BROAD HS CATEGORY
(Percent)**

Commodity	China's tariff regime by HS section		
	HS section	Unweighted average tariff rates	Trade weighted average tariff rates
Live animals and products	1	40	33
Vegetable products	2	44	24
Animal or vegetable fats & oils	3	36	28
Prepared foods	4	66	47
Mineral products	5	21	11
Chemicals	6	27	15
Plastics	7	36	32
Hides and leather	8	58	29
Wood and products	9	28	19
Pulp and paper	10	28	22
Textiles and textile products	11	73	61
Footwear	12	86	78
Articles of stone	13	47	33
Jewelry	14	-	-
Base metals	15	28	20
Machinery and electrical	16	32	28
Transport and motor vehicles	17	43	57
Precision instruments	18	38	36
Arms and ammunition	19	60	60
Miscellaneous and manufactures	20	67	74
Art and antiques	21	30	2
<u>Total</u>		<u>42.8</u>	<u>31.9</u>

Source: Customs Directorate and staff estimates. The weighted average tariff rates have been computed using tariff data provided by the Customs Directorate, aggregated up to the six-digit Harmonized System level, and weighted by corresponding import data for the first quarter of 1992, also provided by the Customs Directorate.

all food products, the only one that represents a substantial share of imports is cereals (4.8 percent) and this product group is also a significant contributor to domestic GVIO (2.8 percent). Of the others, the very high tariffs on beverages and tobacco, though apparently

Table 3.2: AVERAGE TARIFF LEVELS BY HS SECTION
(percent)

Description	HS section	Weighted	Unweighted
Live animals	01	0.0	0.0
Meat and edible meat	02	50.2	51.3
Fish and crustacean, mollusc and other invertebrate	03	30.9	33.6
Dairy products, eggs, honey	04	32.7	57.0
Products of animal origin	05	31.0	32.7
Live tree and other plant	06	58.1	52.4
Edible vegetables, roots and tubers	07	28.7	45.5
Edible fruits and nuts	08	44.4	56.3
Coffee, tea, mat	09	50.5	46.1
Cereals	10	3.0	3.0
Prod. mill indust.; malt; starches; insulin; wheat gluten	11	41.1	33.2
Oil seed, oleaginous fruits; miscell. grain, seed, etc.	12	33.9	33.6
Latex; gums, resins & other vegetable saps & extracts	13	30.1	41.2
Vegetable plaiting materials	14	25.2	38.2
Animal/veg. fats & oils & their cleavage products, etc.	15	27.8	35.7
Prep. of meat, fish or crustaceans, molluscs, etc.	16	70.0	70.0
Sugar and sugar confectionery	17	39.9	51.6
Cocoa and cocoa preparations	18	38.9	35.6
Prep. of cereal, flour, starch/milk products	19	60.0	60.0
Prep. of vegetables, fruits, nuts or other parts of plants	20	60.9	60.8
Miscellaneous edible preparations	21	77.9	72.1
Beverages, spirits and vinegar	22	88.2	118.0
Residues and waste from food industry	23	6.8	22.1
Tobacco and manufactured tobacco substitutes	24	143.4	116.7
Salt; sulphur; earth & stone; plastering mat; lime	25	21.8	29.2
Ores, slag and ash	26	0.9	8.4
Mineral fuels, oils and products of their distillation	27	13.2	21.1
Inorg. chem., compds of prec. met., radioact. elements	28	18.4	18.9
Pharmaceutical products	29	41.9	23.5
Fertilizers	31	5.0	5.4
Tanning/dyeing extracts; tannins & derivs; pigm., etc.	32	31.2	31.8
Essential oils and resinoids	33	98.7	96.6
Soap, organic surface-active agents, washing prep. etc.	34	35.3	49.6
Albuminoidal substances; modified starches; glues	35	64.8	39.8
Explosives, pyrotechnic products; matches; pyrop. alloy	36	55.5	65.7
Photographic or cinematographic goods	37	53.2	41.1
Miscellaneous chemical products	38	27.5	25.9
Plastic and articles thereof	39	32.8	37.7
Rubber and articles thereof	40	28.4	32.0
Raw hides and skins	41	24.1	26.5
Articles of leather	42	78.2	76.4
Fur skins and artificial fur	43	95.6	82.3
Wood and articles of wood	44	18.4	23.0
Cork and articles of cork	45	26.8	23.0
Manufactures of straw	46	74.2	74.0
Pulp of wood/of other fibrous cellulosic material; waste, etc.	47	2.0	2.0
Paper and paperboard; art of paper pulp, etc.	48	34.3	36.7
Printed books, newspaper	49	14.6	18.8

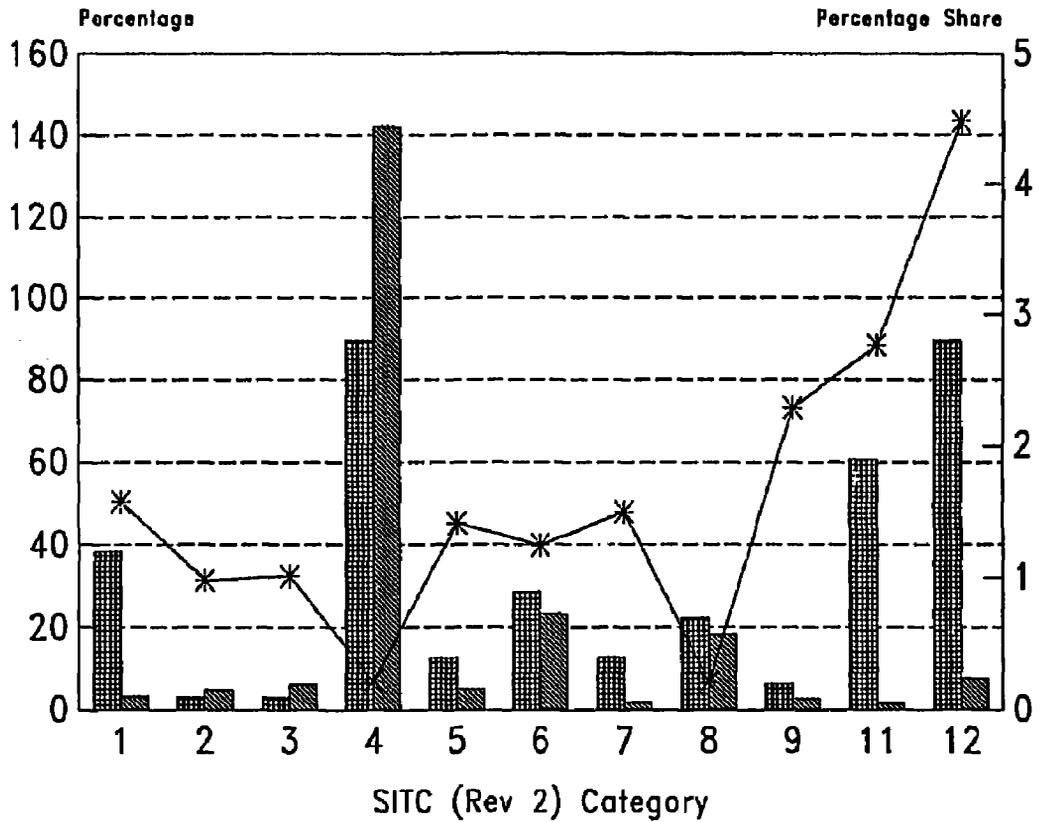
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Table 3.2: (cont'd)

Description	HS section	Weighted	Unweighted
Silk	50	59.0	61.4
Wool/fine coarse animal hair	51	24.2	57.0
Cotton	52	48.0	45.9
Other vegetable textile fibers; paper yarn & woven fab.	53	48.1	32.5
Man-made filaments	54	78.5	74.4
Man-made staple fibers	55	62.2	82.0
Wadding, felt and nonwoven; yarns, twine, cordage, etc.	56	61.1	64.1
Carpets and other textile floor coverings	57	85.7	93.3
Special woven fabric; tufted textile. fab; lace; tapestries	58	80.0	73.5
Impregnated, coated, cover/laminated textile fabric, etc.	59	49.7	49.2
Knitted or crocheted fabrics	60	50.0	50.0
Art. of apparel & clothing access, knitted/crocheted	61	93.9	90.8
Art. of apparel. & cloth. accessories, not knitted/crocheted	62	81.0	85.8
Other made up textile articles; sets; worn clothing, etc.	63	79.5	79.8
Footwear, gaiters and the like	64	70.4	78.5
Headgear and parts thereof	65	82.8	88.9
Umbrellas, walking-sticks, seat-sticks, whips, etc.	66	100.0	100.0
Prep. feathers & down; artif. flower; art. human hair	67	98.4	97.1
Articles of stone, plaster, cement, asbestos, mica	68	45.5	42.4
Ceramic products	69	30.1	53.1
Glass and glassware	70	30.8	48.6
Natural/cultured pearls, precious stones & metals, coin, etc.	71	45.5	45.8
Iron and steel	72	13.9	14.5
Articles of iron and steel	73	19.5	39.6
Copper and articles thereof	74	11.8	22.8
Nickel and articles thereof	75	12.2	11.3
Aluminum and articles thereof	76	25.7	28.8
Lead and articles thereof	78	23.1	24.0
Zinc and articles thereof	79	19.0	24.0
Tin and articles thereof	80	36.6	26.9
Other base metals	81	16.3	19.4
Tool, implement, cutlery, spoon & fork, of base met., etc.	82	29.8	36.0
Miscellaneous articles of base metal	83	57.3	54.6
Nuclear reactors, boilers, mchy. & mech. appliance; parts	84	25.5	27.4
Electrical machinery equip. parts thereof; sound recorder	85	30.6	40.1
Railw/tramw locom. rolling-stock & parts thereof, etc.	86	9.9	9.9
Vehicles o/t railw/tramw. roll stock, pts. & accessories	87	77.8	59.4
Aircraft; spacecraft and parts thereof	88	6.0	6.0
Ships, boats and floating structures	89	8.9	13.6
Optical, photo, cine, measurm., checking, precision, etc.	90	26.1	28.0
Clocks and watches and parts thereof	91	57.6	62.6
Musical instruments; parts and access. of such articles	92	58.6	54.2
Arms and ammunition; parts and accessories thereof	93	60.0	60.0
Furniture, bedding, mattress, mat support, cushion, etc.	94	63.4	71.5
Toys, games and sports requisites; parts and access. thereof	95	65.9	57.0
Miscellaneous manufactured articles	96	89.7	75.7
Works of art, collector's pieces and antiques	97	2.2	30.0

Source: Customs Directorate and staff estimates.

Figure 3.1: TARIFF STRUCTURE—FOOD, BEVERAGE AND TOBACCO



■ Share in Total GVIO * Weighted Tariff ■ Share in Imports

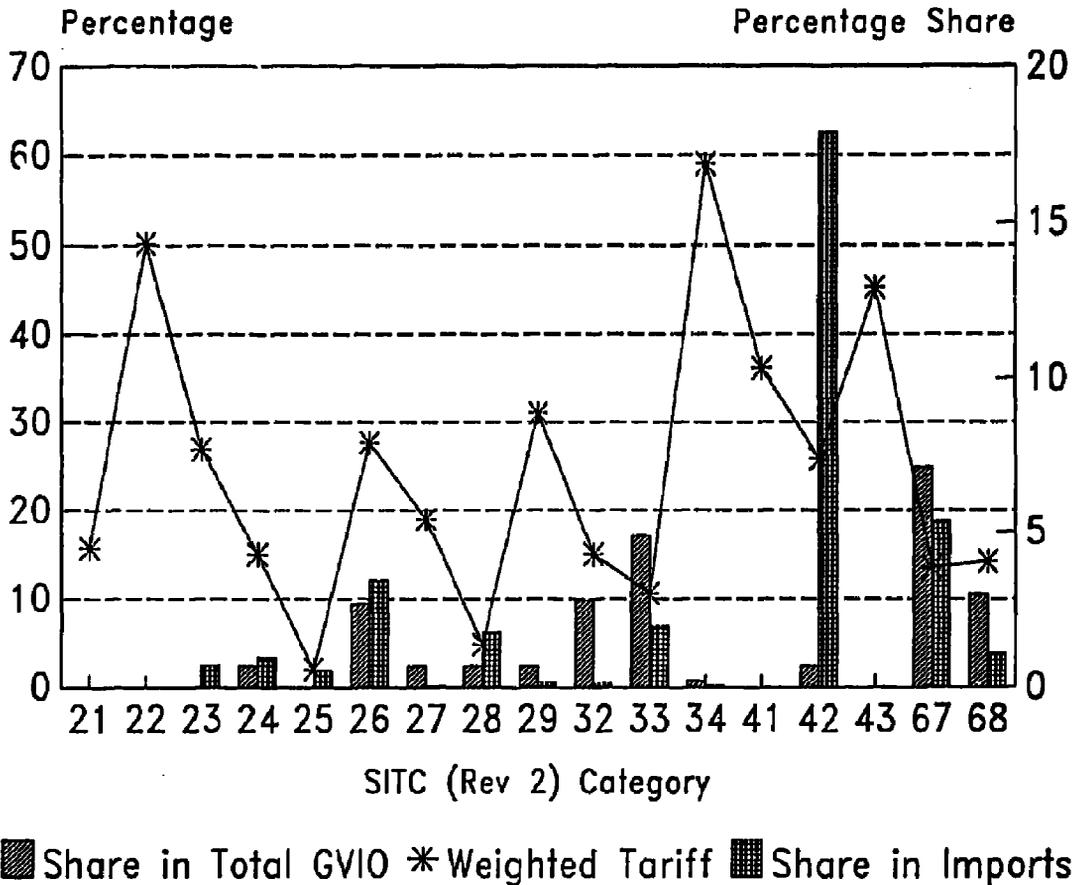
Year: 1990-92

designed to penalize consumers, also provide very substantial protection for local production of these sectors which together account for a good 4.7 percent of GVIO.

Raw materials (Figure 3.2), can be grouped into roughly two clusters. The first is comprised of materials that are subject to low tariffs (under 15 percent). All of these reflect plan priorities and are commodities whose domestic prices are kept artificially below international prices through export taxes and controls as in the case of coal, or through subsidies as in the case of importables such as metallic ores and wood pulp. For such products, the tariff level is clearly driven by the objectives of the plan, not the structure of incentives to domestic nonplan production. The second cluster is comprised of lower priority raw materials that are subject to rates of between 15 and 30 percent. Most of these are items such as edible oils that are not of the trade plan, but also include textile fibers (wool, cotton) and rubber, product groups that are still subject import planning. The rates on such raw materials are higher presumably to provide some protection to domestic production. This certainly appears to be the case for textile fibers that are subject to rates close to 30 percent and account for a nonnegligible share of GVIO.

Tariffs on manufactures appear to be constructed in a way that ensures that finished goods are more protected than upstream inputs (Figure 3.3). Thus, intermediate and

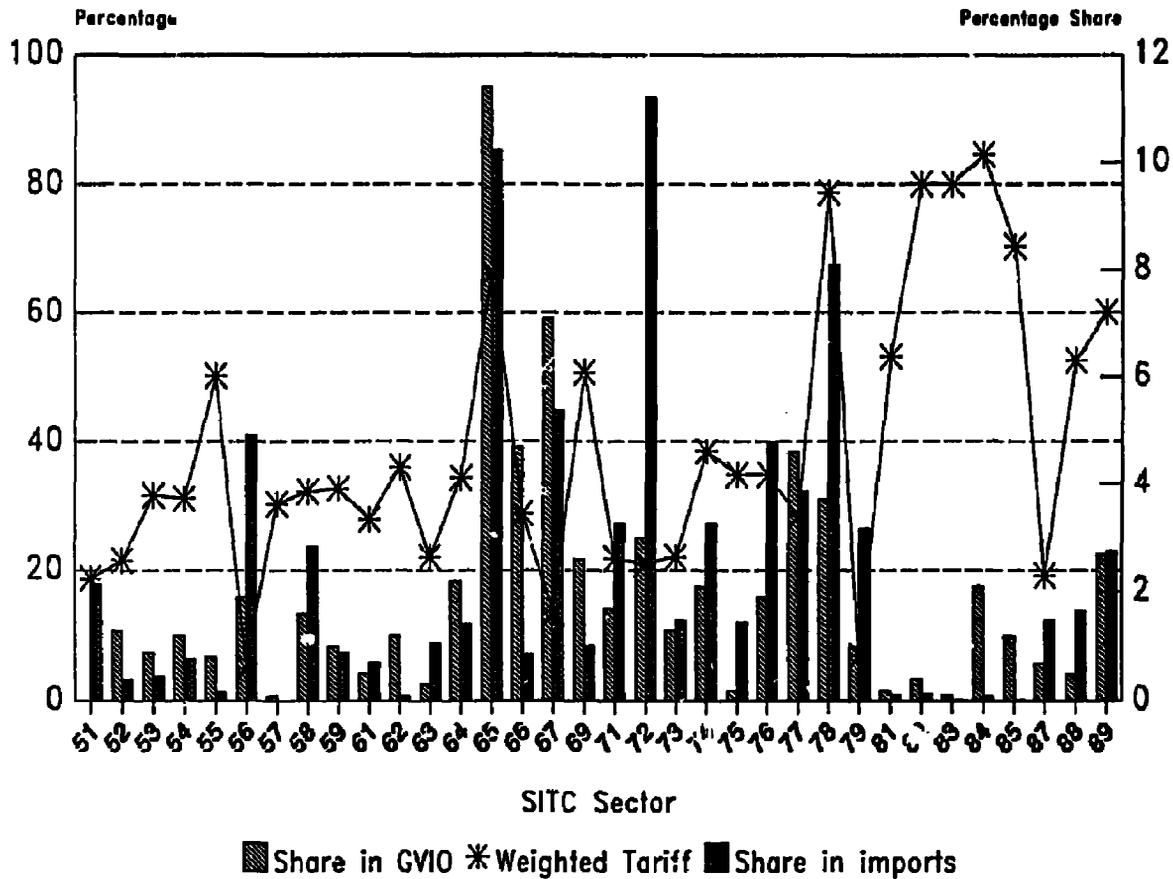
Figure 3.2: TARIFF STRUCTURE—RAW MATERIALS



Year: 1990-92

capital goods, which represent the heart of China's industrial and import structures, are mostly subject to rates between 20 and 40 percent, rates that are 5 to 15 percent higher than on most critical raw materials (petroleum, nonferrous metals and metallic ores). Rates on chemicals, wood manufactures and specialized industrial machinery, including power generating equipment, are closer to 20 percent. Those on products such as rubber manufactures, plastics and specialized and electrical machinery and telecommunications equipment are closer to 40 percent, suggesting that the interests of domestic producers are quite important in these sectors. Two intermediate product groups, namely iron and steel and chemical fertilizers, stand out as exceptions because their tariff structures do reflect more the interests of consumers than producers. Low tariffs are applied on each of these (15 percent for iron and steel and 5 percent for chemical fertilizers). Both products have, however, been subject to mandatory planning in the past and local enterprises in each sector have no doubt benefitted from subsidies through the planning system. On the other hand, two intermediate/capital goods stand out for the importance that is attached to protection for domestic production. These are textile yarns and fabrics (SITC 65) and road vehicles (SITC 78). Although these are both important inputs in to downstream manufacturing, they are subject to very high average tariffs of 66 and 79 percent, respectively. This is not altogether surprising given that these sectors together account for about 14 percent of GVIO. Textiles alone accounts for 11 percent of GVIO and is by far the single most important sector of Chinese industry.

Figure 3.3: TARIFF STRUCTURE—MANUFACTURES



Year: 1990-92

Rates on finished consumer products are markedly higher than even the highest rates on intermediate goods, ranging mostly over 60 percent, with products such as furniture, clothing, travel goods and footwear being subject to average rates that exceed 80 percent. Although these high rates are no doubt aimed to discourage consumers of nonessential imports (an objective that is largely met as evidenced by the negligible import shares of these products), they have the effect of providing margins of protection to domestic manufacturing activity that are disproportionately large in relation to the rather modest share of these sectors in GVIO.^{5/}

How do China's tariff rates compare with other developing countries? Table 3.3 shows that average tariff rates in China are relatively high by international standards. Using trade weighted measure, China's 1992 average rate was equal to Brazil's,^{6/} and was third highest amongst large countries after India and Pakistan. In terms of the number of individual tariff rates, China has a larger number than any other developing country except India, and almost

^{5/} The share of SITC 82 to 85 in total GVIO is less than 4 percent, and the share of all consumer goods (SITC 81 to 80+55) is 8 percent.

^{6/} Brazil has, however, recently embarked upon what is intended to be a far-reaching program of trade liberalization.

Table 3.3: THE TARIFF SYSTEMS OF CHINA AND OTHER LARGE DEVELOPING COUNTRIES

Country	Year	Unweighted mean (%)	Trade weighted mean (%)	No. of rates	Std deviation (%)	Duty collected value of imports (%)
Argentina	1987	21.8	17.1	37	24.3	16.1
Brazil	1987	47.8	31.9	34	17.1	6.9
China	1992	42.8	31.9	69	30.0	5.6
Colombia	1990	26.4	15.1	26	20.3	16.7
Egypt	1991	31.0	na	16	31.0	17.0
Hungary	1989	15.1	na	78	13.7	9.6
India	1986	99.6	54.8	13	50.1	51.2
Kenya	1987	40.0	na	22	21.5	15.6
Pakistan	1990	64.8	35.9	15	41.4	30.8
Philippines	-	27.9	na	8	15.1	15.6

Source: Pritchett and Sethi, World Bank, unpublished (1992).

twice as many as the country with the next largest number, Argentina. In terms of the standard deviation measure of tariff rate dispersion, only India and Pakistan had a wider dispersion of tariff rates, with China having a much higher standard deviation than Brazil despite the latter's similar average tariff rates. The relatively higher tariff rates on manufactured consumer goods in China mirror similar tariff structures in other developing countries (Table 3.4). Tariff rates on manufactured intermediate and capital goods, while lower in China than in otherwise comparable Brazil, and much lower than in India and Pakistan, are still high compared to such countries as Argentina, Egypt and Hungary.

Conclusions

After seeing a substantial increase over the last few years, China's weighted average tariff in 1992 was back to its pre-1987 level. On average, however, China's tariffs remain higher, more numerous and more dispersed than most other large developing countries, except India and Pakistan. The multiplicity of objectives seems to account for the high dispersion of China's tariff structure. On the one hand, the desire to protect sectors in which domestic production is significant has meant that tariffs on capital goods and intermediates are on the high side. In some cases, such as road vehicles and textile yarns, the rates are exceptionally high. Likewise, where the tariff is used to penalize nonessential consumption, as in the case of tobacco, beverages, and certain items of clothing, for example, rates are very

Table 3.4: THE COMMODITY PATTERN OF TARIFF SYSTEMS IN CHINA AND OTHER LARGE DEVELOPING COUNTRIES (UNWEIGHTED AVERAGE TARIFF RATES)

Country	Agriculture	Mining	Manufacturing		
			Consumer	Intermediate	Capital
Argentina	20.9	27.2	13.3	20.7	23.8
Brazil	38.7	21.8	66.0	39.4	47.9
China	35.0	20.0	65	29.0	28.0
Colombia	19.7	14.1	39.7	22.2	20.8
Egypt	22.0	14.0	50.3	22.8	19.2
Hungary	11.7	5.4	16.8	9.3	20.7
India	76.6	84.2	101.8	111.0	83.2
Pakistan	62.7	35.5	88.5	57.0	44.0
Philippines	32.5	13.0	38.3	23.1	21.7

high. This has kept import penetration in these sectors very low and has had unintended effect of providing high margins of protection to local production.

On the other hand, where the tariff has been used to complement the objectives of the plan tariffs have been very low and this has created an inherent bias against certain raw materials and intermediate inputs for which domestic prices have been kept artificially depressed.

C. TARIFF REVENUES AND EXEMPTIONS

A distinctive feature of China's tariff regime is its relatively minor contribution to revenue generation. Compared to most other developing countries, China's import duties account for a very small proportion of total central government revenues. In this respect, China is more like a developed country than a developing country. In 1991, China collected only 5.6 percent of the c.i.f. value of imports in duties. Of the other developing countries considered, only Brazil has a duty collection rate anything like as low as China (Table 3.3). In large part, it is China's extensive import duty exemptions and rebate system that accounts for such low collection rates. The characteristics and implications of this system are discussed below.

Administration and Revenue Raising: Implications of China's Import Duty System

A necessary condition for effectiveness of a system of duty exemptions and rebates is satisfactory design and administration. Systems which require the payment of import duties at the time of import and which allow a rebate at the time of export typically involve substantially more paperwork and impose higher costs on exporters than systems which provide exemptions or tariff reductions at the time of import. Even exemption systems, however, can impose substantial compliance and administration costs on export enterprises. Further, rigid administrative requirements can make even exemption schemes ineffective in stimulating trade.

The Chinese Customs Law provides relief from import duties primarily through the provision of exemptions and duty reductions allowed at the point of import (Customs General Administration 1988), rather than through refunds of duties paid or duty drawback systems. The exemptions and duty reductions are primarily allowed for export production although some limited additional exemptions are allowed for imports required for technical upgrading, and for special categories such as goods donated by international agencies and by overseas Chinese.

The administration of these exemption and duty reduction arrangements is relatively well developed. For imported goods used in the production of exports, a "Registration Carnet" for inward processing is completed at the time of importing and cancelled at the time the finished goods are exported.³ The relationship between inputs and outputs is defined according to specified coefficients and a small allowance is made for loss and wastage. Explicit provision is made for transferring products from the initial importer to another processing enterprise for further processing.⁴ The duty exemption and duty reduction arrangements appear to operate satisfactorily; the enterprises interviewed by the mission members generally expressed satisfaction with the operation of the current arrangements.

The major categories under which import duty exemptions are provided are:

- (a) Inward processing with supplied materials;
- (b) Inward processing with imported (purchased) materials;
- (c) Equipment imported by foreign-invested enterprises for investment;
- (d) Equipment for inward processing with supplied materials; and
- (e) Equipment for inward processing with imported materials.

In addition to the above, duty concessions of 50 percent are also provided for border trade and materials used by foreign funded enterprises in their production for the domestic market. These account for a negligible proportion of total duty concessions. Duty exemptions are also provided for compensation trade, but again, their share is not significant.

Details of the value of trade covered by each of these categories are given in Table 3.5. The table shows that concessional imports became much more important in China's total imports over recent years. The share of concessional imports rose from a third to a half in three years from 1988 to 1991. The increasing scale of import duty exemptions offered has led to a substantial reduction in the revenue collections from the tariff system. For comparison purposes, data on import values and the corresponding tariff revenues since the mid-1980s are presented in Table 3.6.

The tariff revenue collection rate has declined from 9.7 percent in 1986 to only 5.6 percent of the value of imports in 1991. However, this decline in import tariff revenues is considerably more rapid than the increase in the share of concessional imports in total imports as reported by the Customs Directorate. While concessional imports have risen to half of total imports, revenue collections have fallen to roughly one sixth of the revenues that might be expected given the tariff schedule and the structure of imports. This means that the customs data

Table 3.5: IMPORTS BY IMPORT DUTY CONCESSION CATEGORY
(\$ million)

National total	1988	1991
Processing with supplied materials	7,398	10,935
Processing with imported materials	6,348	14,091
Equipment imported with foreign investment	2,842	4,690
Equipment for proc. with supplied materials	-	900
Compensation trade	373	293
Border trade (50 percent concession)	289	314
Other concessional categories	2,015	937
<u>Total concessional imports</u>	<u>19,265</u>	<u>32,161</u>
Nonconcessional imports	36,003	31,630
<u>Total imports</u>	<u>55,268</u>	<u>63,791</u>
Concessional share of total imports (%)	34.8	50.4
Total "concessional" exports	14,661	33,428
<i>Special Economic Zones</i>		
Processing with supplied materials	1,432	1,504
Processing with imported materials	1,183	3,590
Equipment imported with foreign investment	373	1,130
All other concessional	76	151
Nonconcessional categories	2,602	3,688
Total imports	5,667	10,062
SEZ Share of total concessional imports (pct)	15.9	19.8
SEZ Share of "concessional" exports (percent)	18.1	18.8

Source: Customs Directorate.

on concessional imports cannot alone explain the low collection ratios.^{7/} It is likely that other imports, especially those used for priority projects, are also exempt. It is also possible that there are other forms of revenue leakage that are going unrecorded. Whatever the explanation,

^{7/} A collection ration of 5.6 percent represents only 17.5 percent of the trade weighted average tariff of 32 percent for 1991. What this indicates is that, if imports were just divided into two categories, one that pays all duties and the other that is totally exempt, 82.5 percent of 1991 imports should have entered the country completely duty free. Per Table 3.5, however, only 50.4 of 1991 imports were concessional. Thus the Customs data on concessional imports cannot alone explain the low collection ratio for that year.

Table 3.6: VALUE OF IMPORTS AND REVENUES FROM IMPORT DUTIES
(\$ billion)

Year	Import value	Total import duties	Regulatory duty component	Collection rate (%)
1986	42.904	4.183	1.83	9.7
1987	43.216	4.048	2.21	9.4
1988	55.268	4.174	1.46	7.6
1989	59.140	4.949	0.95	8.4
1990	53.345	3.354	0.55	6.3
1991	63.791	3.557	0.60	5.6

Source: Customs Directorate.

declining duty collection ratios is a matter for some concern to the extent that it is caused by an increase in exemptions on imports used for domestic consumption or in domestic production. The former is a sign of tariff evasion and the latter only serves to raise effective rates of protection to levels higher than they already are.

Impact of Exemptions on Exports and Economic Performance

The two most important categories of import duty exemptions have been those for materials used for export processing with supplied materials and export processing with imported materials (Table 3.6). Between 1988 and 1991, the importance of processing with imported materials, where the Chinese enterprise purchases imported inputs for processing into exports, increased to become the most important source of concessional imports. From this, it appears that Chinese enterprises took advantage of their greater experience in international trade and the reforms in the foreign exchange system which allowed them to increase their purchases of imported materials and to reduce their dependence on imported materials supplied by their trading partners. Import duty concessions for the import of machinery and equipment for outward processing also grew very rapidly, with imports under these two concessional categories doubling over the three year period covered by the table.

Access to concessional imports has been critical to the success of China's export drive. Total exports associated with concessional import arrangements doubled between 1988 and 1991, and now account for about 64 percent of China's manufacturing exports. As noted in Chapter 1, these exports have so far not generated high levels of domestic value added. The limited domestic content of China's fastest growing exports is in part due to the structure of the existing tariff regime. The present tariff structure allows relatively high cost production of intermediate inputs to continue for the domestic market. As a result, exporters tend to favor imported over domestic intermediate inputs. It appears, therefore, that attention must be devoted to restructuring the entire tariff structure itself if China wants to extend the benefits of its export drive to the rest of the domestic economy—import duty exemptions by themselves cannot help in this regard.

Table 3.7: COVERAGE OF NONTARIFF BARRIERS BY SECTOR AND TYPE (1992)

Line #	SITC 2 digit codes	<u>Nonoverlapping</u> <u>Individual basis</u>			<u>Nonoverlapping</u> <u>Individual basis</u>		
		Percentage shares based			Percentage shares based		
		on number of lines			on import shares of 1992 Q1		
		L+C+M+F+S	L+C	M+F+S	L+C+M+F+S	L+C	M+F+S
1	0	0.0	0.0	0.0	0.0	0.0	0.0
2	1	0.0	0.0	0.0	0.0	0.0	0.0
3	2	0.0	0.0	0.0	0.0	0.0	0.0
4	3	1.0	1.0	0.0	1.7	1.7	0.0
5	4	72.0	0.0	72.0	60.7	0.0	60.7
6	5	0.6	0.6	0.0	0.8	0.8	0.0
7	6	25.0	18.8	25.0	15.4	7.7	15.4
8	7	16.3	16.3	0.0	16.7	16.7	0.0
9	8	0.0	0.0	0.0	0.0	0.0	0.0
10	9	4.2	4.2	0.0	5.3	5.3	0.0
11	11	11.8	11.8	0.0	12.5	12.5	0.0
12	12	77.8	33.3	66.7	100.0	33.3	100.0
13	21	0.0	0.0	0.0	0.0	0.0	0.0
14	22	5.6	0.0	5.6	9.1	0.0	9.1
15	23	95.2	85.7	95.2	90.9	72.7	90.9
16	24	65.5	65.5	65.5	57.1	57.1	57.1
17	25	0.0	57.9	0.0	100.0	0.0	100.0
18	26	48.4	39.1	40.6	53.7	41.5	46.3
19	27	2.5	0.0	2.5	1.6	0.0	1.6
20	28	24.0	8.0	24.0	36.0	16.0	36.0
21	29	9.2	9.2	0.0	14.3	14.3	0.0
22	32	0.0	0.0	0.0	0.0	0.0	0.0
23	33	5.0	5.0	5.0	6.7	6.7	6.7
24	34	0.0	0.0	0.0	0.0	0.0	0.0
25	35	0.0	0.0	0.0	0.0	0.0	0.0
26	41	0.0	0.0	0.0	0.0	0.0	0.0
27	42	0.0	0.0	0.0	0.0	0.0	0.0
28	43	0.0	0.0	0.0	0.0	0.0	0.0
29	51	1.1	1.1	0.0	0.5	0.5	0.0
30	52	1.1	0.5	0.5	0.7	0.0	0.7
31	53	0.0	0.0	0.0	0.0	0.0	0.0
32	54	0.0	0.0	0.0	0.0	0.0	0.0
33	55	0.0	0.0	0.0	0.0	0.0	0.0
34	56	0.0	0.0	0.0	100.0	0.0	100.0
35	57	66.7	19.0	57.1	66.7	22.2	55.6
36	58	66.7	3.6	64.3	65.3	4.0	62.7
37	59	6.3	5.1	6.3	8.3	6.7	8.3
38	61	0.0	0.0	0.0	0.0	0.0	0.0
39	62	16.7	16.7	0.0	18.0	18.0	0.0
40	63	22.2	22.2	22.2	23.3	23.3	23.3
41	64	0.0	0.0	0.0	0.0	0.0	0.0
42	65	53.5	30.0	30.0	54.3	30.6	30.6
43	66	3.2	3.2	0.0	3.5	3.5	0.0
44	67	0.0	77.3	0.0	100.0	76.4	100.0
45	68	31.5	0.8	30.7	37.8	1.1	36.7
46	69	20.1	1.3	19.6	20.7	1.4	20.2

...continued

Table 3.7: (cont'd)

Line #	SITC 2 digit codes	Nonoverlapping			Individual basis		
		Percentage shares based on number of lines			Percentage shares based on import shares of 1992 Q1		
		L+C+M+F+S	L+C	M+F+S	L+C+M+F+S	L+C	M+F+S
47	71	19.1	14.7	5.9	23.4	17.0	8.5
48	72	22.7	22.7	0.0	24.7	24.7	0.0
49	73	14.9	14.9	0.0	14.7	14.7	0.0
50	74	20.7	20.7	0.0	22.1	22.1	0.0
51	75	42.4	42.4	0.0	39.3	39.3	0.0
52	76	40.0	40.0	4.0	42.6	42.6	4.3
53	77	12.0	12.0	1.0	12.2	12.2	1.1
54	78	49.3	49.3	0.0	41.8	41.8	0.0
55	79	14.8	14.8	0.0	4.6	4.6	0.0
56	81	0.0	0.0	0.0	0.0	0.0	0.0
57	82	0.0	0.0	0.0	0.0	0.0	0.0
58	83	0.0	0.0	0.0	0.0	0.0	0.0
59	84	7.5	7.5	0.0	8.7	8.7	0.0
60	85	0.0	0.0	0.0	0.0	0.0	0.0
61	87	26.7	26.7	0.0	27.2	27.2	0.0
62	88	14.5	14.5	0.0	15.9	15.9	0.0
63	89	0.4	0.4	0.0	0.5	0.5	0.0
64	94	0.0	0.0	0.0	0.0	0.0	0.0
65	95	11.1	11.1	0.0	0.0	0.0	0.0
66	96	0.0	0.0	0.0	0.0	0.0	0.0
67	97	0.0	0.0	0.0	0.0	0.0	0.0
Total /a		17.5	14.7	9.1	51.4	32.8	32.0

Note: (1) Total number of HS lines = 5016 ; Total value of imports (1992 first quarter) = \$12,018 million.

(2) L = Import License, C = Import Control, M = Mandatory Plan, F = First Category Imports, S = Second Category Imports.

/a Percentage of total number of HS lines or first quarter 1992 imports.

/b Of which the share of imports subject to just mandatory plan is 18.5 percent.

Source: Office of the United States Trade Representative (1992), and Staff estimates.

Conclusions

Although China's tariff structure is typical of most other large developing countries, the relatively small revenues that it generates resembles more the situation in developed countries. The small revenue contribution of China's tariffs endows it with much greater flexibility to restructure its tariffs than most other developing countries. Rapidly declining duty collection ratios are, nevertheless, cause for some concern to the extent that they are caused by (a) increasing evasion on products for domestic consumption, or (b) increasing exemptions on imports for use on domestic (as opposed to export) production. The bulk of duty exemptions in China have so far been related to exporting activity. In fact, duty exemptions on imported inputs have been critical to the success of China's export drive. The domestic content of such exports, however, remains limited, and this suggests the need for a more fundamental

restructuring of the tariff structure such that upstream domestic production becomes more competitive.

D. NONTARIFF BARRIERS TO TRADE

In addition to the comprehensive system of tariffs, a wide range of nontariff barriers (NTBs) to trade have been deployed in China's trade regime. These barriers comprise a variety of administrative instruments including the mandatory import plan, canalization of imports through designated national FTCs, import licensing, and import controls.^{8/} A lot of these mechanisms are in fact overlapping, and the exact manner of the application of each is difficult to disentangle. The responsibility for implementing these measures is widely dispersed within central and local governments. As a result, in some cases, the same import requires multiple stages of import approval from different agencies. It is estimated that in 1992 all nonoverlapping NTBs (not including mechanisms to control access to foreign exchange) taken together apply to 17.5 percent of the total number of lines of the HS Customs Tariff Schedule and account for 51.4 percent of total imports (Table 3.7).

Types, Administration and Coverage

The Mandatory Import Plan and Canalization of Imports. The mandatory plan was at the heart of the China's original system for controlling imports (see Chapter 2 for details). Goods subject to import planning have been thus regarded as essential either for the people's livelihood or for national economic development, typically subject to state pricing at levels substantially out of line with world prices, and therefore requiring an import subsidy. Although the importance of the import plan has been declining over time (Chapter 2), in 1992 planned imports still applied to 11 broad product groups including commodities such as grain, fertilizers, iron ore, cotton, wool, plastic sheeting and wood pulp (Annex 2.2 has a complete list). Together these accounted for 9.1 percent of all HS lines and 18.5 percent of total imports.^{9/}

The imports of all commodities subject to the import plan are canalized, i.e., restricted to designated FTCs. Most imports under the import plan are classified as so-called Category I imports. The imports of these commodities are handled by only a few FTCs (Chapter 2).^{10/} Canalization in such cases is understandable in that it facilitates the administration of subsidies needed to depress the price of mandatory plan commodities. In 1991, there were 648 FTCs authorized to handle Category I imports and these had in effect the responsibility for implementing the mandatory import plan handed down by the central authorities. The list of Category I imports is, however, not just restricted to planned commodities. In 1992, it, in fact, covered 386 additional HS lines, comprised mainly of raw

^{8/} Aside from these instruments, imports are also controlled through a complex system of foreign exchange allocation, which was discussed in Chapter 2.

^{9/} It seems that as of 1993 there were only five commodities still subject to the import plan and associated subsidies.

^{10/} Wood pulp is under Category II. It is not clear how the imports of iron ore (HS 26.01), copper (HS 74) and aluminum (HS 76) are handled. These commodities are neither in Category I nor in II.

materials such as iron and steel products, textile yarns, and sugar, but also including some consumer goods such as cigarettes. In such cases, it would appear that canalization is used by the central authorities to control the flow of imports either for balance of payments purposes or for protecting domestic industry through the enforcement of import quotas handed out to designated FTCs.

In addition, there exist what are called Category II imports (Chapter 2). These imports are also restricted to certain FTCs, but the number of FTCs that can handle such products is larger. This, therefore, represents a somewhat looser form of import control than that which can be exercised over Category I imports. In 1992, Category II imports covered 47 HS lines including such items as television receivers and cathode ray tubes.

Overall, an estimated 32 percent of total imports were subject to control through canalization in 1992. Of these, two thirds were imports under the mandatory plan. For the remaining 13.5 percent of imports, therefore, canalization was used as an instrument for controlling import demand for reasons that have nothing to do with the plan.

Import Licensing. Import licensing is administered by MOFERT, or what is now called MOFTEC. Within this system, goods are divided into two broad groupings defined on the basis of the criteria used for their award and the authorities responsible for their administration. These groupings overlap with, but do not correspond exactly to, the categorization of products for the purpose of the import plan. First, Category I licenses are import licenses whose administration is undertaken only by the central office of MOFERT in Beijing. Criteria for the award of these licenses are the most stringent. Such licenses are awarded only to importers that have foreign exchange allocated to them by the central government. In addition to certification of central government foreign exchange allocation, the award of such licenses requires an approval document from the concerned ministry (e.g., ministry of textiles in the case of imports of yarn, etc.) and a valid import contract. Typically, Category I licenses are reserved for products subject to the mandatory import plan and/or products classified as Category I imports as described above. Not all Category I or mandatory imports, however, are subject to Category I import licensing, or any import licensing for that matter. Products such as cotton and fertilizers are planned commodities whose imports are restricted to specialized national FTCs and are not subject to any import licensing requirement.

Second, Category II licenses are licenses for which the criteria are somewhat less stringent and which are administered either by Special Commissioners appointed by MOFERT and located in the regions, or by provincial or municipal Economic Commissions. To import products subject to Category II licenses, the importer must furnish evidence of foreign exchange allocated by the provincial/local authorities or retained foreign exchange, an approval document from the concerned provincial ministry, and a valid import contract. Typically, most Category II imports are subject to such licensing procedures.^{11/} In addition, Category II licenses are required for a large array of noncanalized and nonplanned items. These include such products as beverages, food products, textile yarns and fabrics, machinery and appliances, sound recorders, road vehicles and aircraft.

^{11/} Although again, not all Category II imports seem to require Category II import licenses or any kind of import license at all. Inorganic chemicals, for example, although designated as a Category II imports, are not subject to any import licensing.

It is apparent from the above that import licenses are used to serve multiple objectives. On the one hand, licensing seems to be used as an administrative device to allocate a fixed quantity of planned imports and centrally/provincially controlled foreign exchange to different users. Here it functions as a quota allocation mechanism. On the other hand, licensing is no doubt used for protecting domestic economic activity as well as for regulating, for balance of payments purposes, the demand for imports financed through retained foreign exchange. In all, there are presently 53 broad categories of products subject to import licensing. These accounted for 12 percent of all HS tariff lines in 1992 and covered 25.1 percent of China's total imports. Of these imports, however, more than half were *also* subject to canalization. The imports for which licensing requirements applied in a nonoverlapping manner accounted for an estimated 11.7 percent of China's total imports.

Anecdotal evidence suggests that the award of import licenses (particularly Category II licenses) is subject to considerable administrative discretion. In some cases, the distribution of licenses seems to be linked to FTC performance. FTCs in financial distress have been known to be allocated import licenses to enable them to use the associated rents to improve their financial position. In other instances, import licenses are exchanged for favors from other provincial or national authorities. Not unexpectedly, it appears that *guanxi* ^{12/} plays an important role in how licenses are ultimately allocated.

The division of responsibility between the central government and the provinces in the administration of import licenses poses an additional difficulty. Import licensing has, it seems, been used by provincial and municipal authorities in accordance with the priorities of their respective local plans. This segments China's trade regime and in effect enables different provinces to administer foreign trade policies in different ways.

Import Controls. Compared to import licenses, which appear to be used both for balance of payments purposes as well as for protecting domestic industry, import "controls" are used specifically for protection. In 1992, controls applied to a range of goods in the machinery and electronics sector, for which imports could not be undertaken without administrative approval from the *State Council Machinery and Electronics Import Control Office (SCMEIO)*. This office reviewed proposals by various Chinese units to import machinery and electronic equipment and assesses to what extent these needs can be met domestically. For this purpose it used lists of possible import substitutes provided to it by various industrial ministries as a sort of "examination catalog." Nominally these lists were maintained as a source of information so that would-be importers were aware of the full range of domestically produced machinery and electronic products. Anecdotal evidence, however, suggests that once a product was on such a list, approval to import a foreign product was difficult to receive.

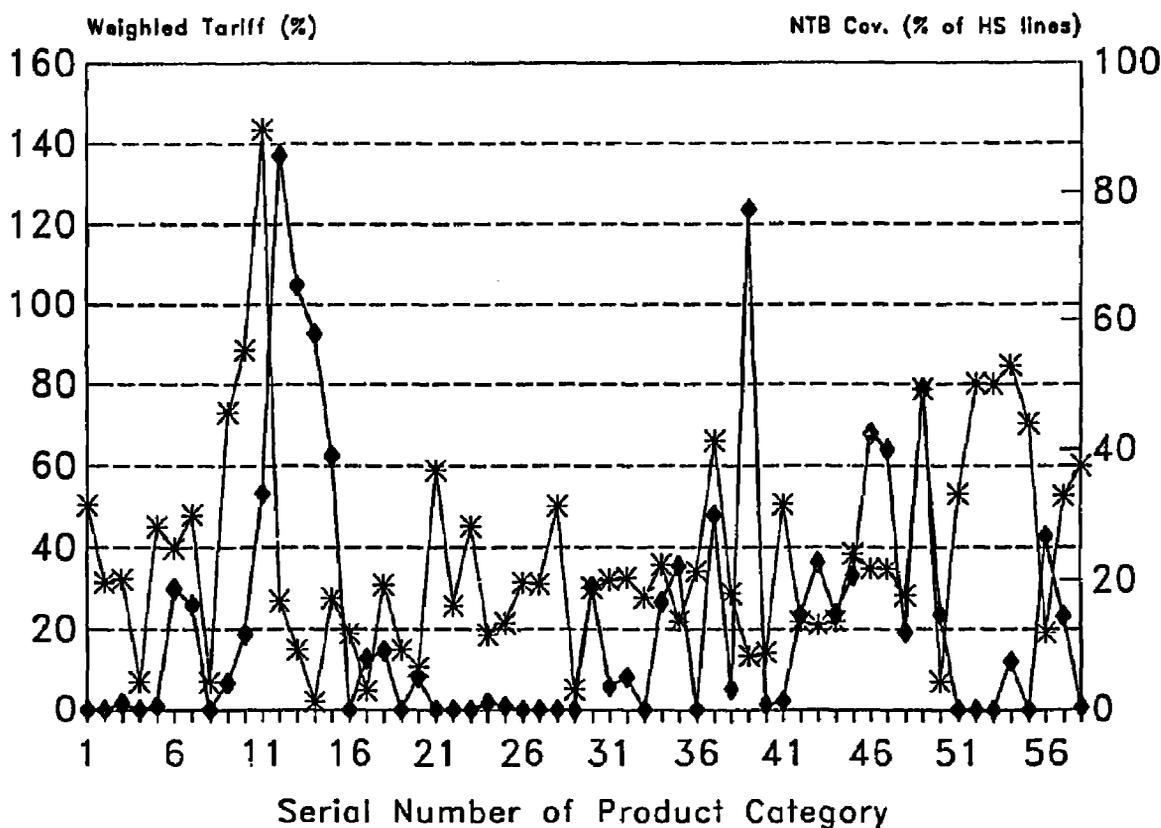
Recently, the authorities have announced the abolition of import substitution lists and a phased elimination of controls (see Chapter 5). For the time being, however, controls apply to about 3 percent of HS tariff lines and cover 7.7 percent of total imports, none of which overlap with products subject to import licensing. It appears, therefore, that a product can be subject to either import licensing requirements or import controls, but not to both.

^{12/} That is, social relations or connections.

The Structure of NTB Protection

Figure 3.4 shows how import licenses and controls are distributed across productive sectors. It plots the proportion of HS tariff lines subject to import licensing or

Figure 3.4: STRUCTURE OF NTB COVERAGE, 1992



* Wght. Avg. Tariff ◆ NTB Coverage

Note: For mapping of serial numbers into SITC codes, see Table A3.3.

"controls" in each two-digit SITC sector. The figure indicates that import licenses and controls are currently concentrated in three broad groups: (a) agricultural raw materials subject to price controls and import planning (rubber, cork and timber, wood pulp and textile fibers such as wool and cotton); (b) critical manufacturing sectors such as iron and steel products, textile yarns and machinery where domestic production is significant; and (c) nonessential consumer items such as beverages and tobacco. These three broad categories correspond roughly to the three different objectives of China's system of licensing and control that emerged from the discussion above. In the case of (a) the high concentration of NTBs would seem to be explained by the need to allocate fixed quantities of planned imports between different users.^{13/} In the case of (b), protection seems to be the dominant motive, whereas in (c), balance of payments control is likely

^{13/} The same motivation accounts for the somewhat less, although still significant, concentration of import licenses in the case of certain manufactures, such as rubber products and wood products, that are subject to price controls and are canalized.

to be the primary motivating factor. In practice, it is of course very difficult to disentangle when import licensing or controls are used for balance of payments purposes and when they are not. It is likely that NTBs (whether licenses or controls) have on occasion been used for restricting access to foreign exchange not just in the case of nonessential consumer goods but also in that of the other product groups on which they apply.

Comparing the structure of the coverage of import licenses with that of tariffs shows how the two instruments are used in a complementary fashion to achieve the government's objectives (Figure 3.4). For most planned or canalized commodities, because the objective is to keep domestic prices artificially low, the tariff too is kept relatively low, while the NTB coverage is kept high to help allocate fixed quantities of imports between various users. On the other hand, where protection is the primary objective, we find that both tariffs and the NTB coverage are high. Finally, where the objective has been to penalize nonessential consumption, the government has in general relied more on the tariff than on NTBs. Thus, excepting tobacco and beverages, in other sectors such as nonessential foods, apparel, travel and sporting goods, we find very high tariffs but a low or negligible NTB coverage.

Conclusions

With the declining importance of the plan, only 18.5 percent of China's imports continued to be subject to mandatory import planning in 1992. Of the rest of the 51.4 percent of total imports that were subject to some form of administrative import regulation, 12 percent were subject to canalization, 11.7 percent to nonoverlapping import licensing and 7.7 percent to nonoverlapping import controls.

Aside from handling planned imports, canalization is still used as a powerful instrument for controlling the import demand of a range of nonplan commodities either for balance of payments reasons and/or the protection of domestic industry. Import licensing is also used to serve the same range of objectives. There is considerable overlap between canalization and licensing, only some of it justified. Overlap between canalization and licensing seems understandable in the case of planned commodities, the fixed imports of which have to be allocated between different users. In the case of such commodities as textile yarns, sugar and televisions on the other hand, at least one of the two, i.e., either canalization or licensing, would seem redundant.

Import controls are intended essentially for domestic protection and are restricted to the machinery and electronics sector. Overall, the sectors that are presently subject to the highest concentration of NTBs are iron and steel products, textile yarns and machinery, i.e., critical manufacturing sectors where domestic production is significant. Available evidence suggests that considerable discretion is involved in the administration of import licensing and controls. FTCs and enterprises with the best connections are likely to benefit the most.

E. EXPORT CONTROLS AND TAXES

As in the case of imports, the Chinese authorities have deployed a wide array of controls to manage their exports as well. However, over the years, the role of planning for exports has become considerably less important than for imports. In principle, all mandatory export planning was abolished in 1991, although some exports that used to be subject to such planning (about 15 percent of total exports) are still canalized or channeled through designated

FTCs, either as Category I or Category II exports (see Chapter 2). The more important remaining controls on exports are export quotas/licenses and taxes.

As noted in the previous World Bank study of China's trade regime,¹³ export quotas/licenses and taxes appear to have two major objectives: to reduce the supply of some exports, in which China has a very large market share, and to increase the domestic availability of particular goods needed for economic development.^{14/}

In 1992, export licensing was used for 676 Harmonized System commodity groups accounting for over 15 percent of China's exports. A large set of commodities subject to export licensing was agricultural goods, such as beef, pork and vegetables, exported to Hong Kong. Here, the objective of the licensing arrangements is to increase the prices received for these commodities by controlling supply. The same is true for export licensing in the case of such commodities as tungsten in which China has a very large share of the international market (40 percent). On the other hand, controls on such products as rice and maize have been used to ensure the adequate availability of these goods domestically. As of April 1993, the scope of export controls was reduced somewhat. However, 38 broad categories of products still remain subject to export quotas/licenses.

The use of export licenses to increase the domestic availability or depress the price of a variety of key planned commodities has, however, been more significant. Before secondary markets were allowed for planned commodities, export controls were used to prevent such leakage of these products as might otherwise have been induced by the huge gaps between international and administered domestic prices. Now that secondary markets are functioning for a wide range of commodities, the government's objective seems to be to not only to fix official prices below international level, but also to maintain the secondary market price of selected exportables such as coal, petroleum, maize, and rice, below world parity. It has been doing this by restricting exports through the widespread use of export licensing. Such policies bias the incentive structure for nonplan production against these sectors and encourage excess consumption of their products. In the energy sector, for example, where these distortions are still very marked, depressed secondary market prices for coal and petroleum continue to make Chinese industry more energy intensive than it ought to be. The removal of such export controls is tied to progress in China's attempts at price reform. The rationale for these controls will disappear as China phases out the implicit subsidies to consumers and industry that its policies of price control entail.

Meanwhile, a consequence of the existing wedge between the domestic secondary market and international prices of exportables is that the few FTCs that are designated to handle their sales on the international market are able to appropriate important rents (see Chapter 6).^{15/} A temporary, even if far from satisfactory, solution to this problem would be for export licenses to be replaced with export tax equivalents. At least in this way such rents as may accrue would be directed systematically to the central government, and not to individual enterprises.

^{14/} In addition, however, export licensing is used to comply with international agreements such as the Multifiber Arrangement.

^{15/} At present, the government relies on profit-sharing arrangements negotiated on a case-by-case basis in order to capture some part of the rents accruing to individual FTCs. As FTCs become more autonomous, this mechanism is likely to become less effective.

Over recent years, China has in fact expanded the use of export taxes—the product categories subject to export taxes have risen from 19 in 1987 to 54 at the present time. Export taxes are used in pursuit of exactly the same objectives as export licenses. However, in the sectors where they have been introduced, they have not to date replaced export licenses, but merely supplemented them.^{16/}

F. IMPACT OF TRADE CONTROLS

International Price Comparisons

The wide range of trade policies utilized by China, and the nontransparent nature of many of the policies used, makes it very difficult to evaluate their consequences for economic performance. The most immediate difficulty is that the presence of nontariff barriers provides no indication of their trade inhibiting effects. With a trade regime as diverse as China's, where some tariff rates are extremely high, there is also the possibility of "water in the tariff": that some tariff rates will be so high as to essentially eliminate trade in the affected commodity, with the gap between domestic and world prices being smaller than the tariff.

Given the structure of protection in China, the price comparison approach is the only means by which any estimate of the effects of protection can be obtained. Even in more explicitly market-oriented economies, this approach is subject to severe difficulties of obtaining price information on sufficiently homogeneous products, and of adjusting for differences in location and other attributes. In China, the approach is further complicated by the need to adjust for the two-tier exchange rate system. However, a fairly extensive analysis was possible on the basis of data on domestic prices for a range of commodities, most of which are subject to licensing, controls and/or planning.⁶

Table 3.8 presents the results of international price comparisons for a selection of products.^{17/} The secondary market price is the one that has been used in making the price comparisons in each case. For clarity, the products are classified as importables or exportables, depending on whether China was a net importer or exporter in that product category. This distinction is important in China because different average effective exchange rates apply for exports and imports, which necessitates the calculation of separate price differences for importables and exportables. Given information on import tariffs and export taxes, it was possible to decompose the total difference between Chinese prices and world prices into components due to particular trade policy instruments. Thus, the table presents computations of the tariff equivalents of import licenses in the case of importables, and of export licenses in the case of exportables. A *positive* tariff equivalent in the case of an *importable* means that the import license is binding and the domestic free market price of the product is above the *sum* of the international price and the relevant import tariff. Likewise, a *positive* tax equivalent in the case of an *exportable* also indicates that the export license is binding in the sense that the

^{16/} Several products, such as coal, are subject to both export taxes and export licenses.

^{17/} The complete results are presented in Table A3.7.

domestic free market price is lower than the *difference* between the international price and such export taxes as may apply.^{18/}

The price comparisons presented in Table 3.8 provide a number of important perspectives on the operation of China's foreign trade regime for a wide range of commodities. It is possible to assess, in broad terms, how effective the trade regime has been in achieving its the main policy objectives.

First, the table shows the extent to which the authorities have been able to raise the prices of certain exportables in which they have significant market share in international markets through the use of export taxes and licenses. In the case of tungsten, an export tax of 20 percent, in conjunction with a tax-equivalent effect of export licensing of another 55 percentage points, seems to have raised the export price of tungsten relative to its domestic price such that the world price is more than 60 percent ^{19/} above domestic prices. To the extent that China is a price maker in the international market, this would certainly have improved its terms of trade. Whether or not this has led to net gains for China is difficult to assess without information on world demand.

Second, the table reveals in what manner planned commodities, both exportables and importables, have been handled. Export taxes and licenses have clearly been effective in depressing the domestic price of certain exportables considered to be critical for consumers. However, the table indicates that the resulting distortions have been very large. For coal, it appears that the substantial export tax, of 40 percent, is overshadowed by an NTB export tax-equivalent of roughly an additional fifty percent.^{20/} This distortion encourages the inefficient use of coal in the Chinese economy and contributes to pollution problems. For crude oil, the distortion is even greater, at 85 percent. The benefit of the enormous implicit export tax on crude oil, however, appears to be largely confined to the petroleum refining industry, which pays an extremely depressed price for its primary input (85 percent export tax equivalent) but faces a product price which is depressed by under 20 percent.

Within agriculture, a similar policy has been pursued to maintain price distortions that benefit urban consumers at the expense of rural producers. For such exportables as maize and rice, the domestic prices were found to be substantially below the relevant export parity,

^{18/} Given the world price, the tariff rate and the assumption that import pricing is based upon secondary market exchange rates a comparison between the domestic price and a tariff-inclusive import price can be made using the arbitrage condition:

$$(1) \quad p_d = (1 + \tau)(1 + t) \cdot e_m \cdot p_w$$

where p_d is the domestic price of the importable; τ is the tariff equivalent of the nontariff barrier affecting the import of the good; t is the tariff levied on the good; e_m is the exchange rate applying to this transaction, and p_w is the world price of the good. Since we have information on every variable in equation (1) except the tariff equivalent, it can be solved for this equation. For export taxes, t and τ are negative, depressing the domestic price.

^{19/} Computed per formula in footnote 18.

^{20/} This estimate, based on data provided by the Development Research Council, is likely to exaggerate somewhat actual price differentials in coal. It should be treated only as a broad indicator.

Table 3.8a: ESTIMATES OF PROTECTION TO IMPORTABLES BASED ON INTERNATIONAL PRICE COMPARISONS (1992)

HS Code (1)	Product Description (2)	Official Price (Y/r) (3)	Free market price (Y/r) (4)	International price (\$/ton)(5)	Tariff rate (6)	Import NTB tariff equiv. (%) (7)	Licensing status	
							Export	Import
1001	Wheat	-	789.14	128.00	0.00	5	N	N
1101	Wheat flour	524.54	938.48	162.00	0.06	-6	N	N
310210	Nitrogenous fertilizer (urea)	532.29	843.16	172.00	0.05	-20	N	N
310420	Potassium Fertilizer (KCl)	783.09	783.09	108.90	0.05	17	N	N
390210	Polypropylene	4,949.80	5,625.91	844.00	0.00	14	N	Y
390311	Polystyrene	4,766.65	7,168.23	572.00	0.00	114	N	N
401110	Rubber tires for cars	1,710.00	1,640.00	300.00	0.60	-42	N	Y
440319	Wood logs, coniferous	236.20	284.31	70.00	0.00	-31	N	Y
440391	Wood logs, oak	349.44	555.77	221.00	0.00	-57	Y	Y
440791	Lumber, oak	549.85	549.85	471.00	0.00	-80	Y	Y
441212	Plywood nonconiferous	2,349.00	2,631.00	500.00	0.80	-50	Y	N
441219	Plywood, coniferous	1,941.00	1,941.00	150.00	0.80	23	Y	Y
5509	Yarn of synthetic staple	11,493.61	11,240.83	1,000.00	0.70	13	N	Y
720450	Steel in ingots	-	1,057.44	539.00	0.00	-66	Y	Y
720711	Semi-finished steel	1,055.99	1,168.47	469.00	0.00	-57	Y	Y
7208-12	Flat-rolled products of steel	1,069.01	1,621.97	469.00	0.00	-41	Y	Y
7210-16	Bars & Rods of iron & steel	1,368.83	1,493.69	383.00	0.15	-42	N	Y
7312	Wire cables of steel	2,911.13	2,581.90	383.00	0.60	-28	Y	Y
7403	Refined copper	10,296.17	15,893.43	2,339.00	0.12	4	N	N
840731	Petrol engine, 50 cc	-	860.56	100.00	0.80	-18	N	Y
841821	Refrigerators, domestic	1,592.72	1,623.76	300.00	0.20	-23	N	Y
845011	Automatic washing machine	514.44	454.48	150.00	1.00	-74	N	Y
847120	Personal computer (PC-XT)	-	14,239.99	1000.00	0.20	103	Y	Y
852031	Cassette recorder	410.88	455.87	60.00	1.00	-35	N	Y
852110	VCRs	3,000.00	3,000.00	200.00	1.00	28	N	Y
852810	Color TV	2,000.87	1,903.62	197.38	1.00	-18	N	Y
852820	Black and white TV	277.86	348.51	80.00	1.00	-63	Y	Y
854012	Cathode ray TV	83.83	88.70	15.00	0.30	-22	N	Y
870324	Petrol automobile	101,314.00	101,314.78	12,000.00	1.20	-34	N	Y

Table 3.8b: ESTIMATES OF EXPORT TAXATION (1992)

HS Code (1)	Product Description (2)	Official Price (Y/r) (3)	Free market price (Y/r) (4)	International price (\$/ton)(5)	Tax rate (6)	Export NTB tariff equiv. (%) (7)	Licensing status	
							Export	Import
0202	Pork (frozen)	5,400.15	4,641.31	10,76.00	0.00	25	Y	N
0203	Beef (frozen)	6,542.87	6,990.80	26,60.00	0.00	54	Y	N
1005	Maize	329.28	354.11	107.48	0.00	43	Y	N
1006	Rice	550.82	996.88	287.17	0.00	40	Y	N
2611	Tungsten	12,769.18	13,954.51	67,63.30	0.20	55	Y	N
2701	Coal	47.70	64.51	39.70	0.40	53	Y	N
2709	Crude oil	200.79	109.22	1,30.00	0.00	85	Y	Y
2710	Refined petroleum	842.57	1,050.93	223.50	0.00	18	Y	Y
281511	Sodium hydroxide	1,918.85	1,842.83	322.00	0.00	0	Y	N

Note: Price comparisons in Tables 3.8a and 3.8b were based on prices in China supplied by the Development Research Center of the State Council. International prices were obtained from a variety of sources, including World Bank commodity price estimates and unit values of exports or imports from China as reported to the UN COMTRADE system. The average secondary market exchange rate utilized was 5.845 and the export weighted exchange rate was 5.74 for all commodities except machinery (HS 84) for which full foreign exchange retention applies and the secondary market rate of 5.845 was, therefore, applied.

with export tax equivalents (ETE) of around 40 percent.^{21/} Moreover, it seems that the policy of depressing the domestic prices of exportables has not, as one might expect, been restricted to just planned commodities. The prices of unplanned commodities like pork and beef appear to be markedly lower than international prices. For pork the ETE of the licensing restriction was estimated at 25 percent. For beef, the ETE was even higher, at 54 percent.^{22/}

Table 3.8 provides some interesting evidence regarding commodities that are part of the import plan. It seems that the domestic plan and market prices of wheat were both roughly at import parity in 1991, following a long period in which prices were substantially below the relevant import parity value.⁷ This confirms the effect of recent initiatives to decontrol the price of cereals and has no doubt helped alleviate the burden of import subsidies carried by the central government. Likewise, the table suggests that import subsidies on potassium fertilizer have been reduced, if not eliminated—the domestic price for these was found to be about 20 percent higher than the world price. As such, the trade regime now has an import substituting effect in this sector with import licenses imposing a tariff equivalent margin of 17 percent above nominal tariffs of 5 percent. On the other hand, planned importables such as nitrogenous fertilizer (urea) and timber continue to be subsidized. Domestic prices of the former were an estimated 15 percent below import parity and domestic prices of different types of wood and lumber were found to be between 30 and 80 percent below import parity.

Finally, the table shows what protective impact the trade regime has had. The price comparisons data confirm that China's trade regime provides substantial protection to a selection of high cost sectors. These include two kinds. First, there are selected high technology consumer products which would seem to be targeted by the authorities as "in-front exporters." In this category, the domestic price of personal computers, for example, appears to be a good 120 percent above import parity, 20 percent points of which is attributable to the tariff, but an additional 100 or so percent to import licenses. Likewise, VCRs enjoy a 100 percent tariff and almost an additional 30 percent NTB equivalent. Second, there are a number of intermediate goods that represent significant domestic production shares. These include such products as textile yarns (yarn of synthetic staples) and certain plastics (polystyrene). The domestic prices of the former were found to be more than 80 percent above import parity, with 70 percent points accounted for by the tariff and the rest by import licensing or control.^{23/}

An important finding from the price comparison table is that the domestic prices for a range of products, although still considerably higher than world prices, are nevertheless, below the duty-inclusive prices of competing imports. For these products, import licenses appear to be redundant as a protective instrument, and there would also appear to be some

^{21/} The prices of maize and rice were raised very substantially as part of the last round of price liberalization in 1992 and are now closer to international parity.

^{22/} While some part of the price difference may, in fact, reflect quality differences, the finding of negative price distortions for these commodities is consistent with the results of a careful, disaggregated study of agricultural commodity pricing by Webb (1992).

^{23/} Given likely comparability problems, these estimates need to be located with some caution.

"water in the tariff."^{24/} Such products include automobile tires, small (50 cc) petrol engines, cassette recorders, televisions and certain types of automobiles. In the case of cassette recorders for instance, domestic prices are still close to two-thirds above import parity, although they are about 35 percent below the duty-inclusive price of competing imports. Likewise, the domestic prices of color and black and white televisions are between 80 and 40 percent higher than import parity, but between about one fifth and two-thirds below the duty-inclusive price of imports.

In the case of a handful of products, Table 3.8 suggests that tariffs and licensing are completely redundant, as the prices of these products seem to be competitive with imports. Although these include some "mature" consumer products such as domestic refrigerators, they are mostly basic steel products such as steel ingots, semi-finished steel, flat-rolled products of steel, and bars and rods of iron and steel. Most of these products are currently subject to low tariffs, but their imports are canalized and have been subject to licensing requirements. In all cases, domestic prices appear to be *well below*—in the range of two thirds to one quarter below—tariff-inclusive import parity.⁸ It is not surprising, therefore, that the authorities have declared their intention of removing all remaining import licenses on these products (Chapter 5). A likely explanation for China's competitiveness in this relatively capital intensive sector is the extremely low domestic plan price for coal.

In summary, China's import and export licensing regime appears to reinforce one of the major biases imparted by the tariff and export tax regime: raising the price of final consumer goods relative to producer intermediates. Prices of many agricultural goods appear to be depressed through the use of implicit export taxes and their equivalents. Prices of basic producer inputs to manufacturing, such as coal, oil and timber, are likewise depressed. On the other hand, the prices of most intermediate and capital goods are maintained above import parity. The prices of some intermediate inputs, especially petrochemicals and textile yarns, that account for a significant proportion of China's total industrial output, are exceptionally high. This no doubt penalizes the competitiveness of some downstream sectors, such as apparel and footwear, in which China has obvious comparative advantage and may also help account for the low domestic content of export processing activity. Import licensing is also used to reinforce the price increasing effect of even higher tariffs on a selection of "higher-tech" manufactured goods. However, it seems that there is considerable "water in the tariff" for a wide range of mature consumer manufactures.

Effective Rates of Protection

Effective rates of protection (ERPs) provide an indication of the extent to which protection policies influence the allocation of resources towards, or away from, particular activities or sectors. Where nominal rates of protection are different across commodities, the effective rates approach takes into account the fact that protection on intermediate inputs may offset, or overwhelm, the benefits provided to an import competing industry by protection on its output.

Table 3.9 presents a summary of the results of ERP calculations for a selection of sectors for which data were available (see Annex 3.1 for details). These results must be treated with considerable caution. They only provide a very broad indication of the trade

^{24/} Estimated import tariff equivalents are negative in such cases, implying that tariff rates are higher than would be required to restrict the majority of trade in these commodities.

regime's implications for incentives in the Chinese economy. The first column of the table gives the representative rates of nominal protection used for each sector. This is based on the analysis of international price comparisons presented above. The second and third show the value of gross output and value added, respectively, at domestic prices,⁹ while the fourth column contains the calculated residual return to value added when international prices are received for outputs and paid for inputs. Where value added at international prices is positive, the effective rate of protection to domestic production is presented in the fifth column.

Table 3.9: EFFECTIVE RATES OF PROTECTION TO CHINESE INDUSTRY (1991)

	Nominal distor- tion (%)	Gross output at distorted prices	Value added at distorted prices	Value added at world prices	Effective rate (%)
Crops	-40.00	312.62	246.60	436.85	-43.55
Animal husbandry	-30.00	61.95	20.76	21.46	-3.25
Metals	-40.00	73.16	30.18	48.82	-38.18
Electricity	0.00	18.82	5.57	-33.99	n.a.
Coal	-82.00	24.99	13.60	120.01	-88.67
Petroleum mining	-85.00	51.61	44.30	324.37	-86.34
Petroleum refining	-18.00	44.86	10.39	-167.27	n.a.
Chemicals	0.00	127.23	56.37	26.44	113.17
Machinery	46.62	158.37	51.59	-17.84	n.a.
Bldg. materials	30.85	34.82	16.29	-5.45	n.a.
Wood and pulp	30.85	16.48	6.90	-0.26	n.a.
Food processing	59.19	98.78	14.93	-63.99	n.a.
Textiles	54.97	106.95	28.11	-17.60	n.a.
Apparel	89.59	49.06	6.31	-4.10	n.a.
Paper	38.45	21.92	3.34	-5.34	n.a.
Misc. manufacturing	44.90	24.92	6.71	-6.32	n.a.

Source: Staff estimates. See Annex A3.1.

The results highlight the wide range of conflicting pressures placed on industries by the structure of protection in China. As expected, in sectors such as crops, coal and petroleum mining, where output prices are currently severely depressed by trade policies, the ERP is found to be negative. This indicates that, without other forms of intervention in these sectors (planned investments, directed credit, etc.), the current incentives would in fact result in a strong resource pull away from these industries. On the other hand, the depressed prices of these sectors help raise protection levels for downstream industries that use these commodities. Thus, the availability of low cost energy inputs, for example, results in the chemicals industry having a very high positive effective rate of assistance despite a zero nominal rate on its output.

Effective rates of protection are not meaningful when an industry has negative value added at international prices. Under the assumptions outlined above and using the rates of assistance presented in the first column of Table 3.9, this is the case for 10 of the 19 sectors for which rates were calculated, including petroleum refining, chemicals, machinery, building materials, wood and pulp, food processing, textiles, apparel, paper and miscellaneous manufacturing, all appear to have negative value added at world prices. Under the assumptions of the ERP methodology, none of these activities would appear to be able to survive under full trade liberalization. While this is probably the case for some subsectors, such an interpretation of the results cannot be correct for the broad and highly heterogeneous product categories used in the calculations of Table 3.9. The results are, however, indicative of the highly distorted nature of the Chinese trade regime and suggest that existing incentives exert a strong resource pull effect on a range of downstream industries as a result of depressed input prices and a cascading structure of nominal protection.

Evidence from Sectoral Analyses

The results of various sector studies conducted by the World Bank suggest that Chinese industry is characterized by four basic problems: (i) suboptimal scale and fragmented production capacity; (ii) structural imbalance between downstream and upstream production capacity; (iii) high cost and low quality intermediate and capital goods; and (iv) shortage of certain raw materials. In what follows, we discuss how these problems relate to the structure of the existing trade regime.

Suboptimal Scale and Fragmented Production Capacity. Suboptimal scale of production is a widespread phenomenon across a range of China's industries. Partly, this is a legacy of the planning process, one of the objectives of which has been to ensure regionally balanced development. Historically, therefore, there has been a tendency for provinces to invest in a similar set of nucleus industries. With decentralization, local priorities have inevitably taken precedence over national ones, and provincial authorities have resorted to various techniques to avoid central government scrutiny, including repackaging investments into smaller subcomponents in order to escape the investment approval process (see Box 3.1). The lack of capital markets has also severely restricted the ability of local enterprises and governments to acquire the funds required to invest in larger scale facilities. The trade regime has only accentuated this problem. Local enterprises have benefited from parochially motivated interprovincial trade barriers and have used the high import tariffs to support investments in small plants catering to small and regionally segmented markets. Thus, it is not surprising, for example, that 95 percent of the enterprises in the iron and steel sector were found to be operating below optimal scale in 1989, and that China had over 100 assembly plants in operation in that year.¹⁰

In some sectors, the trade regime has also been used in conjunction with the investment approval process¹¹ to segment markets according to differentiated products. This is the case in the road vehicles sector, for example, where the volume of imports is controlled, and even where imports are allowed (as in the case of passenger cars), local enterprises are guaranteed sales through reserved market segments.¹²

Structural Imbalance. The trade regime has also encouraged the proliferation of investment by local enterprises and governments in activities that require little learning and involve low start up costs. This has resulted in excess capacity in assembly and processing

**Box 3.1: THE CONSTRUCTION OF THREE SMALL POLYESTER FACTORIES
IN CHENGDU**

Three polyester factories were established in Chengdu in Sichuan Province—one within the city limits, one in Guanghang County and one in Da County. Each is within 100 km of the other but is less than one third of the estimated optimal scale. Each also tells a story about the drive of localities for local self-sufficiency and the ineffectiveness of investment approval and licensing procedures. According to the Textile Ministry, it distributes a capacity quota for polyester production to each province. Sichuan received a quota of 8,000 tons per day. The province chose to split up the quota. In addition, the ministry distributes guidelines for the optimal scale of production. These were ignored. The Chengdu Polyester Fiber Factory split up its investment program into two projects of Y 30 million each, thus avoiding review by the SPC. The Provincial Planning and Economic Commission approved the project. The Guanghang County Polyester Factory was established without a license but with the support of the county. Following the completion of the initial investment and with the support of top government leaders, the Ministry of Textile Industry eventually recognized the factory.

Source: Jefferson and Zou, 1989.

**Box 3.2: SUPPLY IMBALANCES WITHIN THE REFRIGERATOR INDUSTRY:
ASYMMETRIC INVESTMENT REQUIREMENTS**

Within China, there are approximately 100 refrigerator assembly plants in operation. More than one half of the industry's factories are operating outside the state plan. The uncontrolled expansion of refrigerator assembly plants has caused refrigerator production to outstrip the addition of new capacity for compressor production. Domestic producers can produce approximately 2 million compressors a year; but last year's demand exceeded production by 6 million, resulting in many compressors being imported, a figure that was double the state quota. Given the shortage of compressor production, why have enterprises and local governments not committed extrabudgetary funds to expand compressor production? A principal reason is that while the scale of investment and the technologies required for establishing an assembly plant are limited, the construction of compressor plants involves sophisticated technological requirements, commitments of large-scale investment and long-term investment horizons.

Source: Jefferson and Zou, 1989.

capacity while upstream component and raw material production capacity has not been able to keep pace (see Box 3.2). Production in intermediate sectors typically requires high capital investment and longer learning periods. Central government assistance, or involvement, is a more likely prerequisite for investment in these sectors. Not surprisingly, therefore, footloose provincial level investment has shied away from such sectors, aggravating the problem of structural imbalance. Thus, for example, in the case of consumer durables such as refrigerator and televisions it is found that the rapid growth in assembly capacity has not been matched by the needed capacity in compressor and cathode ray tube manufacturing capacity.

High Cost of Intermediate Inputs. Intermediate goods typically require larger scale investments for efficient production. The tendency noted above to fragment investment and production capacity has inevitably contributed to the high cost of intermediate goods in China. The problem seems to be more acute in certain segments of machinery and electronics. In electronics, for example, components such as capacitors and cathode ray tubes cost between 1.4 to 2.7 times the world price, in part due to the fragmented nature of domestic production capacity.¹³ This penalizes downstream industries, which cannot rely on domestic inputs for their exports. The existing trade regime, by providing high levels of tariff and nontariff protection, has not provided the right incentive for rationalizing production capacity in the intermediate and capital goods sectors. While it is true that China imports substantial volumes of intermediate and capital goods, these are in large part noncompetitive with local production.

Shortage of Certain Raw Materials. Aside from the high capital cost requirements, the severe antiproduction bias against raw materials with controlled prices has been an important reason why foot-loose investment funds are not used to expand raw material production capacity. In the case of the iron and steel industry, for example, enterprises with autonomy have shifted production away from iron ore to steel products, the price structure of the latter being considerably more favorable. In this situation, shortages of critical raw materials have been avoided only through planned investments, such as the Baoshan Complex in the case of iron and steel. However, when and where planned investments have fallen behind, supply bottlenecks have inevitably appeared. A case in point is the synthetic textiles sector, which suffers from shortages of such raw materials as Phthalic Anhydride (PTA).¹⁴ Unless the trade and price regime's existing bias against raw material production is eliminated, raw material shortages could become more widespread in the future as reliance on planning declines.

The central government has so far attempted to address these various problems by recourse to a variety of administrative controls. Thus, the investment approval system, the credit plan and the materials supply system have been used to try and guide local and provincial investment into areas of national priority, and guidelines are used to try and ensure that these investments respect criteria for minimum production scales. Price controls and negative approval lists have been used in an attempt to check excess capacity in the consumer durables sector. And programs of technology imports and managed mergers have been used to tackle the problem of inefficiency in the intermediate goods sector. As the trend towards decentralization continues, such methods of intervention will become less and less effective. As has already been seen, the government's investment approval system is frequently circumvented with counterproductive results (Box 3.1). Under the circumstances, the government will have no choice but to rely on more indirect levers of control. It is in this context that the trade regime will have an important role to play.

Conclusions

China's trade regime has served to reinforce certain basic biases and problems of China's industrial sector.

First, the elaborate system of export controls has helped keep the price of key primary goods and raw material imports depressed (this is the case for petrochemicals, for example). This has created an antiproduction bias in these sectors that, to the extent it is not offset by planned investments, can lead to shortages.

Second, the trade regime has helped maintain inefficient and high cost intermediate and capital goods sectors. The key problem sectors, with large production shares accounted for by SOEs, appear to be certain types of machinery and synthetic textiles.

Third, the trade regime has accentuated a strong resource pull effect into downstream consumer goods industries that are now plagued with excess capacity. High tariff barriers against competing imports also appear to have helped parochial provincial governments sustain suboptimal investments designed to meet the needs of a regionally segmented market.

Finally it appears that, in several cases, mostly mature consumer products such as washing machines, televisions, and sound recorders, the existing combination of NTBs and tariffs is not binding, i.e., there is "water in the tariff" and domestic secondary market prices, although still high relative to international prices, are lower than the tariff-inclusive price of competing imports.

Endnotes

1. See, for example Lardy (1992) and World Bank (1987a).
2. World Bank (1987a), p. 146.
3. Customs General Administration (1988), p. 201.
4. Customs General Administration (1988), p. 197.
5. World Bank (1987a), Annex 2, p. 35; Customs General Administration (1988).
6. Development Research Center of State Council.
7. Garnaut (1992); Findlay, Martin and Watson (1992).
8. This result is consistent with that reported by Ma and Song (see Lardy 1992, p. 92).
9. This is drawn from Martin (1992).
10. Jefferson and Zou: China Sectoral Case Studies on Industrial Policies: Iron and Steel, Consumer Durables and Chemical Fibers Industry, World Bank, December 1989.
11. See I. J. Singh (1992), for a comprehensive description.
12. World Bank (1991c).
13. See World Bank (1990a).
14. Jefferson and Zou (1989).

IV. PRIORITIES AND PERSPECTIVES ON REFORMING CHINA'S TRADE REGIME

A. TRADE STRATEGY AND TRADE REGIME ORIENTATION

Conventional classifications of trade regimes have relied on three categories to try and depict the spectrum of trade strategies followed in developing countries. These are: Free Trade (FT); Import Substitution (IS); and Export Promotion (EP) regimes. While free trade regimes are optimal from the point of view of static resource allocation and efficiency, developing countries have typically opted for some form of intervention. On the one hand, countries with strong incentives for domestic production ^{1/} have been labelled import substituting or inward oriented. On the other hand, the economies that have favored exports over import-substituting activity have been labeled export or outward oriented. This bipolar classification assumes that incentives for exportables and importables are negatively correlated. Underlying this classification is the standard two-sector trade model, in which one sector produces exportables and the other importables, and the production of one cannot increase without reducing the production of the other. Thus, in this model, IS and EP are necessarily mutually exclusive and are supposed not to coexist.

A recently proposed expanded typology permits a more nuanced, and more useful, differentiation between alternative trade regimes by including a third sector in the model, that of nontradeables.¹ Under this modified paradigm, it is perfectly possible to provide strong incentives to exportables while simultaneously protecting importables—such policies would attract resources into both the exportable and importable sectors at once, but at the expense of nontradeables. Between the two extremes of pure IS and EP trade regimes, the new typology allows, aside from a free trade regime, for two intermediate possibilities, these being "protected export promotion" (PEP) and "de facto import promotion" (DIP).

A pure IS trade regime is one in which import substitution receives a positive incentive, while exports face a disincentive. India, Brazil and Argentina are examples of a such a regime. In the face of ample evidence concerning their poor performance, the enthusiasm for such regimes has waned. Both Brazil, and to a lesser extent also India, have taken steps to restoring some balance to the incentive structures of their respective trade regimes by reducing the pervasive antiexport bias inherent in them. At the other end of the spectrum, pure EP regimes are ones in which support for exportables is positive, while protection for importables is negative. Such regimes are biased against domestic production of import substitutes. The trade regime of Taiwan (China) in the late 1960s seems to fit this description.² A free trade regime is one in which incentives are in effect neutral between domestic import-substituting activity and export promotion. The trade regimes of Singapore and Korea in the late 1960s are

^{1/} That is, regimes in which incentives for import substitution outweigh incentives for export promotion.

examples of such a regime. The empirical evidence shows that both the free trade or neutral trade regime and the EP regime have been associated with rapid growth rates.

The fourth regime type, the PEP regime is of special interest. This regime allows for the coexistence of both IS and EP policies. It is an outward-oriented strategy, based on the "infant exporter" argument, its objective being to promote import substitution in order to develop new exports. This regime captures the orientation of the Korean trade regime of the 1970s. Whether such a policy can be implemented without falling prey to the problems of rent seeking and the development of inefficient, uncompetitive industries behind protective barriers appears to depend heavily upon the ability of the government to adapt its policies and to remove assistance from industries which fail to become competitive in international markets. This general approach should therefore be used only with considerable caution and with a clear awareness of the demonstrated potential risks. As successful as Korea was in diversifying its export structure into more capital and knowledge based industries in the 1970s, it is well recorded that its import-substituting heavy and chemicals industry drive led to misallocation of resources and created serious macroeconomic imbalances. This in part is what propelled Korea to adopt an important program of import liberalization in the 1980s.³

The final regime type, the "de facto import promoting" or DIP regime, is a fairly atypical one, and represents the case where strong disincentives for import-substituting activity coexist with a bias against exporting activity. Such a trade regime minimizes exports and maximizes imports in order to provide the needed resources and incentives for domestic investment and consumption. It is termed a "de facto" strategy because most DIP regimes come about as unintentional results of economic policies. Examples of such a regime include Colombia in the late 1960s and Hungary in the 1980s.

China's prereform trade regime came closest to the pure IS paradigm. As noted earlier, historically, China's preoccupation was with self-sufficiency. As such, the economy had a pervasive antiexport bias built into it, and planned imports were used only to make up for domestic shortfalls. Over time, China's trade regime has evolved in the direction of the PEP paradigm. Certainly, all indications are that the Chinese authorities are attempting to pursue a trade strategy similar to that of Korea. As in Korea in the 1970s, China has been providing considerable direct and indirect, targeted and blanket, support to exports, while also maintaining strong incentives for import substitution in a number of sectors. However, China's trade regime is still fraught with inconsistencies that arise from the dual nature of its overall policy regime. Conflicts between the priorities of the planning system and market segment of the Chinese economy are in many cases reflected in the orientation of the trade regime. Thus, the exports of numerous products subject to planning remain severely taxed, while domestic price controls make import-substituting production in certain sectors equally unattractive. If not for planned investments, such a policy regime would result in even more serious domestic shortages and import hunger. In these cases, China's trade regime bears the marks of the DIP paradigm discussed above.

Additional reforms are needed before China's trade regime can be used effectively in support of a PEP type strategy. And even then, the experience of Korea having demonstrated the associated risks (Chapter 6), it is not clear how successful China can be in pursuing such a strategy. The remainder of this chapter focuses on (a) priorities for future trade regime reforms, and (b) the implications of alternative approaches to reform.

B. REFORM PRIORITIES FOR THE IMMEDIATE TERM

Chapters 2 and 3 demonstrated that the structure and implementation of China's trade regime has been opaque and complex, although this is in the process of changing.^{2/} The authorities have relied on an array of overlapping instruments of direct administrative control to achieve various objectives. The tariff as an instrument of trade policy remains underutilized and there appears to be considerable redundancy in the system. The first priority for reform should be to make the system more transparent, simple and less dependent on discretionary policy instruments.

Canalized Imports and Products Subject to Mandatory Import Planning

Canalization is understandable for products whose domestic price is maintained artificially below international levels and imports of which, therefore, need to be subsidized as they are fed into China's domestic economy. In such cases, canalization makes it easier to keep imports to within plan targets and to administer the associated subsidy. In principal, the imports of no commodities outside the mandatory import plan are eligible for subsidies. There is, therefore, no persuasive reason for canalizing any commodities that do not figure as part of the mandatory import plan.^{3/} Yet a number of such products, including sugar, cigarettes, textile yarns and fabrics, and televisions, are to be found in Category I and II imports (Chapter 3). If the intention in such cases is to provide protection to domestic activity, canalization is not the most desirable instrument to use for this purpose. More importantly, given that most of these products are also subject to some form of import licensing or control, canalization is in any case redundant. Thus, the current scope of the government's canalization is needlessly broad, and its coverage could be reduced significantly without undermining the planning process. Of the 32 percent of imports that were subject to canalization in 1992, only 18.5 percent were subject to mandatory import planning; there is scope, therefore, for decanalizing the remaining 13.5 percent.

Second, there is no clear distinction between Category I and Category II, except that the number of FTCs authorized to handle the former are more limited than those authorized to handle the latter. Given that the number of FTCs with permission to import Category I products is already very large—as many as 57 FTCs have authorization to import chemical fertilizers alone (Chapter 3)—the distinction between Category I and II imports would seem to be redundant and could be abandoned. A single list of only those products that are subject to mandatory import planning should remain subject to canalization. All other imports should be open to any FTCs and enterprises with direct trading rights.

Import Licensing and Quotas

As discussed in Chapter 3, import licenses and quotas are presently used for multiple purposes, and there is considerable overlap between imports subject to licensing and those subject to canalization. Of the 25.1 percent of imports subject to licensing in 1992, 13.4 percent, or more than half, were also subject to canalization, and most of these represented

^{2/} See section in Chapter 5 on recent reform initiatives, and Office of the United State Trade Representative (1992).

^{3/} The only exception to this would be the imports of petroleum products which, though not subject to mandatory import planning, are imported and subsidized.

imports subject to mandatory planning. Licensing requirements for products subject to mandatory import planning would seem to be useful only as an administrative device for distributing a fixed amount of subsidized imports between various users involved in planned activities. It follows that above plan imports of such products, i.e., imports not eligible for subsidies, should not be subject to any form of licensing or quota requirements.

The 11.7 percent of imports that were not canalized, but were subject to import licensing requirements in 1992, fall into roughly two categories: those for which licenses are used for protecting domestic manufacturing activity, and those for which licenses are used essentially to restrict demand for nonessential commodities (mostly tobacco products, beverages and nonessential foodstuffs). As concerns products for which import licenses are intended as a protective device, Chapter 3 showed that there are some for which licensing is in fact partly redundant. Thus, existing import licenses on a range of road vehicles, for example, could be lifted immediately without causing any dislocation.

In cases where import licenses provide binding protection, several improvements can be made. One possibility would be to replace import licenses and quotas with tariff equivalents. This would allow the rents to be captured by the government instead of being allocated to individual enterprises or importers. Whether or not this is done, steps would certainly be taken to ensure that import licensing procedures do not penalize exporters. Specifically, the import of all capital equipment and materials could be exempted from import licensing requirements.

It is difficult, if not impossible, to determine the extent to which the authorities have in the past used import licensing as a tool for controlling access to foreign exchange *in addition* to the various objectives discussed above. We saw in Chapter 3 that for some products, licenses are not awarded without evidence of central government foreign exchange allocation. In other cases, licenses seem to be used to regulate the imports of products, especially nonessential consumption items, financed through retained foreign exchange. Import licensing is not the appropriate instrument for controlling import demand or allocating centrally controlled foreign exchange. As discussed in Chapter 2, administrative allocation of foreign exchange should be eliminated and the burden for regulating import demand should be allowed to fall on indirect policy instruments such as monetary policy and the exchange rate. If the suggestions made above are implemented, such import licenses and controls as remain would have only two nonoverlapping uses: (a) that of distributing planned imports between different users, and (b) that of protecting certain industries.

Finally, it is important that incentives relating to China's import regime be made as uniform as possible across the country. In practice, it seems that the administration of the import regime varies considerably across provinces. Part of the problem arises from the fact that each province or autonomous municipality has some discretion over the application of import licenses. In principle, no province or municipality should have the authority to administer import licenses per its own regional considerations. Province specific authority over import licensing undermines the integrity of China as a single customs territory and should be avoided.

Import Controls

The most opaque part of the trade regime has been the functioning of the system of import controls. In 1992, these were administered essentially by the State Council's Machinery and Electronics Imports Office (SCMEIO) in order to protect the production of

domestic industry (Chapter 3). As in the case of import licenses, import controls on a range of consumer products appear to be partly redundant. The domestic prices for consumer durables and electronics such as televisions, refrigerators, washing machines, sound recording and equipment appear to be below tariff-inclusive import prices. For such products, import controls could be removed immediately and the burden of protection should be allowed to fall entirely on tariffs. The government has already taken some steps in this direction and it is also trying to make the whole process more transparent (see Chapter 5)—these are encouraging signs.

Second, it is unclear why the distinction between import licensing and control is necessary, other than perhaps to indicate that the former is administered by MOFERT and the latter is the responsibility of SCMEIO. Different administrative centers of decision making for the purpose of regulating imports would seem to be a needless procedural complication. It would be more rational to centralize the administration of all import controls and licensing.

NTBs and Balance of Payments Management

While there is no doubt about the desirability of doing away with all administered controls on access to, and the allocation of, foreign exchange, the ability of the government to do so in practice will depend on the effectiveness of indirect instruments such as monetary policy and the exchange rate in controlling import demand. Given that 100 percent of all nonplan imports, and at least 75 percent of all imports, are now priced at the swap market exchange rate, and that imports closely follow trends in the money supply (Chapters 1 and 2), China should no longer need to rely on discretionary import controls for balance of payments purposes. However, to the extent that direct controls over access to foreign exchange prove to be necessary during a period of transition towards indirect macroeconomic management, they should be used to contain the government's own plan related import demand—which after all accounts for a good 50 percent of total imports—rather than interfering with imports that are financed out of the retained foreign exchange earnings of enterprises. What this implies is that SAEC ought not to prevent any enterprise from accessing FEACs, even in times of balance of payments distress. The central government should instead rely on indirect instruments, and if necessary, on administrative controls on its *own* imports.

Tariffs

The problems with the current tariff regime are the multiplicity of rates, and their wide dispersion and high (in some cases extremely high) rates. Given that the tariff is not an important source of revenue for the government, China, unlike most other developing countries, has much greater flexibility in redesigning its tariff structure fairly quickly without fear of major fiscal dislocations.

The primary objective of China's tariff is to protect domestic manufacturing activity and its escalating structure is such that tariff rates on final products are typically very high. Chapter 3 showed that the average rate on consumer goods is 65 percent, with rates on items such as clothing, consumer durables, and miscellaneous manufactured articles ranging from 80 to over 100 percent. However, international price comparisons indicate that in many of these cases there is considerable "water in the tariffs" applied on import-competing products. The domestic secondary market price for basic and mature consumer goods, including such items as washing machines, televisions, sound recorders, etc., is below the tariff-inclusive import parity price. Likewise, in the case of a wide variety of product groups such as apparel, footwear, toys, sporting requisites and miscellaneous manufactured items, China has already achieved export

competitiveness, and the high existing tariff rates would seem equally redundant. A substantial simplification of the tariff structure could therefore be achieved quite painlessly by reducing the level and number of rates that currently apply to consumer goods.

Aside from providing protection, China's tariffs are also used to selectively penalize the consumption of items such as tobacco manufactures, and beverages. Tariffs on these product categories are in excess of 115 percent and end up providing needlessly high margins of protection to domestic manufacturing activity. The same appears to be the case for a variety of processed nonessential foodstuff. Where the objective of the government is to tax consumption, excise levies or luxury sales taxes should be used in place of the tariff. A sales tax penalizes consumption without distorting the trade regime because it applies *equally* to both sales of domestic products and imports of import competing products.

Tariff Exemptions

The analysis of Chapter 3 showed that the bulk of tariff exemptions are related to export processing activity. However, it appears that substantial exemptions are also being accorded for imported equipment used in domestic production, and that foreign investors in particular, are able to benefit from such provisions. Exemptions for imports used in domestic production are distortionary and encourage foreign investors to set up capital-intensive assembly type operations behind high tariff walls. Moreover they represent a needless loss of revenue. While it is true that import tariffs do not constitute a very important part of government revenues, collections from import duties have been declining fairly rapidly and this is not all accounted for by exemptions related to export processing. Any measures that can raise tariff revenues in a nondistortionary way should, therefore, be implemented in the immediate term.

Export Controls and Taxes

China has used export controls and taxes for improving its terms of trade in the case of a few commodities in which it has a sufficiently large share of the world market. In fact, such a policy is difficult to finetune and could end up doing more harm than good for China's export earnings. There are two important circumstances under which this might happen: (a) if China's trading partners retaliate by imposing their own trade restrictions (import or export); and (b) if the effective export tax is set too high. In practice, the optimal setting of an export tax poses many difficulties because it requires knowledge of the long-run elasticity of export demand. This is not easy considering that estimates of such an elasticity must take account of the effects of possible demand switching technological changes that might be induced by short-term price increases of the product in question. Most countries have tended to levy too high a tax based on estimates of short-term export demand elasticities. And in most cases, the long run elasticity of export demand for their products has turned out to be much higher than anticipated resulting in dramatic losses of market share. Given the experience of other countries, it is not advisable for China to rely too heavily on export controls for terms of trade purposes.

As was noted in Chapter 3, the more important use of export controls in China has been for keeping the domestic prices of exportables such as coal and petroleum, considered critical for the domestic economy, below international levels. Because of its likely implications for some downstream industries, the dismantling of export controls will have to be pursued in a phased manner in tandem with the ongoing process of domestic price reform for these items. Meanwhile, the use of export taxes should be favored over that of export licenses because the

latter allow the few FTCs designated to handle such products to capture sizeable and undeserved rents (see also Chapter 6).

C. PRIORITIES FOR THE MEDIUM TERM

The sectoral evidence presented in Chapter 3 suggests that four basic problems plague much of China's industrial sector: suboptimal scale and fragmentation of productive capacity, structural imbalances between downstream and upstream activity, high cost and low quality of a range of intermediate inputs, and shortages of certain raw materials. Until now, the central government has attempted to address this situation through the use of administrative controls. Thus, the government has relied on investment licensing and approval mechanisms to try to ensure that suboptimal investments are not made. In addition, the credit plan and the materials supply system have been used to guide investment into priority sectors. Such measures are, however, no longer adequate, and may even do more damage than good in the current environment of transition.

Essentially, centrally administered controls cannot address a number of problems that have been the unintentional result of the process of decentralization. For one, with local priorities assuming greater importance, provincial authorities have been trying to avoid central government scrutiny of locally financed investment decisions wherever possible. In this situation, central government investment licensing may in fact have accentuated the problem of suboptimal scale, as provinces have turned to repackaging investments into smaller subcomponents in order to avoid the minimum size for which central government approval is mandated. Second, as provinces have gained greater control over the use of their financial resources, they have become more responsive to considerations of financial profitability. Thus, the central government practice of administered pricing for key inputs is likely to depress provincial nonplan investment in heavy upstream industry and could result in the shortage of certain raw materials. Third, decentralization has been accompanied by parochial efforts to obstruct interprovincial trade. The central government has not been able so far to prevent this type of market segmentation.

Looking to the future, for the central government to be able to bring provincial investment priorities into line with national requirements, progressively greater use will have to be made of indirect controls. In this context, the trade regime will have an important role to play. The existing system of trade controls cannot help resolve the structural problems of Chinese industry—if anything, it only reinforces the deficiencies of the trade regime. Chapter 3 showed that high and cascading protection to consumer goods, combined with the segmentation of China's market through interprovincial barriers to trade, only reinforces the problem of suboptimal scale and excess capacity in downstream activity. Likewise, the high protection that is in general accorded to intermediate and capital goods industries contributes to their high cost and penalizes downstream industries that seem to be able to attain international competitiveness only through continued heavy reliance on duty free imported inputs. The use of import subsidies and export taxes on a range of primary goods sectors keeps their domestic prices well below international prices and undermines the incentive for nonplan production in these sectors.

In the light of the above, China's trade regime will need to be substantially reoriented over the medium term, such that, as the importance of the plan declines, (a) protection to consumer goods production is reduced, (b) protection to intermediate and capital goods is reduced, and (c) the bias against the production of industrial raw materials is reduced.

Reducing Protection on Consumer Goods

Under the present incentives structure, it is profitable for provinces or local enterprises to invest such funds as they control into assembly type operations and light industrial activity, where the learning costs are low and the requirements for minimum plant size are relatively small. Rather than trying to address the problem of the proliferation of small refrigerator and television assembly plants by withholding investment approvals, subjecting these sectors to greater import competition would be a more effective way of rationalizing production capacity in these sectors.

Reducing protection in the consumer goods sectors is not likely to result in much dislocation for several reasons. In many of these sectors, China has already become an efficient exporter. In such product segments as footwear and travel goods, and other light industrial goods, for example, Chinese firms should not have any difficulty adjusting to greater import competition. Second, the contribution of these sectors to total GVIO is relatively small.^{4/} Third, a rapidly growing TVE sector promises to absorb a good proportion of such labor as may be displaced.^{5/}

Leaving aside a few exceptions such as personal computers and VCRs, none of the consumer goods sectors is subject to binding NTBs, and in many cases even the tariff seems to be partly redundant. An increase in import competition will, therefore, come only from substantial cuts in existing tariff levels. Given the exceptionally high protection that is provided to the machinery and textiles (mainly, synthetic textiles) sectors, both (but especially the former), important inputs for downstream consumer goods, protection on the latter cannot be reduced without also reducing it on the former. Tariff cuts in clothing and consumer durables, for example, will therefore need to be accompanied by cuts in tariffs on the machinery and textiles sector.

Reducing Protection on Intermediate and Capital Goods

The domestic content of many of China's fastest growing exports remains low because of the high cost and low quality of domestic intermediate inputs. Liberalizing access to imports of intermediate and capital goods would reduce costs and help to make import substitutes more competitive.

As seen in Chapter 3, the two intermediate goods sectors that are likely to be the most problematic from the point of view of import liberalization are textiles and machinery and electronics.^{6/} The bulk of the existing NTBs and the highest tariffs amongst intermediate goods are concentrated in these two sectors, which together account for 26 percent of GVIO and employ about 28 percent of the labor force in independent accounting units. Import

^{4/} The share of all consumer goods (including miscellaneous edible products, beverages and tobacco manufactures) together in GVIO was under about 10 percent in 1990. Tobacco manufactures constitute only a subset of SITC Category 12.

^{5/} This is obviously the case for such sectors as clothing where TVEs account for about one quarter of GVIO in independent accounting units. But even in sectors such as food processing and beverages where the share of SOEs in GVIO has been very large (between 96 and 99 percent) there are signs that TVEs are making rapid inroads (Yusuf, 1992, p. 16).

^{6/} Defined to include SITC revision 2 categories 71 to 77.

liberalization in these sectors would involve not only the dismantling of NTBs, some of which are not binding anyway, but also the reduction of tariffs over time. Given that existing protection is in many instances binding within these two sectors, some form of assistance will likely be needed to help them through the transition to a less protected domestic market. However, it must be noted that both sectors mask a great deal of variety and not all their subcomponents are equally vulnerable. In the case of textiles, cotton and wool textiles should be able to adjust to international competition with relative ease—it is essentially only the segment of synthetic textiles that is likely to face serious difficulty. In the case of machinery, it is the machinery for special industries and the higher technology segments of electrical machinery, together accounting for about 6 to 7 percent of GVIO, that are likely to face the most difficult adjustment problems. In the other segments, TVE penetration is already high and growing (telecommunications equipment, for example) and/or the share of local production in total GVIO is negligible (office equipment including personal computers).

Other vulnerable and currently highly protected intermediate sectors include such apparently high cost product categories as petrochemicals and plastics (Chapter 3). These, however, are considerably less important from the point of view of GVIO shares. The product category of road vehicles does account for a significant share of GVIO (3.7 percent). As was seen in Chapter 3, it seems that for certain vehicle types Chinese domestic prices are not far out of line with international norms. However, this sector as a whole is far from being internationally competitive.⁴

Finally, iron and steel, an important intermediate goods sector, seems to be very competitive, with domestic secondary prices well below import parity. The large concentration of NTBs on the imports of iron and steel products would, therefore, seem unwarranted. Indeed the Chinese authorities have already indicated their intention to remove most of the NTBs on this sector over the next two years (see below). However, China's current competitiveness in this normally capital intensive sector is likely to stem from the low domestic price of domestic energy. As such, a reduction in protection alone is unlikely to motivate this sector to raise productivity levels. Energy prices would also need to be adjusted upwards. What this serves to underline is the importance of coordinating trade and price reform.

Reducing the Bias against Raw Materials

Considerable progress has been made in price reform, and subsidies on a range of importables including chemical fertilizer and certain types of cereal have been reduced. However, price distortions remain for many others. As the role of planned investments declines, depressed prices of these products could lead to domestic shortages. The most extensive distortions remain for such exportables as coal, the low domestic price of which has made China one of the most energy intensive nations in the world.⁵ It is in China's interest to adjust the domestic price of such products upwards through the phased dismantling of existing export controls and taxes.

D. ALTERNATIVE APPROACHES TO REFORM

A full assessment of the consequences of trade liberalization requires that the interactions between sectors be taken into account in a model which accounts for differentiation both between domestic and imported goods, and between traded and nontraded goods. For this purpose, various possibilities for trade policy reforms are analyzed using an updated version of

a general equilibrium model developed by Martin (1992).^{7/6} Given the complexity of the Chinese economy, the results of this analysis need to be interpreted with due regard to its limitations and simplifying assumptions. Such a modelling exercise can be expected only to provide insights into the broad potential consequences of alternative approaches to trade policy reform.

Six reform experiments are considered. The first, or the base case scenario, assumes a radial 50 percent reduction in the level of all effective import tariffs, i.e., a 50 percent reduction in the effective cumulative protection provided by binding NTBs and tariffs. This experiment involves some "flattening" of the tariff schedule since high tariff rates are reduced by substantially more than low tariff rates.^{8/} Such a tariff cut would bring China's tariff structure roughly into line with that of Korea's, for example, with average rates on consumer goods declining to about 32 percent, those on intermediate and capital goods to around 14 percent, agricultural goods to 17 percent and mining to 10 percent. The second experiment is the application of the "Swiss formula" (see Table 4.1 for a description) which was utilized for tariff cutting by developed country participants in the Tokyo Round of trade negotiations under the GATT.⁷ Both these experiments represent a nonselective approach to reforming the import regime.

Scenarios III, IV and V analyze alternative possibilities for selective import liberalization. Scenario III is a 50 percent reduction in tariffs on machinery only. The machinery sector is one of the largest sectors of the Chinese economy, large segments of which are high cost and penalize downstream industries. The exercise conforms with China's objective to modernize its industrial base and absorb new technologies. Scenario IV is a 50 percent reduction in average tariff rates of consumer goods only (processed food, clothing and miscellaneous manufacturing). Consumer goods are presently subject to the highest rates. This exercise conforms to the concerting approach to tariff reform in which the highest rates are reduced sequentially.⁸ The fifth experiment involves a 50 percent reduction of the tariff rates on consumer goods and the two intermediate goods sectors with the highest protection (textiles and machinery). Finally, Scenario VI involves an equiproportional 50 percent reduction in the tariff equivalent of *all* trade barriers: import tariffs; import NTBs; export taxes, and export NTBs. It illustrates the implications of allowing the prices of key raw materials to rise to international levels. Table 4.1 summarizes the results of the simulations.

7/ The model utilized in this analysis is based on the logic of the two-tier pricing model of the post-reform Chinese economy developed by Byrd (1987), Sicular (1988) and Wu and Zhao (1987). The model is static and focusses on enterprise and consumer responses to changes in secondary market prices, with production and consumption decisions within the plan not affecting total output and demand levels, but operating purely to achieve distributional goals. Given this simplification, the model takes into account the interactions between industries summarized in the input-output structure of the economy and the interactions between enterprises through competition for resources, particularly labor. While institutional constraints on labor mobility exist, it is assumed that labor can still move between sectors either through labor moving to find alternative employment or through expanding industries moving to rural areas to meet their labor needs. Consumers are assumed to respond to changes in the relative prices, at the margin, of particular goods. The two-tier pricing system employed in the market for foreign exchange, which affects the returns from exporting and the costs of importing is, however, modeled explicitly.

8/ For example, a tariff rate of 100 percent is reduced by 50 percent under this experiment while a tariff rate of 10 percent is reduced by only 5 percent.

Table 4.1: EFFECTS OF REDUCTIONS IN PROTECTION: VARIOUS SCENARIOS
(percent change from base)

	I-base case 50% tariff reduc- tion	II Swiss formula tariff reduction /a	III 50% redn on machinery	IV 50% tariff redn on pure cons. goods /b	V 50% redn on five high tariff goods /c	VI 50% reduction in all distortions
Export volume	11.0	15.2	2.4	1.3	4.8	22.8
Import volume	11.6	16.8	2.9	1.1	5.4	33.2
Sec market exchange rate	4.0	5.4	1.0	0.6	1.8	-8.6
Real income /d	0.8	1.1	0.4	0.0	0.5	1.5
Real wage	0.8	1.1	0.3	-0.1	0.4	-0.1
Sectoral Output						
Crops	-0.2	-0.1	0.1	0.0	0.1	0.2
Livestock	0.1	0.1	0.1	-0.1	0.0	0.8
Metallurgy	-0.2	-0.2	-0.1	0.0	0.0	-0.6
Electricity	-0.0	-0.1	0.0	0.0	-0.1	-0.7
Coal	0.2	0.3	0.1	0.0	0.1	18.2
Petroleum mining	0.0	0.0	0.0	0.0	0.0	0.7
Petroleum refining	0.0	0.0	0.0	0.0	0.0	-0.0
Chemicals	-0.1	-0.1	0.1	0.0	0.1	-1.9
Machinery	-0.3	-0.5	-1.0	0.1	-0.9	-3.2
Building materials	0.1	0.2	0.0	0.0	0.0	-0.2
Wood	-0.7	-1.1	0.2	0.1	0.3	-2.8
Food	0.1	-0.1	0.1	-0.4	-0.4	-0.9
Textiles	0.4	0.4	0.1	0.7	-0.2	-1.5
Apparel	1.6	2.5	0.1	0.1	1.1	-0.2
Paper	-0.2	-0.5	0.1	0.1	0.2	-2.1
Misc. manufacturing	0.3	0.3	0.3	-1.3	-0.9	-6.8
Construction	0.1	0.1	0.0	0.0	0.0	-0.2
Freight transport	1.0	1.3	0.2	0.1	0.4	-2.5
Pass. transport	0.0	0.0	-0.1	0.0	-0.1	-0.4
Commerce	0.9	1.2	0.0	0.1	0.3	-1.2
Misc. services	0.0	-0.1	0.0	-0.0	-0.0	0.1
Education/health	0.0	0.0	0.0	0.0	-0.0	0.2
Public administration	0.0	0.0	0.0	0.0	0.0	0.0
Housing	0.0	-0.0	0.0	0.0	-0.0	0.1
Sectoral Exports						
Crops	12.5	16.5	1.7	1.8	3.9	117.9
Livestock	12.3	16.3	1.8	1.9	4.0	59.6
Metallurgy	15.9	21.3	4.9	6.2	5.0	86.0
Electricity	8.1	11.1	2.1	1.5	4.0	-97.7
Coal	11.2	15.2	2.6	1.7	4.8	792.1
Petroleum mining	0.9	1.3	0.2	0.2	0.5	29.1
Petroleum refining	0.7	1.1	0.1	0.2	0.4	10.5
Chemicals	16.5	21.3	0.1	0.3	0.7	7.6
Machinery	19.7	27.9	11.4	1.0	12.9	-10.6
Building materials	10.8	14.7	2.5	1.5	4.5	-28.4
Wood	16.4	22.8	1.5	1.2	3.0	-7.9
Food processing	12.9	17.7	1.5	2.9	4.8	-13.4
Textiles	9.3	13.8	0.7	0.7	6.2	-4.5
Apparel	11.1	16.4	1.0	0.9	7.1	-5.6
Paper	14.5	19.5	1.6	1.4	3.5	-15.9
Misc. manufacturing	12.2	17.7	1.3	5.7	7.6	-17.1

/a Utilizes the Swiss formula from the Tokyo Round of trade negotiations under GATT where $T_1 = A \cdot T_0 / (A + T_0)$ where T_0 is the base percentage level of the tariff and T_1 is its level after the reform and A is set at a representative value of 14.

/b Fifty percent reduction in tariffs on processed food, textiles, apparel and miscellaneous manufactures.

/c Includes consumer goods as in /b and textiles and machinery.

/d Measured as the Hicksian compensating variation for the change, taking into account the consumption benefits less any changes in GDP at domestic prices and compensated trade tax revenues, and expressed as a share of base period GDP.

The Base Case: Effects of a 50 Percent Radial Cut in Effective Tariffs

The effects of a 50 percent tariff reduction on individual industries depend upon both the specific characteristics of each industry and the broad macroeconomic consequences of each experiment. At the macroeconomic level, the secondary market exchange rate is a key variable. Following the projected liberalization of imports, the demand for foreign exchange increases and its price rises by an estimated 4 percent in the case of this experiment. This partially offsets the reduction in the landed price of imported goods and, very importantly, raises the returns from exporting. With exports more profitable, and imports relatively less expensive, both import and export volumes are estimated to expand by a little over 5 percent each. Another important macroeconomic consequence of trade liberalization is an increase in the real wage rate expressed as the nominal wage relative to the average price of consumption goods. This increase reflects both the reduction in price of consumption goods and a shift in the composition of output towards the labor-intensive goods in which China has strong comparative advantage.⁹

Impact on Sectoral Output.^{9/} The impact of the base case reform scenario on sectoral output is, on the whole, quite small. What this indicates is that an important change in the relative price of importables is likely to have only a limited impact on overall resource allocation between sectors. This is not surprising for two reasons: (a) in a country the size of China, the size of domestic consumption relative to imports is always going to remain large; and (b), more importantly, there would appear to be considerable qualitative differentiation between imports and domestic production, so that a rise in the former would not lead to major dislocations in the latter.

How different sectors fare relative to one another in the base case scenario depends upon the magnitude of the tariff reduction in the sector and its trade orientation. Industries which are purely oriented to import substitution, with a relatively large share of imports in domestic consumption and a small share of output destined for export, tend to experience a decline in output. By contrast, sectors with a strong export orientation tend to expand their output, even in cases where there is a sizeable reduction in the tariff applying on imports of the good produced by that industry. In general, the trade orientation of industries appears to be a more important influence on output effects than the initial tariff level: as an example, output of the more import-competition-oriented crops sector falls while livestock output rises, even though the initial tariff rate on imports of livestock products was higher.

The apparel sector, not surprisingly, registers a large increase in output relative to other sectors, despite a high initial tariff reduction and a consequently large fall in the price of imported clothing, because of its very strong export orientation. Elsewhere, what is encouraging is that the chemicals and machinery sectors, both currently heavily protected, with the latter accounting for substantial shares of domestic output and employment, experience only small declines in output. This suggests that the adverse effects on profitability of increased import competition just barely outweigh the beneficial effects on profitability of higher export returns following the depreciation of the secondary market exchange rate. These are both highly heterogeneous sectors characterized by large two-way trade. Import competition appears to help

^{9/} It should be emphasized, that since the model is a static one, changes to sectoral output take place only to the extent that there is a reallocation of resources *between* sectors—total national output is constrained to remain the same. Also, typically in such a model estimates of welfare gains (gains in real income) tend to be small because they capture only the static effects of trade reform.

restructure these sectors so that they become more export oriented. Another significant finding is the rising output levels of the textiles sector. This sector, it was noted earlier, is the largest contributor to GVIO and employment in the Chinese economy. It is also heavily protected, and as in the case of the machinery sector, is characterized by substantial two way trade. The simulation results suggest that the contractionary effects of import penetration in the textile sector are likely to be outweighed by the expansionary demand pull of an apparel sector that can be expected to grow rapidly.

Within the services sector, the two trade related sectors of freight transport and commerce experience a significant increase in output from the projected liberalization. Output of other services sectors is very slightly affected, with the reduction in the price of services relative to exportable goods apparently having only a limited effect on domestic activity in these sectors.

Impact on Exports. A 50 percent reduction in import tariff rates (with the resulting exchange rate adjustment) is found to produce an expansion of exports from all sectors, as the increased profitability of exports draws products from the domestic market. The size of the increase in exports depends upon the initial export orientation of the sector, the size of the output response in the sector, and the impact of the reform on the domestic demand for the output of the sector. The model specification reflects the fact that it is likely to be relatively difficult to achieve a large percentage expansion in exports where exports initially make up a large share of output from the sector. This factor appears to explain why apparel exports rise only in line with the overall expansion in exports even though the apparel sector experiences the largest expansion in output. Increases in domestic demand for petroleum products as intermediates appear to explain the very small expansion in the exports of petroleum and petroleum products.

The machinery sector records the largest expansion in exports in the base case scenario. This reflects the special treatment which this sector receives under the two-tier exchange rate system. Alone of the sectors represented in the model, this sector benefits from a 100 percent retention rate on foreign exchange. Because of this, this sector responds to a greater degree than other sectors to the depreciation of the secondary market exchange rate noted above. While the provision of different retention rates across sectors introduces a distortion into the trade regime, the higher rate on this particular product does illustrate the importance of high secondary market exchange rates in facilitating the response of exports to price signals.

To try and isolate just how important foreign exchange retention is to export performance, a separate simulation was conducted to model the implications of bringing the retention ratio to the machinery sector in line with that for the other sectors, i.e., reducing it to 80 percent. These results are reported in Table 4.2. This table shows that eliminating the positive discrimination in favor of the machinery sector has a substantial negative impact on the exports of this sector, as it sees a 1.7 percent appreciation in the exchange rate applying to it—machinery exports would decline by almost five percent. Moreover, given the large size of this sector, this fall in exports would not be compensated for by the improved export performance of the remaining sectors. Also it should be noted that if the machinery sector were no longer to benefit from higher foreign exchange retention, its export growth under the base case reform scenario would no longer be the highest of all sectors, but would fall to fourth place, after chemicals, wood and metallurgy.

Table 4.2: EFFECTS OF REDUCTION OF FOREIGN EXCHANGE RETENTION RATIOS FOR THE MACHINERY SECTOR
(percent change from base)

Export volume	-0.4
Import volume	-0.3
Secondary market exchange rate	0.1
Real income ^{/a}	0.0
Real wage	0.0
Sectoral Output	
Crops	0.0
Livestock	0.0
Metallurgy	0.0
Electricity	0.0
Coal	0.0
Petroleum mining	0.0
Petroleum refining	0.0
Chemicals	0.0
Machinery	-0.1
Building materials	0.0
Wood	0.0
Food	0.0
Textiles	0.0
Apparel	0.0
Paper	0.0
Misc. Manufacturing	0.0
Construction	0.0
Freight Transport	0.0
Pass. Transport	0.0
Commerce	0.0
Miscellaneous services	0.0
Education/health	0.0
Public administration	0.0
Housing	0.0
Sectoral Exports	
Crops	0.2
Livestock	0.2
Metallurgy	0.6
Electricity	0.3
Coal	0.3
Petroleum mining	0.0
Petroleum refining	0.0
Chemicals	0.0
Machinery	-4.8
Building materials	0.3
Wood	0.2
Food processing	0.2
Textiles	0.1
Apparel	0.1
Paper	0.2
Miscellaneous manufacturing	0.2

^{/a} Measured as the Hicksian compensating variation for the change, taking into account the consumption benefits less any changes in GDP at domestic prices and compensated trade tax revenues, and expressed as a share of base period GDP.

Impact of the Other Reform Scenarios

The results for liberalization following the "Swiss formula" approach presented in Table 4.1 involve a larger reduction in average tariff rates, as well as a much greater degree of flattening of tariff rates than the simple proportional reduction of 50 percent. The simple average reduction in tariff rates with the version of the Swiss formula used in this case is 71 percent. The application of the Swiss formula tariff reduction yields benefits which are broadly similar to, only larger than those, resulting from the base case reform scenario. The volumes of both exports and imports expand, in this case by 15 and 17 percent respectively, as against 11 and 11.6 percent respectively in the base case. The secondary market exchange rate depreciates by over 5 percent in order to constrain the increase in demand for imports and, in so doing, stimulates exports through increases in returns at domestic prices.

The changes in sectoral output levels are generally larger than in the case of the across the board 50 percent tariff cut but, in most cases, in the same direction. Thus, the machinery sector faces a larger contraction under this scenario, but the overall estimated impact is still very small at -0.5 percent of current output levels. The radical tariff reform exemplified by this tariff reduction does have a very marked impact on export volumes, however, with exports from a number of sectors rising by over 20 percent. Significantly, machinery exports once again show the largest percentage increase, and under this scenario, retain this performance even if the foreign exchange retention ratio is reduced to 80 percent.

None of the scenarios for selective import liberalization yield results that are as favorable as the base case or the Swiss formula reform options. The least attractive option appears to be Scenario IV, or tariff reductions on just consumer goods. Unlike the other scenarios, this one does not produce any contraction of the machinery sector. However, it results in by far the smallest overall growth in exports across all sectors and points to the importance of relieving downstream industries of the burden imposed on them by high tariff protection on intermediate and capital goods inputs.

Scenario V produces better results for export performance than Scenario IV, with machinery, textiles and apparel exports recording significantly superior results. This is not surprising given that machinery is an important input for its own exports and that textiles are the most important input for the apparel sector. On the other hand, the export performance under this scenario still remains substantially inferior to the base case or Swiss formula options. Besides, unlike the base case or Swiss formula, Scenario VI produces a contraction of both the textiles sector and the machinery sectors. Textiles seem to suffer because, while they are made subject to greater import competition, they seem unable to make compensating adjustments in the absence of supporting liberalization in other upstream sectors. This points to potential difficulties of approaching import liberalization in a selective manner.

Scenario III, a 50 percent tariff reduction in just machinery, appears to be the most attractive of the options for selective liberalization. Although its contribution to export performance across the board is inferior to that of Scenario V (the option of cutting tariffs on the five most protected including machinery) it results, not surprisingly, in somewhat more limited domestic dislocation in such sectors as miscellaneous manufacturing and textiles. More importantly, though, this option does not result in any significantly greater contraction for the machinery sector itself, nor does it undermine its export performance—compared to Scenario V in which machinery exports grow by about 13 percent, they register over an 11 percent growth

Table 4.3: NONTRADE BARRIERS BEFORE AND AFTER IMPORT LIBERALIZATION PROPOSED BY CHINA

Line #	SITC 2 digit codes	Percentage shares based on import shares of 1992 Q1			
		Nonoverlapping		Individual basis	
		L+C+M+F+S (as of Aug 1992)	C as of 1997	L as of 1997	M+F+S (as of 1997)
1	0	0.0	..	0.0	0.0
2	1	0.0	..	0.0	0.0
3	2	0.0	..	0.0	0.0
4	3	1.7	..	0.0	0.0
5	4	60.7	..	0.0	60.7
6	5	0.8	..	0.0	0.0
7	6	15.4	..	7.7	15.4
8	7	16.7	..	0.0	0.0
9	8	0.0	..	0.0	0.0
10	9	5.3	..	5.3	0.0
11	11	12.5	..	12.5	0.0
12	12	100.0	..	0.0	100.0
13	21	0.0	..	0.0	0.0
14	22	9.1	..	0.0	9.1
15	23	90.9	..	9.1	90.9
16	24	57.1	..	0.0	57.1
17	25	100.0	..	0.0	100.0
18	26	53.7	..	12.2	46.3
19	27	1.6	..	0.0	1.6
20	28	36.0	..	0.0	36.0
21	29	14.3	..	0.0	0.0
22	32	0.0	..	0.0	0.0
23	33	6.7	..	0.0	6.7
24	34	0.0	..	0.0	0.0
25	35	0.0	..	0.0	0.0
26	41	0.0	..	0.0	0.0
27	42	0.0	..	0.0	0.0
28	43	0.0	..	0.0	0.0
29	51	0.5	..	0.0	0.0
30	52	0.7	..	0.0	0.7
31	53	0.0	..	0.0	0.0
32	54	0.0	..	0.0	0.0
33	55	0.0	..	0.0	0.0
34	56	100.0	..	0.0	100.0
35	57	66.7	..	0.0	55.6
36	58	65.3	..	0.0	62.7
37	59	8.3	..	6.7	8.3
38	61	0.0	..	0.0	0.0
39	62	18.0	..	18.0	0.0
40	63	23.3	..	0.0	23.3
41	64	0.0	..	0.0	0.0
42	65	54.3	..	0.6	30.6
43	66	3.5	..	0.0	0.0
44	67	100.0	..	0.0	100.0
45	68	37.8	..	0.0	36.7
46	69	20.7	..	0.0	20.2
47	71	23.4	..	8.5	8.5
48	72	24.7	..	0.0	0.0
49	73	14.7	..	0.0	0.0
50	74	22.1	..	3.3	0.0
51	75	39.3	..	39.3	0.0
52	76	42.6	..	8.5	4.3
53	77	12.2	..	1.7	1.1

...continued

Table 4.3: (cont'd)

Line #	SITC 2 digit codes	Percentage shares based on import shares of 1992 Q1			
		Nonoverlapping L+C+M+F+S (as of Aug 1992)	Individual basis		M+F+S (as of 1997)
			C as of 1997	L as of 1997	
54	78	41.8	..	41.8	0.0
55	79	4.6	..	0.0	0.0
56	81	0.0	..	0.0	0.0
57	82	0.0	..	0.0	0.0
58	83	0.0	..	0.0	0.0
59	84	8.7	..	0.0	0.0
60	85	0.0	..	0.0	0.0
61	87	27.2	..	0.0	0.0
62	88	15.9	..	15.0	0.0
63	89	0.5	..	0.0	0.0
64	94	0.0	..	0.0	0.0
65	95	0.0	..	0.0	0.0
66	96	0.0	..	0.0	0.0
67	97	0.0	..	0.0	0.0
Total		51.4	0.5	7.6	32.0

Note: L = Import License, C = Import Control, M = Mandatory Plan, F = First Category Imports, S = Second Category Imports.

Source: Office of the United States Trade Representative, October 1992.

rate under Scenario III.^{10/} This impressive performance of the machinery sector despite localized tariff cuts suggests that it is an adaptable sector, sufficiently diverse to be able to move to more export-oriented activities following import liberalization.^{11/} Compared to the other options for selective liberalization, therefore, tariff cuts on just the machinery sector seem to yield the best results for the least dislocation and reform effort.

Scenario VI, which involves reductions in export taxes and export tax equivalents of export controls in addition to reductions in import tariffs, yields interesting results. Since barriers to exports bear heavily upon exports of primary commodities, and especially coal and oil, and because some of these distortions are relatively large, this simulation shows significant effects on the structure of the economy.^{12/} The combination of reforms under Scenario VI results in a very sizeable expansion of both exports and imports, with overall export volumes increasing by almost a quarter and import volumes increasing by almost a third. The secondary market price of foreign exchange declines by around nine percent as the increase in export

^{10/} Also, it should be noted that this scenario produces almost 80 percent of the static welfare gains of Scenario V.

^{11/} Since the model assumes no improvements in technology or productivity, increased exports of machinery implies the reallocation of resources within this sector from its more technology-intensive segments to its less sophisticated segments in which China already has a comparative advantage.

^{12/} The data on the domestic prices of exportables need to be treated with some caution and may in fact exaggerate the extent of price differential in the coal sector, for example.

supply makes more foreign exchange available and drives down its price.^{13/} Somewhat surprisingly, there is a small negative change in real wages despite an overall move in the structure of output towards relatively labor intensive basic commodity production. It seems that the direct price increasing effects of reductions in export taxes increase prices sufficiently to outweigh the positive effects of the increase in the demand for labor.

The effects of this liberalization on output patterns is greater than the effects of the import tariff liberalization experiments. The output levels of four commodities currently subject to relatively high export taxation, coal, oil, crops and livestock all increase, while output of all other traded goods industries declines. The decline in the outputs from other sectors reflects a combination of higher input costs resulting from reduced export taxes, increased competition from imported goods and the appreciation of the secondary market exchange rate, which reduces the cost of imports and lowers the returns obtained from exports.¹⁰

Scenario VI yields a very different export response from that observed with the other reform options. The most dramatic responses are in coal, crops, metallurgy and crude petroleum which experience substantial reductions in the levels of implicit export taxation imposed by licensing. Other exports decline in response to the appreciation of the exchange rate and declines in their output levels. This package of reforms would, therefore, appear to produce important shifts in China's export structure away from manufacturing and towards resource based exports.

Summary

The results of the simulations provide several useful pointers. First, they suggest that China should be able to undertake fairly deep cuts in tariffs and NTBs without this resulting in any major contraction of even the most protected sectors such as textiles and machinery. In a country of China's size, domestic consumption relative to imports can be expected to remain large and domestic dislocations are likely to be limited because of the considerable qualitative differentiation between imports and domestic production.^{14/} Import liberalization should improve China's export performance, particularly of its machinery sectors. The condition for successful liberalization, however, is that activities within each sector should be allowed and able to switch to the more export-oriented segments and that the authorities remain disciplined about macromanagement.^{15/} Second, it seems that radial import liberalization is a superior option to selective liberalization limited to the currently most protected sectors. Nonetheless, amongst the possibilities for selective liberalization, the option of reducing import protection on only the machinery sector is likely to produce the best results for the least effort and dislocation. Third, notwithstanding possible dislocation to downstream industries, significant gains could be derived from the reduction of export controls and taxes in addition to the reduction of import protection.

^{13/} There is a larger gain in real income from this liberalization than from any of the liberalizations including only import tariffs.

^{14/} It should be noted, however, that given differences in productivity levels across the country, dislocations in some regions could be significant.

^{15/} An important assumption of the modelling exercise is that real absorption remains constant. See Annex 4.1.

Endnotes

1. See Liang, Marer and Battat, "Foreign Trade Strategies" of Nations: A New Interpretation" in Koves and Marer, (Eds.), 1991.
2. See Liang et al., in Kovas and Marer (Eds.), 1991.
3. See World Bank (1986).
4. See World Bank (1991c).
5. I.J. Singh (1992).
6. The model utilized in this analysis has been updated from the model reported in Martin (1992) in several important respects. Firstly, the demand component of the input-output table used in the analysis was updated to reflect the dramatic changes in the structure of China's foreign trade which have occurred since the early 1980's. This was done by replacing the values of imports and exports in 1981 appearing in the original table with values of imports and exports for 1991 derived from the United Nations' COMTRADE database. The composition of final demand was also updated using a Richard A. Stone (RAS) algorithm to reflect changes in the distribution of demand between consumption, investment and government demand since 1981 and to maintain balance in the input-output table following the adjustments made to the structure of trade and the explicit incorporation of China's trade distortions in the model.

The structures of intermediate demand and factor demand were not updated in the same way because adapting a standard input-output table of China for use in a general equilibrium model requires very detailed analysis of the relativities between market and secondary market prices along the lines undertaken by Thompson (1991) and time and resources did not permit undertaking this task for this study. While it would have been desirable to update the structure of output and intermediate input use in the same way that final demands and trade were adjusted, it is extremely unlikely that this would materially affect the results since the structure of industry output has changed remarkably little relative to the changes in trade and final demand patterns.

Two other important enhancements to the model were made in undertaking this analysis. Firstly, the model's solution algorithm was upgraded from a linear in percentage changes version, which is exact for small changes but suffers from unknown and potentially serious errors for large changes, to a large change version which eliminates these linearization errors (Pearson 1991). The second enhancement made was to incorporate the *Balance of Trade Function* or *Distorted Trade Expenditure Function* to provide a precise money measure of the static welfare change (Hicksian Compensating Variation) from trade liberalization. This measure captures the welfare consequences of partial liberalization in the real world context of multiple distortions and allows evaluation of welfare changes even in the second-best case of partial trade liberalization (see Anderson and Neary 1992 for details).

The model simulations were performed with the composite price of Gross Domestic Product held constant as a numeraire so as to facilitate expressing welfare changes as a proportion of base period GDP. The secondary market price for foreign exchange is

free to adjust to changes in the supply and demand for foreign exchange. An aggregate measure of absorption, which corresponds to the level of utility in the underlying expenditure function, is held constant in the model solutions allowing welfare evaluation to take place with respect to the theoretically correct compensated demand functions. The use of this particular closure means that the tariff revenues and quota rents appearing in the calculation are compensated trade tax revenues corresponding as specified by Anderson and Neary (1992). One other important feature of the experiments performed is the assumption that all protection measures provide constant *ad valorem* levels of protection. Thus, it is assumed that the policy makers responsible for policy instruments such as import licensing strive to keep domestic prices above (or below) world prices by a fixed percentage. While somewhat open to question, this assumption seems preferable to the alternative approach of assuming that policy makers have fixed quantity targets for trade levels.

7. Laird and Yeats (1987).
8. Theoretically, it can be shown that partial trade liberalization involving the reduction of the highest tariff is welfare-increasing for a "small country" as is a radial reduction in which all tariffs are reduced equiproportionately.
9. Static welfare gains were computed for each scenario. Typically, in such models, welfare gains are very small (0.4 percent of base period GDP in the case of the base case scenario) because they capture only the changes in welfare associated with reallocation of resources and outputs between competing uses and neglect the more important gains which have been observed to follow from the opening of economies to trade, including gains from externalities between export industries and the remainder of the economy; gains from the more rapid transmission of technological innovations to more open economies (Edwards 1992); and gains from greater competition and utilization of size economies in more open economies (Brown and Stern 1988).
10. The last of these effects is similar to the booming sector phenomenon where rising prices of resource-based commodities put severe adjustment pressure on other traded goods sectors (see Peng and Martin 1992 for an analysis of this phenomenon in China). Consistent with the response to a resource boom, output of several nontraded goods sectors expands in response to the higher relative price of nontraded goods. This response would be larger if the increase in real income were translated into an increase in spending, an effect which was precluded by holding real absorption constant in this experiment.

V. TOWARD A PROGRAM FOR TRADE LIBERALIZATION

Drawing on the analysis of previous chapters, this chapter seeks to define a program for reforming China's trade regime. Attention is first focussed on the timing and sequencing of trade reforms in China and their links to other reform areas. Stock is taken of the most recent reform initiatives in China's trade regime, and based on an evaluation thereof, recommendations are offered for future reform.

A. TIMING, SEQUENCING AND LINKAGES WITH OTHER REFORMS

The reform scenarios analyzed in Chapter 4 are based on certain assumptions about how the Chinese economy will react to changes in the trade regime. The modelling exercise assumes that the central government is able to maintain macroeconomic stability through the liberalization process and that rigidities in the economy would not significantly obstruct inter- and intrasectoral resource reallocation. It is evident that trade reform on its own is unlikely to yield desired results. For it to succeed, progress in and coordination with other areas of policy and reform will be essential. This does not mean, however, that reform of China's trade regime should wait. In considering the linkages between trade reform and other policy reforms, it should be borne in mind that creating and sustaining momentum is important to the success of any reform program. While it is true that trade policy reform on its own can at best have a limited impact, it is also true that progress in one area of reform can help generate momentum for other reforms. Moreover, a number of factors relating to both the domestic and the international trading environment suggest that the time is ripe for China to embark upon a bold program of trade liberalization.

Trade Reform and Reform of the Planning System

Reform in China generally implies a reduction of planning. Trade reform in China cannot proceed without the further dismantling of the country's trade planning apparatus. In particular, as discussed in Chapter 2, the existing system of foreign exchange planning and allocation needs to be eliminated. All potential users, including the government, must be made to bid for foreign exchange at a market-determined price. In addition, the current system of foreign exchange contracting needs to be replaced with one in which FTCs are forced to pursue profits rather than be bound by foreign exchange earning targets. Only then will the institutions in China's foreign trade sector become truly responsive to the market.

Aside from the reduction in trade planning, success of trade reforms in China will also depend on the phasing out of controls over investment decisions. An important conclusion of Chapter 1 was that despite a high degree of import penetration and a rapidly growing share of exports in output of certain sectors such as clothing and footwear, China's industrial structure has remained remarkably stable, at least through to 1990. Although, it seems

that investment in sectors with the most rapid export growth has become more productive over the last few years, the stability of China's industrial structure suggests that the distribution of investment across sectors has remained, at least until fairly recently, heavily controlled. For the dynamic gains from trade to accrue to China, it is critical that investment be allocated increasingly in accordance with market signals and not, as it appears to have been in the past, through a process of "planing." One step that should be taken immediately in this context is to substantially raise the minimum level of investment requiring central government approval.¹

Trade Reform, Reform of the Exchange Rate Regime and Macroeconomic Policy

The evidence from other countries is very clear about the importance of a real depreciation of the currency for the success of programs of trade liberalization. Since liberalization entails less protection for import competing activities, a real depreciation of the currency is important to help boost exports and to relieve such pressure as may build on the balance of payments.

In the simulations of Chapter 4, the depreciation of the secondary market rate plays a critical role in producing the strong post liberalization export gains discussed. Already, 80 percent of exports are subject to the swap market rate. Given the importance of the swap market rate for an appropriate export response, however, it would be helpful for China to extend the application of this rate to all export earnings, before it embarks upon a program of import liberalization. Likewise, given China's dual exchange rate system, the authorities have the additional responsibility of ensuring that the gap between the official and the swap market rates remains narrow at all times, so as not to penalize exports and favor imports financed from outside the swap market. As discussed in Chapter 2, the best course of action in this context would be for the authorities to move to a unified exchange rate as soon as possible and make the currency convertible for all current account transactions. This is all the more important now given the most recent tendency of the gap between the official and the swap market exchange rate to widen again. At end-March 1993, the spread between the two rates stood at over 45 percent, up from 26 percent at the end of the fourth quarter of 1992.

The widening gap is itself partly the result of a loose monetary policy ^{1/} that has no doubt contributed to emerging signs of overheating in the Chinese economy. By the end of the first quarter of 1993, the retail price index had risen 8.6 percent over the previous 12 months, and the cost of living index for 35 large cities had recorded an increase of almost 16 percent over the same period, reflecting higher service costs, especially public services such as housing, electricity and transport. At the same time, shortages of certain industrial inputs have appeared, causing the price of intermediate goods such as steel, for example, to more than double over the last year and for the means of production price index to rise more than 15 percent by end-1992. Macroeconomic policy's most useful role in liberalization is to keep inflation low and thus support a real depreciation of the currency. A study covering 19 countries under 36 different periods of trade policy reform found that expansionary fiscal and monetary policies are the single most important cause of trade policy reversals.² It is crucial, therefore, for China to maintain disciplined fiscal and credit policies if it is pursue a program of import liberalization.

^{1/} Net domestic assets grew by 32.7 percent in 1992, currency in circulation by 36 percent, and broad money by 31.3 percent. By the end of the first quarter of 1993, broad money was growing at an annual rate of 46 percent.

As important as price stability is for the success of trade liberalization, liberalization itself can be used as an instrument for keeping inflation in check by providing an external escape valve for domestic demand pressure. Given its comfortable reserve position and sizeable current account surplus,^{2/} China is particularly well positioned at present to use trade liberalization as a means to address the threat of overheating and the emerging shortage of essential industrial raw materials.^{3/} The time seems right, therefore, for China to launch a serious program of trade liberalization.

Finally, as concerns the links between trade reform and management of the capital account, the experience of other countries indicates that the prudent course is to maintain control over the capital account while freeing up the current account. Capital account decontrol frequently results in exchange rate uncertainty. In the absence of effective sterilization, policy makers may lose control over the domestic price level, and hence the beneficial effects of depreciation on export performance may be lost through the critical period of import liberalization. As discussed in Chapter 2, a gradual approach to capital account liberalization is therefore advisable for China.

Trade Policy and Price Reform

An important objective of reforming the trade regime is to rationalize the structure of incentives for domestic economic activity and thereby improve resource allocation. If domestic price controls remain in place, however, the trade regime would be of little help in accomplishing this objective. This is not to say, in the case of China, that trade liberalization should await further price liberalization. China has already made very considerable progress with regard to price reform. The incidence of subsidies for imported commodities has declined substantially. Moreover, the widespread application of the two-tier pricing mechanism has meant that a large measure of price flexibility exists for much of nonplan domestic economic activity. Under the circumstances, import liberalization can be expected to be effective for an important segment of the economy even without removing such price controls that still remain. On the other hand, without further price liberalization, it would not be possible to eliminate the mandatory import plan, and without abolishing the import plan, it would be difficult to do away with canalization and its attendant problems.

As concerns the removal of export controls on products, especially coal, for which domestic prices are currently depressed, the simulation analysis of Chapter 4 demonstrated that the elimination of such controls, although likely to result in some dislocation for downstream sectors, would nevertheless produce large net gains to the economy. In this case, price decontrol should proceed in tandem with the removal of export controls and both should be pursued in a phased manner, allowing the hardest hit downstream sectors to adjust.

^{2/} At the end of 1992, China's reserves (IMF definition) were the equivalent of nine months of imports, and its current account surplus was 1.9 percent of GDP.

^{3/} For 23 of the 27 products categorized as "means of production," stocks declined an average of 10 percent over 1992. The stocks of steel fell 5 million tons, or 90 percent.

Trade Liberalization and Enterprise Reform

Enterprise efficiency is not only a micro but also a significant macro problem in China. Losses equivalent to almost 5 percent of GDP, and financed in good part through loans from the banking sector, SOEs are the largest contributors to the government's fiscal and quasi-fiscal deficit. In this situation, it is critical to raise enterprise efficiency. Import liberalization would be a valuable tool for this purpose. However, it can only work if domestic enterprises are able to restructure their activities in response to import competition. The analysis of Chapters 3 and 4, and particularly the simulation exercise, suggest the possibility of implementing fairly deep tariff cuts without causing too much disruption, provided there are no significant obstructions to the inter- or intrasectoral allocation of resources. While it is true that there remain significant barriers to labor mobility within the state-owned sector, there is already a large and growing population of footloose workers that are geographically and sectorally mobile. Also, while numerous institutional barriers remain to rationalization of productive capacity, enterprise mergers and the creation of industry groups have become more common place. These are signs of declining rigidity in the economy, and augur well for the success of any program of trade liberalization in China. More important, however, in this context, is the phenomenon of the rapid rise of the China's nonstate sector. Rapidly growing TVEs are the most promising indicator of the capacity of the Chinese economy to adjust to a more open import regime. What all of this suggests is that the process of import liberalization in China can be initiated at this time. Indeed, import liberalization should not wait because once initiated it is itself likely to generate pressure and momentum for further reform in the SOE sector.

Trade Liberalization, Support for Exports and Industrial Policy

Rationalization of China's industry will require much more than just import liberalization. Efforts will need to be made in parallel in such areas as export development, quality control (see Chapters 6 and 7), worker training, technology policy and competition policy. In short, trade policy reform and industrial policy will need to be pursued in a mutually reinforcing manner. The question is: in what way should the two be coordinated? Korea was able to combine trade policy with industrial policy to often achieve impressive results in targeted sectors. The Korean paradigm has thus been labelled the "infant exporter" model of development. However, it is not clear to what extent sector selection was done on a rational basis and to what extent it was the result of ad hoc decision making. What is certain is that the Korean authorities did make many mistakes and although many sectors that benefitted from targeted assistance became competitive exporters, others failed to do so. After the heavy and chemicals industry drive of the 1970s, Korea has over the last decade adopted a generalized program of progressive trade liberalization.³

A priori, China's vast size, and its trend towards more decentralized decision making, would seem to preclude the possibility of finetuning trade and industrial policy coordination. The problem is that, while trade policy necessarily requires a national perspective, industrial policy has become very much a provincial concern. On the other hand, China could certainly benefit from closer national coordination between industrial and trade policies than appears to exist at present. In the case of several key sectors, a national perspective is essential for being able to rationalize production capacity and for tackling the problem of suboptimal scales of production. In such sectors, a national strategy ought to be developed to complement a phased program of trade liberalization. The creation of the State Council Economics and

Trade Office (SCETO) ^{4/} is a potentially important initiative from this point of view (see Chapter 6 for more on this).

Trade Reform and the International Environment

China has evolved very rapidly into a major international trading nation. For it to sustain this momentum, however, China will need to become more responsive to the demands of trade diplomacy, for as its presence in global markets grows larger, so will the concerns of its trading partners (see Chapter 7). In its bid to attain full membership status of the GATT, China has already made significant efforts in trying to conform to the expectations of the international community in general and the United States in particular (see below). However, the requirements for GATT membership are not precise and are a matter for some negotiation. If the treatment of recent applications to the GATT is any guide,^{5/} China is likely to be called upon to go further in relaxing its import regime. From the perspective of the emerging international trade environment too, therefore, this appears to be an appropriate time for China to pursue a program of trade liberalization.

B. RECENT REFORM INITIATIVES

The Chinese authorities have taken some important steps in 1992 in the area of trade policy reform. In contrast with reform measures of 1988 and 1991 (discussed in Chapter 2) that were focused especially on the export planning apparatus, the 1992 measures have focused more on the import regime. For the most part these represent efforts on the part of China to conform closer to the expectations of the General Agreement on Tariffs and Trade (GATT) ^{6/} and constitute a response to pressure from the United States.

Transparency

China has taken an important step in improving the transparency of its trade regime. A significant number of trade documents that were previously unavailable to foreigners have now been published. These regulations set forth detailed administrative guidance for Chinese importers and exporters and should be particularly helpful to potential foreign suppliers of goods to China who have in the past been disadvantaged by lack of access to government regulations. Moreover, as per the recently concluded agreement with the United States (see below), (a) only those rules, regulations, laws, etc., as are readily available to other governments are to be enforced; and (b) administrative and judicial tribunals are to be set up for the purpose of reviewing and correcting administrative action relating to Customs matters.

^{4/} This office has recently become the State Council Economics and Trade Commission (SCETC).

^{5/} Refer, for example, to the case of Venezuela which committed itself to across the board tariff bindings in its bid to gain GATT membership.

^{6/} Although discussions of the Working Party appointed to consider China's 1986 application to resume its status as a contracting party of the GATT were suspended after June 1989, negotiations resumed in late 1991.

These steps represent an important advance. However, as discussed in Chapter 4, a number of further steps could also be taken to reduce the discretionary element from China's system of import licensing and controls.

Liberalization of the Import Regime

Several initiatives have been taken in the direction of import liberalization. *First*, the Customs Tariff Commission of the State Council reduced a large number of tariff rates. Rates were cut on 225 separate items or tariff lines beginning January 1, 1992. These items account for 4.4 percent of China's total import tariff lines. In addition, special import regulatory duties, essentially import duty surcharges, that had been instituted for 14 products in 1985 and for 4 additional products in ensuing years, were lifted effective April 1, 1992. For 16 of these 18 products actual import duties fell from between 28.6 and 61.5 percent.^{7/} The effect of these measures has been essentially to bring the average tariff level back to their pre-1987 levels. In December 1992, tariffs were cut further by an average of 7 percent for 3,371 tariff lines.

Second, all import substitution lists are reported to have been abolished and the removal of import licensing requirements on 16 broadly defined product lines out of total of 53 subject to import licensing has been announced.^{8/} These products include steel and a range of steel products, sugar, coffee, cassette radio recorders, black and white televisions and tubes, watches and a range of production and assembly lines.⁴ This would constitute a substantial reduction in the coverage of import licensing. However, it must be noted that in the case of iron and steel products, and televisions for example, none of which are mandatory plan commodities, all imports would still be subject to canalization. Thus, while these announced measures appear to eliminate the overlap between licensing and canalization, it is not clear that they will result in decontrol of imports.

Also, the removal of assembly lines from the import licensing list is somewhat surprising, given the continuing high levels of protection prevailing on many consumer goods. With high rates of protection provided to final goods, and typically lower rates of assistance on raw materials and components, there is a strong incentive for enterprises to undertake high cost final stage processing from imported components. While restrictions on the import of production and assembly lines are a highly imperfect means of controlling the expansion of such inefficient processing activities, their removal may spark the rapid expansion of inefficient import-intensive assembly operations. The first-best, and only long term effective response to this problem is to remove the incentive for such activity by reducing the tariffs on such consumer goods, or by replacing tariffs and nontariff barriers with a consumption tax.

Third, a much more substantial reduction in the coverage of import licenses and controls is to be undertaken as part of the package of reforms announced in October 1992 following negotiations with the US government in connection with a Section 301 trade action

^{7/} On the other hand, the basic tariffs for two other commodities, sedan cars and video cameras, were raised. Nonetheless, overall, the rates on these commodities did fall since the basic import duty increase fell short of the import regulatory duties that were eliminated.

^{8/} In addition, at the time this report was going to press, it was reported that SCEMIO has been abolished, although it appears that its functions have been taken over by some sort of an alternative import verification office.

under the US Trade Act.⁵ However, it is not clear if these measures are to be applied to all imports or only to imports from the United States. Obviously, these measures would constitute a significant initiative only if they are to be applied on a multilateral basis. The agreement calls for unspecified tariff reductions by December 1993 for selected products for which tariffs had been raised since 1988. These include fruits and nuts, vegetable oils, iron and steel products, machinery and mechanical appliances, electrical machinery and parts, cosmetic and toiletry preparations.

More importantly, the agreement provides for the phased removal of the bulk of existing import licenses and controls over a five year period extending up to 1997. Table 6.3 provides a summary of what import licenses and controls will be retained beyond 1997 and indicates how this list compares with the present NTB coverage. Three broad points emerge:

- (a) If the agreement were applied on a multilateral basis, almost all import controls would disappear and only about 7.1 percent of imports would continue to be subject to import licensing requirements. The latter would cover only 10 broad category of products, including in particular, tobacco manufactures, textile fibers, rubber manufactures, power generating equipment, office machinery, road vehicles, and photo equipment—of these power generating equipment and road vehicles would be the most important from the point of view of shares of GVIO.
- (b) There is no indication that the extent or coverage of canalization will be reduced. Thus, 32 percent of imports (of which only 20 percent corresponding to the mandatory import plan) would continue to be subject canalization.
- (c) Except for a small selection of products, no tariff or export tax reductions are called for.

C. CONCLUSIONS AND RECOMMENDATIONS

Over the last decade and a half, China has achieved a phenomenal upsurge in exports and trade. Most recently, however, its success in raising investment, growth and trade surpluses, has raised the specter of overheating and inflation. Further, enterprise inefficiency remains an important micro and macro problem for the country. Finally, China's dramatic entry into export markets has raised concerns amongst its major trading partners about its responsibility for opening up to imports. The launching of a substantial program of import liberalization could help China address all three of these issues. Moreover, given its comfortable reserves position, the advanced state of price reform and the growing factor mobility and flexibility in domestic resource allocation, China is particularly well positioned to undertake such a program at this time.

There is no doubt that China's recent reform initiatives constitute an important step in the direction of import liberalization. However, viewed in the above perspective and given the reform priorities identified in Chapter 4, these measures seem incomplete and need to be complemented with other initiatives, both in the immediate and in the medium term.

Recommendations for the Immediate Term

Canalization. The distinction between Category I and II imports should be abolished, and a single list of only those products that are subject to mandatory import planning should remain subject to canalization. All other imports should be open to any FTCs or enterprise with direct trading rights.

Licensing and Controls. Nonbinding NTBs should be removed. The discretionary element of import licenses and controls should be reduced by ensuring that all decisions with regard to import licensing and controls are made only by central government authorities and according to criteria that are uniform and transparent.

Tariffs. First, the number of rates and the level of tariffs applying to consumer goods should be reduced. Immediate steps could be taken on a range of mature consumer products for which there is evidence of "water in the tariff." On the basis of available data, it appears that reductions in the order of 20 to 40 percent should be possible, depending upon the product, without resulting in any significant dislocations in domestic production. Where, tariffs are currently being used as a way to discourage consumption, these tariff reductions should be accompanied by the imposition of an appropriate sales tax.

Tariff Exemptions. It is recommended that all exemptions, including those to foreign investors, on imports for use in domestic production should be abolished.

Export Controls. Wherever China's existing price control policies necessitate the use of export regulation, export taxes should be used in place of licenses because the latter allow the few FTCs designated to handle such products to capture sizeable and undeserved rent.

Recommendations for the Medium Term

Phase Out of Licensing, Controls and Canalization. The Memorandum of Understanding that China recently concluded with the United States is an important initiative intended to reduce NTB coverage significantly by 1997. China must implement this agreement on a multilateral basis. Only then would this initiative constitute significant progress. In addition, in parallel with its declining reliance on import planning, China should also phase out the practice of canalization.

Tariff Reduction. Given the important initiative that the government has already taken in the form a preannounced and phased reduction of NTB coverage,^{9/} the same should be done for tariffs. A reasonable target would seem to be to implement a 50 percent radial cut in tariffs as soon as possible. Such a tariff cut would bring China's tariff structure into line with that for Korea's, for example, with average rates on consumer goods declining to about 32 percent, those on intermediate and capital goods to around 14 percent, on agricultural goods to 17 percent and on mining to 10 percent.

^{9/} Assuming that this is to be applied multilaterally and not just to imports from the United States.

Given that trade diplomacy is likely to remain an important part of China's future trade strategy, the actual phasing of such reforms could be linked to progress in negotiations with trading partners, most notably within the context of GATT.

On the other hand, China should move unilaterally and much more quickly in the reduction of import protection to the machinery sector. Of all options for selective liberalization, this one is likely to yield the most promising results.

Links with other Policies. The trade, foreign exchange and investment planning apparatus must be further dismantled (see recommendations of Chapter 2). Depreciation in the real effective exchange rate and disciplined macroeconomic policies must accompany the proposed program of import liberalization. Reform of the SOE sector should not be allowed to lag too far behind the proposed program of import liberalization. Parallel efforts must be made to provide support for export development and to articulate a national industrial policy that would lay down a strategic framework for certain sectors identified as key sectors that would complement the preannounced measures to liberalize the import regime (see Chapter 6).

Reduction in Export Controls. Finally, export licensing and taxes on products for which domestic prices have been kept depressed should be reduced progressively as part of the government's ongoing efforts to pursue price reform.

Endnotes

1. I.J. Singh (1992).
2. See Choksi et al., in "The Design of Successful Trade Liberalization Policies" in Koves and Marer (Eds.), 1991.
3. See World Bank (1986), for details.
4. GATT (1992a).
5. Office of the Trade Representative (1992).

VI. POLICIES FOR EXPORT DEVELOPMENT: A CRITICAL EVALUATION

A. INTRODUCTION

The experience of East Asian NICs is evidence of the potential utility of public intervention in the area of export development. This experience suggests: (a) that public support for export development can yield important externalities; (b) that interventions can be useful for offsetting disincentives to exports during the transition period to a less distorted economy; and (c) that selective intervention can be an effective catalyst for setting in motion an export growth dynamic.

China has, in many respects, adopted a strategy of export development very similar to that of these countries, and it has attempted to replicate many of the institutional structures of these countries as well. This chapter seeks to provide a critical evaluation of the various experiments to date in order to draw lessons for government policy in the future. Wherever pertinent, international experience is brought to bear.

B. DEVELOPING BUYER-SELLER LINKS: THE ROLE OF TRADING COMPANIES

There is a growing body of literature on international trade that focusses on the nature and importance of buyer-seller links.¹ On the one hand, direct links between an exporter and an overseas buyer have been shown to be an important conduit for the diffusion of knowledge and information. It is through such contacts that an exporter learns the nature of his market, and that the buyer exercises direct quality control, and often will also transmit valuable design, packaging and production know-how. This tends to be important for consumer goods. On the other hand, it is also true that international trade has become a very complex affair. Accordingly, intermediaries can play the important function of bringing buyers and sellers together. In general, though, the appropriateness of a distribution channel for international trade will depend on the nature of the product, volumes involved and the characteristics of the market. Looking in to the future, the most important concern for China as it seeks to sustain its export drive is to draw lessons about how to access developed country markets for manufactures.

In the context sketched out above, organizations specializing in export-import can play a useful role in supporting the export drive, particularly of new entrants, into world markets. In fact, the continued existence of such organizations in market driven economies, not only in East Asia, but also in North America and Europe, suggests that they meet real needs of even well established and experienced trading communities.

The International Experience 1/

There is a great variety of trading companies in the market and different forms have come to predominate in different economies. The role of the giant trading houses of *sogo sosha* in Japan is legendary. Korea is one country that set out deliberately to replicate the Japanese *sogo sosha* model and has done so successfully. Taiwan (China) and Hong Kong on the other hand have relied on small trading companies or on trading companies from other countries.

Six of the ten largest non-US companies in the world are *sogo sosha*. Not only have these trading firms come to dominate Japanese trade, they have proven to be a most enduring institution whose role extends much beyond that of a mere marketing intermediary. In fact, their principal function is that of coordinator of whole product systems or production chains. Their involvement extends to multiple stages and multiple functions. Domestic marketing, provision of logistical support, and procurement of imported materials and equipment is thus an equally important, if not a more important part of their functions, as is the marketing of finished products overseas. In addition, finance is a particularly important service that *sogo sosha* provide to their clients. Leaving system links to the *sogo sosha* enables clients to allocate scarce resources to investment in plant and equipment rather than in distribution networks, and thereby to reduce production costs. On the other hand, the profits of the *sogo sosha* depend on their ability to exploit the economies of scale that accrue to them through managing the procurement and marketing activities for their systemwide client base. In any given industry, therefore, *sogo sosha* and their clients complement one another, and recognition of this complementarity encourages the maintenance of long-term relationships between them. Typically, the clients of *sogo sosha* consist of sister firms of loosely structured industrial groups (*zaibatsu* and *keretsu*). In 1990, *sogo sosha* handled more than two thirds of Japan's imports and half of its exports.

As successful as the *sogo sosha* have been, they have come under increasing pressure over recent years as traditional multi-process industries such as textiles and chemicals have faced maturity, and as the country's exports have diversified into consumer goods, automobiles and high technology products. In response to declining profitability, *sogo sosha* have been entering new fields of activity. Plant and project exports, real estate, large scale foreign direct investment and third country trade are activities that the *sogo sosha* have pursued aggressively through the 1980s. While these activities provide new opportunities for the *sogo sosha*, they also present new risks. Looking into the future, it seems clear that the *sogo sosha*'s traditional activities have reached their limit, and it is likely that only those *sogo sosha* with sufficient resources to absorb the costs of breaking into risky new activities will survive and grow.

Unlike Japan, the history of trading companies in Korea is rather short. In fact, the development of the Korean general trading company (GTC) or *chongap sangsa* (a direct translation of *sogo sosha*) is the result of a deliberate government policy, instituted in 1975, to replicate the success of the *sogo sosha* in expanding Japanese exports. The government established minimum criteria—one of the most important being minimum size in terms of paid-up capital and exports—for designation as a GTC.² Generous incentives were offered to firms

1/ This section is based on Annex 6.1.

meeting these criteria. The focus of Korean GTCs was intended to be restricted to export development. Consequently, Korean GTCs are much less functionally diverse than their Japanese counterparts. They do not operate as system coordinators and handle a relatively much smaller share of even the import business—less than 15 percent of Korean imports were handled by the GTCs in the mid 1980s. The minimum limits for GTC designation were set at high levels in order to encourage only the very largest of firms. It is no surprise, therefore, that all but one of the existing GTCs are affiliated to a *chaebol*, the Korean version of the *zaibatsu*. Each Korean GTC depends much more closely on its affiliated *chaebol*, than do the postwar *sogo susha* on their respective *keiretsu*. Indeed, Korean GTCs function as exclusive export agents for their respective *chaebols*.

Although the Korean GTCs did make an impressive contribution to the country's export growth, much of this performance can be attributed to active government support and the GTCs' very close links with their respective *chaebols*. The focus of the GTCs in the early years was on expanding business, without regard to cost. In effect, the GTCs competed fiercely for government assistance tied to export targets. In so doing they became over-extended and slashed their profit margins. They managed to overcome their worst difficulties only because of access to the vast resources of their affiliated *chaebols*. Moreover, their share in Korea's exports has stagnated at around 50 percent since 1982. The Korean GTCs have been trying to enter new activities such as project exports and third country trade, but face a harder challenge than their Japanese counterparts, because of their greater financial vulnerability.

Impressed with the Japanese experience with big trading companies and with Korea's successful efforts to create their GTCs economic planners in Taiwan (China) also attempted to develop their own *da maoyishang* or Large Trading Companies (LTCs). Taiwanese LTCs, however, never really took off in part because government incentives to LTCs were very modest compared to what was offered to their Korean counterparts. Moreover, LTCs faced much greater competition than their Korean counterparts. Roughly half of the trade (exports and imports) of Taiwan (China) is handled by Japanese *sogo susha*. Foreign retailers, local manufacturers and public sector agencies each control an estimated 10 percent, leaving only 20 percent to be handled by local trading companies, of which there are reportedly about 40,000, or 20 times the number in Korea and about 4 times that in Japan. Second, LTCs in Taiwan (China) got little or no support from local business groups which, while not as important as those in Korea and Japan, could still have given the LTCs a significant boost.

The multiplicity of small trading companies is a trait that Taiwan (China) shares with Hong Kong. However, in Hong Kong the small trading company is the most important form of trade intermediary and accounts for 80 to 90 percent of Hong Kong's total exports. Unlike in Taiwan (China), the role of foreign trading companies is negligible. Hong Kong trading companies tend to be specialized, both in the type of services they provide and in the number of products they handle. They are either involved in exporting or importing or reexporting and handle one, or at most, two products. Despite their small size, Hong Kong trading companies do not operate on a simple agency or commission basis. They function as fully fledged intermediaries, assuming the risks associated with taking title to goods. They guarantee quality and on time delivery to the buyer. In many instances, they pay for a certain percentage of defective items, or in case delivery deadlines are not met, they assume the cost of packaging the merchandise themselves or of making alternative transportation arrangements. From the point of view of local manufacturers, they also serve an important technical assistance function. They carry out rigorous preshipment inspection and, in certain

cases, inspect the goods at various stages of production, and thereby provide manufacturers valuable information on the quality, packaging, and styling requirements of buyers. Finally, Hong Kong trading companies provide preshipment financing to local manufacturers—mostly this financing takes the form of credit for imported inputs or advance payments.

The Experience of China's FTCs

As noted in Chapter 2, China has a unique legacy of trading companies, the origins of which lie in the planned economy when all trade was carried out by a dozen FTCs with monopoly power in the trade of nonoverlapping commodities. In line with the policy of decentralization, and to encourage greater competition in foreign trade, MOFERT authorized the creation of additional FTCs. New FTCs were created in two ways. Many specialized national FTCs saw their provincial branches spun off into separate provincial specialized FTCs. More frequently, though, so called general FTCs were established at the provincial or municipal level with authority to deal with a broader range of commodities. By 1988, there were about 5,075 FTCs in operation. The explosion in the number of FTCs substantially increased competition in foreign trade, but it led to problems as well. Some of the firms were not well capitalized and lacked international experience and, as a result, defaulted on contracts. Others violated central government regulations in the pursuit of profitable trade transactions. In August 1988, the State Council launched a rectification campaign aimed at eliminating or merging FTCs not found to conform to national foreign trade policies. By late summer as many as 1,400 FTCs had been shut down, and there now remain an estimated 3,600 in operation. Unlike in any of the other East Asian countries examined, China's FTCs are all publicly owned, each being supervised by MOFERT at the appropriate level, whether municipal, provincial or national.

FTCs handle over 90 percent of China's imports and at least 80 percent of exports. Most FTCs take title of the goods that they export—they do not operate on a commission basis, or on what is in China called an agency basis.^{2/} They are supposed to absorb all the risk of marketing the product overseas. On the other hand, the bulk of imports handled by FTCs are on an agency basis. Here, most FTCs play the role of a mere intermediary, rather than that of an aggressive procurer of technology for its clients. Although China's FTCs handle the bulk of the country's exports, they depend heavily on their links with Hong Kong to market their products overseas. Over 50 percent of China's exports are to Hong Kong, almost all of which are then reexported to third countries (Chapter 1). This suggests that it is Hong Kong's trade intermediaries that are in fact responsible for delivering about half of China's exports to the rest of the world.

The performance of China's FTCs varies a great deal. Small and dynamic FTCs coexist with giant, inefficient, monopolists. The more dynamic FTCs do appear to play an effective role as conduits for information regarding production technology, styling, and packaging. They finance overseas trips for their clients. They help train the workers of local enterprises, and provide credit to buy imported raw materials. In the case of processing with

^{2/} The government's initiative to spread the use of the agency system for exports has been a failure because of the lack of FTC cooperation. FTCs have shown a preference for the traditional system of purchasing goods from the exporter and then selling them internationally on their own account, in part because of the foreign exchange retention system—FTCs have no claim to retained foreign exchange from exports handled on an agency basis. Only 10 percent of exports were handled on an agency basis in 1990.

supplied or imported raw materials, an activity which accounts for more than half of China exports of manufactures, the FTC helps the client procure the necessary raw materials and the machinery. In some cases, FTCs have also been valuable conduits for technological upgrading by arranging imports of specialized equipment needed by their client firms. As concerns their links with clients, the more dynamic FTCs have taken the lead in organizing networks of small and medium sized supplier firms, both state-owned and TVEs. While not rigid, the links between such FTCs and their clients tend to be stable and loyalty is important. Regarding their links with buyers, such FTCs have relied a lot on contacts in Hong Kong, but increasingly they appear to be developing their own networks in third country markets. Over all, such FTCs seem to mirror the structure and approach of their counterparts from Hong Kong. As can be expected, such FTCs are found primarily in light industrial products, garments and electronics. There is no doubt that Chinese FTCs have contributed to the growth of China's exports from these sectors, even if this contribution has, in many cases, consisted only of providing an effective interface between small local firms and Hong Kong buyers who then take responsibility for marketing the products to third markets (Chapter 1).

As successful as some FTCs have been, there is ample evidence of others that are inefficient or that are engaged in activities that are not necessarily beneficial for China. Many FTCs appear to be poorly managed. It has been reported by foreign buyers that middle level staff of FTCs with whom they have had to deal with lack expertise and are poorly motivated.³ Many local firms have also reported dissatisfaction with the ability of FTCs to provide feedback from buyers and with their high agency fees. Several FTCs were found to withhold valuable market information from clients, and in some cases the local enterprise was not even aware of the prices that its products would fetch on the international market. Much of the blame for the survival of FTCs of dubious value lies in the policy framework adopted.

First, the use of FTCs for foreign trade transactions is mandatory for all but a handful of firms that have been granted the right to trade directly.^{3/} The extent to which local enterprises use FTCs does not, therefore, reflect market determined decisions, and is hardly an indicator of their success, as it is in the case of the other economies discussed previously. It is true that decentralization has injected a good dose of competition into China's foreign trade system. Local enterprises do have a greater choice between which FTCs to use—indeed, it is estimated that up to a third of the foreign trade business of enterprises in Hubei and Shandong, for example, is handled by FTCs from other provinces—and this has allowed them to bargain on prices. Even so, the mission encountered several cases in which local enterprises were still getting prices that were substantially below the international level.^{4/} This suggests that the previously noted monopsony power of FTCs (World Bank 1987), while no longer as widespread, is still a problem.

^{3/} By mid-1992, only 538 companies had the right to trade directly. These included some holding companies with many subsidiaries.

^{4/} The mission also found in many cases that local firms were getting lower prices per unit on exports than on the domestic market. Why do these firms export? There are two possibilities. Either it is the case that the premium from the foreign exchange they earn from exports is sufficient to compensate them for the lower price, or they are under pressure to meet foreign exchange targets in the context of their own contracts with their respective production bureaus—in the latter case they are probably subsidizing their losses on exports with earnings on the domestic market.

FTC monopsony power and inefficiency remain essentially because of insufficient competition. Where information flows are poor, as in the interior provinces, and enterprises do not have easy access to alternative FTCs from other provinces, poorly managed FTCs are able to survive. It may also be that provincial authorities, desirous of capturing a maximum of foreign exchange, deliberately restrict the freedom of local firms in dealing with FTCs from other provinces. Competitive pressure on FTCs is critical to ensuring that local enterprises are not penalized, that profits and foreign exchange are not misallocated to FTCs, and that products that should be exported from China are not underexported.

Second, there remain a number of designated national and provincial FTCs ^{5/} that have monopoly power over a certain range of products (Chapter 2). These products are essentially of two types. There are those that are subject to planning and whose domestic consumption is subsidized, such as steel, fertilizer, oil and coal. FTCs serve as a sort of valve to regulate the flow of these products between the international and domestic markets. The exports of such products have to be controlled to ensure that the artificially maintained differential between the world and domestic price does not result in domestic shortages. Then there are products in which China is deemed to have market power (mainly some minerals such as tungsten). The exports of these products are controlled on the grounds that China's market power would be undermined with free competition in exports.^{6/}

Designating a few FTCs to handle the exports of such products has led to the accrual of rents for a handful of FTCs. Thus Sinochem, for example, with exclusive rights to export petroleum products, has profited enormously from the difference between the subsidized local procurement price and the higher international price for oil. Sinochem's financial strength does not stem from the fact that it is an effective trading company, but rather from the rents that have been conferred on it (Box 6.1). In theory, the government should make compensating adjustments for these either through export taxes or profits tax. In practice, this has not happened to the extent that it should.

Third, fixing foreign exchange targets for FTCs (Chapter 5) makes them drive to meet these targets without sufficient regard to their profitability. The experience of Korea has shown that such an incentives framework leads, over time, to financially weak trading companies. Unlike in Korea, Chinese FTCs do not have the luxury of relying on the financial resources of giant conglomerate enterprise groups. In the event of financial distress, they only end up burdening the state budget or, even less desirably, the banks.

Fourth, all FTCs (even the so called general ones) are subject to some sort of restriction as to their product scope—no FTC is free to deal with just any product.^{7/} Besides, FTCs are not authorized to handle internal trade. This practice restricts the chances for FTCs to evolve as systems organizers similar to the *sogo sosha* of Japan—they are prevented from

^{5/} For a particular product, say crude oil, there is just one FTC in each province with authority to handle trade—that FTC could be the national FTC or a provincial FTC.

^{6/} The same rationale underlies the ubiquitous use of export licenses (Chapter 3).

^{7/} Even where FTCs import raw materials for their clients, they are not authorized to supply these materials outside their client group, and cannot export commodities other than those for which they have permission.

Box 6.1: FOREIGN TRADE CORPORATIONS IN CHINA: TWO EXAMPLES

China's FTCs are extremely diverse. They range from the China National Chemicals Import and Export Corporation (Sinochem), China's reigning Number 1 trading company with 1990 trade turnover in excess of \$12 billion, to small firms with trade volumes as low as a few million dollars.

Sinochem, which was founded in the 1950s, is an economic powerhouse. In addition to its trade in a broad range of bulk and specialty chemicals, it controls all of China's trade in crude oil and in almost all refined petroleum products. Its subsidiaries and joint ventures include companies in finance, leasing, storage and shipping, international advertising, and biotechnology research. By 1990, it had become the core of Sinochem Group of 155 member enterprises. The Group includes 56 companies over which Sinochem has direct administrative or indirect control by virtue of partial ownership. There are an additional 98 companies said to have a loose affiliation with Sinochem as a consequence of ongoing business transactions. Sinochem's headquarters staff in Beijing exceeds a thousand employees; an additional two to three thousand are employed in various provincial branch offices, and hundreds more staff in more than sixty foreign representative offices, foreign joint ventures, and wholly owned foreign affiliates.

Particularly in recent years, Sinochem increasingly has sought to become a transnational corporation. A growing share of its operations consist of buying and selling of chemicals and petrochemical products in third country markets, for example, buying products in Singapore and selling them in Europe. In 1991, these transactions increased almost 50 percent to exceed \$3.5 billion.

While the broad scope of Sinochem is clear, the sources of its apparent success are less so. It grew most rapidly in the first half of the 1980s when China's oil exports, over which it had a monopoly, grew rapidly. Its total export volume in recent years remains well below the record level of 1985 when China's petroleum exports hit a peak. Sinochem's petroleum exports were a guaranteed money maker since it was able to buy crude oil at roughly one sixth the international price, sell it on the international market, and keep part of the profits. As China's oil exports soared in the first half of the 1980s, to exceed \$6.5 billion dollars by 1985, Sinochem controlled a flow of "profits" that was not even remotely matched by any other foreign trade company. These were reinvested to create the burgeoning empire evident by the late 1980s. Even as late as 1991, when the volume of China's petroleum exports had been cut back and Sinochem was allowed to retain only 1.3 percent of the foreign exchange earnings, its monopoly over petroleum exports comprised an economic rent worth an estimated \$50 million.

Although the Hubei Provincial Chemical Import-Export Corporation ranks among China's top 500 trading companies (No. 422 in 1991), its economic profile differs dramatically from Sinochem, its former parent company. Until 1989, the Hubei firm was a branch of the parent firm; since then, it has been independent. Unlike Sinochem, it deals only in chemicals—the highly profitable petroleum export business is entirely in the hands of Sinochem. Hubei Provincial Chemical Import-Export Corporation actually loses money on more than 90 percent of its exports, even after factoring in the rebate of indirect taxes it receives on most exported products. These rebates average 23 percent for pigments and dyestuffs, two of the main product lines. In an attempt to reduce its losses, the company has been reducing its exports steadily since 1989. Offsetting these losses are profits it makes on chemical import products, especially high quality chemicals. But the firm is not free to expand this business since the quantities of several of the most profitable imported products are restricted by import licenses. And profits on imports were at a peak in 1987 and 1988, prior to the two major devaluations of 1989 and 1990.

Yet the strategy of curtailing money-losing exports and lobbying for greater quantities of profitable licensed imports has met with only limited success. Cumulative financial losses at the end of 1991 exceeded Y 32 million. These losses are financed by short-term bank loans which are rolled over frequently. In recent years, payments of interest and principal have averaged Y 3 to Y 4 million.

In short, the Hubei Provincial Chemical Import-Export Corporation is handicapped by a crushing burden of cumulative debt. Its principal exports, which it is required to sell by virtue of an imposed mandatory export target of \$18 million, mostly lose money. It is kept afloat largely through the rents implicit in the import licenses it is allocated by higher authorities. Any net profits that these activities generate are absorbed in payments of interest and principal on its cumulative debt.

meeting all the potential upstream and downstream trade-related requirements of their clients. More importantly, the current practice of restricting product scope discriminates against FTCs that happen to handle products in which China is not competitive. The problem is that such FTCs now find themselves facing conflicting and contradictory incentives. In trying to meet foreign exchange targets fixed in the context of contracts with provincial or national authorities, they sacrifice profitability, and thereby their financial solvency. If they try to stay profitable, they risk penalties for not meeting foreign exchange targets. Under the circumstances, some FTCs such as the Hubei Provincial Chemical Import Export FTC (see Box 6.1), have had to rely on distortionary behavior (such as selling import licenses) to subsidize losses on exports in order to survive.

Fifth, relations between provincial/municipal and national FTCs on the one hand, and between FTCs and their respective supervising authorities (whether provincial/municipal or central government branches of MOFERT) on the other, remain confused and ill defined. Decentralization notwithstanding, provincial FTCs which used to be branches of national FTCs still conduct business on behalf of their erstwhile mother companies. The terms on which such business is conducted remain ambiguous and seem to vary from case to case. Although FTCs are now supposed to be responsible for their profits and losses, the extent to which their decisions are free from noncommercial considerations varies quite considerably, and depends on their relationship with their particular supervising authority.

There is no doubt that recent reforms have put existing FTCs under growing pressure. As a result, FTC dependence on the banking sector has grown, and a number of FTCs are facing difficulties. In response to this, the government has taken several steps which, while they might help FTCs survive, may not be in the best interests of China's trading system. It appears that the latest round of regulations pertaining to foreign exchange retention are in part intended to support FTCs by allowing them to enlarge their share of retained foreign exchange from 12.5 to 60 percent (see Chapter 2). This measure should have no negative consequences for local enterprises as long as FTCs are subject to adequate competition, and are thereby forced to pay them the equivalent of international prices (adjusted for a reasonable profit margin) for export products. In cases where competition still remains limited, however, this measure enables FTCs to use the premium from their foreign exchange retention quotas to raise their own profits rather than pass it on to exporting enterprises.

Some FTCs have been granted generous loans to undertake "enterprising" or vertical integration into manufacturing activity, with an idea of assuring them a stable source of supply. In some cases, such links between FTCs and manufacturers could well be beneficial to both parties—while the FTC acquires a captive supply network, the manufacturers could gain access to greater financial resources. On the other hand, as long as such a policy is pursued with the survival of FTCs in mind, there will remain the danger of "forced marriages" which, while useful to the FTC, may place undesirable restrictions on manufacturers who lose the flexibility to choose their trade intermediary. MOFERT is, along similar lines, trying to facilitate mergers between FTCs. Again, much depends on how these mergers take place. Some could result in important economies of scale and scope for FTCs. On the other hand, if mergers are made between FTCs that are not sufficiently diversified, there is the danger of creating monopolies.

Finally, MOFERT has been actively encouraging FTCs to "internationalize" as a way to diversify their functions and spread financial risk. Thus many FTCs have received

authorization to set up overseas subsidiaries, invest in real estate, engage in third country trade, and invest abroad. The experience of Japanese *sogo sosha* shows that breaking into these new activities is a risky business requiring considerable resources. It is difficult to see, therefore, how those FTCs already in trouble in competing for traditional business can be helped by entering new and more risky activities. At the same time, it is also not clear what sense it makes even to encourage financially strong and well managed FTCs to "internationalize" just yet, when these companies could, if allowed the freedom, surely find profitable investment opportunities within China. The evidence so far is that many of the FTCs pursuing a strategy of premature "internationalization" have had dubious intentions. MOFERT's policy has in fact been abused, and has resulted in capital flight. Several FTCs are known, for example, to have engaged in speculative real estate investments. Others have set up overseas subsidiaries essentially to escape Chinese law. Some subsidiaries have been used by FTCs to reinvest in joint ventures with themselves, and thereby, to gain access to substantial fiscal incentives reserved for foreign investors.

Lessons for FTC Policy in China

The failure of Taiwan (China) to develop Japanese style giant trading companies indicates that it is not always possible to transplant models from other countries. On the other hand, the case of Korea demonstrates that effective trade intermediaries do not always evolve by themselves, but that they can be created through active policy intervention. China is a much larger and more diverse economy than any of the ones discussed above. No one country offers a model that is entirely appropriate for it. Given the diversity of its industrial structure, it is apparent that China has useful lessons to learn from each of the economies considered. In the immediate term, the most useful trading companies for China appear to be the ones that resemble their counterparts from Hong Kong. Small,^{8/} flexible and specialized trading companies seem to be the best suited to handle China's most rapidly growing export segments such as light industrial goods, garments and electronics, and to harness the export potential of TVEs. On the other hand, looking into the future, and taking account of the breadth of China's industrial structure, it is easy to imagine a useful role for large trading companies that could, like the *sogo sosha* in Japan, contribute to the development of efficient production systems, or as in the case of Korea, promote the trade of affiliated conglomerate groups.

The real challenge for FTC policy now should not be how to help FTCs survive, but how to create a framework that encourages those FTCs to thrive that can serve as effective trade intermediaries for China. Drawing on our analysis of the deficiencies of China's current FTC policy, and of the experience of other countries, the following recommendations are offered:

- (a) Progress in making the trading system more competitive notwithstanding, steps need to be taken to eliminate the residual monopsony power of FTCs dealing with noncontrolled products. In theory, this can be done merely by ensuring that informational and regulatory barriers that come in the way of cross provincial transactions are removed. In practice, this may be difficult to achieve. A more effective way of applying competitive pressure on FTCs would be, as in the case of Taiwan (China), to allow entry to foreign trading firms, and

^{8/} Compared to Hong Kong trading firms, small Chinese FTCs are still large—while the former on average have less than 50 workers, the latter tend to have between 300 to 400 workers.

to buying offices of foreign wholesalers and retailers.^{9/} Another alternative is to give more enterprises the option of trading directly. For a start, all central government enterprises could be given the option of trading directly, and also of handling trade for other firms too. Ultimately, any local firm should have the choice of trading itself, or of subcontracting this function to an intermediary. For the foreign trade system to function efficiently, it is not local enterprises that must earn the right to trade directly, but it is FTCs that must earn the right to act as intermediaries.

- (b) Pending the elimination of controlled commodities, a mechanism must be found to systematically transfer the rents that currently accrue to FTCs designated to handle exports of such commodities—there is no reason for them to benefit from windfalls that have nothing to do with their capacity to function as trade intermediaries. The most rational way of doing this would be through the application of compensatory export taxes.^{10/}
- (c) As noted in Chapter 2, the practice of foreign exchange contracts between provincial or central government authorities and their FTCs should be discontinued. Instead, FTCs should operate as independent profit centers and their bonuses could be linked to profits. In parallel, provincial FTCs must become truly independent from their national counterparts, and all business between them should be on strictly commercial terms.
- (d) The measure proposed above cannot be implemented unless FTCs are granted greater management autonomy (see Chapter 2). At a minimum, the practice of restricting the product scope of FTCs must be eliminated. FTCs should be granted the freedom to handle any commodity (with the exception of those still subject to import planning and export controls). This will enable FTCs, if they so wish, to diversify their product coverage and will encourage them to seek out the products in which China is most competitive, thereby reducing such distortions as remain in the composition of China's exports, and enabling the growth of the country's foreign exchange reserves without jeopardizing the financial solvability of FTCs.
- (e) Over time, FTCs should be allowed to engage in domestic trade as well. This would provide the opportunity for the larger Chinese FTCs in particular to play the role of systems organizers like the *sogo soshu* in Japan. It would create business opportunities for them within China, instead of turning them towards a strategy of premature "internationalization."
- (f) Vertical integration of FTCs into manufacturing, mergers between FTCs, etc., should not be facilitated with concessional loans, nor should they be "arranged" with the objective of saving ailing FTCs. Already FTCs operate on a financially

^{9/} This already appears to be happening in Guangdong.

^{10/} The tax being equal to the difference between the domestic secondary market price and the international price of the product concerned. Taxes are, in some cases, used at present, but they are not sufficiently high to transfer all of the rents accruing to FTCs.

more autonomous basis than most state-owned enterprises. The logical next step to having FTCs take responsibility for their profits and losses, however, is to allow ailing FTCs to exit.

- (g) On the other hand, FTCs should be able to exercise the option, if they so wish, of vertically integrating, or merging with one another, or with manufacturing firms. If FTCs are able to operate as truly independent profit centers, voluntary mergers between FTCs can be expected to be undertaken for the right motives. In parallel with (b), (c) and (e), it is recommended, therefore, that FTCs be permitted to merge with another. Moreover, pending resolution of system wide ownership issues, integration/mergers could also be permitted between FTCs and the autonomous enterprise groups that the government is promoting. Unlike Korea, which at the inception of its GTC policy did not have any large trading companies, China already has trading companies that are financially strong and are large. The elimination of restrictions on product scope and the opportunity for mergers should encourage such FTCs to diversify and develop into general trading companies, without the government having to subsidize or "arrange" this process.
- (h) Finally, the premature "internationalization" of certain FTCs flush with foreign exchange does not bring any gains for China—it should not be encouraged. In particular, the loophole that allows FTCs to create overseas subsidiaries and reinvest in the mainland must be closed.

C. DEVELOPING BUYER-SELLER LINKS: THE ROLE OF PUBLIC SUPPORT SERVICES

Given the difficulties that neophyte exporters can face in establishing links with foreign buyers, many countries have turned to public intervention of various kinds to try to facilitate the process. Thus, governments have attempted to provide assistance for export marketing, for quality control and for other export support services, with varying degrees of success.

Public Support for Export Marketing

Amongst developing countries, the so-called Four Dragons have undoubtedly had the most effective public export marketing institutions. These institutions handle two basic functions: trade related information and inquiry services, and trade promotion (trade fairs, publicity, etc.). In some cases, assistance is also provided in the form of market analysis and development, and advice on product design, packaging, and training. While the experience of these four countries demonstrates that appropriately designed and managed institutions can be effective agents of export promotion, it must be borne in mind that, in all cases, the private sector still handles the vast bulk of information flows between buyers and sellers. Export Promotion Offices (EPOs) in these countries compete vigorously with private trading companies and other marketing intermediaries. The key to their success has been the strong involvement of the local business community in their activities and their ability to occupy a market niche.

In China, there exists a diffuse and fast changing institutional structure that handles various aspects of export promotion (Table A6.1, Organizational Structure of

MOFERT).^{11/} At the national level, there is the China Council for the Promotion of International Trade (CCPIT), that reports directly to the State Council. CCPIT was originally charged with the task of handling China's trade with Japan. Over the years, its role has changed and expanded. It now is the foremost national institution responsible for promoting Chinese exports overseas. The Council's job is to enhance China's image as an exporter. To this effect it handles the organization of trade fairs and exhibitions overseas. Participation in these fairs is open to all. However, the Council makes a selection from amongst applicants from the entire country, and the selected enterprises or FTCs are required to pay a fee intended to cover some part of the Council's costs.

Aside from CCPIT, MOFERT, at both the national and provincial levels, is involved, albeit to a limited extent, in export marketing. MOFERT has a department that handles international advertising. Mostly, this involves designing international advertising campaigns for clients that comprise joint ventures, state-owned enterprises and FTCs. More significant is MOFERT's role in organizing trade fairs within China. The ministry in Beijing manages some of the most notable trade fairs that are held in China, such the one in Guangzhou. Recently, provincial and municipal branches of MOFERT have also started to organize their own trade fairs. As in Shanghai, locally organized trade fairs have now become important annual features in many provinces and municipalities. Participation in all fairs, whether organized nationally or at the provincial level, remains restricted mainly to FTCs and a few large state-owned enterprises with direct trading rights. Such exposure as local enterprises in general, and TVEs in particular, are able to get to foreign buyers at these fairs, depends on their respective FTCs. As a result, the fairs have not done much to promote direct buyer-manufacturer contact. Such contact remains limited in large part to entities that have been granted the privilege of direct trading rights.

MOFERT's involvement in export marketing has declined substantially now that FTCs have become more autonomous. As the decentralization of foreign trade continues, the role of MOFERT or any successor organization can be expected to evolve further. Increasingly, MOFERT will be called upon to focus on regulating China's foreign trade policy framework, leaving the management of the country's trade to independent intermediaries or firms with direct trading rights. Even within this framework though, there may still be a useful role that MOFERT can play in export marketing. By taking on a marketing function along lines similar to that of EPOs in the countries discussed above, MOFERT could serve as a catalyst for expanding direct export rights, in direct competition with independent FTCs.

Recommendations. At present, the argument that is used to limit direct trading rights is the inexperience of domestic enterprises. As such, firms are expected to trade through FTCs until such time as they acquire the necessary skills, when they might be granted direct trading rights. As FTCs become profit oriented, there will be little incentive left for them to transmit skills and information that may enable clients to bypass them. Under the circumstances, public support for export marketing could help ensure not only that those local enterprises that wish to export directly learn how to establish direct contact with foreign buyers, but also that FTCs compete more vigorously to earn the business of local enterprises. Given the economies

^{11/} This structure is in the process of change, following recent initiatives (stemming from the 14th National Communist Party Congress in October 1992) to reorganize the government. As noted earlier, the Ministry itself has been renamed the Ministry of Foreign Trade and Economic Cooperation (MOFTEC).

of scale involved, MOFERT could easily develop an effective intelligence network worldwide, and channel information services to small firms that would otherwise be denied the opportunity to trade directly. MOFERT should have little difficulty in getting the support of the nonstate-owned sector for this purpose. As per the model of successful EPOs elsewhere, the delivery of such services could be managed jointly by MOFERT and representatives of local firms.^{12/}

Public Support for Quality Control

The importance of product quality is often underestimated by new exporters, who are used to a less demanding domestic market. Intrafirm quality control capabilities are lacking in such cases, and there may be a need for developing alternative systems for ensuring product quality. Quality is an important consideration not only for the individual buyer seller-relationship, but also for the exporting country's reputation. Positive national reputations can help a country penetrate markets for new products that it has not previously exported. Conserving country reputation is all the more important, considering that buyers tend to follow a "herd" instinct, based on general perceptions about the country and on information from other buyers.⁴ Considering the externalities involved, therefore, public intervention in the area of quality control can play an important role in export development.

Quality control can be conducted at several stages of the export chain, ranging from the preshipment stage, back to the manufacturing process itself. The experience of several countries shows that, while quality control at the preshipment stage can have an impact on the export quality of certain industries in the short run, a wider approach to the problem is inevitable in the longer run. Ultimately improvements in export quality cannot be sustained without upstream efforts to control the quality of components, upgrade the level of technology, and even to improve management practices. Moreover, no quality control measures can be effective in improving product quality by themselves, in the absence of a sound overall policy environment.

The experience of Japan is an example of a "multistage approach" to quality control. Japan's dramatic success in developing a reputation for quality has been the result of a concerted and sustained effort by the government and representatives of the private sector in developing quality control systems at various levels nationwide. In Taiwan (China), the government's role in the area of quality control has been particularly noteworthy for the effectiveness of its preshipment inspection for exports. As in the case of Japan, however, these public efforts at quality control extend way beyond the provision of preshipment inspection. Taiwan (China) has taken the question of its international image as quality exporter very seriously. Recognizing the "public good" nature of country reputation, the government has itself paid compensation to buyers for defective export products originating in the country.^{13/} More importantly, Taiwan (China) has invested heavily in a dense network of publicly funded technology assistance and testing centers. See Annex 6.1 for details.

^{12/} At present, MOFERT is titular head of the China Association of International Trade and the Chamber of Commerce of Import and Export Commodities. The organizations, however, are comprised mainly of FTCs and a few state-owned enterprises with direct trading rights. For its proposed new functions, MOFERT will need to extend its links with associations of producers at every level.

^{13/} The government is reported to have paid return shipment for 300,000 bicycles rather than let them be sold in the United States (see Egan and Mody, 1992).

The Chinese authorities are cognizant of the importance of export quality control and a number of steps in the right direction have been taken. China now has a legal framework for administering export quality control in the form of the Commodity Inspection Law of 1989, which calls for inspection of exports of all products belonging to an officially determined list. In 1990, almost 1.5 million export shipments worth an estimated \$27.9 billion were reported to have been inspected.⁵ These shipments accounted for almost two thirds of the value of China's manufacturing exports in that year. Of these, shipments worth about \$600 million were determined to be substandard.

The responsibility for export quality inspection rests with the State Commission for Import and Export Commodity Inspection. The State Commission now has 13,400 staff spread over 200 inspection agencies nationwide. However, not all inspections are done by the Commission's own laboratories—about a fifth are designated to other Commission-approved laboratories. To improve its own in-house technical capacity, the Commission has been actively developing links and exchanging technical information with foreign testing laboratories and inspection bodies. Over 50 of the Commission's own laboratories have now received certification by international testing laboratories invited to evaluate their technical capacity and testing methods. The Commission also has 10 solely owned or joint-venture firms abroad accredited to it that it uses for inspection of imports into China.

The Commission's activities go beyond providing a preshipment inspection service. In an effort to tackle upstream quality control issues, the Commission has also been involved in technical assistance and training for local manufacturers. In addition, the Commission has a certification scheme whereby it provides a "quality license" to deserving enterprises. Over 10,000 such licenses were reportedly issued in 1990 in 13 product categories, including machinery, garments and textiles. Local firms have also been encouraged to seek certification from accredited foreign laboratories. Thus, many local factories have the right, for example, to fix United Laboratories or International Wool Secretariat marks on their products.

Quality control issues are also being pursued by government agencies other than the State Commission. MOFERT, for example, does quality appraisals, and awards prizes for products deemed to be of high quality. In 1990, the MOFERT High Quality Examination and Appraisal Commission presented awards for over 100 different products nationwide. Elsewhere, efforts have been made to improve industrial standards in general in China. China has a mandatory national standard, which since the mid-1980s, has been based on the standards of the International Standards Organization (ISO). There remains, however, a problem of international confidence in the Chinese standard. In the machine tools sector, for example, foreign customers continue to insist on the use of imported components even when functionally equivalent Chinese parts are available in China.⁶

Recommendations. Despite all these initiatives, quality control for China's exports remains a problem, and it appears that rejection rates are still high.⁷ Addressing this problem will require a sustained effort at various stages of the export chain, right down from preshipment, all the way up to the manufacturing process itself. In the short run, the challenge will be to reduce the frequency of buyer rejection and to ensure that Chinese exports meet the minimum quality requirements of their main markets. Over time, efforts will have to be directed at quality upgrading in general, and at inducing quality consciousness in all aspects of manufacturing activity.

Immediate attention should be devoted to improving control at the preshipment stage. Although the Law on Commodity Inspection was promulgated in 1989, Chinese legislation in this domain is still deficient. The main difficulty is that the scheme is much too inspection intensive. The law calls for mandatory inspection of *all* export shipments of products figuring on the rather extensive official list. Supplementary legislation introduced in 1990 does allow for a few exemptions, but these are quite limited.⁸ As a result, the administrative burden on the State Commission is needlessly heavy, and this undermines the credibility of the inspection process. A Taiwan style low inspection intensive scheme that relies on random checks on the shipments from a selection of exporters would be more efficient and just as effective. Moreover, the Taiwan model, which involves the periodic evaluation of the quality control systems of the exporter himself, has the added advantage of forcing the latter to take responsibility for the quality of his products.

A related problem is that the law does not allow exporters to use accredited agencies for inspection purposes in lieu of the inspection agencies of the State Commission. Given the limited credibility of the Commission's inspection capacity at this time, a lot of exports are in any event inspected independently by private companies or agencies acting on behalf of buyers. It is reported, for example, that 30 private companies from Hong Kong manage preshipment inspection for most exports from the province.⁹ In such cases, inspection by the State Commission's agencies seems redundant. Consideration should be given to encouraging more foreign inspection bodies to start operations in China, giving them accreditation, and allowing exporters to use them *instead* of the Commission's own agencies. In parallel, of course, the network of local testing facilities needs to be expanded and upgraded, through acquisition of internationally approved testing methods and training of personnel.

Given the importance of country reputation for export development, measures to build the international image of Chinese products should not be neglected. Trade fairs in importing countries are one such initiative that the Chinese authorities are already pursuing. But other measures such as paying for defective products, as in Taiwan (China), for example, can be very effective image builders.

Over the medium term, attention will need to be devoted to further developing the quality control systems of Chinese enterprises themselves. Many Chinese enterprises first introduced such systems only in the early 1980s, but they still have a long way to go. A lot can be done to raise quality consciousness at all levels of Chinese industry. First, enterprises could be induced to improve their own quality control systems by making the award of direct export rights automatic for firms that earn quality certification from the agencies of the State Commission or other accredited agencies. Under such a system, failure to maintain quality standards, as determined through periodic inspection, would jeopardize their direct exporter status.

Second, learning from the experience of Japan, the government could promote the creation of business associations devoted to quality control. The Mexican, Chilean, and Brazilian Quality Control Associations have, for example, been effective in spreading the Quality Control Circle (QCC) movement in their respective countries.¹⁰ In China, such associations, could be a useful tool for spreading quality control in the country's growing nonstate-owned sector.

Third, steps should be taken to improve the credibility and international image of the Chinese national industrial standard. In this regard, it is suggested that the national standard be changed from a mandatory to a recommended certification, but with very strict criteria.¹¹ A recommended standard, if properly enforced, can serve as a positive inducement to the firm wishing to gain recognition as a quality producer, rather than as a constraint that reduces its flexibility. National certification should only be undertaken by the most technically able government agencies and not, as has been the practice, by research institutes of limited capacity. Besides, international inspection groups should be regularly invited to inspect nationally certified factories to increase international confidence in the standard.

Finally, it must be recognized that progress in the area of quality control will ultimately depend on the pace of more systemic reform of state-owned enterprises and of the incentives regime. At present, the average enterprise is not subject to an incentive regime demanding innovation or quality upgradation, nor is it organized to cope with product improvement on a continuing basis. Unless Chinese enterprises are subject to greater competition both from within the country and from imports (Chapter 5), and are given the independence to respond to such pressure, progress in improving the quality of Chinese manufacturing exports will very quickly reach its limits.

Public Support for Other Nonfinancial Export Support Services

Aside from marketing and quality control, a host of other services including, for example, shipping, freight forwarding, warehousing, and general consulting and legal services, have an important bearing on export competitiveness. Past neglect means that both the volume and quality of such services in China is relatively low and this is a hindrance to the development of direct trading. As one would expect, China has so far relied heavily on outside suppliers of export support services. The role of Hong Kong has in fact been particularly important for the rapid growth of China's exports. As noted in Chapter 1, about two thirds of China's manufacturing exports are channelled through Hong Kong, either as reexports or in the form of transshipments. Moreover, the rapid growth of small-scale manufacturing in Guangdong is in large part due to the access that province enjoys to Hong Kong's service industry.

Recommendations. It goes without saying that the Chinese government must press on with its efforts to develop the country's service sector. Ultimately, whether service suppliers are privately owned or state-run matters less than whether they are in a competitive situation. Monopolies in services for exports must be avoided and restrictions on the import of services and on the use of service suppliers abroad should be dismantled. In this context, the recent decision by the Chinese authorities to allow entry by foreign firms to the service industry is a welcome one.

Some developing countries have experimented with a more activist public role in providing support services to neophyte exporters. In several countries, government agencies work with individual enterprises to help find and finance such consulting or other support services as might be needed to overcome entry barriers into export markets.¹² In most cases the financing provided is subsidized.^{14/} Such programs of assistance, though effective, have

^{14/} Subsidies for export support services are one of the very few internationally permitted means left of providing financial support for exports and can generate significant positive externalities for the whole economy (Keesing and Singer, World Bank, 1990).

typically remained small in scale because of their micro-focus. Examples are the Product Specialists Program managed by the Department of Trade and Industry in the Philippines, and the Indian Export Marketing Fund, administered by the Import-Export Bank of India. The Chinese government could give consideration to the creation of a marketing fund set up along similar lines, to be managed by an appropriate agency for the purpose of financing support services to individual firms seeking to export directly.

D. EXPORT FINANCING

Previous World Bank reports have stressed the importance of ready access to credit for exporters.¹³ The experience of the successful exporters from East Asia suggests that pre-shipment finance is particularly important for developing country exporters. Post-shipment financing becomes relevant only when capital goods acquire a significant share of exports. Medium to long-term investment financing specifically earmarked for export production has hardly been used by any of the East Asian countries.

In Korea, the bulk of export credit has been handled by the commercial banks, which have had automatic and quick access to refinancing from the central bank. A pre-shipment export finance guarantee scheme has been instrumental in reducing risks and has encouraged the commercial banks to extend working capital credit to all actual and potential exporters. Korea has also implemented a system of domestic letters of credit (DL/C)¹⁴ that has provided access to pre-shipment credit even to indirect exporters. Although Korea started with a program of preferential interest rates, these have been phased out. Pre-shipment credits are now denominated in foreign currencies and passed on to borrowers at world interest rates plus a processing margin. Other East Asian countries, such as Thailand and Malaysia, have had less successful programs of pre-shipment export credit than Korea. In most cases, the biggest weakness appears to have been lack of access by indirect exporters to export credit. These countries have recently begun experimenting with systems of DL/C.

In China, the Bank of China, the principal bank dealing in foreign exchange, has long offered trade credit, but in domestic currency. These credits are offered for working capital as well as financing fixed investment for production of exports and import substitute products. The volume of such credits has been rising very rapidly. The total volume of trade loans outstanding at the end of 1991 reached Y 181 billion, more than three times the level at the end of 1985 (see Table 6.1). Of these, loans outstanding to FTCs were Y 154 billion, and the total volume of loans extended to FTCs within the twelve month period of 1991 was in fact Y 390 billion, or over two-and-a-half times the value of loans outstanding to them at the end of the year. It is reported that the bulk of these domestic currency trade credits are for financing exports. In 1998, for example, according to the Bank of China, 90 percent of the trade loans extended to FTCs during the year were for exports.

Rapid growth in the overall volume of trade credit notwithstanding, access to credit for enterprises other than FTCs has in fact been shrinking. Whereas in 1987, 77 percent of total domestic currency trade credit was allocated to FTCs, in 1991 the share of FTCs had increased to over 85 percent. This does not mean that pre-shipment financing to indirect exporters has been declining. By all accounts, one of the important functions of the FTCs has been to provide advances on export shipments to their clients, or indeed to take over title of their exports. What it does mean, however, is that local firms are still obliged in most cases to rely on FTCs as intermediaries. A lack of direct access to trade credit appears to be one reason that

manufacturing firms with direct trading rights have often not been able to exercise this authority, despite several reform initiatives in the 1980s that called for direct exporting. This situation needs to be corrected.

Table 6.1: FOREIGN TRADE CREDIT
(billions of yuan)

	Outstanding at year-end		Cumulative loans extended during the year to FTCs
	Total	Of which amount extended to FTCs	
1978	20.1	-	-
1980	-	-	-
1981	-	-	-
1982	-	-	-
1983	-	-	-
1984	40.0	-	-
1985	57.0	-	-
1986	89.8	-	-
1987	101.6	78.0	-
1988	121.9	102.4	-
1989	133.0	121.0	339.3
1990	163.5	140.4	354.0
1991	180.7	154.8	390.0/a

/a Estimated.

Source: Bank of China.

Further, the available data indicate that the ratio of export credit to total exports is very high. Assuming, that as in 1988, 90 percent of new foreign trade loans made in 1989 were also used to finance exports, export loans in that year would have amounted to an estimated 150 percent of the actual volume of exports.^{15/} In the absence of more detailed information

^{15/} In 1989, Chinese exports valued in domestic currency were just under Y 200 billion. If more than 90 percent of all Bank of China foreign trade loans were used to finance exports (which is the share of incremental loans going to finance exports), cumulative export loans awarded in the 12-month period of 1989 would have been Y 306 billion (Y 340 billion x 0.9), of which about Y 109 billion (Y 121 billion x 0.9) would have been outstanding at year-end. If the average export loan is outstanding for one calendar quarter, one would expect that the value of export loans outstanding at any point in time would be roughly one fourth of the annual value of exports. In 1989, that would be Y 50 billion, implying that the approximately additional Y 60 billion (Y 109 billion minus 50 billion) outstanding at the end of 1989 represents nonperforming export loans that were rolled over (perhaps more than once) during the year. It is worth noting that Y 60 billion represents approximately nine times the value of the officially acknowledged annual budgetary subsidy to export losses during the period 1988-90.

about the maturity structure of the Bank of China's trade credits, it is difficult to pinpoint the exact reason for such a high ratio. One possibility is that a large proportion of the Bank of China's trade credits have been of medium- to long-term maturities. This could be the case if, for example, FTCs have been borrowing large sums to finance export related investments in production. Such an explanation is, however, implausible. Given that the ratio of the annual volume of loans to that of loans outstanding at year-end is over 2.5, the bulk of the Bank of China's trade credits to FTCs are in fact likely to be short term. Under the circumstances, a high export credit to exports ratio points to a more disturbing explanation. What it suggests is that a significant portion of the Bank's domestic currency foreign trade loan portfolio may be bad loans that are simply rolled over periodically and are not used to finance new exports. If FTCs have indeed, much like the state-owned enterprises of the manufacturing sector, been turning to the Bank of China for off-budget assistance in this manner, one would expect to see a marked increase in loans to FTCs starting with the introduction of the contract responsibility system and the freezing of official subsidies to FTCs in 1988. Table 6.1 appears to confirm this view, for it shows that there was a sharp increase in the proportion of trade credits going to FTCs from less than 78 percent in 1987 to almost 85 percent in 1988. The apparently easy access of FTCs to bank loans for dealing with their structural problems is not healthy for China's trading system and it runs contrary to the spirit of recent initiatives that require FTCs to become more competitive by taking responsibility for their own profits and losses.

In addition to domestic currency trade credits, the Bank of China also offers foreign exchange loans for both working capital and fixed investment. These loans are offered primarily to foreign-invested enterprises. It is reported that loans outstanding by the Bank of China to foreign-invested enterprises at the end of 1990 totalled \$990 million. An apparently much smaller amount of dollar loans had been extended to domestic firms.

The Bank of China also offers two other types of trade loans. Export sellers' credits have been offered since 1978 to Chinese enterprises selling electronic and machinery equipment, mostly to developing economies, when such sales are made on a deferred payment basis.^{16/} The State Council in 1992 also approved the creation of a new system of credits to be extended to buyers of Chinese exports. These loans, made in foreign currency, are to be used to finance the sale of complete sets of machinery and electronic equipment valued at a minimum of one million dollars per transaction. One hundred million dollars annually has been earmarked for this program during the Eighth Five-Year Plan (1991-95).^{17/} It is difficult to assess how much these initiatives can contribute to the growth of China's exports of machinery and electronics products. It is worth noting though, based on the experience of Korea and Japan, that export credit schemes, or any other export development measures for that matter, designed to help specific subsectors are unlikely to succeed unless they are accompanied by focussed attention to industrial restructuring (see section on export targeting below).

^{16/} By the end of 1991, the Bank of China had extended Y 6.3 billion under this program and the value of loans outstanding was Y 3.3 billion. Interest rates on these loans are said to be subsidized.

^{17/} Interest rates to be charged will follow OECD standards on loans extended by national import-export banks. That calls for a 1-percent premium over the rate on 5-year treasury bonds in the United States or Japan depending on whether the loan is denominated in dollars or yen.

The Chinese authorities are considering introducing an export insurance scheme, managed either by a separate Bureau under the State Council or by the People's Insurance Company. Already, since July 1992, the Beijing Branch of the Bank of China has been providing export insurance and claims settlement services to eight major import-export companies in the municipality. It is not clear, however, whether or not such a scheme would be limited to credits for machinery and electronics exports only. This is a welcome initiative whose benefits should not be restricted to just a few sectors.

Recommendations

First, steps must be taken to ensure that firms with direct trading rights enjoy the same access to trade credits as FTCs. Second, for the initiative of having FTCs take responsibility for their own profits and losses to work, they must not be allowed to benefit from a soft budget constraint by tapping into the banking sector. Third, export insurance should be made available to all local enterprises as a way of encouraging and enabling them to acquire and exercise direct trading rights.

E. PRODUCT TARGETING FOR EXPORTS

One of the fundamental debates concerning the role of public intervention in export policy pertains to targeting specific products for export promotion. Does such targeting work and is it desirable? If so, how should it be implemented and under what circumstances?

Targeting specific product categories for export has become an inherent part of China's foreign trade regime. Targeted sectors have included light industrial products, certain types of textile products, and machinery and electronics goods in general. The bulk of special export support has, however, been directed at the machinery and electronics goods sectors. Several instruments have been used for purposes of targeting. First, targeted sectors benefited from the special preferential foreign exchange retention rates (Chapter 2) introduced in the early 1980s. The original retention rate for light industrial products and knitwear was 20 percent, and that for the machinery and electronics sector was 30 percent at a time when the average rate for other products was less than ten percent. In 1982, the retention rate for machinery and electronics sector was raised to 50 percent. At present, however, preferential retention ratios are retained only for the machinery and electronics sectors which are entitled to a 70 percent retention compared to 50 percent for all other commodities.^{18/}

Second, the Seventh Five Year Plan (1986-90) provided for the creation of Production Networks for Exports (PNEs) with the objective of directing assistance to selected enterprises within targeted sectors. The machinery and electronics sector was the first industry group to benefit from such a scheme. In 1985, following approval by the State Council, several hundred factories nationwide, producing a range of products, were selected to participate in the network. Investments in the order of \$100 million per annum were planned over a five-year period and the participating factories were to be accorded guaranteed supplies of raw materials, power, and packaging materials, and preferential access to transportation and tax reductions. In 1990, about Y 1.7 billion was invested in construction projects in support of PNEs in the

^{18/} This is the net percentage *after* the central government has exercised its right to buy back additional foreign exchange retained by local enterprises (Chapter 2).

textiles, light industry and machinery and electronics sectors, and efforts were made for the first time to draw TVEs into production networks.

Third, MOFERT has earmarked special investment funds for the technological upgrading of selected enterprises; \$50 million were channelled to various exporting enterprises mostly in the machinery and electronic sector through this facility in 1990. To date, an estimated 1,300 enterprises in the machinery and electronics sector have benefitted from such funds.

Fourth, as was discussed earlier (see Chapter 2), the Chinese authorities have made extensive use of export targets fixed on a provincial and on a firm specific basis. Although the practice appears to vary across provinces, anecdotal evidence suggests that export targets are not only fixed for FTCs, within the framework of their foreign exchange contracts, but also for manufacturing enterprises, with and without direct trading rights. In Jiangsu province, for example, the provincial COFERT concludes contracts with FTCs, which in turn conclude contracts with enterprises, collectives and TVEs. Likewise, several local governments establish export quotas for state owned enterprises under the enterprise contract responsibility system.¹⁵ By and large, enterprise specific export targets are now fixed on the basis of past performance through a "bottom-up" process—as such they no longer significantly distort export composition. For particular sectors such as machinery and electronics, however, it is likely that FTCs and manufacturers are still expected to meet relatively more ambitious export targets in exchange for the additional export support to which they are entitled.

Finally, special export credit schemes have been used in support of targeted sectors. To date, such schemes have only been used in support of the machinery and electronic sector (see section on export financing).

It is difficult to assess the exact contribution of this combination of measures on the export performance of targeted sectors. As shown in Table 6.2, the share of light industrial and textile products in total exports has grown rapidly from about 32 percent in 1985 to over 45 percent in 1991. But since these sectors did not really receive significant amounts of special export assistance, their export performance can hardly be explained by China's export targeting policies. On the other hand, the growth of exports from the machinery and electronic sectors,^{19/} which have benefited from substantial targeted support, has been much more impressive than even that of the textiles and light industrial sector. It is remarkable that the share of machinery and electronics in China's total exports tripled from just under 7 percent in 1985 to almost 20 percent in 1991 and this suggests that export targeting in China has indeed had an impact on export composition.

What is less clear is the extent to which these exports have been based on static or dynamic comparative advantage.^{20/} For any targeted product, success cannot just be measured in terms of export growth, but in terms of how competitive the product becomes on the world market. One way to test the success or failure of the policy would be to examine the evolution of production efficiency and product quality in the targeted sectors. In China, special incentives for machinery and electronic exports have now been in place for over twelve years.

^{19/} SITC 71, 72, 73.

^{20/} See Chapter 7 for more on this.

Table 6.2: EXPORTS OF TARGETED SECTORS, 1978-91
(% share total exports)

	Machinery & electronics /a	Light industrial & textile products /b
1978	4.2	36.1
1985	3.3	31.9
1988	10.0	39.9
1989	12.4	43.8
1990	13.9	-
1991	14.3	-

/a SITC 71, 73 and 73 (Rev. 1) based on partner country data. Based on Chinese reported data, the shares for 1988 and 1991 are 12.4 percent and 19.2 percent, respectively. The difference is due primarily to exports of transport equipment—and in particular to exports of automotive components (SITC 732.89—which have grown much faster per the Chinese reported data than per the partner country data (compare Tables A1.1 and A1.2). As noted in footnote 6 of Chapter 1, partner country data tends to be the more reliable because greater care is taken in classifying goods in the importing country for duty assessment purposes. One possible explanation for the discrepancy is that Chinese enterprises enticed by substantial fiscal incentives for exports from these subsectors have been overreporting the value of their exports. This is not an uncommon phenomenon where substantial export incentives are offered to selected sectors.

/b As per export data and definitions of the Almanac of Foreign Economic Relations and Trade (various issues), MOFERT only record the value-added of processed exports as exports. Thus as processed exports have grown, the Almanac's export figures have become systematically smaller than those of the Customs Directorate. In 1978, 1985 and 1989, the Almanac reported China's exports as \$9.8 billion, \$25.9 billion and \$43.5 billion, respectively, compared to the Customs Directorate numbers of \$9.8, \$26.1 and 52.5 billion for the same years.

If cost reductions and quality improvements through the accumulation of production experience and learning-by-doing were possible, these ought to have been realized in the course of more than a decade. Unfortunately, there is little systematic evidence about the evolving efficiency of the machinery and electronics sectors in China. Such evidence as exists, however, suggests that China remains a high cost producer of these goods.¹⁶ The machinery sector repeatedly has been identified as one of the largest concentrations of loss-making state enterprises.^{21/} A recent enterprise survey conducted for a World Bank report on the machine tools sector indicates that the gross profit margins of export oriented firms have been systematically lower than for other firms in the sector. Likewise, the domestic currency costs for exports of electronics

21/ It should be noted that financial losses are not a good indicator of health in the Chinese economy because of the existence of numerous distortions and implicit subsidies.

products appear still to be high. Domestic prices of typical electronic components, for example, were between 40 and 270 percent higher than international prices in 1989. The mission found, in the case of consumer electronics, that unit export prices for black and white TVs were between 20 and 30 percent lower than ex-factory domestic prices and the enterprises interviewed reported that they were making losses on their exports.¹⁷

Another indicator of the competitiveness of China's machinery and electronics exports is an index of their revealed comparative advantage (RCA).^{22/} An analysis of the RCA of China's machinery and electronics sector (see Figure 7.2) confirms that, on the whole, China has not yet developed a competitive advantage in these sectors. Of the three major product categories that comprise the machinery and electronics sector, nonelectrical machinery and transport equipment subsectors show no signs of developing a comparative advantage—China's RCA indices have not even reached 0.2 for these products. The only product group within the machinery and electronics subsector that has recorded a rising RCA index over the last decade is electrical equipment, but even here, China's RCA index is still only marginally over unity. Moreover, as noted in Chapter 1, the growth of exports from this group has been generated largely through assembly type operations in a few product segments such as radio receivers, telecommunications equipment (black and white TVs and telephone equipment), electric space heaters, and domestic electric goods (refrigerators and washing machines). Similar products manufactured domestically do not still appear to be competitive in the international market place.

What the above suggests is that China has not yet been able to integrate into its domestic manufacturing activity the dynamic benefits and learning that could be expected to accrue from an expansion of its export share in the machinery and electronics sector. If after all these years, China's manufacturing sector indeed remains a relatively high-cost producer of many of these products, the targeted export incentives hitherto accorded to the machinery and electronics sectors cannot be said to have achieved satisfactory results, at least not so far. This underscores the danger of targeting. Despite these dangers, though, such a strategy continues to have considerable allure for Chinese policy makers, who are no doubt influenced by the experience of their neighbors, Japan and Korea. It is worth exploring therefore, the lessons that China can draw from the experience of these countries with regard to the targeting of specific products for exports.

The Japanese and Korean approaches to export promotion have been very similar to one another. In Japan, like in Korea, great emphasis was placed on export incentives and targets. Of the two, the Korean experience, being more recent, may be more illuminating. Korean policy has been remarkable for its single minded emphasis on export performance. Of all the East Asian countries that have pursued a strategy of export-led growth, Korea has had the most centrally directed campaign of export promotion. Aside from sound management of the exchange rate, this campaign has comprised a whole range of measures including all the measures discussed in this chapter and then some, such as preferential rates for electricity and

^{22/} The revealed comparative advantage (RCA) index measures the share of a particular product's share in the country's total exports relative to the share of that product in world trade. The higher the index, the greater is the country's "revealed" comparative advantage in that particular product. An RCA of less than one suggests that the country has no comparative advantage in that particular product. See Chapter 7 for details.

rail transportation, income tax rebates, and wastage allowances.^{23/} It is estimated that, excluding the exchange rate effects, Korean export incentives went from 12.8 percent of the value of exports in 1965 to over 30 percent in 1971.¹⁸ By 1979, measures in direct support of exports had declined and were down to about 17 percent of the value of exports, in large part due to the discontinuation of those measures, such as income tax deductions, preferential credit terms, and preferential utility rates, that could be construed as direct subsidies.

In addition to providing these incentives, the Korean government also made widespread use of firm specific export targets, monitored monthly by the Trade Promotion Council, chaired by the president of the country himself.¹⁹ It was not unknown for poor performers to be faced with difficulties in accessing government controlled credit for capacity expansion and for good performers to get preferential treatment in this regard. Aside from this, the driving motivation for meeting these targets appears to have been pride and the recognition accorded to firms through prizes and national publicity. These targets were taken very seriously at all levels of the business community and had a distinct impact on export performance and structure.

Although the Korean government did clearly exercise some degree of selective intervention in the encouragement of exports, intervention was limited to specific sectors identified as infant industries, and was used only as one instrument of an array of industrial assistance measures, including preferential access to government rationed credit, isolation from import competition and help for the development of market agents²⁰. Thus, while most export incentives, such as duty-free inputs for exports and export credit, were provided uniformly to all sectors without discrimination, infant industries had access to additional export support in the form, for example, of wastage fees and utilities at preferential rates. Likewise, while export targets were generally left to firms to determine for themselves, in the case of infant industries they were negotiated jointly between the government and local manufacturers. In fact, in such cases, export targets were used to insist that these industries sell a swiftly growing proportion of their output at world prices as a way of ensuring that they became internationally competitive.

Using such an approach, Korea was able to provide universal and neutral export support to well established industries. Within this industry group, the package of export support measures was not only neutral in the sense that it did not favor one activity over another, but was also neutral in the sense that it served essentially to offset the anti-export bias caused by other policies.²¹ In parallel, the government provided non-neutral assistance and a proexport bias to targeted infant industries. Whether or not infant industry promotion in Korea was successful is a much contested issue²² and beyond the scope of this report.^{24/} What is clear, however, is that the selection of targeted industries was not always a rational process, and in many instances the government was forced to take supportive action having already channelled resources into a particular sector for reasons not always related to economic rates of return. It is generally agreed that the government's heavy and chemicals industry drive of the 1970s was too ambitious, and led to serious structural problems, including the "crowding out" of Korea's traditional export industries. Korea's experience confirms that product selection is not without risk, and that, for it to be successful, it requires the full commitment of the authorities and the

^{23/} Allowing producers to import duty-free inputs in excess of their normal requirements for exports.

^{24/} Chapter 5 does, however, explore the question of the links between import liberalization and industrial policy.

ability to mobilize a whole spectrum of industrial assistance measures aside from export promotion.

The significant lesson for China from the Korean experience is that targeting of specific products for exports, if it is to be successful, cannot be undertaken in isolation, but needs to be accompanied by a host of other focussed measures to support the industrial restructuring of the targeted sectors. So far, China's efforts at export selection do not appear to be supported by matching initiatives in industrial policy. In sharp contrast to Korea and Japan, who have both had a highly centralized approach to policy making on trade and industry issues, in China authority for policy making in these areas has been dispersed across several agencies. The State Planning Commission (SPC), the System Reform Commission (SRC), the industrial line ministries, MOFERT, the State Science and Technology Commission, the Material Supply Bureau, the investment corporations, and banks are all involved in priority setting and target formulation. The result is too many contradictory lists circulating amongst different agencies at different levels and a dilution of focus.²⁵

The focus of China's industrial assistance strategy is also dispersed by the tendency, inevitable given China's size and diversity, for provincial priorities to be nonuniform.^{25/} The creation of PNEs could be interpreted as an effort at more nationally coordinated and focussed targeting activity. But the limited investment that has been channelled into these networks, suggests that industrial targeting still remains a diffuse activity. At present, it is not clear to what extent MOFERT's policies of providing additional support for machinery and electronics exports are in fact supported with complementary programs for industrial assistance to these sectors at the provincial level. In the event, while a national policy of export selection can contribute to the expansion of exports from these sectors, it cannot, by itself, be expected to make these exports more competitive.

Conclusions

China's policy of favoring the exports of the machinery and electronic sector cannot by itself make these sectors more competitive. The experience of Korea suggests that product selection is a risky business and that successful targeting would require an active and focussed policy of industrial assistance. Given China's size and diversity, such a strategy is likely to be difficult to elaborate at the national level, except perhaps for a few strategic sectors. In such cases, greater national coordination between trade policy measures and assistance for industrial restructuring would seem to be warranted. The establishment of SCETO in early 1992, and ongoing efforts to create enterprise groups, free from multiple channels of supervision and control, could prove to be important initiatives in this regard.

F. GEOGRAPHICAL TARGETING

A fundamental feature of China's reforms has been decentralization that has bestowed increasing authority and control in all aspects of economic decision making to the

^{25/} The industrial sectors that the local authorities of Guangzhou, for example, have designated as their priority for the Eighth Plan are markedly different from those of Shanghai. The former are more focused on low technology manufactures such as batteries, shoes and electronic appliances, while the latter place their emphasis on such products as power generating equipment, computer numerically controlled (CNC) machine tools and computers.

provincial and local authorities. In addition, the authorities have sought to conduct reform experiments on a regionally segmented basis. The inevitable consequence of this reform dynamic has been to accentuate cross-regional policy differences and China's reforms have acquired a definite regional tilt. In the case of trade policy, this has meant that China's open door has been opened significantly wider in the coastal provinces than elsewhere in the country.

The SEZs were the original embodiment of this policy of geographical targeting of China's open door policies. Four SEZs were established in 1979/80 in Guangdong and Fujian, ^{26/}and similar policies favoring foreign direct investment and trade were adopted in Hainan in 1983. Since then the approach of geographically targeted reform has been extended to all coastal provinces. In 1984, 14 coastal cities were designated "open cities" and 14 economic and technological development zones (ETDZs) were set up along the coastal line. In 1985, three delta areas, Pearl River Delta, South Fujian Delta and the Yangtze Delta were opened. In 1988, Hainan Island became an SEZ and also gained the status of a separate province—it is now the largest SEZ in the country. In 1990, Shanghai's Pudong Development Area was established. Pudong is de facto an SEZ for it enjoys the same degree of administrative autonomy and provides the same range of privileges and incentives to enterprises as do the other five SEZs. By 1991, 105 cities and more than 180 countries in 11 coastal provinces, autonomous regions, and municipalities had been opened to the outside world and policy makers intend to further pursue such strategy. Most recently, the State Council declared the opening of ten major cities along the Yangtze river in June 1992. These are to enjoy the same preferential policies and autonomy as the open coastal cities. Moreover, six comprehensive development zones will soon be established along the Yangtze River Valley.

The impact of this policy has been dramatic, especially in terms of attracting foreign direct investment (FDI) and in generating exports. In 1990, SEZs and open coastal cities accounted for 66 percent of exports from China,^{27/} and 52 percent of total realized FDI. SEZs alone accounted for 13.4 percent of China's total exports and about one fifth of realized FDI in the country. Moreover, the GDP and industrial growth rates of SEZs and most open coastal cities have been consistently above the national average.^{28/}

The impact of the SEZs has not been confined to the zones themselves. The entire country has benefited from the reform experiments, such as the swap market for foreign exchange, that were initiated in the SEZs and then crossed the "bridge" into the hinterland. However, it is the coastal provinces that have benefited the most from the demonstration effect of policies of geographical targeting. In Guangdong, Fujian and Jiangsu, such policies seem to have unleashed a virtuous cycle of FDI and export-led growth.²⁴ Initial flows of FDI have begotten additional flows while reform experiments have become bolder and wider through a

^{26/} Shenzhen, Zhuhai and Shantou in Guangdong, and Xiamen in Fujian.

^{27/} (Table A6.2.) This probably exaggerates the contribution of the coastal provinces to China's total exports because it includes the exports that do not originate in the coastal provinces but are handled by them on behalf of other provinces.

^{28/} The two important exceptions are Shanghai and Tianjin.

ripple effect.^{29/} Thus, Guangdong's per capita income has gone from just below the national average in 1978 to being fifth in the country in 1990. Over the same period, its average export growth rate was 29.3 percent and its ratio of realized FDI to fixed assets has soared to 28.8 percent, almost four times the national average.^{30/} In 1990, the coastal provinces together accounted for 81 percent of all exports and absorbed 81 percent of all realized FDI (Table A6.3). This impressive performance notwithstanding, it is not clear (a) what the cost of China's regional tilt policies has been and (b) to what extent such policies can be successfully replicated in the inland provinces. The following sections attempt to provide a perspective on these issues.

Policies for Coastal Development

Special Economic Zones. The SEZs have been the model for China's policies of geographically targeted liberalization. Although initially it was intended for SEZs to be fashioned along the lines of the export processing zones of South Korea, and Taiwan (China), this was dropped in favor of a wider strategy. The basic objective of these zones was to serve as laboratories for reform and to attract FDI and technology from abroad by allowing enterprises to operate in a policy environment based much more on market mechanisms than elsewhere in the economy. Successful experiments would then be allowed to cross the "bridge" into the mainland for wider application in the rest of the country.

SEZs are different from other areas in China in two important respects. First, SEZs have a greater degree of administrative autonomy than other areas. Perhaps most significant is the autonomy they enjoy over investment decisions. Likewise, the SEZs have considerable freedom of manoeuvre in the area of pricing, taxation, housing, labor policy and land management policies (see Annex 6.2 for details). Second, SEZs provided, at least until the open door was extended to other coastal regions, significantly more attractive incentives structure than elsewhere in China. The corporation tax rate, normally 33 percent for FIEs and 55 percent for SOEs, is 15 percent for all enterprises in the zones whether foreign or local. In addition, FIEs in SEZs are provided tax holidays. Exports and high technology projects are especially favored. Enterprises within the zones are subject to relaxed import licensing regulations and the zones themselves are treated as separate customs areas.^{31/}

Open Cities, Economic and Technology Development Zones (ETDZs), Etc. As in the SEZs, the open coastal cities have considerable autonomy in economic decision making

^{29/} The opening of the Pearl River Delta in 1984, for example, greatly enlarged opportunities for FDI in Guangdong. This was followed in 1988 by the designation of Guangdong as a "comprehensive experiment zone."

^{30/} The experience of Fujian and Jiangsu has been similarly impressive—in fact, growth rates in these provinces have been faster than in Guangdong even though the role of FDI has been more limited. Like Guangdong, however, both provinces have taken bold reform initiatives and provided particular attention to the development of the nonstate sector and TVEs.

^{31/} All imported inputs used in production that is exported or sold within the zones are duty free and exempt from all indirect internal taxes. Imports which are sold in the zones without further processing pay 50 percent of the full duty and indirect tax rates. The sale of products manufactured in the zones to the hinterland cannot be undertaken without approval and requires the payment of full duties on imported inputs.

including, in particular, in investment decisions and approvals, and labor, land and price control regulations. However, the most daring reforms in terms of social security and labor practices are still only restricted to SEZs. From the incentives point of view, the coastal cities are comprised of two parts: ETDZs and science parks on the one hand, and the rest of the city on the other. Enterprises in ETDZs and science parks enjoy tax privileges that are essentially similar to those in the SEZs, while in the rest of each coastal city, tax concessions are relatively limited. Unlike SEZs, none of the coastal cities or their respective ETDZs or science parks are treated as separate customs areas.^{32/} On the whole, the open cities remain a less open version of SEZs, although, it appears in the case of the some of the cities, that there is less and less to distinguish them from SEZs.^{33/}

Assessing the Performance of SEZs and Open Cities

Variability of Performance. Although, in aggregate terms, the performance of SEZs and coastal cities has indeed been impressive, this masks a great deal of variability. First, the performance of coastal cities in general, and of Shanghai and Tianjin in particular, has been distinctly inferior to that of SEZs.^{34/} The explanation for this variability lies in large part in the different degree of openness of SEZs compared to coastal cities. The relatively less flexible policy environment of the latter has inhibited their ability to attract a critical mass of FDI. After the initial spurt in 1984 immediately following their opening up, the share of coastal cities in total FDI has in fact been declining, while that of Guangdong has been increasing.^{35/}

Second, even within the subgroup of SEZs, the performance of Hainan, has been less impressive. Its GDP growth rate at 9.2 percent in 1989/90 although higher than the national average of 5.2, was 2 percentage points lower than that of Guangdong, and only a fraction of the growth rates experienced in Shenzhen. Mirroring its relatively weak performance, in terms of GDP growth, has been Hainan's record in attracting FDI. Since Hainan gained SEZ and provincial status in 1988, total FDI committed has been about \$800 million, which is less than a third of what was committed in Shenzhen just in 1990.^{36/} What this points out is that,

^{32/} As such exemptions from import duties and indirect taxes are, as anywhere else in the country, restricted only to imported inputs used in exports.

^{33/} Annex 6.3 provides more detail on the differences between ETDZs, science parks, other special zones and SEZs.

^{34/} The average annual growth rate of industrial output for the four original SEZs was over 34 percent over 1984-90, more than double the national average, while that of the open cities (excluding Shanghai and Tianjin) was only 16 percent, with Shanghai and Tianjin recording growth rates of only 6.7 and 9.4 percent, respectively (Table A6.2). By 1990, the SEZs in Guangdong and Fujian had become the most prosperous cities in China with per capita GDP reaching 6.3 times the national average, while the coastal cities recorded per capita GDP that was less than twice the national average.

^{35/} This trend may be reversed if Pudong, which is in effect as open now as any SEZ, takes off. In 1987, Guangdong's share of FDI was down to about 36 percent, with the other coastal provinces and autonomous cities, in particular, Shanghai, Tianjin, Liaoning, Jiangsu and Fujian, accounting for another 50 percent. Since then, Guangdong's share has risen again and now stands at about 47 percent, while that of the other coastal cities has declined.

^{36/} Recent indications are that this is changing and the pace of growth in Hainan too is picking up.

aside from the policy environment, proximity to markets and investors, the quality of the infrastructure and the labor force are all important determinants of initial FDI flows. The importance of proximity to investors is dramatically illustrated by the fact that, while Hong Kong accounts for over the 85 percent of the FDI in Shenzhen, Shantou and Zhuhai, Taiwan (China) has the largest investment stake in Xiamen. Moreover, it appears that Xiamen, although only 150 nautical miles away from Taiwan (China), has had to work harder to attract Taiwanese investment, than the three SEZs in southern Guangdong have done to entice investment from Hong Kong. Thus, while the lack of infrastructure did not stop FDI from pouring into Shenzhen 10 years ago, Xiamen had first to "prove itself" by investing heavily in infrastructure.²⁵

Resource Misallocation. There is no doubt that SEZs and open coastal cities have served as magnets for foreign investment. In addition, these areas have also attracted considerable amounts of domestic investment. In 1990, for example, over 40 percent of total investment in capital construction in SEZs came from domestic sources. Of this a good part was either contributed by local government (through locally raised taxes, reinvested profits and bank loans) or, as in the case of Hainan, by the central government (through the planning process), in support of infrastructure development. The rest represented investments in SOEs from outside the zones that relocated a part of their activities to within the zones in order to take advantage of various tax privileges. It is very difficult to assess how much of the investment in SEZs is based on comparative advantage and accurately reflects the locational advantages of the SEZs, and how much represents an inefficient use of resources, attracted by the economic rents created by distortions and imperfections. However, the following considerations are pertinent.

China's regional tilt policies have generated two sources of misallocation-inducing distortions. The first is the preferential policies intended to attract investment. The second is the interface of the two economic management systems, the socialist and the market, which attracts rent seeking activities. The logic of preferential policies is twofold: infant industry development; and provision of incentives comparable to those available in countries competing for the attention of foreign investors. The infant industry argument can justify the use of tax holidays and reduced tax rates on a temporary basis in order to allow newly established firms, whether foreign or Chinese, to overcome initial problems related to climbing up the learning curve. The problem is that the argument of comparability with other countries has been abused to maintain cost reducing incentives well beyond a reasonable period of learning. In fact, for many foreign companies tax incentives are redundant because of double taxation agreements between their home countries and China. Moreover, for most the most part, enterprises in SEZs are engaged in labor-intensive, low-skill industries or in assembly type of operations, for which there are no significant learning curves. As far as Chinese enterprises are concerned, the incentives are unlikely to encourage any significant increase in total investment. They only distort the locational distribution of that investment, artificially increasing the opportunity cost of investing in the hinterland and directing factors of production inefficiently into SEZs.

The interface between the socialist and market economic management systems is the second source of resource misallocation resulting from China's regional tilt policies. The SEZs and coastal cities are a peculiar halfway house between socialist systems of management and a market economy. While on the one hand enterprises in SEZs have much greater flexibility in making investment, production and pricing decisions compared to the hinterland, they are on the other confronted with dysfunctional factor markets, access to which is subject to an array of discretionary controls. Under the circumstances, opportunities for rent seeking are many, and

many enterprises are able to survive simply by exploiting these rents. Providing enterprises in SEZs, particularly Chinese ones, additional tax incentives only aggravates the problem. Despite access to the distortion related rents it is still estimated that one third of state enterprises in the SEZs are loss making and only sustained by access to continual injections of cheap finance by the banking system. Others survive, or increase their profits, by forming joint ventures with mainland Chinese companies operating in Hong Kong, sometimes even set up by themselves in order to gain access to the privileges available to foreign-invested enterprises.^{37/}

Lessons and Recommendations

The first lesson that emerges from the above evaluation of China's policies of geographical targeting is the importance of the policy environment in attracting FDI. In this context, Pudong is an important initiative. As long as Pudong can offer a policy environment that is as flexible as the SEZs, it can be expected to attract more investment flows and inject an important measure of vitality in the greater Shanghai area.

Second, the experience to date clearly also demonstrates that the policy environment, though important, is not the only attraction for export oriented FDI. Favorable location and infrastructure also matter. Notwithstanding their new open cities, inland provinces would, therefore, appear to have limited prospects for attracting sufficient FDI flows. Even if heavy investments are made in improving infrastructure, the relatively longer distance of these provinces from international gateways and markets is likely to prove unattractive for export oriented FDI. As such, it would be unrealistic to expect inland provinces to replicate the experience of a province such as Guangdong. These provinces will probably have to rely on other sources and strategies for growth.

Third, given the important role that geographical proximity of markets and investors has played in the success of the strategy in Southern China, steps by provinces further up China's coast to develop links with their natural international partners could pay important dividends. In particular, Liaoning and Shandong provinces should be actively encouraged to forge direct relations with South Korea and Japan along lines similar to what Guangdong has done with Hong Kong and Macao, and Fujian is pursuing with Taiwan (China).²⁶

Fourth, efforts can and should be made to tackle the problem of the resource misallocation that has been generated by China's SEZ and open cities policies. An important initiative that the government could take in this regard would be the removal of tax and other incentives given to firms which invest in the SEZs and other open cities/areas. Firms should be encouraged to locate where it makes most economic sense and their decisions should not be distorted by tax breaks.^{38/} As a minimum, the preferential tax treatment which induces Chinese state enterprises to locate in the SEZs should be phased out, but better still would be the adoption of a standard national corporation tax, with no distinction made between local and foreign-invested enterprises. Likewise, the duty reductions provided for imports sold within SEZs, and for locally produced goods, should also be abolished—in effect the SEZ's should

^{37/} Of the \$9 billion in realized FDI in 1992, it is estimated that about 25 percent was in fact "disguised investment" by firms from the mainland.

^{38/} Support for locations on regional development grounds can be effected by intergovernmental transfers, such as those already in place.

cease to be treated as separate customs areas. All other incentives which induce enterprises and individuals to locate in the SEZs for artificial reasons should be abolished.

The role that SEZs should continue to play is that of economic laboratories. Experiments with market mechanisms are still in a very early stage and much remains to be done. All of the markets which have been created in China, even in the SEZs, are limited access markets and have not had rules and regulations established adequate to prevent the abuse of market power and rent seeking. An important new role for the Special Economic Zones would be to experiment with the introduction of such checks and balances. The System Reform Commission could be asked to develop a program along these lines in cooperation with the Special Economic Zone authorities (see Annex 6.2 for details).

Plans to increase the number of SEZs should be resisted, although the de facto SEZ nature of the Pudong Development Area in Shanghai should be formally recognized. Other, interior locations under discussion, however, do not have any locational attractions for the role of economic laboratories. Similarly, proposals to develop Hainan, Shenzhen and Xiamen as free ports are dangerous and should be resisted. Already, the problem of smuggled goods coming across from Hong Kong is quite severe, and the status of SEZs as separate customs areas is being exploited to channel goods into the mainland without the payment of customs duties. The creation of free ports would, under present conditions, only exacerbate the problem and widen the distortions that have led to abusive behavior. For the time being, therefore, efforts must be directed at strengthening the administrative and enforcement mechanisms of existing SEZs, and on developing the capacity to regulate and manage them, rather than on creating new ones.

Endnotes

1. This section draws substantially on Egan and Mody, 1992.
2. These included minimum size in terms of paid in capital and annual exports, minimum number of overseas branches and number of products handled, minimum of overseas markets and the condition that the firm offer public stock. By the early 1980s, the only criteria that were maintained were export targets and the requirement of a public offering. See Karl Fields, 1989.
3. McBean (1992).
4. Turnbull (1977) and Egan and Mody (1992).
5. *Almanac of China's Foreign Economic Relations and Trade*, 1991/92, p. 82.
6. See World Bank (1992b).
7. World Bank (1992d), p. 64.
8. The decree allows for exemptions only in cases where (i) the enterprise has received an internationally recognized quality prize within the previous three years; (ii) product quality has been stable as confirmed by an international organization approved by the State Commission and proved through inspection by an inspection agency of the State Commission; and (iii) the product has been found by an inspection agency of the State Commission to be of high quality for three consecutive years.
9. World Bank (1992d).
10. Hernando Marino Navarrete, "Quality Control Circles: Colombia's Experience," International Trade Forum, ITC, GATT, January 1991.
11. See World Bank (1992b), p. 59.
12. Keesing and Singer in "How Support Services Can Expand Manufactured Exports: New Methods of Assistance," World Bank, November 1990, quote many examples that show how, when a developing country has been cut off from international best practice, the returns from outside consultancy can be impressive.
13. See World Bank (1987a) and World Bank (1990b).
14. The principle of the DL/C is to provide credit to the indirect exporter on the basis of the direct exporter's creditworthiness. When the direct exporter receives a letter of credit or other firm evidence of an export order, his bank is able to open a similar credit account with the indirect exporter as beneficiary. The DL/C entitles the indirect exporter to payment from the bank upon submission of evidence of delivery of goods to the final exporter, and can serve as collateral for him to access pre-shipment financing.

15. A. Panagariya (1988), World Bank (1987a), World Bank (1992b), and Executive Summary (p. iii).
16. See World Bank (1992b) and World Bank (1990a).
17. Interview with Qingdao electronic firm, May 29, 1992. The firm had direct trading rights and reported that, while domestic free market price of black and white TVs was about \$60 (valued at the swap market exchange rate), the FOB export price was \$42, and that, while it was making a profit of Y 20 per TV on domestic sales, it was making losses on its export sales, even after taking account of the rebate for indirect taxes and duties paid on imported inputs.
18. Balassa et al. (1986), reported in Linn and Bhattacharya (1988). In Japan, although support for export development was similarly comprehensive in its scope, it was never quite as substantial.
19. See Korea's Competitive Edge, Managing Entry into World Markets, Rhee et al. (1984).
20. See Larry Westphal (1990).
21. See World Bank (1986).
22. There is a vast and ultimately inconclusive literature on the subject. See for example, Amsden (1989), Wade (1990), Komiya et. al. (1988), Stern (1990), Westphal (1990) and Kim (1990).
23. See I.J. Singh (1992).
24. See Ma Jun and Michael Bell (1992).
25. Bateman and Mody, World Bank mimeo (1991).
26. See Ma Jun and Gang Zou (1991).

VII. EXTERNAL MARKETS AND CHINA'S EXPORTS

For the remainder of the decade, growth of the global economy is expected to stay sluggish at around 2.8 percent per annum.¹ Prospects for the Uruguay round of GATT negotiations, although improving, still remain uncertain, and there has been a marked trend towards regionalism in trade relations the world over. Moreover, with growing trade frictions, bilateral bargaining between trade partners can be expected to become more important. This chapter explores the question of market opportunities and access for Chinese exports and the implications thereof for China's own goals for export growth during the Eighth Plan and beyond.

A. PROTECTION AGAINST CHINA'S EXPORTS: THE FACTS

A frequently expressed concern is whether developed countries can absorb a major expansion of developing country exports. One source of pessimism in this regard stems from the perception that key OECD markets are already so "saturated" by developing country exports that a further sizeable trade expansion would not be feasible. In fact, as shown in Box 7.1, exports of manufactures from developing countries currently account for only about 3 percent of consumption of such products in OECD markets, and China's manufactured exports account for about a tenth of the developing country share. Even if all developing country exports of manufactures were to increase at a sustained rate equal to that of Korea's exports during the 1980s, and China's exports continue to grow at 15 percent per annum, the developing country share of OECD consumption of manufactures would only be 5 percent, and China's share would still be under one half of 1 percent after a decade. Import penetration ratios at these levels certainly should not produce a *general* protectionist response from OECD importers.

A related worry is that trade barriers are now relatively more important than they were when Singapore, Korea or Hong Kong began their rapid industrialization. If external conditions are now less favorable, China may not be able to follow an export led growth strategy to the extent that the now more advanced Asian developing countries did in the past. Box 7.2 provides a comparison of trade barriers in place in the mid-1970s with those faced by China today in OECD markets. This analysis indicates that tariffs faced by China today are 40 to 50 percent lower than those faced by the East Asian NIEs in the 1970s. On the other hand, while the nontariff barrier (NTB) coverage of China's exports is lower than that of Korea or Singapore in the mid-1970s, compared to Taiwan (China), and Hong Kong a greater proportion of China's present day exports are faced with NTBs.² While it is difficult to be precise, on the whole and taking account of trends in both tariff and nontariff barriers, it is safe to conclude that the current external environment for China's exports is not much different from that facing the Asian NIEs in the early 1970s.

The above evidence is reassuring for it indicates that there is still ample opportunity for export development, even for a large country such as China. However, this does not imply that China will not be faced with difficulties in accessing OECD markets in the future.

**Box 7.1: CAN INTERNATIONAL MARKETS ACCOMMODATE
A MAJOR CHINESE TRADE EXPANSION?**

The data cited below indicate that there remains substantial scope for OECD markets to absorb developing country exports of manufactures. These statistics show the recent (1988) share of EC, Japan and North American imports from developing countries in total consumption of manufactures, with Chinese ratios shown separately in parentheses. Statistics are also shown (lower half of the table) that indicate how a *major* increase in Chinese and all other developing countries' exports would influence these ratios. These figures assume: (a) that exports from *all* developing countries (excluding China) increase at Korea's 1980-90 growth rate and that China's exports continue to increase at about 15 percent; and (b) that apparent consumption of these products expands at the same rate as it did for the last decade. Korea's exports increased at a compound annual rate of about 14 percent over the decade, which was about two and one half times that rate for all other developing countries. The Korean rate is used in these projections since it probably constitutes an upper limit to possible developing country growth.

**1988 AND PROJECTED 1998 IMPORT PENETRATION RATIOS
STATISTICS FOR ALL DEVELOPING COUNTRIES AND CHINA
SEPARATELY (in parenthesis)**

Situation/product	European Community	North America	Japan	All combined
<i>Actual 1988 Statistics</i>				
All Manufactures	2.9 (0.2)	4.1 (0.3)	1.8 (0.3)	3.1 (0.3)
Chemicals	1.5 (0.2)	1.0 (0.1)	1.1 (0.2)	1.2 (0.2)
Transport equipment	0.9 (-)	1.7 (-)	0.1 (-)	1.1 (-)
All machinery	4.4 (0.1)	8.0 (0.2)	1.3 (0.1)	5.0 (0.1)
Clothing	19.1 (1.6)	27.9 (3.0)	13.1 (3.4)	22.1 (2.7)
<i>High-Growth Scenario</i>				
All manufactures	4.3 (0.3)	6.1 (0.4)	2.7 (0.4)	4.7 (0.4)
Chemicals	2.3 (0.3)	1.5 (0.2)	2.0 (0.4)	2.0 (0.3)
Transport equipment	1.4 (0.1)	2.6 (0.1)	0.2 (-)	1.6 (-)
All machinery	6.6 (0.2)	12.0 (0.4)	1.8 (0.1)	7.5 (0.2)
Clothing	23.5 (1.9)	34.3 (3.8)	16.1 (4.2)	27.1 (3.3)

Note: Assumes that the growth rate of all developing countries exports matched that of Korea over 1980-90 and China continued at the same rate as that for the last decade. Apparent consumption is assumed to increase by about 4 percent per year.

For one, while the absorptive capacity of OECD markets for developing country manufactured exports as a whole may be sufficient, problems could occur for some *specific* industries where import penetration is already high.^{1/} Under the growth scenario for developing country exports assumed above, the increase in import penetration ratios for clothing, for example, would

^{1/} China already accounts for 14.7 percent of US imports of clothing, 27.5 percent of its imports of footwear, 32 percent of its imports of toys and sporting goods and 7 percent of its imports of telecommunications equipment (Source: UN COMTRADE, 1991, data reported by USA).

**Box 7.2: CURRENT PROTECTIONISM AND CHINA'S TRADE PROSPECTS:
SOME COMPARISONS WITH AN EARLIER PERIOD**

The statistics presented below compare summary information on external trade barriers facing four Asian NIEs (Republic of Korea, Hong Kong, Singapore, and Taiwan (China)) in the early 1970s with those now confronting China. These data indicate the average tariffs these countries faced on total exports to OECD markets as well as the share of this trade covered by hard core NTBs. Given the importance attributed to manufactures in these countries' exports, separate tabulations are shown for these goods.

**OECD COUNTRIES TRADE BARRIERS FACING ASIAN NIEs IN THE 1970s
(%)**

Trade barrier	Products	Rep. of Korea	Hong Kong	Singapore	Taiwan (China)	Current OECD barriers facing China
Average tariffs	All Items	11.6	10.1	5.6	11.5	4.8
	Manufactures	11.9	10.5	7.6	11.0	6.4
NTB coverage ratio	All Items	43.0	25.1	43.9	25.4	31.0
	Manufactures	44.0	23.6	16.8	25.7	41.1

Source: OECD barriers in the 1970s from Olechowski (1979). Other statistics are World Bank estimates.

As far as tariffs are concerned, current average import duties applied by OECD countries on developing country exports (4.8 percent) are roughly 40 to 50 percent below those facing the Asian NIEs in the early 1970s. This is due primarily to phasing in of tariff reductions negotiated in the Kennedy Round, further cuts in the Tokyo Round, and the extension of Generalized System of Preference (GSP) treatment to China by some OECD countries (China is not included in the US GSP plan). The situation regarding NTBs is less clear cut, but China's current NTB coverage ratio for all goods (31 percent) is 12 points lower than that for Korea and Singapore in the early 1970s, but about 6 points higher than the coverage ratios for Hong Kong and Taiwan (China). There is some evidence (Laird and Yeats, 1990) that *general* increases in NTB protection were confined to a handful of industries like steel and apparel with little change in most manufacturing sectors. Overall, therefore, it is probable that trade barriers faced by China today are about the same as those faced by the East Asian NIEs in the 1970s.

become significant, reaching 27 percent by the end of a decade, with China's share three and one half percent of OECD consumption. Similarly, it is projected that developing countries could achieve import-penetration ratios in excess of 20 percent for several other specific industrial sectors like leather clothing, footwear, floor coverings and radio broadcast receivers.³ Whether or not a protectionist backlash would be triggered in such cases will depend on the industrial countries' willingness and ability to provide supporting adjustment measures in their respective affected regions or industries. Second, while the export barriers faced by China may not be higher than those faced by the East Asian NIEs at the start of their export drive, this does not exclude the possibility that China's exports may be at a disadvantage because they face greater trade barriers than those of their main competitors today.

Indeed, a more disaggregated analysis reveals that China's existing exports are particularly vulnerable to trade barriers in developed countries. Table 7.1 reports average import

Table 7.1: AVERAGE LEVEL OF TARIFFS CHINESE EXPORTS ENCOUNTER IN NINE MAJOR OECD MARKETS

Product group	Estimated Average Post Tokyo Round Tariff Chinese Exports Face in Major OECD Markets (%)								
	Australia	Austria	Canada <i>/a</i>	EC <i>/a</i>	Japan	Norway <i>/b</i>	Sweden <i>/b</i>	Switzerland	United States <i>/a</i>
All food products and animals <i>/c</i>	4.9	8.0	6.2	3.7	9.7	2.8	1.6	10.0	4.1
Food <i>/c</i>	2.8	5.9	6.8	3.2	10.0	3.0	1.4	9.0	3.8
Oilseed and nuts	4.1	1.9	6.0	10.3	5.6	4.5	3.3	7.5	1.4
Animal and vegetable oils	2.0	0.8	0.0	0.1	0.3	0.0	0.0	0.2	0.9
Agricultural raw materials	5.1	2.3	0.6	3.4	0.7	0.6	1.7	1.9	0.3
Ore and metals <i>/d</i>	10.2	5.6	2.1	2.8	2.5	1.5	2.5	1.4	1.9
Iron and steel products	17.2	8.4	5.4	5.5	5.0	1.8	4.8	2.0	4.3
Nonferrous metals	3.9	6.1	2.2	3.2	5.5	1.9	1.00	1.2	0.7
Fuels	-	2.1	1.4	0.1	1.5	0.0	0.0	0.0	0.4
Chemical Products	5.4	6.3	6.4	8.4	5.5	5.9	5.0	0.9	3.7
Manufactures excluding chemicals	17.7	14.1	7.0	8.1	5.7	6.1	5.4	3.3	5.6
Leather goods	17.8	5.3	3.8	10.2	11.9	4.7	4.1	1.8	4.2
Textile yarn and fabrics <i>/e</i>	15.3	18.2	9.4	17.3	8.6	12.8	10.6	6.0	10.6
Clothing <i>/e</i>	49.3	30.2	12.6	19.9	15.0	20.3	13.6	8.6	20.3
Footwear	43.9	25.9	11.9	22.5	14.2	11.2	14.3	9.6	11.7
Machinery and other items	0.2	3.3	0.1	4.8	2.3	2.0	1.8	0.4	2.1

/a Due to the Canadian-US free trade arrangement intratrade between these countries is duty free which affords a substantial competitive advantage over Chinese exports of some products. The United States also extends GSP treatment to many developing countries, while both the US and Canada offer special preferences to Caribbean countries. Imports from Israel also enter the US duty free under the terms of a free trade arrangement. All these special preferences are a competitive disadvantage for Chinese exporters.

/b Under the terms of a special protocol manufactured goods between EC and European Free Trade Area (EFTA), countries are traded duty free which displaces some potential Chinese exports—as does special regional arrangements between EFTA, the EC and Eastern Europe and Near East countries. The EC also extends important preferences to some developing countries (excluding China) under the terms of the Lomé Convention.

/c Excludes the effects of EC, Swedish and Swiss variable import levies on agricultural products. Some estimated ad valorem equivalents for these measures exceed 100 percent.

/d Excludes nominal protection from "voluntary" export restraints and other NTBs that are extensively applied to these products.

/e Excludes the protective effect of the Multifiber Arrangement (MFA) and other barriers to textile and clothing trade (see Figure 4.1 for some indication of the incidence of these measures).

Source: The World Bank-UNCTAD Software for Market Analysis and Restrictions on Trade (SMART) system and Finger and Olechowski (1987).

duties levied in OECD markets on a variety of products. Three product categories, clothing, footwear and textile yarns and fabrics, that together account for over a quarter of China's exports, are subject to high tariff barriers by OECD standards. Compared to an average tariff of 4.8 percent that applies on overall OECD imports, clothing is subject to import duties in excess of 20 percent in the EC, Norway, and United States. Even higher tariffs of 30 percent or more are applied to clothing imports in Australia and Austria. Likewise, footwear also faces

average tariffs of over 20 percent in the EC, Austria, and Australia, while duties on textile yarns and fabrics encounter relatively high tariffs in the 10 to 20 percent ranges.

Table 7.2 compares the share of China's and all developing countries' exports to the United States, Japan and European Community encountering NTBs in place in 1990.^{2/}

Table 7.2. ANALYSIS OF THE RELATIVE IMPORTANCE OF NONTARIFF BARRIERS ON EXPORTS FROM CHINA AND OTHER DEVELOPING COUNTRIES
(Share of exports that face NTBs in the US, Japan and EC-percentage)

Developing country exporter	United States			Japan			European Community		
	Agricultural products	Manufactured goods	All products	Agricultural products	Manufactured goods	All products	Agricultural products	Manufactured goods	All products
All developing countries	9.7	28.5	15.7	38.5	12.9	15.0	21.5	32.4	13.7
Peoples Republic of China	8.5	59.6	47.0	34.1	23.3	22.9	17.3	40.5	29.5
<i>Memo Item: Selected Developing Countries</i>									
All Latin America	11.5	17.2	9.9	25.0	9.6	12.3	17.7	26.9	13.5
Argentina	8.2	2.3	4.1	23.2	4.2	10.1	21.4	18.6	19.5
Mexico	1.0	12.5	8.0	18.4	5.6	12.1	22.0	25.4	21.0
East Asia	12.8	36.8	30.2	38.8	13.0	17.0	27.4	40.6	33.8
Indonesia	0.1	46.0	9.2	44.3	4.5	8.6	10.8	32.8	16.1
Rep. of Korea	1.0	13.1	10.4	3.6	23.2	3.6	2.1	13.9	6.3
Philippines	20.2	32.1	28.0	19.5	6.1	12.6	77.6	41.9	20.9
Thailand	32.4	28.5	27.6	42.9	23.2	35.2	79.9	55.2	67.8
Sub-Saharan Africa	4.4	18.7	3.9	45.6	23.2	31.8	13.0	17.2	5.7
Kenya	-	0.6	0.1	22.6	5.2	10.1	24.1	8.4	11.7
Tanzania	0.0	0.2	0.0	18.2	3.2	12.1	9.0	6.0	7.0
Senegal	-	0.5	0.1	46.1	5.4	42.0	30.4	16.2	24.6
South Asia	0.2	45.7	33.0	64.1	11.7	25.8	18.5	50.4	36.2

Note: Nontariff barriers included in the trade coverage calculations are "hard core" NTBs as follows: import prohibitions, quantitative restrictions, variable import levies, MFA restrictions, nonautomatic licensing, and countervailing and anti-dumping measures. Not included are: automatic licensing procedures, seasonal tariffs, health and sanitary requirements, and special standards or packaging regulations.

Source: COMTRADE statistics of the United Nations and UNCTAD's Inventory of Trade Control Measures. The NTB coverage indices shown on this page have been computed using barriers in place in 1990 and a 1986 trade data base.

It shows that the NTB coverage ratio for China's overall exports is considerably higher than the average for the exports other developing economies, with the exception of Thailand. In Japan, almost 23 percent of Chinese exports face one or more forms of hard core NTBs as opposed to an average of 15 percent for all developing countries. Similarly, in the USA, the Chinese NTB

^{2/} Laird and Yeats (1990, Table 4.1, p. 90) indicate that the relative importance of NTBs as barriers facing developing countries showed only a modest increase over much of the last decade. However, based on the available evidence it is difficult to argue that current trade barriers have significantly reduced export opportunities below those that existed in the 1970s or earlier (see Box 7.2).

trade coverage ratio, at 47 percent, is thrice the corresponding ratios for exports from other developing countries.

Table 7.3: **SECTORIAL COVERAGE OF CHINA'S EXPORTS BY NONTARIFF BARRIERS IN THE UNITED STATES, JAPAN AND EUROPEAN COMMUNITY**

Product Group (SITC)	United States		European Community		Japan	
	1986 import value (\$ million)	NTB coverage index (%)	1986 import value (\$ million)	NTB coverage index (%)	1986 import value (\$ million)	NTB coverage index (%)
All products (0 to 9)	4,597	47.0	3,890	29.5	5,604	22.9
All products except fuels (0 to 9 less 3)	4,052	53.3	3,720	30.8	3,878	27.7
All foods (0+1+22+4)	206	0.4	766	29.0	1,387	39.5
Agricultural materials (2-22-27-28)	70	32.2	527	0.3	485	18.4
Ores and metals (27+28+67+68)	97	5.0	152	0.2	237	8.5
Ferrous Metals (67)	10	51.3	10	0.0	30	0.0
Chemicals (5)	165	6.3	348	2.8	305	9.5
Other manufactures (6 through 8 less 67, 68)	3,412	62.2	1,925	47.5	1,440	26.7
Leather manufactures (61)	23	80.2	19	1.7	5	88.2
Textiles (65)	435	93.5	543	81.0	673	55.3
Clothing (84)	1,653	94.3	542	69.7	443	1.4
Footwear (85)	74	0.0	77	99.7	39	1.3

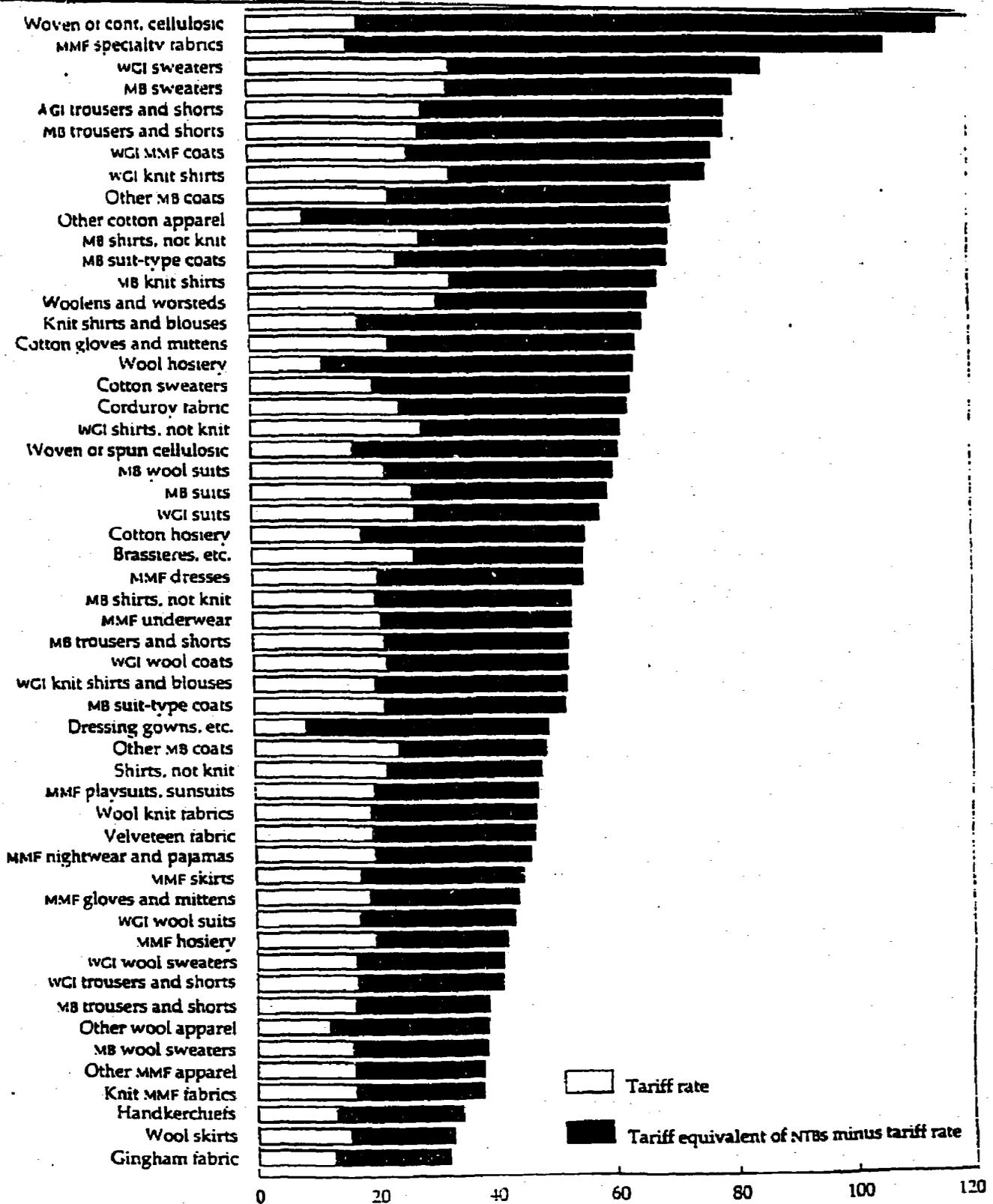
Source: United Nations COMTRADE data base and the UNCTAD Data Base on Trade Control Measures. The NTB trade coverage ratios are for restrictions in effect in 1990 while the trade statistics relate to 1986. The latter fixed-year trade weights have been used for World Bank (1992) computations in order to distinguish between changes in trade composition and changes in the application of NTBs.

Why is the NTB coverage of China's exports so high? The answer lies partly in the composition of China's exports and partly on their distribution across key trading partners. Table 7.3 provides a breakdown of NTB coverage ratios for major groups of products exported by China to United States, the EC and Japan, China's three most important trading partners in that order.^{3/} The table indicates that the US NTB coverage ratio of 47 percent is the highest of the three markets, followed by 30 percent in the EC and 22 percent in Japan. The same ranking holds if one looks only at China's exports of manufactures. The NTB coverage of China's manufactured exports is 62 percent in the USA, 48 percent in the EC and 27 percent in Japan (Table 7.3). Chinese manufacturing exports to the former two markets attract higher NTBs because of their concentration among textiles and clothing. Over 80 percent of Chinese exports of textiles and clothing to these markets are subject to quota restrictions associated with the Multifiber Arrangement. Chinese exports to the US market are subject to a particularly high NTB coverage because of the disproportionately large share of textiles and clothing—United States clothing imports from China are roughly three times those of the EC. On the other hand, the low NTB coverage of China's manufactured exports to Japan is in large part accounted for by the fact that Japan does not impose MFA quotas on its imports of textiles and clothing products.

It is difficult to estimate the implications for the competitiveness of China's exports of the application of NTBs in major OECD markets. Some relevant data is, however,

^{3/} Taking into account reexports through Hong Kong.

Figure 7.1: NOMINAL PROTECTION AGAINST CHINA'S TEXTILE AND CLOTHING EXPORTS TO THE UNITED STATES IN 1988
(tariffs, nontariff barriers and combined protective effects)



Note: MMF means manmade fiber; WGI means women's, girls', and infants'; MB means men's and boys'.
Source: USITC 1989.

available for the US market. Figure 7.1 is based on a special study prepared by the United States International Trade Commission and shows US total protection for various types of textile and clothing products imported from China as well as nominal protection from NTBs and tariffs separately. It shows, that for each item, the protection accorded by NTBs is significantly higher than that provided just by tariffs. Thus, cumulative levels of protection on textile and clothing products imported from China are in fact in the range of 40 to 80 percent, with protection levels in some cases like man-made-fiber specialty products, rising to over 100 percent.^{4/} The levels of protection reflected in Figure 7.1 clearly suggest that a substantial expansion of China's textile and clothing exports could result from a liberalization in this sector.

B. EVOLVING EXTERNAL MARKETS AND IMPLICATIONS FOR CHINA'S EXPORTS

Conditions of access to international markets are in a state of flux at the moment. Such changes as occur are likely to have important positive or negative implications for China's exports. Progress in multilateral trade negotiations is likely to be particularly beneficial for China. The successful conclusion of a Uruguay Round and a phase-out of the MFA would be a big boost for China's exports given the fact that this country has generally filled its annual textile and clothing quotas for exports to OECD markets. On the other hand, the growing trend towards bilateralism and regionalism ^{5/} could spell danger for China's export drive. The most obvious example would be any possible withdrawal of China's Most-Favored-Nation (MFN) status in the United States. Likewise, the successful conclusion of new free trade area (FTA) arrangements like NAFTA, the proposed North American Free Trade Area between Mexico, Canada, and the United States, and other arrangements currently under negotiation between EFTA and EC countries and most of the former socialist countries of Eastern Europe, could displace Chinese exports to OECD markets. This section explores how such developments in external market conditions could influence China's future export prospects.

Implications of the Uruguay Round for China's Exports

Most of China's trade partners already accord MFN status to its exports. Thus, China is likely to benefit from whatever liberalization of trade barriers results from the successful conclusion of the Uruguay Round even it should not regain/resume its GATT seat. Even so, as long as China is unable to enjoy contracting party status in the GATT, it would remain penalized in several respects. First, several major agreements expected to emerge from the Round (like streamlined dispute settlement procedures, would remain inaccessible to China. Second, China would continue to be denied the potential benefits from the Generalized System of Preferences (GSP).^{6/} Third, if the Uruguay Round were to conclude with a liberalization of MFN barriers, and China were to lose its United States MFN status due to bilateral issues,

^{4/} Although a directly comparable study has not been completed for EFTA or EC countries, most analyses suggest that protection against textile and clothing exports from China is roughly comparable to that in the United States. See Laird and Yeats (1990) for a survey.

^{5/} In a detailed analysis, Braga and Yeats (1992) estimate that FTAs which have thus far been concluded cover approximately one half of current world trade in manufactures.

^{6/} Even if China were to acquire full contracting party status in the GATT, it is not obvious that it would get GSP treatment—this would depend on the terms that the Chinese were able to negotiate.

its competitive position in the US markets would *deteriorate* due to the *increased spread* between general and MFN duties.

While the precise nature and magnitude of any liberalization still remains somewhat uncertain, most observers feel that the negotiations are likely to result in an overall one-third to one-half reduction in tariffs and nontariff barriers. This estimate incorporates existing offers for tariff reductions along with proposals by Arthur Dunkel, Director General for GATT, for liberalizing NTBs.⁴

If protection levels in the EC, the United States and Japan were to be reduced by 50 percent, China's exports might increase by an estimated 38 percent or \$11.4 billion in terms of 1988 prices (see Table 7.4).^{7/} These figures suggest that China would fare considerably better from a Uruguay Round liberalization than would other developing countries on average, because it is estimated⁵ that a 50 percent liberalization in EC/USA/Japan trade barriers would increase all developing countries' exports by about 15 percent, which is less than half the projected 37.6 percent expansion for China.^{8/} There are three major reasons for this disparity. First, most developing countries have a far higher share of raw materials like metal ores in their total exports and these primary products generally face zero or low import barriers in developed country markets. Second, many developing countries enjoy special preferences, like GSP in the United States or Lomé Convention or special regional preferences in the EC, that China does not receive. Uruguay Round MFN tariff cuts would erode the margins of preferences these countries receive and cause some of their existing trade to be diverted to nonpreference receiving countries. Because China's exports do not benefit from GSP or other special tariff treatment, it would be one of the countries standing to benefit from trade *diverted away* from the preference receiving countries. Finally, the trade gains China might expect from the Uruguay Round should exceed those of the developing countries (on average) due to the relatively high share of textiles and clothing products in total exports. These products currently face trade barriers which provide nominal protection of over 100 percent (Figure 7.1) and a liberalization from these levels offers the potential for maximum trade gains.⁶

The Potential Effects of Regionalism on China's Exports

As previously mentioned, the further spread of regional preferential arrangements has the potential to impair China's export prospects. For example, current discussions aimed at creating a North American Free Trade Area (NAFTA) would grant Mexico, Canada and the

^{7/} This estimate is based on a partial equilibrium model that the World Bank and UNCTAD developed to help developing countries formulate their negotiating positions in the Uruguay Round. Two qualifications should be noted. First, it projects only static trade effects and does not estimate any dynamic gains that may be equally important. Second, it underestimates the gains from an NTB liberalization since nominal equivalents for some existing restrictions were not available for use in the model. For a description of this ("SMART") model see Annex 7.1 of this report. See World Bank (1992) for SMART projections of Uruguay Round results on all developing countries' trade.

^{8/} In fact, total Chinese trade gains from the Uruguay Round should be larger than the figure reported in Table 7.4 since other countries like EFTA members, Australia, New Zealand, and Canada will also lower tariffs and NTBs. In 1989, these countries imported \$3.2 billion from China. Assuming this trade expands in the same proportion as that for EC/US/Japan, the *total* Uruguay Round gains for China would be approximately \$12.6 billion.

Table 7.4: ESTIMATED EFFECT OF A 50 PERCENT LIBERALIZATION IN TRADE BARRIERS BY THE EC, UNITED STATES AND JAPAN ON IMPORTS FROM CHINA

Product (SITC)	Projected increase in imports from China			
	EC, US and Japanese 1988/89 imports from China (millions of US dollars)	Value (\$ million)	Increase (%)	Share of total increase (%)
Food and livestock (0)	3,055	795	26.0	7.0
Fish and preparations (03)	947	455	48.0	4.0
Fruit & vegetables (05)	1,083	216	19.9	1.9
Beverages and tobacco (1)	43	9	20.9	-
Crude materials except fuels (2)	2,522	81	3.2	0.7
Textile fibers (26)	1,095	12	1.1	0.1
Crude materials, nes (29)	463	60	13.0	0.5
Mineral fuels (3)	2,702	200	7.4	1.8
Petroleum products (33)	2,384	194	8.1	1.7
Animal & vegetable oils (4)	50	2	4.0	-
Fixed vegetable oils (42)	48	2	4.2	-
Chemicals (5)	1,445	38	2.6	0.3
Chemical elements (51)	849	17	2.0	0.1
Medicinal products (54)	182	7	3.8	-
Manufactures classified by material (6)	4,415	733	16.6	6.4
Textile yarn and fabrics (65)	2,272	511	22.5	4.5
Metal manufactures (69)	593	132	22.3	1.2
Machinery and transport (7)	2,489	157	6.3	1.4
Electrical machinery	2,034	106	5.2	0.9
Misc. manufactures (8)	13,544	9,385	69.3	82.3
Travel goods (83)	959	463	48.2	4.0
Clothing (84)	4,699	5,154	109.7	45.2
Misc. manufactures, nes (89)	4,263	856	20.0	7.5
All goods (0 to 9)	30,338	11,400	37.6	100.0
All manufactures (5 to 8 less 68)	21,488	10,300	47.9	91.4

United States duty-free (and nontariff barrier free) access to each other's markets while similar products from other countries (like China) would continue to face existing trade barriers. This differential treatment will cause China's exports (and other non-NAFTA countries' trade) to be displaced in the three FTA markets. In the US, exports from China would be diverted by

Canada and Mexico, in Mexico some Chinese exports would be displaced by the US and Canada, while Mexico and the United States would divert Chinese trade with Canada.

Table 7.5: ESTIMATES OF TRADE DIVERSION IN THE UNITED STATES DUE TO A MEXICAN-US FREE TRADE ARRANGEMENT

Exporter	Trade Displaced by a Mexican-US FTA (\$'000)				
	Food & agricultural materials	Energy products	Ores & metals	All manufactures	All items
All non-FTA exporters	-35,030	-22,390	-1,840	-381,370	-440,640
China	-3,230	-190	-20	-33,830	-37,270
Major South American Exporters	-11,920	-5,890	-60	-10,150	-28,060
Argentina	-740	-190	-	-270	-1,200
Bolivia	-	-	-	-20	-20
Brazil	-9,830	-210	-	-8,260	-18,310
Chile	-510	-	-	-240	-800
Colombia	-420	-460	-	-480	-1,370
Ecuador	-190	-460	-	-20	-670
Paraguay	-10	-	-60	-	-10
Peru	-20	-290	-	-80	-450
Uruguay	-	-	-	-160	-160
Venezuela	-190	-4,280	-	-610	-5,080

Source: Projections made with the World Bank-UNCTAD SMART model. For a description, see Annex 7.1.

Table 7.5 provides some indication of the potential trade diversion that might occur in the United States market as a result of an FTA with Mexico.^{9/} The table indicates that all non-FTA countries taken together would have trade of about one-half billion dollars displaced by the proposed arrangement, with approximately 86 percent of the trade diverted consisting of manufactures. China's trade losses are estimated to approach \$40 million, a figure which, though quite small, exceeds the combined total (\$28 million) of displaced exports from all the major South American exporters. Chinese losses are projected to be higher than those of South American countries, because China directly competes with Mexico in many high tariff highly labor-intensive sectors like textiles, clothing, footwear, sporting goods, etc., that are subject to high tariffs in the United States and Canada. Most South American countries, like Bolivia, Peru, Ecuador, Colombia, and Venezuela, on the other hand, primarily export raw materials or fuels to the United States and Canada where low (or zero) tariffs limit the potential for trade diversion to occur.

Similarly, although no precise estimates are available at this time of the extent of trade losses to China in the Canadian market from the conclusion of the FTA with the United States, Table 7.6 suggests that a significant proportion of China's manufactured exports to Canada could face heightened competition from comparable products originating in the United States. The table shows that the United States is in direct competition with China for almost all

^{9/} The projections are made with the World Bank-UNCTAD trade projections model. See World Bank (1992a, Appendix C) for a discussion of the main features and limitations of this model.

Table 7.6: AREAS OF POTENTIAL DISPLACEMENT OF CHINA'S EXPORTS TO CANADA DUE TO THE UNITED STATES-CANADA FTA

Product (SITC)	1990 Canadian Imports (\$000)	
	China	USA
All Manufactures (5 to 8 -68)	1,061,859	62,983,839
Clothing of Textile Fabric (8411)	164,383	74,555
Children's Toys (8942)	141,055	179,109
Travel Goods (8310)	81,911	22,371
Footwear (8510)	64,506	43,445
Clothing Knitted (8414)	61,243	87,509
Domestic Electrical Equipment (7250)	57,369	386,856
Leather Clothing (8413)	39,644	4,873
Radio Broadcast Receivers (7242)	32,660	191,123
Plastic Manufactures (8930)	27,167	763,015
Made-up Textile Goods (6569)	26,198	71,613
Headgear (8415)	16,430	18,427
Woven Synthetic Fabric (6535)	16,087	151,784
Telecommunications Equipment (7249)	15,101	924,655
Woven Cotton Fabrics 6522)	14,679	91,911
Other Manufactures, nes (8999)	14,636	95,797
Furniture (8210)	14,370	743,377
Clothing Accessories (8412)	12,303	9,794
Porcelain Ware (6664)	9,871	4,141
Lighting Fixtures (8124)	8,063	116,104
Steel Nuts and Bolts	7,883	342,245
<u>Total of above</u>	<u>825,469</u>	<u>4,322,804</u>
<u>Total as a percentage of all Mfg. (%)</u>	<u>77.7</u>	<u>6.9</u>

Source: Canadian import statistics drawn directly from United Nations COMTRADE sources.

of the latter's 20 largest four-digit SITC manufactured exports to Canada. Since the FTA agreement went into effect, products originating in the United States pay no duties, whereas those from China continue to be subject, on average, to a 10 percent MFN equivalent import duty and, in some cases, also to NTBs.

Implications of a Loss of China's Provisional MFN Status in the United States

Article I of the General Agreement on Tariffs and Trade (GATT) contains a "most-favored-nation" (MFN) clause that applies to all member's tariffs as well as all other rules and formalities relating to importation and exportation. The basic principle of this clause rests on the premise of nondiscrimination and requires that all members of the General Agreement be treated on an equal or nondiscriminatory basis. Article II of the GATT contains a related provision that requires that any tariff or trade barrier reduction must be extended equally to all countries that are GATT members and not just to the contracting party with which the concession was negotiated.^{10/} This latter provision formed the keystone of efforts to liberalize trade barriers within the context of multilateral trade negotiations such as the Tokyo or Uruguay Rounds.

While MFN status is normally guaranteed to all the 105 countries that are now official GATT members,^{11/} its extension to a nonmember nation depends entirely upon the *discretion* of a GATT member. It was thus that the United States provisionally granted MFN status to China in 1973. As a result of several unresolved commercial and political disputes, however, both houses of the US Congress have since voted for the withdrawal of the provisionally granted Chinese MFN status unless key points of contention were resolved.^{12/} A key question is what impact the withdrawal might have on Chinese exports to the United States.

^{10/} There are several specific situations where GATT members suspended or modified this principle. One of the more important exceptions is a provision that allows developed countries to extend tariff preferences to developing countries in order to accelerate the latter's industrialization and growth. This exception led to the establishment of the GSP which OECD countries adopted in the early 1970s. GATT Article XXIV contains special regulations concerning the formation of free trade areas and customs unions under which specific countries remove import duties and nontariff barriers from each others trade, but continue to apply the restrictions to imports from nonmembers. Also, in the mid-1970s, GATT adopted a special *Protocol for Trade Relations among Developing Countries* that allowed developing countries to encourage their own intratrade by applying lower than MFN tariffs to this exchange.

^{11/} Per Article XXI MFN privileges have occasionally been suspended on "national security grounds" (e.g., USA against Nicaragua and Cuba). Likewise Article XX can also be used to this end on such grounds as morality and health. Finally, Article VI could be used to suspend MFN privileges on anti-dumping grounds.

^{12/} In addition, in the case of China, it must be noted that GATT membership does not necessarily mean automatic MFN treatment by all contracting parties. In principle, if China's case were treated as that of the accession of a new member, an existing contracting party could invoke the nonapplication clause (Article XXXV) of the General Agreement to deny China access to MFN privileges. It is not improbable that the US would seek to invoke this clause. The problem is that the US is required by *domestic* legislation to review China's MFN status on an annual basis, and as such, it must reserve the right to suspend these privileges. Using the nonapplication clause on China would be one way for the US to satisfy the requirements of existing domestic legislation without violating the provisions of the GATT.

If most-favored-nation status were withdrawn, United States imports from China would no longer be taxed at the prevailing MFN rates but would be subject to the so-called "third column" of "general" tariffs. These general rates, which essentially were those prevailing prior to the tariff cuts negotiated in seven multilateral trade negotiations leading up to the Uruguay Round, are often 5 to 10 times or more higher than prevailing United States MFN tariffs.^{13/} With such a major upward shift in the level of import duties, Chinese exports to the United States (its largest export market in 1990—see Table A1.3) will clearly experience a major decline and, in some product groups, may be completely eliminated.

Table 7.7 examines the potential trade losses Chinese exporters could experience on 15 major four-digit SITC products if these items were to be taxed at the higher US general tariff rate.^{14/} The table shows the trade-weighted MFN tariff China now faces on each product as well as the general tariff rate that would be applied if provisional MFN treatment were withdrawn. The table also shows the 1990 actual value of US imports from China for each item and a projection of the trade that would occur under the general rate.

For 7 of these 15 key export products, it appears likely that Chinese exports to the US would face grave difficulty due to the major cost disadvantage associated with US general tariffs. The increase of roughly three-and-one-half times in the clothing duty (from an MFN rate of 15.3 percent to a general rate of 55 percent) would substantially undermine exports of this key product (its estimated decline is between 50 and close to 100 percent, depending upon the assumptions, from its present level of \$2.2 billion) with equally significant reductions estimated for toys and indoor games (SITC 894.2). For the 15 products listed in Table 7.7 combined the projected losses are on the order of \$3.7 to \$8.5 billion with about one half of this reduction registered in the key clothing and toys or games groups.

Although it would be a major task to derive the required nominal equivalents for all US general tariffs (some 9,000 tariff-line levels are identified in the United States customs schedules), the data in Table 7.7 can provide some indication as to the overall effects of China losing provisional MFN status. Under the assumption that all goods would experience the same proportional decline as the 15 major products listed in Table 7.7, China's annual export losses

^{13/} The previous rounds were held in 1947 (Geneva), 1949 (Annecy, France), 1951 (Toruay), 1956 (Geneva) and 1960/61 (Geneva). The Kennedy Round was concluded in 1967 after four years of negotiations while the Tokyo started in 1974 and was finalized in 1979. Since these MFNs did not result in a uniform reduction in all tariffs there is no general (constant) relation between present MFN and United States general tariffs. For example, Table 7.7 shows that prevailing MFN rates for grey woven cotton (SITC 625.1) now stand at about 45 percent of the US general tariff while the corresponding ratio for watches and clocks (SITC 864.1) is currently about 7 percent.

^{14/} These projections were made in part using the World Bank-UNCTAD SMART trade projection model—see Annex 7.1. A very high share of the United States general tariffs are expressed in terms of combined nominal and specific duties (say, 10 percent of the f.a.s. import value plus \$2 per item) and this made the conversion to pure nominal rates shown in Table 7.7 difficult since the specific (fixed rate per unit) change had to be expressed as a ratio to the product's unit value. It should be noted that the nominal equivalents of these combined general rates will change as Chinese export unit values change, i.e., if Chinese export unit values fall the nominal equivalents of the general tariffs will rise.

Table 7.7: PROJECTIONS OF THE TRADE EFFECTS OF APPLYING UNITED STATES GENERAL TARIFFS ON MAJOR CHINESE EXPORT PRODUCTS

SITC	Description	United States imports from China				
		US tariff (%) /a		1990 actual value/b (\$000)	Projected under general tariffs /c	
		MFN	General		Percentage decline (%) Scenario I /d	Percentage decline (%) Scenario II
0313	Fresh or frozen shellfish	0.0	22.0	398,148	-33.1	-100.0
6521	Grey woven cotton fabrics	8.3	18.4	142,304	-14.3	-20.9
6569	Made-up textile articles, nes	9.4	60.0	266,135	-71.1	-97.1
6575	Textile floor coverings	5.1	48.0	79,260	-63.6	-100.0
6785	Iron and steel tubes and pipes	5.9	25.8	55,426	-28.1	-50.3
7142	Accounting and statistical machines	3.7	35.0	82,939	-43.8	-100.0
7242	Radio broadcast equipment	4.7	35.0	516,632	-43.1	-98.0
7331	Bicycles, nonmotor	8.7	30.0	38,931	-28.3	92.7
8210	Furniture	6.9	45.0	167,986	-51.5	-100.0
8310	Travel goods and handbags	15.4	46.0	741,092	-41.4	-100.0
8411	Clothing of textile fabric	15.3	55.0	2,159,043	-51.5	-99.5
8415	Headgear	7.7	52.5	62,687	-62.1	-100.0
8510	Footwear	14.8	34.3	1,539,008	-25.5	-92.2
8641	Watches and watch movements	4.6	65.0	81,446	-84.1	-100.0
8942	Toys and indoor games	7.4	38.0	2,290,071	-44.2	-99.3
	All products listed above	13.4	42.0	8,621,008	-42.9	-96.4
	Implied effects on all imports from China /e			16,260,811	-42.9	-96.4

/a The MFN rates are tariff-line level trade weighted averages which have been computed using the World Bank's SMART tariff and trade database. The general tariff averages have been computed using data published in the official United States customs schedules.

/b These data are based on imports into the USA. As against the \$16.26 billion in imports reported by the US from China, exports to the USA reported by China were \$5.4 billion. The difference would appear to be explained by reexports through Hong Kong, which were valued at \$10.5 billion in 1990 (see Chapter 1) and transport margins.

/c Trade projections were made at the level of tariff line products and then aggregated up to the four-digit SITC product group level.

/d Two sets of assumptions have been used to estimate the possible range of the trade destruction and trade diversion effects of MFN removal. Scenario II is based on the Baldwin and Murray (1977) approach (implemented in the SMART software system) which ascribes all the trade destruction effects to the particular country (China in this case) against whom protective barriers are differentially raised (see Annex 7.1 for details of the assumptions of the SMART model). Scenario I calculates the trade destruction effect but then allocates it across all suppliers according to their respective shares of the importing country's trade. Trade diversion amongst suppliers is calculated using a constant elasticity of substitution formulation in both Scenarios. Sensitivity analysis was undertaken using a range of values for the parameters involved (i.e., elasticity of US import demand, elasticity of Chinese export supply, and elasticity of substitution between Chinese exports and those for competing suppliers) in the computation of both Scenarios. The results presented here from Scenarios I and II represent the lower and upper bound, respectively, of the estimated impact on China's exports of MFN removal by the US.

/e Projections based on the assumption that the decline in all imports from China would match that of the 15 four-digit SITC core products listed above.

in the US market could be on the order of about \$7.0 to \$15.2 billion, a decline of between 42 and 96 percent.^{15/}

Chinese exporters are not the only ones that would lose. According to one estimate, US consumers could end up paying as much as \$14 billion per year in higher prices resulting from a combination of costlier substitutes from alternative supply sources, and higher tariffs on the products that would continue to be imported from China.^{16/}

It appears, therefore, that the dislocation in trade flows likely to result from withdrawal of China's MFN privileges by the US would range from the dramatic to the disastrous, with the associated costs being high for both parties.

C. PERSPECTIVES ON FUTURE DIRECTIONS FOR CHINA'S EXPORTS

Diversification of Markets

The analysis of the preceding sections would suggest that China may wish to reduce its vulnerability to trade barriers from major OECD trading partners. One way to pursue this objective is to diversify export markets. While China is not more dependent than Korea, Taiwan (China) or Singapore on the US market (see Table A1.6), its current export structure makes access to this market more difficult than for the others. Opportunities for diversification exist. China's penetration of EFTA country markets is currently negligible, and its exports to the Japanese and Canadian markets are still underrepresented. Sweden, Norway and Switzerland, for example, account for almost 4.8 percent of world imports of manufactures, and Canada for another 3.6 percent. Yet China ships less than 0.6 percent of its manufactured exports to the former countries and less than one percent to Canada. At 23 percent, the combined share of Germany, France and the UK of world imports of manufactures is more than 1.5 times that of the United States. Yet China exports only 13.1 percent of its manufactured exports to these countries, while it exports 25.6 percent ^{17/} to the United States. Over time, the Eastern European market is also likely to present China with important opportunities for the geographical diversification of its exports.

Product Diversification and Comparative Advantage

Another way for China to reduce its vulnerability to protection in OECD markets is to diversify its export structure. The objective of product diversification is hardly new for China. The question is how this diversification should be pursued. In addressing this question

^{15/} It should be noted that this analysis is focused only on China's exports to the US. It is possible that China will find alternative export markets to make up for these losses. However, the switching of \$7 to \$15 billion worth of goods from one market to another cannot be done without imposing appreciable costs on Chinese exporters.

^{16/} "The costs to the US economy that would result from removal of China's MFN trade status," International Business and Economic Research Corporation, September 1992. This report also argues that retaliatory action by China could further jeopardize \$8 billion in US exports to China and \$5 billion in US investments.

^{17/} After adjusting for reexports of Chinese products from Hong Kong.

it is useful to draw lessons from the experience of other countries and evaluate China's evolving comparative advantage.

Korea and Taiwan (China) provide useful comparisons. Both these economies have followed a classic export development pattern. Over time, as their respective industrial structures have become more sophisticated, they have seen the share of manufacturing exports grow. Moreover, as real wages and the costs of labor have grown, they have both seen their manufactured exports become progressively more capital intensive.

Korea began its manufacturing export drive concentrating on traditional labor-intensive products, prominent amongst which were clothing and footwear. In 1970, these sectors alone accounted for 36 of Korea's manufacturing exports and 28 percent of its total exports. The capital intensity of Korea's exports began to rise sharply towards the end of the 1970s, and reflects in part the influence of the country's heavy and chemicals industry drive. Thus, in the by the early 1980s, although traditional footwear and garments sectors retained a respectable share of 21 percent, exports from the heavy sectors of the economy had grown very substantially. In 1982, shipbuilding accounted for 13 percent, and iron and steel for 9 percent and chemicals for another 6 percent of total exports. Since then, the striking feature of Korea's export development has been the rapid growth of high value exports, that are more or less wholly manufactured within the country, not just assembled. The most spectacular growth has been in passenger car exports, which scarcely existed before 1984, and now account for about 3.5 percent of exports. The other main area of growth have been the electronics and electrical equipment sectors. In these sectors too, Korea has progressed steadily up the learning and value curve, from reliance on the assembly of imported components, to the complete design and manufacture of a range of products. Office machinery (mainly personal computers), telecommunications equipment (including radios, TVs and VCRs), and other electrical equipment (SITC 729) now account for just 20 percent Korea's total exports. Their share in total exports is now substantially larger than that of the traditional footwear and clothing sectors, which have seen their importance decline progressively over the last few years.

Taiwan (China) has followed a pattern very similar to that of Korea. During the early stages, i.e., during the early 1970s, Taiwan (China) had a much greater dependence on primary sectors than Korea. Over a fifth of exports were accounted for by the processed food and the wood industries. By the mid-1980s the share of these sectors had fallen to under 10 percent. As in Korea, garments were a critical sector for Taiwan's (China) export drive, accounting for 15 percent of exports in the early years. The share of this sector remained fairly stable right up to the mid-1980s, but thereafter declined rapidly to its current levels of under 6 percent. Over recent years Taiwan (China) has diversified very rapidly into higher value exports. The most dynamic sectors have been exactly the same as in Korea, namely, office machinery, telecommunications equipment, and other electrical equipment, which together accounted for 22 percent of exports in 1990. As in Korea, these products are now more or less entirely manufactured within the economy, and not assembled.

Although China's export structure has been following a path that looks similar to that of Korea and Taiwan (China), there are some interesting differences. Similar to the case of Korea and Taiwan (China), the share of manufactures in China's exports has climbed extremely fast (Table 7.8). Unlike Korea and Taiwan, however, China's manufactured exports have not as yet shown any sign of becoming more capital intensive. In fact, as was noted in Chapter 1, a key feature of China's exports in general, and also of its manufacturing exports,

Table 7.8: CROSS-COUNTRY COMPARISON OF TRENDS IN AVERAGE LABOR INTENSITY OF EXPORTS

Exporter	1970	1980	1990	Change over last decade (points)
<i>Average labor intensity index of exports (US average = 100 ^(a))</i>				
China	89.6	87.7	77.5	-12.1
<i>Comparators</i>				
Republic of Korea	73.1	81.5	85.6	12.5
Hong Kong	74.0	75.3	75.9	1.9
Singapore	113.2	108.8	102.4	-10.8
Taiwan (China)	79.1	80.0	85.0	5.9
<i>Share of manufacturers ^(b) in total exports (%)</i>				
<i>Memo Item</i>				
Korea	76.5	89.6	93.5	
Hong Kong	-	-	94.5	
Singapore	-	-	71.7	
Taiwan (China)	75.8	87.9	92.5	
China ^(c)	-	-	79.7	

^(a) The labor intensity is an inverse indicator in the sense that the higher the index the *less* labor-intensive the production process. An index value of 100 means that the average labor intensity was exactly the same for all United States manufacturing activity. Values above 100 indicate the process was more capital intensive.

^(b) SITC 5 to 8—excluding 68.

^(c) Based on partner country data.

Source: COMTRADE.

over the past decade has been their growing labor intensity. In 1979/80 China's average labor intensity index for all manufactures was 87.7 (indicating they were approximately 12 percent more labor intensive than the United States average for all manufactures), and the index actually fell almost 10 full points by 1989/90 (Table 7.8). This is not altogether surprising given that China started with a highly distorted economy. The decline in the capital intensity of China's manufacturing exports is, no doubt, the result of less distorted prices and the progressive reduction of export subsidies to capital-intensive exports from state-owned enterprises and the decline in export planning in general. This suggests that China has been exporting more and more along the lines of its natural comparative advantage in low-wage labor. Thus, not surprisingly, the share of clothing, footwear, toys and sporting goods, and travel goods has risen dramatically from 16 percent in 1985 to over 35 percent of total exports in 1990. More

significantly, China's share of world trade in these products has gone from an average of 4.9 percent to 19.4 percent over the same time period, just as that of Korea, Taiwan (China), Singapore and Hong Kong, i.e., the more advanced East Asian economies, has declined (Table 7.9). Clearly, as real wages and unit labor costs in the latter economies have risen, an important niche has been created for Chinese exports of traditional labor-intensive goods.

Table 7.9: SHARE OF CHINA AND OTHER EAST ASIAN COUNTRIES IN THE WORLD EXPORTS OF SELECTED PRODUCTS

SITC Code	Commodity title	China		Advanced East Asian Exporters		Other East Asian Exporters	
		1985	1990	1985	1990	1985	1990
		724	Telecommunications equipment	0.8	5.9	11.9	15.0
725	Domestic electric equipment	0.8	8.8	11.3	9.6	0.2	1.6
831	Travel goods, handbags	12.3	30.6	21.6	17.0	0.7	2.5
841	Clothing not of fur	8.0	14.4	23.7	17.2	2.9	4.7
851	Footwear	2.4	13.3	13.3	16.7	0.7	4.7
864	Watches and clocks	3.0	9.2	19.8	20.4	0.9	2.5
891	Sound recorders, producers	0.3	4.0	6.9	12.4	0.2	3.6
894	Toys, sporting goods, etc.	6.5	22.3	21.8	13.0	0.9	3.0

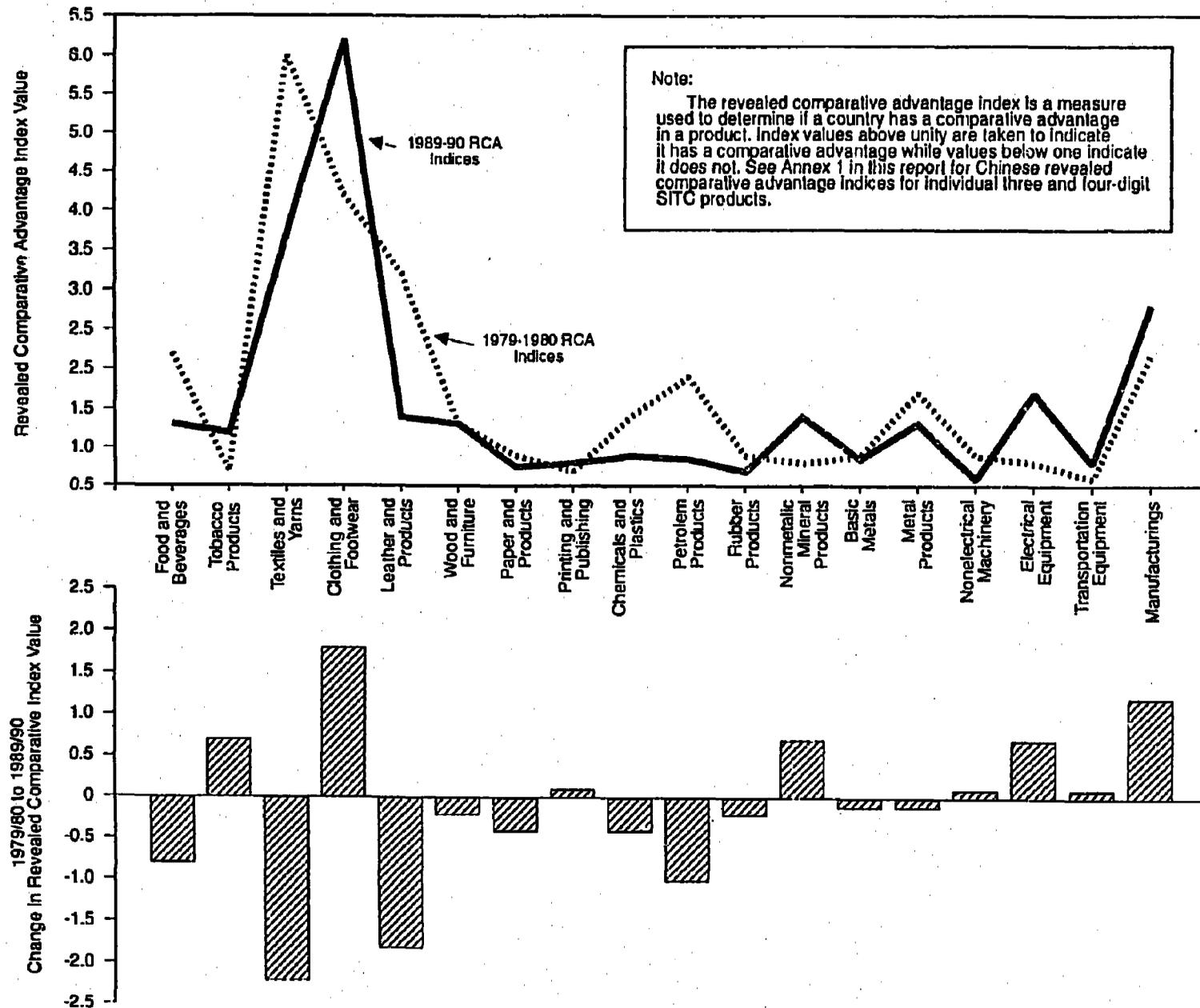
Note: (1) Advanced East Asian Economies: Korea, Taiwan (China), Singapore, and Hong Kong.
 (2) Other East Asian Countries: Indonesia, Thailand and Malaysia.

This picture of China's competitive advantage is reinforced using a revealed comparative advantage (RCA) ⁷ analysis of China's exports over the last decade. Figure 7.2 indicates the changes in China's RCA for 18-product categories over the decade 1979/80-1989/90. The three most dynamic sectors in terms of rising RCA indices are clothing, footwear and miscellaneous manufactures (which includes such products as toys and sporting goods). Aside from these, China still appears to have a comparative advantage in textiles, yarns and fabrics, although the RCA index of this product category has seen a sharp decline over the last decade. All the other categories have RCA indices either below unity, or at any rate, not significantly higher than one.

The story of China's evolving export structure is more complex, however, than the above might suggest because of the role of the machinery and electronics sector exports. The share of these sectors in China's exports has grown very rapidly, no doubt due in part to the generous fiscal incentives and other targeted assistance that have been provided to promote the exports of high technology products. Two points are noteworthy in this context. First, China still shows no sign of developing a comparative advantage in most subsectors of the machinery and electronics sectors. Thus, for example, the RCA indices for China's exports of nonelectrical machinery and transport equipment are still way below unity. Second, the performance of electrical equipment exports, the one subsector for which China's RCA has grown very rapidly, has relied primarily on the explosion of assembly operations (Chapter 1) in such product categories as radio receivers, telecommunications equipment, electric space heaters, and domestic electric goods (refrigerators and washing machines). These products now account for about 75 percent of all China's exports of electrical equipment.

Figure 7.2

**Analysis of China's Revealed Comparative Advantage in Broad Groups of Manufactured Products
1979-1980 and 1989-1990**



What this indicates is that China may not yet be ready to move into the exports of heavy industrial equipment or of high technology products that cannot easily be assembled locally. If the experience of Korea is any guide, significant upgrading of Chinese industry is still required before China can break into the export markets for these kinds of products. On the other hand, it is not just cheap labor that constitutes China's comparative advantage in export markets. China's competitive strength derives from low wage labor with reasonable skill levels. Given that China's real wages today are still substantially lower today than they were in Korea in the early 1980s, when the latter's export structure changed decisively towards the heavy industrial and high technology products, and given that unit labor costs in China are likely to remain competitive with those in such countries as Malaysia, Thailand and Indonesia, there should still be room, at least over the medium term (three to five years), for China to exploit its natural comparative advantage. Thus, a shift towards heavy industrial and/or high technology exports (except those that can be assembled locally) just as yet does not appear to be of critical importance for China. What is important, however, in view of international uncertainties, is for China to be able to reduce its dependence on clothing and textile products in order to reduce its vulnerability to trade barriers in major OECD markets. This can be achieved by exploring (i) the potential for China to improve the unit value of its exports through quality upgrading and (ii) the opportunities that still exist for China in a range of other labor- and skill-intensive exports that do not require very sophisticated technological inputs (see Boxes 7.3 and 7.4).

The Potential for Upgrading China's Major Exports

Table 7.10 below lists the 10 largest two-digit SITC manufactured product groups currently exported by China to the EC, Japan and United States (these items account for

Table 7.10: RELATIVE PRICES RECEIVED BY CHINA AND OTHER EXPORTERS TO THE EC, JAPAN AND UNITED STATES IN 1990

SITC	Description	1990 Imports by the EC Japan and United States from China (\$ million)	China's Average Export Price Relative to OECD and Asian NIEs ^{/a} (%)					
			EC		Japan		United States	
			OECD	Four NIEs	OECD	Four NIEs	OECD	Four NIEs
84	Clothing	8,489	-53.6	-18.2	-81.1	-37.0	-58.2	-17.5
89	Misc. manufactures, nes	6,236	-37.6	-28.5	-61.6	-27.5	-39.2	-17.8
72	Electrical machinery	5,359	-26.3	-28.7	-59.9	0.0	-41.5	-22.0
65	Textiles and clothing	2,385	-11.1	-6.8	-50.2	-9.6	-36.5	-14.1
85	Footwear	2,000	-55.0	-44.5	-85.2	-11.5	-76.8	-32.5
83	Travel goods ^{/b}	1,417	-58.8	-6.4	-89.9	-23.3	n.a.	n.a.
51	Chemical elements	901	-9.7	-5.8	-13.0	-20.6	1.8	-13.3
69	Metal manufactures	855	-40.8	-41.6	-70.1	-17.3	-47.8	-18.0
71	Machinery nonelectric	657	-38.9	-39.8	-75.2	-31.8	-87.2	-25.3
86	Scientific instruments	555	-42.5	-27.1	-59.7	-22.7	-64.0	-22.0
	All Manufactures	29,801	-45.6	-21.6	-58.9	-26.5	-52.2	-19.9

Note: Within each two-digit group the "basket" of common five-digit products exported by both China and OECD countries may differ from that exported by China and the four NIEs. For this reason the above data do not accurately reflect relative NIE-OECD prices.

^{/a} China's average export price received on five-digit SITC products relative to the price received by OECD or the advanced Asian exporters (Hong Kong, Singapore, Taiwan (China), and Republic of Korea).

^{/b} Since the SITC system does not distinguish five-digit products for this group the comparisons were made at the four-digit level. Computations could not be made for the United States since this country failed to report required quantity information needed to compute unit values.

about 90 percent of all manufactured exports) in order of declining importance. The table also shows the average price for China's five-digit component products in each sector relative to those

received by two groups of comparators: (a) all developed countries exporting comparable five-digit products, and (b) four advanced East Asian developing exporters, namely, Hong Kong, Singapore, Korea, and Taiwan (China).

If price differentials between similar products are any indicator of quality differences, the general message that emerges from the table is that there exists considerable potential for upgrading China's exports in a wide range of products, irrespective of whether the comparisons are with OECD countries or the four East Asian exporters. In the case of footwear, for example, China's exports to the EC, Japan and the United States are on average 50 to 80 percent cheaper than OECD exports, and 30 to 45 percent cheaper than exports of similar products from the East Asian NIEs. Likewise, for miscellaneous manufactures (SITC 89), China's export prices are 35 to 60 percent lower than OECD exports, and 15 to 30 percent cheaper than East Asian exports of similar products. Even in the case of the key clothing sector China's average export prices fall more than 50 percent below those of similar five-digit items originating in developed countries, while the price differential falls between 20 to 26 percent in the Asian NIE comparisons. For many products, but particularly for clothing and travel goods, price differentials between Chinese exports and those of other countries appear to be the widest in the Japanese market. This suggests that, unlike OECD or other East Asian exporters, China has still not raised the quality of its exports to the generally higher standards that can be absorbed in the Japanese market.^{18/}

Opportunities for Diversification

Despite rapidly increasing developing country exports of labor-intensive products, their share of total US and Japanese imports of such products is still only 40 percent, while in the EC their current share stands at about 12 percent. Within the EFTA countries, like Norway, Sweden and Switzerland, import shares are even lower ranging from 5 to 10 percent, while for all developed countries combined, developing countries now account for about one fifth of total imports. The share of China in total OECD imports of such products is at present 3 percent, while that of Korea, Taiwan (China) and Singapore, together is 9 percent. Even if it were assumed, as an extreme case, that further import penetration of such products by developing countries was impossible without retaliatory trade barriers in OECD markets, for China to be able to sustain a 10-percent export growth rate over the next five years, it would only need to expand its own share of OECD imports of such products to 5 percent by 1997: a goal that would probably not be too difficult to meet. Given that rapidly rising real wages are forcing countries like Korea and Singapore to move out of such products, and that China's unit labor costs are likely to remain competitive with those of countries such as Indonesia, Thailand and Malaysia, there would not appear, even under this worst case scenario, for there to be serious difficulties of market access that might prevent China from meeting its ambitious export growth targets by continuing to focus on not very high technology, labor- and skill-intensive products.

Although future trade performance in individual products is difficult to predict, Figure 7.3 explores potential directions for future diversification of China's exports within the category of labor-intensive products. The items identified in this figure have five common

^{18/} While the above confirms that the potential for upgrading China's exports exists in almost all sectors, it must be borne in mind that the costs of achieving this upgrading are likely to vary considerably from sector to sector.

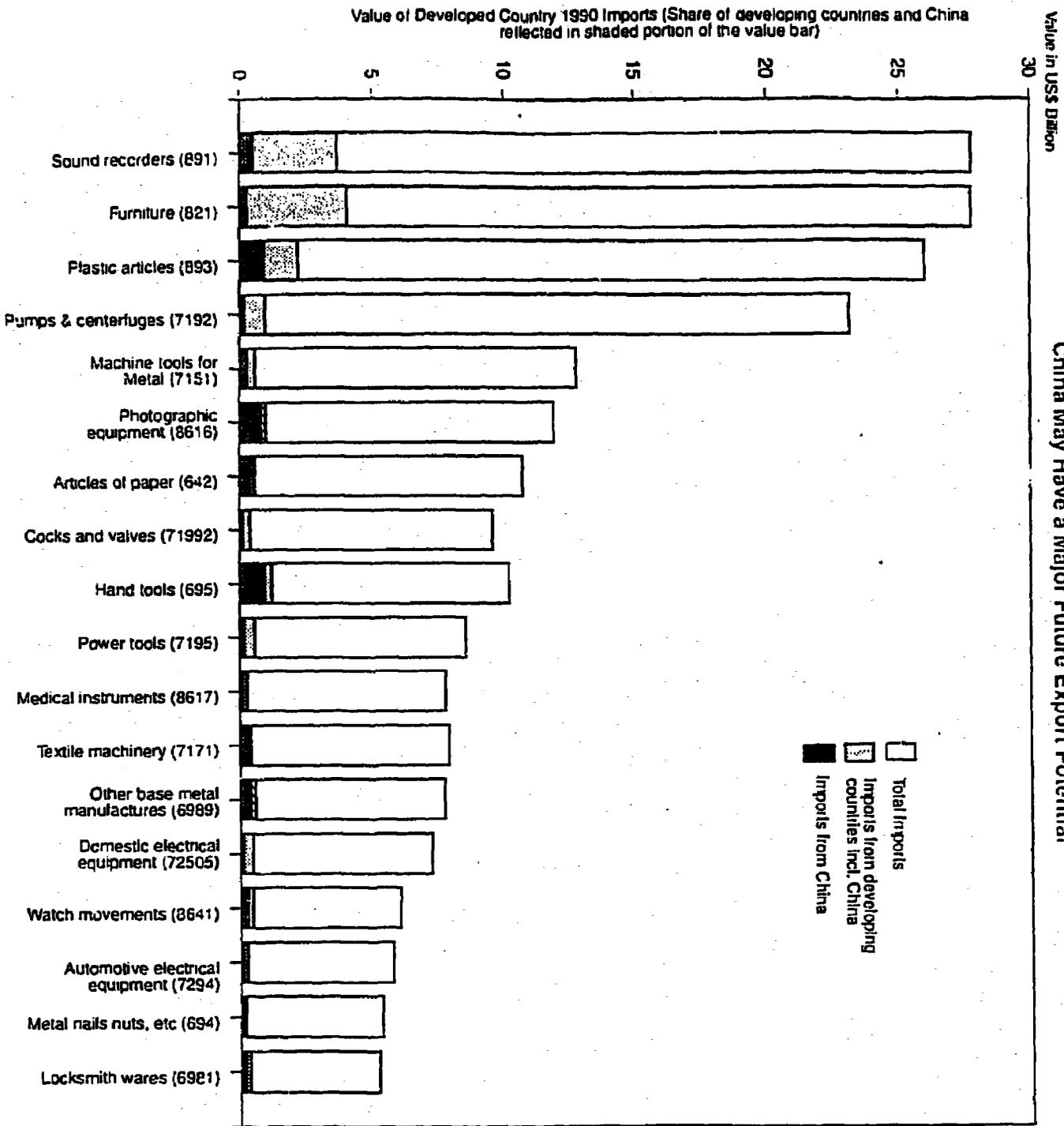


Figure 7.3
 Selected Labor Intensive Manufactured Products in which
 China May Have a Major Future Export Potential

characteristics: they all use at least 10 percent more labor per unit of value added than the US average; a major market exists for each item, with developed countries importing at least \$5 billion annually; they are currently manufactured in China, but constitute a small share of Chinese exports; developing countries have not as yet made important inroads in the trade of these goods (they supplied 20 percent *or less* of total OECD imports), and finally, none of them are currently subject to hard core NTBs.

In total, the items listed in the figure accounted for more than \$220 billion in 1990 OECD imports, with developing countries (including China) accounting for only about 10 percent of this trade. This illustrates the range and depth of the export potential in relatively labor-intensive manufactures, requiring technology that is not overly sophisticated, and that China could still tap fairly easily and with relatively quick payoffs, before it makes the switch towards more capital- and technology-intensive exports, along lines similar to that of the East Asian NIEs.

Conclusions

China's export structure has, over recent years, evolved increasingly in accordance with its comparative advantage. This is a healthy sign. However, due to their heavy focus on the United States market and their concentration in such products as clothing, China's exports are more vulnerable to market access problems than most other developing countries. This does not imply that China's exports prospects are poor, nor does it suggest that China needs to reorient its export structure rapidly towards higher technology or knowledge based products. The analysis of this Chapter indicates that, even in today's global trade environment, there exist opportunities, both in terms of markets and in terms of other products, that China could pursue (a) without trying to go against the nature of its comparative advantage which, for a few more years, will lie in products that are relatively labor and/or skill intensive and in higher technology products that can be assembled locally, and (b) while reducing the risk of problems of market access. Finally, the analysis suggests that withdrawal of MFN status by the United States could have severe consequence for China's exports, at least in the short term. Trade diplomacy will need to remain a part of China's future trade strategy, although it should be noted in this regard, that the conclusion of a successful Uruguay Round of negotiations would be by far the best outcome for China.

Endnotes

1. World Bank (1992a).
2. World Bank (1992a, Table 2.6) indicates that the coverage of OECD countries, NTBs on developing countries' exports increased only slightly (from 20.5 to 21.8 percent) over the last decade. These figures are also consistent with the proposition that no basic change occurred in general levels of protection against China and other developing countries' exports.
3. See Tuong and Yeats (1981).
4. The two main elements of the general proposal for reducing NTBs relate to clothing and agriculture. Mr. Dunkel's draft textiles and clothing agreement would eliminate the Multifiber Arrangement (MFA) in three stages over ten years. It stipulates minimum quota growth rates during the phaseout such that half of the quotas need not be eliminated until the end of the tenth year. The text also allows governments the option to introduce a discriminatory safeguard mechanism during the transition to full fledged MFN treatment. The proposed agreement in agriculture commits governments to specific reductions in levels of barriers to market access (a simple average reduction of 36 percent, with a 15 percent minimum reduction on all tariff lines), in domestic support measures (a 20 percent reduction on support measures affecting prices and production decisions), and in export subsidies (a reduction of 36 percent on subsidies and 24 percent on subsidized quantities). It also commits them to replace nontariff barriers with tariffs, but introduces a safeguard mechanism that would adjust for changes in world product prices and exchange rates up to a specified level.
5. World Bank (1992a), p. 22).
6. There is a further reason why the export expansion in textile and clothing products is so large. OECD countries' MFA quotas apply only to developing countries (the US imposes some barriers on Japan) while the intra-trade of developed countries in these products does not face similar restrictions. As such, liberalization of the MFA quotas would cause a substantial amount of developed country intra-trade to be diverted to developing countries. These gains are in addition to the sizeable trade creation that would result from the high textile and clothing tariffs.
7. The "revealed" comparative advantage (RCA) index is a measure developed by economists to help identify products in which a country does or does not have a comparative advantage. Specifically, if X_{ij} is the value of country i's exports of j and X_{it} is the country's total exports of manufactures its revealed comparative advantage index for the product j is,

$$(1) \quad RCA_{ij} = (X_{ij} \div X_{it}) \div (X_{jw} \div X_{tw})$$

where the w subscripts refer to world trade totals. That is, the index relates the share of the product in the country's exports to the share of the product in world exports. The index may take values from zero to infinity with those above unity indicating the country has a comparative advantage in the product. See Balassa (1965) (1979), Yeats (1989)

(1992) for illustrative examples of the use of the concept. It has been a general practice *not* to compute RCA indices for farm gate agricultural products since international trade in these items is so heavily distorted by high levels of border protection and subsidization of exports.

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DIFFERENTIATING LABOR- AND CAPITAL-INTENSIVE MANUFACTURERS

This report distinguishes between labor-intensive and capital-intensive manufacturers. It uses an approach developed by the US National Bureau of Economic Research for identification of labor and capital-intensive products (see Lary, 1968). This analysis uses the criteria of relative value-added per employee, both in the United States and other countries, to identify the degree to which products are capital or labor intensive in production. Products whose value-added per employee falls at least 10 percent below the national average for all US manufacturing activity are classified as labor intensive. Capital-intensive goods consist of products whose value-added per employee is above the United States average. Note that although the two classifications are mutually exclusive, they do not cover all product categories—some that fall close to the US average in terms of value-added per employee are excluded from both classifications. Table 1 of this annex shows the distribution of labor-intensive industries within broad aggregate groups. As indicated, textile and apparel products are almost exclusively produced with labor-intensive processes, and chemicals and petroleum refining are almost exclusively capital intensive.

Table 1: ANALYSIS OF THE RELATIVE IMPORTANCE OF LABOR- AND CAPITAL-INTENSIVE INDUSTRIES WITHIN BROAD STANDARD INDUSTRIAL CLASSIFICATION (SIC) PRODUCT GROUPS

SIC	Description	Share of component four-digit industries that are labor and capital intensive (%)				
		Labor intensive ^{/a}				Capital intensive
		Very high	High	Moderate	Total	
20	Food products	9.5	1.2	0.0	10.7	89.3
21	Tobacco products	0.0	8.8	14.3	23.1	76.9
22	Textile mill products	70.2	17.5	0.0	87.6	12.4
2211	Cotton mills	100.0	0.0	0.0	100.0	0.0
2221	Artificial fiber mills	100.0	0.0	0.0	100.0	0.0
225	Knitting mills	73.5	24.5	0.0	100.0	0.0
226	Nonwool textile finishing	20.0	79.9	0.0	99.9	0.1
228	Yarn and thread mills	100.0	0.0	0.0	100.0	0.0
23	Apparel and textiles	78.7	18.9	0.3	97.9	2.1
2311	Men's suits	100.0	0.0	0.0	100.0	0.0
232	Men's clothing	67.3	32.7	0.0	100.0	0.0
233	Women's outerwear	80.1	19.9	0.0	100.0	0.0
234	Women's undergarments	83.1	16.9	0.0	100.0	0.0
236	Children's outerwear	91.6	0.0	0.0	91.6	8.4
24	Wood products	42.7	51.5	5.8	100.6	0.0
25	Furniture and fixtures	48.3	22.6	20.9	91.8	8.2
26	Paper and products	1.8	7.2	6.1	15.1	84.9
27	Printing and publishing	2.0	14.1	25.4	41.4	58.6
28	Chemicals	0.0	1.6	0.0	1.6	98.4
29	Petroleum and coal products	0.0	0.0	0.0	0.0	100.0
30	Rubber and plastic products	2.6	0.0	83.4	86.0	14.0
31	Leather and products	82.2	17.8	0.0	100.0	0.0
32	Stone, clay and glass	2.5	3.5	18.4	24.4	75.6
33	Primary metal industries	0.3	2.7	28.4	31.4	68.6
34	Fabricated metal products	0.0	11.2	29.3	40.5	59.5
35	Nonelectrical machinery	0.0	1.4	19.6	21.0	79.0
36	Electrical equipment	2.7	3.5	6.2	12.4	87.6
37	Transport equipment	0.0	5.3	10.4	15.7	84.3
38	Instruments	0.0	2.7	14.8	17.5	82.5
39	Miscellaneous manufactures	1.9	34.7	25.5	62.0	38.0

^{/a} Products with very high labor intensities are those where the factor proportions ratio is at least 40 points below the average for all US manufacturing. Products with high labor intensities are those whose factor proportions ratios fall between 0.60 and 0.74 while the moderately labor-intensive products have factor proportions ratios between 0.75 and 1.00. See Yeats (1989) (1991) for detailed information on how the labor-intensive industries were identified and an analysis of trade trends in these products.

Source: World Bank staff estimates.

CRITERIA FOR ACCESS TO FEACS

Although the role of the swap market price in allocating foreign exchange expanded in 1991, the state continued to control access to the market in order to prevent the spread between the official and swap market rates from widening too greatly. The regulations in effect in 1991 established three categories of access to the market, depending on the intended use of the foreign exchange. The highest priority, guaranteed access to the market, was for purchasers who intended to use the purchased foreign exchange for one of the following:

- to import chemical fertilizers, agricultural pesticides, plastic sheeting for agricultural use, diesel fuel for agricultural use, and other materials used to support agriculture
- to import grain, sugar, edible vegetable oil and other raw materials necessary to support the living standards of the people
- to make principal and interest payments on external debts denominated in foreign currency
- central and local key point construction projects
- items needed for exports that will earn foreign exchange
- foreign-invested enterprises repaying foreign exchange loans taken out abroad and repatriating of profits
- to introduce advanced equipment and technology

If the above priority uses for foreign exchange could be guaranteed, would-be purchasers who had the following proposed uses of foreign exchange would also be allowed to enter the market:

- to purchase raw materials and supplementary materials needed for industrial production
- for business needs of foreign invested enterprises
- for equipment, instruments, reagents, and books and reference materials needed by scientific research, educational, cultural, medical, and health departments
- to repay principal and pay interest on the foreign currency loans from domestic financial institutions and to pay leasing fees
- to import critical miscellaneous fittings needed in state key-point factories producing household electronic goods

Under no circumstances would purchases of foreign exchange with the following purposes be allowed:

- for importing tobacco, wine, alcohol and nonalcoholic beverages, garments, shoes, clocks, small household appliances, vacuum cleaners, aluminum cans, color film, photo paper, cosmetics, interior decorating supplies, toys, vegetables, fruits, meats, seafood and aquatic products, and other food items
- for importing cars, motorcycles, and household appliances
- for the purchase of gold and silver used for producing jewelry to be sold on the domestic market unless it has been approved by the People's Bank of China
- for the purchase of machinery and equipment, electronic products, or instruments and meters that can be produced domestically
- for capital funds for domestic or foreign investment
- for the purchase of products by friendship stores and foreign exchange stores
- for the purchase of commodities remitted by overseas Chinese by overseas remittance shops
- for capital to be used by the branches of various specialized banks to start foreign exchange businesses

OPERATIONAL MECHANISM OF FEACS

At the end of December 1992 there were over 100 FEACs. There are no central directives on operational procedures for FEACs or their structure. Thus in Shenzhen, Shanghai, Qingdao and an increasing number of the larger cities, authorized dealers and brokers can participate in the trading floor where US and Hong Kong dollars are traded. Typically, in these centers, there is a large electronic board which displays the bids and offers of buyers and sellers with the opening bid being the closing price of the previous day. The market matches buyers and sellers on the principle of price priority and time priority. Prices are allowed to fluctuate within a small band during each trading session.^{1/} The PBC generally does not intervene in the trading but reserves the right to do so in order to keep trading orderly. A trading session may be split into two smaller sessions, one for retention quotas and another for foreign exchange. Each sub-session is closed when either all the sellers have sold out or all the buyers have bought their requirements. In the smaller centers, the trading session is opened only once or twice a week for a limited duration of time. Buyers or sellers who are unable to satisfy their requirements during the trading session can either wait until the next session or apply to the FEAC to arrange bilateral deals.

In most other places, the FEAC is an office in the SAEC which matches written applications to supply or buy retention quotas. Applicants must appear in person at the FEAC with the requisite documentation. Operations in the FEACs on behalf of individuals have been allowed since early December 1991 provided that the transactions are conducted by authorized banks. Each center is organized to match buy and sell orders under local SAEC authority; the centers are not yet integrated into a unified national market. The FEAC verifies the documentation of the applicant and executes transactions. Initially, a relatively small volume of transactions took place in these markets, but the volume has increased rapidly with the recent change in the retention scheme and as access to the centers has been expanded. Total transactions was reported at about \$25 billion in 1992, equivalent to about one half of the value of all cash imports.

As noted above, the FEAC processes buying and selling orders and attempts to match them. If there is excess demand, as happened frequently in certain provinces such as Guangdong, preference is given to transactions established by central and provincial priorities. The FEAC may also split large orders over several days or authorize access to the PBC's reserves on a discretionary basis. Increasingly, the SAEC will try to obtain excess foreign exchange from other centers in the province or arrange transfers from excess centers in other provinces. The enterprise may also try to purchase directly from an excess center in another

^{1/} In Qingdao, exchange rates are allowed to increase or decrease by 15 fen per US dollar which implies a band of about 5 percent.

province or through a broker. Alternatively, if a center has an excess supply of foreign exchange, for instance in Wuhan, the enterprise may sell their foreign exchange directly or through a broker in another center outside the province. Initially, the volume of transactions between FEACs was low because the provincial authorities were reluctant to let foreign currency leave their provinces; however, it appears that such administrative barriers are breaking down and the volume of inter-FEAC transactions has risen to over \$6 billion in 1992.

UNDERSTANDING CHINA'S FOREIGN EXCHANGE SYSTEM

China's foreign exchange system exerts a pervasive influence on the free market prices of goods and hence on resource use and the allocation of goods and services. In contrast with the tariff system, which imposes a wide range of differing levies on particular goods, the foreign exchange system affects the price, at the margin, of all imported goods by the same amount and imposes the same level of effective export taxation on most goods.

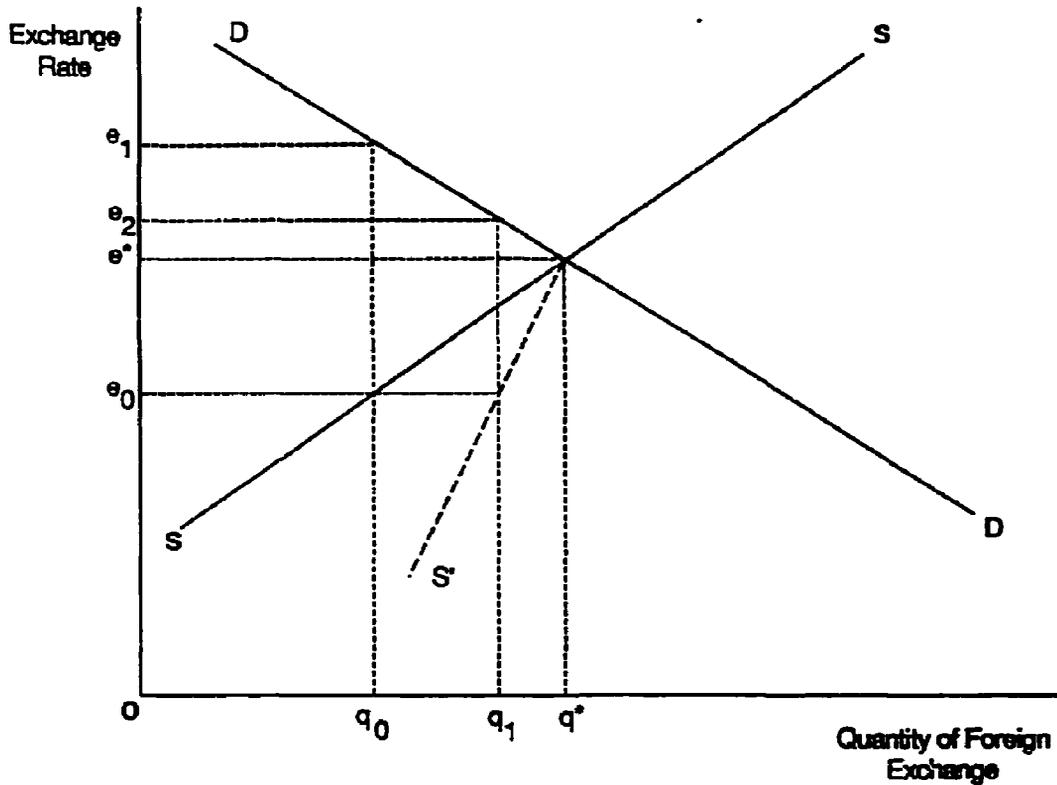
The Chinese foreign exchange system is a two-tier pricing system, with an official exchange rate which has typically been held constant for extended periods and a secondary market rate which is determined by supply and demand factors in legal secondary markets called Foreign Exchange Adjustment Centers (FEACs). The official exchange rate has consistently been overvalued, with the margin between the two rates varying considerably over time. When the margin is small, the foreign exchange system can be expected to have only minor effects on trade while it can be an important distortion when the margin is large.

An extremely important advance in the development of China's foreign exchange and foreign trade system was the development of a large system of secondary markets for foreign exchange in 1988. Since that time, considerable effort has been devoted to improving the performance of this marketing system. At an early stage in the development of this marketing system, there were many imperfections. One important manifestation of these problems was the existence of substantial price spreads between markets. While there is still scope for improvement in the system, its operation has improved considerably and the spread between markets in any period has dropped to relatively low levels.

Overvaluation of the official exchange rate depresses the returns received for exports and hence reduces the amounts which exporters are willing to supply. This reduction in supply diminishes the amount of foreign exchange available in the secondary markets and hence drives up its price. These effects are illustrated in Figure 1. In this diagram, a general equilibrium supply curve for foreign exchange is represented by the curve SS while the corresponding demand curve is shown by DD. The 'equilibrium' market exchange rate consistent with these supply and demand relationships is e^* , with foreign exchange earnings and spending of q_1 at the fixed, world prices of imports used as numeraire. This "equilibrium" exchange rate is conditional on the commodity specific interventions such as import tariffs and export taxes which affect the position of the supply and demand curves.

Overvaluation of the official exchange rate at e_0 reduces the supply of exports from q_1 to q_0 and, at a fixed world price of exports, reduces the supply of foreign exchange proportionately. Because of the induced scarcity of foreign exchange in the economy, its price is bid up to e_1 . The effects of the overvaluation in this static context are equivalent to the imposition of an export tax of $(e_1 - e_0)$ or, equivalently, an import duty of the same magnitude.

Figure 1: Foreign Exchange Supply, Demand and Prices



In either case, there is a reduction in trade volumes of $(q^* - q_0)$ and in government revenue generation of $(e_1 - e_0) \cdot q_0$. The incidence of the overvaluation tax depends upon the relative slopes of the export supply and import demand equations. In terms of its incidence, the overvaluation can be decomposed into a tax on exports equal to the difference between the official exchange rate, e_0 and the "equilibrium" exchange rate, e^* and an import tax of $(e_1 - e^*)$.

6. The adverse effects of overvaluation of the official exchange rate for China's trade and welfare are offset to some degree by a system of foreign exchange retention. Instead of having to surrender all foreign exchange earnings to the State Administration of Exchange Control, exporting enterprises are now required to surrender only 20 percent of their foreign exchange earnings at the official exchange rate. In terms of Figure 1, the effect of a foreign exchange retention scheme is to increase the supply of exports and hence of foreign exchange. The general equilibrium supply curve for foreign exchange is represented by the kinked curve

S'S, which is shifted to the right of the undistorted supply curve at all foreign exchange prices below e^* . The increase in the supply of foreign exchange lowers the secondary market price from e_1 to e_2 , lowering the effective level of taxation on exports. The effective price received by exporters (not shown in the diagram) rises from e_0 to a weighted average of the official and secondary market rates, with 80 percent of the weight on the secondary market rate. At a retention rate of 100 percent, this price is identically equal to the secondary market exchange rate; at any lower retention rate, the supply of foreign exchange will be constrained, implying a weighted average export rate lower than the "equilibrium" rate.

A partial foreign exchange retention scheme such as China's is, at best, a partial offset to the trade reducing effects of an overvalued and controlled exchange rate system. In the diagram, this is evident from the fact that the introduction of the scheme increases trade, but to a level lower than the q^* which would result from removal of the foreign exchange distortion. In this respect, it is equivalent to a devaluation of the official exchange rate which partially removes the initial exchange rate overvaluation.

Another feature of retention schemes evident from Figure 1 is that the supply of exports will be less responsive to the official exchange rate in the presence of a retention scheme than otherwise. As the official exchange rate is increased, the secondary market rate can be expected to decline, reducing the stimulus to exports. In the extreme case of a 100 percent retention rate, devaluation of the official rate has no impact on exports, which already generate q^* in exports. A consequence of the decline in the elasticity of export supply with respect to the official exchange rate is that the gap between the official exchange rate and the equilibrium exchange rate increases relative to the gap between the secondary market rate and the equilibrium rate.

The foreign exchange mechanism with retention can be viewed as equivalent to either a uniform export tax or import duty. The magnitude of the tax in this case is the difference between the marginal (and average in this case) exchange rate paid to exporters and the secondary market exchange rate which represents the marginal cost for imports, that is $(E^* - E_w)$ where E_w is the weighted average of the official and the secondary market exchange rates using the retention ratio as the weight on the secondary market rate.

The magnitude of the trade tax imposed by the foreign exchange regime has been calculated using the available data on official and secondary market rates, and foreign exchange retention rates, and the results are presented in Table 1. For the period prior to 1991, the foreign exchange retention rate was assumed to be 44 percent, which Lardy (1992, p. 54) estimates to have been the average rate of foreign exchange retention in the late 1980s. Since the streamlining of the retention rate system, effective January 1, 1991, an effective retention rate of 80 percent has applied to most exports except for machinery and electronics for which an effective rate of 100 percent is available. For simplicity, a uniform retention rate of 80 percent has been assumed from the beginning of 1991.

Since late 1989, there have been two extremely important developments in China's foreign exchange system. The first was the substantial reduction in the margin between the official and the secondary market exchange rates brought about by devaluation of the official exchange rate and a related appreciation of the secondary market exchange rate beginning in the fourth quarter of 1989. The second was the very substantial increase in the foreign exchange retention rate from the beginning of 1991.

**Table 1: EXCHANGE RATE AND TRADE TAX RELATIONSHIPS
UNDER CHINA'S EXCHANGE RATE SYSTEM**

Year-quarter	Official exchange rate (Yuan/\$)	Secondary market rate (Yuan/\$)	Implied export tax (%)	Weighted exchange rate for exports (Yuan/\$)	Implied "equilibrium" rate (Yuan/\$)
1987-I	3.72	5.25	20	4.39	4.60
1987-II	3.72	5.3	20	4.42	4.62
1987-III	3.72	5.46	22	4.49	4.71
1987-IV	3.72	5.61	23	4.55	4.79
1988-I	3.72	5.7	24	4.59	4.83
1988-II	3.72	6.3	30	4.86	5.13
1988-III	3.72	6.6	32	4.99	5.27
1988-IV	3.72	6.65	33	5.01	5.29
1989-I	3.72	6.65	33	5.01	5.29
1989-II	3.72	6.6	32	4.99	5.27
1989-III	3.72	6.55	32	4.97	5.25
1989-IV	3.89	5.9	24	4.77	5.02
1990-I	4.72	5.91	13	5.24	5.42
1990-II	4.72	5.81	12	5.20	5.37
1990-III	4.72	5.8	12	5.20	5.36
1990-IV	4.97	5.7	8	5.29	5.41
1991-I	5.22	5.8	2	5.68	5.72
1991-II	5.31	5.84	2	5.73	5.77
1991-III	5.36	5.87	2	5.77	5.80
1991-IV	5.39	5.87	2	5.77	5.80
1992-I	5.46	5.95	2	5.85	5.88
1992-II	5.5	6.25	2	6.10	6.14
1992-III	5.5	7.0	4	6.70	6.78
1993-I	5.73	8.41	7	7.87	-

As is evident from Table 1, the foreign exchange system imposed a very substantial tax burden on Chinese exports during the period from 1987 to 1989, with the implied rate of export taxation plateauing at around a third in 1988 and 1989. The recognition of this problem led to an important policy responses, including a series of devaluations of the official exchange rate from late 1989. Other policy responses at this time appear to have included increases in some tariff rates and in the tightness of nontariff barriers, which merely shifted the burden of protection from the foreign exchange system to commodity-specific trade distortions. The combined effect of these measures was to reduce the effective export tax imposed by the foreign exchange system substantially, to only 11 percent by the final quarter of 1990.

The increase in the foreign exchange retention rate to nearer 80 percent caused a further, dramatic, fall in the implied export tax rate, to only 2 percent from 1991-I to 1992-II. Even with the surge in the secondary market exchange rate in mid-1992, unaccompanied by any

devaluation of the official exchange rate, the implied export tax remains relatively small. Because of the of the high retention rate now applying, weighted average exchange rate applying for exports has increased almost as much as the "equilibrium" exchange rate, with the result that the implicit export tax has increased only to 7 percent, despite the growing gap that has emerged between the official and the swap market rates in the first quarter of 1993.

The high foreign exchange retention rate implied by the current foreign exchange system is an important safety valve for the trading system. As is evident from the experience of 1992, even a quite sizeable margin between the official and the secondary market exchange rates no longer results in the imposition of a large tax on exports. Even if the secondary market increased to 10 Yuan/\$, the resulting export tax would be only ten percent. Some significant practical problems would be likely to emerge before this point however, with such a large incentive for arbitrage between the two markets, and with some activities such as tourism where market participants are currently restricted to the official market.

The development and refinement of the foreign exchange retention scheme has been an important stage in the reform of China's foreign exchange system. However, there are good reasons to question whether the time has come for further reform of the system. With a foreign exchange retention rate as high as 80 percent, the system can raise only a very small amount of revenue, making the usefulness of such a complex and restrictive system somewhat questionable. Now that enterprises and even individual have become used to the operation of a free market in foreign exchange, there seems a good case for moving to a completely market determined system for foreign exchange. Such a system might initially be restricted to current account transactions to reduce the likelihood of fluctuations resulting from changing assessments of future prospects. A move to a fully market oriented system would remove the possibility of the foreign exchange system again becoming a significant source of distortions in foreign trade.

TECHNICAL ATTACHMENT

ESTIMATING THE EFFECTS OF CHINA'S FOREIGN EXCHANGE SCHEME

As is clear from the foregoing discussion, the effects of a two tier foreign exchange system such as that operating in China depend upon whether enterprises are allowed to retain foreign exchange, or must surrender all of it to the state at the official exchange rate. For simplicity, the case in the absence of a retention scheme is analyzed first. Once the nature of the solution to this problem has been established, the incorporation of a retention scheme is then considered.

In the Absence of a Foreign Exchange Retention Scheme. For this analysis, it is useful to define a general equilibrium supply curve for foreign exchange as:

$$S = \alpha \cdot E_0^\beta \tag{1}$$

and a corresponding general equilibrium demand curve as:

$$D = \gamma \cdot E_1^\delta \tag{2}$$

where : S is the supply of foreign exchange derived from imports (defined as foreign exchange receipts from exports and other sources less withdrawals for accumulation of foreign assets); E_0 is the official exchange rate; E_1 is the parallel market exchange rate; D is the demand for foreign exchange; α is a parameter summarizing the economy's factor endowments and the extent of foreign asset accumulation; β is the general equilibrium supply elasticity for exports; γ is a shift parameter for foreign exchange demand and δ is the general equilibrium elasticity of demand for imports.

The general equilibrium supply and demand curves for foreign exchange depicted above can be identified with the export supply function and the import demand function since world prices of traded goods have been normalized, without loss of generality at unity. The general equilibrium specification maintains market clearing in the markets for factors and for nontraded goods, so that the supply and demand for foreign exchange can be expressed solely in terms of the relative prices of domestic and foreign goods, which changes as the nominal exchange rate changes.

Removal of the foreign exchange distortion requires that the official exchange rate be depreciated from E_0 to E^* while the parallel market exchange rate appreciates from E_1 to E^* while maintaining the equality between the supply and demand for foreign exchange. Using lower case variables to denote proportional changes from the initial situation to the undistorted equilibrium, this implies that:

Since both the official and the secondary market are equalized in the undistorted equilibrium:

$$\beta \cdot e_0 = \delta \cdot e_1 \quad (3)$$

$$E^* = (1 + e_0) \cdot E_0 = (1 + e_1) \cdot E_1 \quad (4)$$

Solving (3) and (4) for the proportional change in the official exchange rate required to reach the undistorted equilibrium yields:

$$e_0 = \frac{E_1 - E_0}{\left[E_0 - \left(\frac{\beta}{\delta} \right) E_1 \right]} \quad (5)$$

Substituting the result obtained in (5) into (4) yields an expression for the "equilibrium" exchange rate in the absence of the exchange rate overvaluation:

$$E^* = \left[\frac{E_1 - \left(\frac{\beta}{\delta} \right) E_1}{\left(E_0 - \left(\frac{\beta}{\delta} \right) E_1 \right)} \right] E_0 \quad (6)$$

Thus, the "equilibrium" nominal exchange rate required to remove the exchange rate overvaluation can be expressed as a function of the observable official and parallel exchange rates and the general equilibrium elasticities of export supply and import demand.

In the Presence of a Foreign Exchange Retention Scheme. The approach outlined above needs to be modified slightly to take into account the effects of a foreign exchange retention scheme. With a foreign exchange retention scheme, the supply curve for foreign exchange becomes a function of a weighted average of the official and the secondary market exchange rates with the weight on the secondary market rate equal to the share of foreign exchange earnings which enterprises are permitted to retain. In this case, the supply curve for foreign exchange becomes:

$$S = \alpha \cdot E_w^f \quad (7)$$

where E_w is the weighted average of the two rates defined as $E_w = (\theta \cdot E_0 + (1 - \theta) \cdot E_1)$. The proportional change in E_w resulting from any given proportional changes in E_0 and E_1 can be defined as:

$$\frac{dE_w}{E_w} = \left(\frac{E_0}{E_w} \right) \theta \frac{dE_0}{E_0} + \left(\frac{E_1}{E_w} \right) (1 - \theta) \frac{dE_1}{E_1} \quad (8)$$

Clearly, the coefficients on the proportional changes in each of the exchange rate variables are clearly not constant in this case, and allowance needs to be made for changes in these as the two exchange rates converge on the equilibrium rate. One obvious approach, which will give exact results as long as the model is linear in percentage changes, is to utilize the averages of the initial and final values, that is:

$$e_w = \frac{1}{2} \left(\frac{E_0}{E_w} + \frac{E_w}{E_w} \right) \theta . e_0 + \frac{1}{2} \left(\frac{E_1}{E_w} + \frac{E_w}{E_w} \right) (1-\theta) . e_1 \quad (9)$$

For notational convenience, equation (9) may be simplified to:

$$e_w = h_0 \theta . e_0 + h_1 (1-\theta) . e_1 \quad (10)$$

Since export response depends upon the weighted average price in the partial retention case, rather than merely upon the official exchange rate, equation (3) must be modified to:

$$\beta . e_w = \delta . e_1 \quad (11)$$

Substituting from equation (10) and rearranging yields:

$$e_0 = \frac{[\delta - \beta h_1 (1-\theta)]}{\beta h_0 \theta} e_1 \quad (12)$$

If (12) is rewritten for notational convenience in the form:

$$e_0 = \left(\frac{\delta'}{\beta'} \right) e_1 \quad (13)$$

then exactly the same steps as were followed in the case of no retention can be used to obtain an explicit solution for E^* . The result analogous to equation (6) is

$$E^* = \left[\frac{E_1 - \left(\frac{\beta'}{\delta'} \right) E_1}{\left(E_0 - \left(\frac{\beta'}{\delta'} \right) E_1 \right)} \right] . E_0 \quad (14)$$

Equation (14) may be used to calculate the equilibrium exchange rate given only information on the initial official and secondary market exchange rates, the foreign exchange retention rate and the general equilibrium structural elasticities of the economy.

As discussed earlier in this annex, it seems reasonable to take 0.44 as a representative foreign exchange retention rate during the period from 1987 to 1990 during which the secondary markets for foreign exchange were operating and a wide range of retention rates applied to different commodities. For the period since the beginning of 1991, a retention rate

of 0.8 is a similarly representative rate. Data on the official and secondary market exchange rates obtained from the International Monetary Fund are presented in Table 1 of this annex. Using estimates of the general equilibrium elasticity of import demand of -1.0 and of export supply of 2.0 based upon the empirical estimates marshalled by Goldstein and Khan (1985), estimates of the equilibrium exchange rate under both the pre and post 1991 foreign exchange regimes were made using Equation 14 and are reported in Table 1.

EFFECTIVE RATES OF PROTECTION CALCULATIONS: A METHODOLOGICAL NOTE

Effective rates of protection provide an indication of the extent to which protection policies influence the allocation of resources towards, or away from, particular activities or sectors. Where nominal rates of protection are different across commodities, the effective rates approach takes into account the fact that protection on intermediate inputs may offset, or overwhelm, the benefits provided to an import competing industry by protection on its output. While this application of the technique frequently produces useful insights into the effects of particular combinations of protection rates, it provides little in the way of perspective on the overall consequences of the protection regime. In principle, the approach can also be applied to more broadly defined sectors such as those incorporated in Input-output tables of the economy. In this way, an indication of the broad intersectoral resource pulls within the economy might be obtained.

In contrast with model-based approaches, the methodology is extremely simple, easing the computational demands and avoiding the need to specify a wide range of parameters. An important limitation of the approach, however, is the assumption that domestically produced tradable goods and imported or exported goods are homogeneous products.

The first step in applying the procedure is to obtain the rates of protection applying to particular sectors. In the case of China this must include import tariffs; import tariff equivalents of Nontariff Barriers; export taxes and the export tax equivalents of export licensing. The tariff rates were obtained from the import tariff schedule of China and trade weighted to obtain trade weighted average rates of tariff protection to 16 important traded goods sectors. Given the relatively minor use made of export taxes, only one important export tax was considered: the export tax of 40 percent applied on coal. Estimates of the effective impact of nontariff barriers applying in addition to tariffs and export taxes were made using the information contained in the price comparisons reported in Table A3.7. Since the ERP approach requires a single estimate of protection for each commodity, a judgement must then be made in those cases where there is more than one trade barrier applying (e.g., export licensing and an import tariff) as to which barrier is the effective one. The estimated rates of assistance in each category and the single rate chosen as representative for the calculation of effective rates of protection are presented in Table 1 of this annex.

Based on the representative nominal assistance rates presented in Table 1, effective rates of assistance to value adding factors in each sector were calculated by converting the price of each traded good to international prices. Under the assumptions of the Effective Rate of Protection approach, the domestic price of any traded good is equal to $(1+t)$ times its world price. Thus, the undistorted domestic price can be obtained simply by dividing the (distorted) price of each good by $(1+t)$. After performing this adjustment, the residual return available for payment to domestic value adding factors can be recalculated with all tradable

Table 1: TRADE DISTORTIONS ON THE TRADED GOODS SECTORS
(percent)

	Weighted average import tariff	Tariff equiv. of import NTBs	Export tax equiv. of export licensing	Export tax	Representative distortion
Crops	19	0	40	0	-40
Animal husbandry	36	0	30	0	-30
Metals	24	0	40	0	-40
Electricity	0	0	0	0	0
Coal	15	0	70	40	-82
Petroleum mining	0	0	85	0	-85
Petroleum refining	36	0	18	0	-18
Chemicals	24	0	0	0	0
Machinery	33	10	0	0	47
Building materials	41	0	0	0	31
Wood & pulp	31	0	0	0	31
Food Processing	59	0	0	0	59
Textiles	55	0	0	0	55
Apparel	90	0	0	0	90
Paper	38	0	0	0	38
Miscellaneous manuf.	45	0	0	0	45

goods prices at world prices. The effective rate of assistance simply compares the value added at (distorted) domestic prices with the residual return to value adding factors at world prices.

A summary of the results used in the calculation of effective rates of protection is presented in Table 2 of this annex. The first column of the table gives the representative rates of assistance used in the calculation. The second shows the value of gross output at distorted prices drawn from Martin (1992) while the third column contains the calculated residual return to value added when international prices are received for outputs and paid for inputs. Where value added at international prices is positive, the effective rate of assistance to domestically oriented firms is presented in column (5).

Table 2: EFFECTIVE RATES OF ASSISTANCE TO INDUSTRY, CHINA 1991

	Nominal distor- tion (%)	Gross output at distorted prices	Value added at distorted prices	Value added at world prices	Effective rate (%)
Crops	-40.00	312.62	246.60	436.85	-43.55
Animal husbandry	-30.00	61.95	20.76	21.46	-3.25
Metals	-40.00	73.16	30.18	48.82	-38.18
Electricity	0.00	18.82	5.57	-33.99	n.a.
Coal	-82.00	24.99	13.60	120.01	-88.67
Petroleum mining	-85.00	51.61	44.30	324.37	-86.34
Petroleum refining	-18.00	44.86	10.39	-167.27	n.a.
Chemical	0.00	127.23	56.37	26.44	113.17
Machinery	46.62	158.37	51.59	-17.84	n.a.
Building materials	30.85	34.82	16.29	-5.45	n.a.
Wood and pulp	30.85	16.48	6.90	-0.26	n.a.
Food processing	59.19	98.78	14.93	-63.99	n.a.
Textiles	54.97	106.95	28.11	-17.60	n.a.
Apparel	89.59	49.06	6.31	-4.10	n.a.
Paper	38.45	21.92	3.34	-5.34	n.a.
Misc. manufacturing	44.90	24.92	6.71	-6.32	n.a.
Construction	0.00	108.90	24.67	25.68	-3.93
Freight transport	0.00	31.50	15.63	10.60	47.47
Pass. transport	0.00	8.29	2.30	1.46	57.37
Commerce	0.00	57.36	24.32	22.44	8.36
Misc. services	0.00	11.99	9.80	9.68	1.24
Education/health	0.00	78.92	40.42	42.20	-4.21
Pub. administration	0.00	12.70	12.70	12.70	0.00
Housing	0.00	13.97	11.24	11.54	-2.58

A COMPUTABLE GENERAL EQUILIBRIUM MODEL OF THE CHINESE ECONOMY

The computable general equilibrium model of the post-reform Chinese economy utilized in this study draws on the recent theoretical analyses of the two-tier price system in China [Sicular (1988), Byrd (1987, 1989), Wu and Zhao (1987)] and earlier work on foreign exchange mechanisms in centrally planned economies [Desai and Bhagwati (1979)]. The model is based primarily on a World Bank (1985a p. 55-6) input-output table extended to production, consumption and trade for 24 sectors, and updated to 1991 patterns of trade. Given the importance of foreign trade for the development and modernization of China, particular emphasis is placed on the foreign exchange and foreign trade systems.

Dervis, de Melo and Robinson (1981) have demonstrated the feasibility of using such a model in the presence of foreign exchange constraints while Kis, Robinson and Tyson (1986) have previously applied models of this type to post-reform socialist economies.

In developing a model of the Chinese economy, a number of adaptations of the techniques used in modeling other developing countries [Robinson (1989)] were required. The more important of these adaptations were:

- adapting the input-output and price data to reflect secondary-market rather than official prices for material inputs;
- modeling the effects of the foreign exchange system.

Given the evolving policy changes in the Chinese economy associated with rapid economic growth, any modeling exercise can lead, at best, to a highly stylized representation of the economy. Despite this constraint, modeling can provide many useful insights. It provides an explicit framework for analysis, frequently leading to the discovery of important, but otherwise overlooked, causal linkages.

Broad Features of the Model

The model used in the analysis covers the data and structure used of the model and the specification of the equations. For more details of the theory underlying the specification and of applications, see Martin (1993). Like most computable general equilibrium models (e.g., Dervis, de Melo and Robinson 1981, Dixon, Parmenter, Sutton and Vincent 1982), this model focuses on the real side of the economy, with particular emphasis on the response of the economy to trade policy changes.

The behavioral assumptions of the model involve cost minimization by producers and utility maximization by households, and the assumption that there is sufficient competition for unit profits (at market prices) to be driven to zero. As discussed below, the crucial

assumption is that economic agents respond to marginal market prices for inputs and outputs, rather than official prices. Although it is recognized that the income re-distribution induced by divergences between official and market prices may have an impact on demand behavior, this second round effect seems likely to have a relatively minor impact on resource allocation and hence has not been incorporated in the model.

While enterprises and consumers are assumed to respond in a manner consistent with neoclassical theory to the market prices which they experience, these market prices are affected by distortions such as overvaluation of the official exchange rate, the foreign exchange retention system and import tariffs and licensing, all of which can be incorporated in the model.

The model as specified is fundamentally nonlinear and it was linearized in percentage changes and then solved for each experiment in one, two and four steps, with database updating to allow exact solution via Euler's extrapolation [Pearson, 1991]. Following Armington (1969), domestic and imported products are treated as imperfect substitutes. A standard simplifying feature of CGE models adopted in this model is a two-level representation of technology in which intermediate inputs and a composite primary factor input are demanded in fixed proportion to output. Changes in output levels thus require changes in the composite primary factor input levels which, in the presence of any fixed factor, require substitution between factors. Following standard practice in this type of model, this substitution is represented using constant elasticity of substitution (CES) technology.

For many goods, there are marked differences between the product produced for the export market and that produced for the domestic market: both in the product's physical characteristics and in its less tangible marketing requirements. To capture these differences, it is assumed that products sold on the domestic market are differentiated from those sold on the export market. These differences are represented using a constant elasticity of transformation (CET) functional form [Robinson (1989)].

The model is short-run in character, with capital assumed to be fixed in each sector. It would be possible to build a longer-run version of the model in which the capital stocks in each industry were endogenous, although investment behavior in China seems likely to be difficult to model adequately. In the absence of a well-developed theory of investment for China, investment in each sector has been specified as simply changing in line with total real absorption. As is common in short-run models, investment does not add to the effective capital stock. The underlying time period is assumed to be sufficiently long for new equipment and machinery to be produced, but not brought into production.

Given the complexities of the government revenue and expenditure system in China [Blejer and Szapary (1989)], an explicit set of fiscal accounts was not incorporated in the model. Implicitly it is assumed that the authorities make whatever adjustments to fiscal policies are needed to keep real absorption at an exogenously determined level. A skeletal monetary sector is incorporated to allow determination of the aggregate price level as a numeraire. This allows the user to specify either complete control of the money supply or any given degree of "slippage" and consequent monetary expansion.

Data and Structure

The initial source of data for the model was the World Bank (1985a pp.55-6) table for 1981, the latest available at the time the model was initially constructed. This table has the advantage of having been prepared using the SNA conventions, rather than the material product system (MPS) used in most Chinese input-output tables. A Chinese input-output table for 1981 [State Planning Commission and State Statistical Bureau (1987)], was used to split the combined 'Textiles' sector in the original database into separate textiles and clothing sectors. Details of the construction of the complete data set are given in Thompson (1990). As discussed in the main study, the trade data used in the model were updated to reflect 1991, rather than 1981, shares in the economy and the 1991 tariff rates, and exchange rate distortions were incorporated as wedges between trade values at domestic and foreign prices. The remainder of the final demand matrix was then adjusted using the Richard A. Stone (RAS) procedure to reflect the 1991 structure of output demand and the (assumed unchanged) structure of gross output at domestic prices.

In the development of standard computable general equilibrium (CGE) models, it is assumed that the economy is in equilibrium in the benchmark year. Clearly, the conventional approach of assuming that the value shares in the model were in equilibrium would not be appropriate since the flows in the input-output table are valued at official prices rather than the market prices required for the analysis. To make the model operational, it was assumed that the (largely) planned system operating in 1981 resulted in the same set of quantity variables as would have resulted from a market system in equilibrium. Some support for this (admittedly strong) assumption is provided by Anderson's (1989, p.70) conclusion that the pattern of development in the Chinese economy since 1949 has been consistent with the predictions of Western economic theory.

A data set corresponding to a market equilibrium was obtained by adjusting the prices in the original input-output table using a set of relativities between official and secondary market prices—obtained primarily from studies by Lardy (1983), and the Research Institute of the State Price Bureau of China (1988). The industrial sector price relativities were for 1988 when a well developed set of secondary markets was in operation, while the agricultural price relativities were based on a relatively complete set of estimates for 1982, updated where later estimates were available. The exchange rates used in the model data base were based on those prevailing in early 1991, 5.32 Yuan/US\$ for the official rate and 5.845 Yuan/US\$ for the secondary market rate.

The actual price adjustment factors used to convert the model from official to secondary market prices are presented in Table 1 of this annex. The price adjustment factors are large for raw material inputs such as oil, metals and coal, where official prices are reported to be substantially below secondary market levels. They are also quite high for agricultural products, reflecting substantial differences between quota and secondary market prices. By contrast, the adjustment factors were low in sectors such as textiles and clothing and in most services sectors, where official prices did not appear to be so widely out of line with market prices, or where underpricing had been alleviated by the adjustments made in construction of the table [World Bank (1985a, p. 51)]

The price adjustments changed the gross output value of the industries to which they applied. Since two-tier pricing is not generally used in the labor market these output value

**Table 1: PRICE ADJUSTMENTS USED IN THE ADJUSTED CHINESE
INPUT-OUTPUT TABLE**

Commodity	Adjustment factor	Commodity	Adjustment factor
Crop	1.78	Textiles	1.00
Animal husbandry	1.51	Apparel	1.00
Metallurgy	1.60	Paper	1.10
Electricity	1.00	Miscellaneous manufacture	1.30
Coal	1.50	Construction	1.45
Petroleum mining	4.00	Freight transport	1.35
Petroleum refining	3.00	Passenger transport	1.28
Chemicals	1.98	Commerce	1.10
Machinery	1.40	Miscellaneous services	1.00
Building materials	1.50	Education and health	1.45
Wood	1.50	Public administration and defense	1.32
Food processing	1.40	Housing	1.00

changes were assumed to cause changes in profits. This assumption seems reasonable in the light of the widely held proposition that the official pricing system leads to major distortions in the relative profitability of different industries in China [e.g., Chen (1988)]. The resulting estimates of factor intensities [Thompson (1991)] appear to be more consistent with expectations, and with the range of estimates observed in market economies, than the set of estimates obtained in the nonadjusted table.

Following standard practice in CGE models, relatively parsimonious functional forms, such as the Constant Elasticity of Substitution (CES), the Constant Elasticity of Transformation (CET) and the Linear Expenditure System (LES) were adopted throughout. The necessary elasticities of substitution in demand, transformation in output supply and the parameters of the consumer demand system were obtained from econometric studies of China where these were available and for other countries where Chinese studies were not available. The specific values chosen for these parameters, and the justification for these parameter values, are discussed after the equation specification in the next section.

Equations and Parameters of the Model

The set of equations making up the model is presented in Table 2 of this annex, together with the definitions of the variables and coefficients.

The first six sets of equations specify the final demands for goods and the demands for intermediate goods by each sector. The first set of equations specifies the demands for each good by households as a function of household disposable income and the (marginal) prices of each good. In the absence of any elasticity estimates based on the appropriate marginal prices, the set of elasticities was calculated using expenditure elasticities for each good [World Bank (1985b)], budget share data at market prices, and an estimate of the Frisch Parameter

(-6.9) obtained by interpolating from the international estimates provided by Lluh, Powell and Williams (1977). By virtue of the method used in their construction [Dervis, de Melo and Robinson (1981, pp. 482-5)], the resulting estimates satisfy the theoretical constraints on demand systems: homogeneity of degree zero in prices and income, symmetry and adding up.

Equation sets (2), (3) and (4) specify proportional changes in fixed investment, investment in stocks and government consumption demands for each commodity as equal to the proportional changes in gross real absorption in the economy. This behavioral hypothesis was chosen as a neutral benchmark given the considerable uncertainty about how these categories respond to relative prices.

Equation set (5) summarizes China's trade environment. China's exports of each commodity i are represented using a CES function (linearized in percentage changes) consistent with the Armington (1969) model. The demand for exports of good i is determined by the prices of China's exports relative to exports from the rest of the world, and the total demand for exports of that commodity. In turn, world import demand was specified as a linear (in proportional changes) function of the weighted average price for good i , where the weights are the shares of China and the rest of the world in total exports of good i . The supply of imports is specified as a function of the world price of imports, allowing for the possibility of China being 'large' in particular markets.

Equation set (6) specifies the demands for intermediate inputs of commodities in the production process. For simplicity, and for consistency with most models of this type, intermediate inputs are assumed to be used in fixed proportion to outputs, that is according to a Leontief technology. Equation set (7) aggregates intermediate usage, household stocks, consumption and government demand into a total absorption variable for each good. Value share weights are used to convert this linear identity into percentage change form. Because export and domestic products are differentiated, export demand is not a component of total absorption of i .

Equation set (8) specifies imperfect substitution between domestic and imported products consistent with the Armington (1969) model. Equation set (9) specifies imperfect transformation between domestically produced products supplied to domestic and export markets. This equation is a linearization in percentage changes of the constant elasticity of transformation (CET) function discussed in the context of CGE models by Robinson (1989).

Equation set (10) specifies the demand for primary factor inputs by industry i as a function of the output level in industry i and the relative prices of each of the primary factor inputs (land, labor and capital). It is assumed that these inputs can be aggregated into a composite primary factor bundle using a CES function, and the demand equations are obtained by imposing the first order conditions for cost minimization and linearizing in percentage changes.

The market clearing conditions for commodities are specified in equation block (11). In 11(a) domestic demand for good i from domestic sources (q_{iD}) is equated with domestic production of good i for the home market (x_{iD}). Similarly, export demand for good i from China must equal Chinese production of good i for export (x_{iE}).

Equation set (12) deals with market clearing for primary factors. Equation 12(a) embodies the assumption, standard in models of this type, that labor is able to move between different industries in response to changes in the demand for labor. While this is undoubtedly a strong assumption given the constraints on the physical mobility of labor in China, the explosive growth of the lightly regulated rural industries in China has greatly increased the opportunities for labor to move between agriculture and industry, and between industrial sectors.

The stock of capital in each industry, and the stock of land in each agricultural industry, are specified exogenously in 12(b) and 12(c). Equation set (13) imposes the condition of zero pure profits on activities conducted at marginal (free market) prices. In production, this condition involves the inherent assumption of constant returns to scale - reasonable given the very large number of enterprises involved in most industrial (and certainly agricultural) activities in China. While the two-tier pricing system generates large profits and losses, these are assumed to be infra-marginal and hence irrelevant for short-run resource allocation.

The zero-profit or arbitrage conditions in exporting and importing are of vital importance and therefore are examined in some detail. The condition for the import market is simply a linear in percentage change version of:

$$P_z = P_i^m(1 + T_i) \Phi_2$$

where P_z is the landed, domestic currency price of imported good i , P_i^m is the 'world' price for imports of good i , T_i is the rate of tariff applying to imports of i (plus the tariff equivalent of any import quota) and Φ_2 is the secondary market exchange rate. At the margin, it is assumed that the opportunity cost of all imports involves the secondary market rate. If an enterprise has less foreign exchange than it demands, it must purchase additional foreign exchange in the secondary market. If it initially has more foreign exchange than it requires, its opportunity cost of using foreign exchange is also the secondary market rate.

In exporting, the nominal returns per unit exported depend upon the foreign currency price received, the rate of any export tax or the export tax equivalent of export licensing, and a weighted average of the official and secondary market exchange rates. The higher the rate of retention allowed to enterprises, the larger the weight on the secondary market, and hence the higher the domestic currency price of exports.

Equation 13(d) shows the effect of changes in official and secondary market exchange rates, and in the foreign exchange rate for each sector, on the weighted average exchange rate for exports.

Equation set (14) includes identities to form aggregate Gross Domestic Product and absorption in current and constant prices. Equation 14(c) is used to make aggregate real absorption an exogenous variable in the model. Equation 14(d) requires that total household consumption, and the spending associated with investment and government purchases add to total absorption.

Equation set (15) defines the balance of trade, and equation set (16) includes identities for trade volumes and values. Equation (17)(a) is a demand for money equation, with a unitary income elasticity of demand imposed, is used to determine the model's numeraire price - the composite price of Gross Domestic Product.

Equations 17(b) to 17(e), define the price of each of the composite goods (import plus domestic sources goods) consumed domestically, and the price of composite goods (export plus domestic destination goods) produced domestically and composite prices for total absorption and total Gross Domestic Product.

Equation 18 provides a money measure of welfare change, the Hicksian Compensating Variation, which takes into account the effects of shocks on consumer and producer welfare, and on revenues from tariffs, export taxes and the trade taxes imposed by licensing and exchange rate over-valuation. It allows evaluation of the second best consequences of partial liberalization (Martin 1992; Anderson and Neary 1992).

In addition to the input-out data discussed above, the model requires that a number of elasticity parameters be specified. The elasticities involved were:

- consumer demand elasticities;
- elasticities of substitution between domestic and imported good i (base value 2.0);
- elasticities of transformation between domestic and export good i (base value 5.0);
- elasticities of substitution between Chinese exports of i and the exports of other countries (base value 10.0);
- the elasticity of demand for total world exports of i (base value -2.0);
- the elasticity of supply of import i to China (base value 100); and
- the elasticity of substitution between primary factors in industry i (base value 0.5).

As previously discussed, the consumer demand elasticities were derived using expenditure elasticities, budget shares and the Frisch parameter. It seemed unlikely that reasonable estimates of the elasticities of substitution and transformation for each commodity could be estimated satisfactorily using the available data for China. Time series of the relevant market price data are extremely scarce and, in any event, the time period over which enterprise managers have been free to allocate their resources in response to relative price changes is short. Accordingly, the approach taken was to impose selected base values chosen on the basis of the evidence from other countries, leaving open the option of examining the sensitivity of the results obtained to these assumptions.

The base value of 2.0 used for the elasticity of substitution between domestic and imported commodities is within the range of values used for this parameter in CGE studies. While the values used in the Grais, de Melo and Urata (1986) study range only from 0.4 to 1.2, the corresponding parameters are larger in many other CGE studies. If one accepts the weight of empirical evidence marshalled by Goldstein and Khan (1985 p. 1076) that the aggregate elasticity of import demand is in the range -0.5 to -1.0 and believes that own price elasticities for individual commodities are likely to be higher than the aggregate elasticity, then an elasticity of substitution of 2.0 at the individual commodity level would seem entirely reasonable.

Unfortunately, the empirical evidence on the elasticity of transformation between domestic and export production is extremely limited. The estimate of 2.90 cited by Tarr (1989, p. 5-6) provides some indication of the order of magnitude, at least for manufactured products. While well below the value of infinity implicit in models constructed without explicit

transformation in production, it is well above the values of 0.5 and 1.5 assumed by Grais, de Melo and Urata (1986). The evidence that the aggregate supply elasticity of exports may lie in the range from 1.0 to 4.0 [Goldstein and Khan (1985 p. 1087)] also seems to point to higher values for this parameter than those chosen by Grais, de Melo and Urata (1986, p. 74). The value of 5.0 for individual commodities used in this study was subjectively set somewhat above the empirically estimated aggregate values given the well-known downward bias in these estimates resulting from the pervasive problem of measurement errors.

The elasticities of substitution between exports from China and other export products were set at 10.0 in the belief that Chinese exports of many products are close substitutes for other products in world markets. This assumption is higher than the few available direct estimates of the elasticity of export demand for China's exports but the likelihood that such estimates are biased downwards is well known [see, for example, Leamer and Stern (1970, p. 56-74)]. For commodity exports, at least, the value of 10.0 does not seem unreasonable, and is broadly consistent with values used in many other CGE modeling exercises (e.g., Dixon et al. 1982).

The base value elasticity of demand for total world exports was set at -2.0 in light of the relatively low elasticity of substitution between domestic and imported goods assumed in the model. Since the focus of the model is on a relatively short time period, supply adjustment in other countries may be fairly low, placing the major burden of adjustment on world demand. Given China's small share of world exports, the elasticity of demand for her exports would generally be expected to depend more heavily on the elasticity of substitution than the overall market elasticity of demand.

The very high base value for the elasticity of supply of imports to China was chosen to make China essentially a price taker in the market for imports. Given China's small share in most markets this does not appear unreasonable as a working assumption.

The elasticity of substitution between primary factors was set to a base value of 0.5. This value was selected by Dixon et al. (1982) after an extensive literature search. While it is substantially below some of the estimates presented in the developing country literature [e.g. Limskul (1988)] it does not seem unreasonable as a short run estimate, particularly when the effects of any constraints on adjustment resulting from the operation of the planning system are considered.

The model is a flexible and adaptable instrument for the analysis of a wide range of policy issues and exogenous shocks in the post-reform Chinese economy. In the past, it has been applied to policy issues including: the impacts of exchange rate policy on the demand for imports of commodities (Martin 1991); the adjustment of the Chinese economy to major shocks, such as the oil price decline of the mid 1980s (Peng and Martin 1991) and a number of macroeconomic shocks (Martin 1993). Now that the critical trade database has been updated, the ability to handle large changes incorporated, and a theoretically consistent measure of welfare changes added, it can readily be applied to the analysis of a wide range of shocks to the Chinese economy.

Table 2: MODEL EQUATIONS AND VARIABLES

1. <u>Household Consumption Demands</u>			
$q_i^{(3)} = \epsilon_i a^* + \sum_{k=1}^g \eta_{ik} p_k^q$	g		
2. <u>Fixed Investment Demand</u>			
$q_i^{(2)} = a_k$	g		
3. <u>Investment in Stocks</u>			
$qs_i^{(2)} = a_k$	g		
4. <u>Government Demand</u>			
$q_i^{(3)} = a_k$	g		
5. <u>Traded Good Demand/Supply</u>			
(a) Export Demand from China			
$q_i^{(4)} = qw_i^{(4)} - \sigma_i^* (p_i^e - \sum_{s=1}^2 ES_{is} p_s)$	g		
(b) World Demand			
$qw_i^{(4)} = \beta_i (\sum_{s=1}^2 ES_{is} p_s^e)$	g		
(s=1, China; 2, Rest of World)			
(c) Import Supply to China			
$q_m = \Omega_i p_i^m$	g		
6. <u>Intermediate Demand</u>			
$q_y^{(3)} = x_j$	g ²		
7. <u>Domestic Absorption of Good i from all Sources</u>			
$q_i = \sum_j B_{ij}^{(3)} q_j^{(3)} + B_i^{(2)} q_i^{(2)} + ES_i^{(2)} qs_i^{(2)} + B_i^{(3)} q_i^{(3)} + B_i^{(3)} q_i^{(3)}$	g		
8. <u>Domestic/Import Substitution</u>			
$q_m = q_i - \sigma_i^* (p_m - p_i^q)$ (s=1, imported; 2, domestic)	2g		
9. <u>Primary Factor Inputs</u>			
$x_m = x_j + \sigma_j^* (p_m - p_j^q)$ (d=1, export; 2, domestic)	2g		
10. <u>Primary Factor Inputs</u>			
$q_y^p = x_j - \sigma_j^* (p_y^p - \sum_{s=1}^2 S_{ys}^p p_s^p)$	3g		
11. <u>Product Market Clearing</u>			
(a) Domestic market clearing			
$q_m = x_m$	g		
(b) Export market clearing			
$q_i^{(4)} = x_{i1}$	g		
12. <u>Factor Market Clearing</u>			
(a) $q_l^p = \sum_{j=1}^g L_j q_{yj}$ - Labor	1		
(b) $q_k^p = k_j$ - Capital in i	g		
(c) $q_y^p = l_j$ - Land in i	g		
13. <u>Zero Pure Profits at the Margin</u>			
(a) In Production			
$\sum_{d=1}^2 J_{\mu d} p_{\mu} = \sum_i H_{\mu i}^{(1)} p_i^q + \sum_{v=1}^3 H_{\mu v}^p p_v^p$	g		
(b) In Importing			
$p_m = p_i^m + t_i + \tau q_i + e_2$	g		
(c) In Exporting			
$p_m = p_i^e + v_i + \nu q_i + e_{m1}$	g		
(d) Export exchange rate			
$e_{m1} = \left(\frac{E_2}{E_w}\right) \cdot R_1 \cdot e_2 + \left(\frac{E_1}{E_w}\right) \cdot (1-R_1) \cdot e_1 + \left(\frac{E_2 - E_1}{E_w}\right) \cdot R_1 \cdot r_1$	g		
14. <u>GDP, Absorption and Household Absorption</u>			
(a) $gdp_p = \sum_v \sum_j K_{vj} q_{vj}^p$	1		
(b) $y_d p = \sum_v \sum_j K_{vj} (q_{vj}^p + p_{vj}^p)$	1		
(c) $a_k = \sum_i SN_{i1} q_i^{(3)} + \sum_i SN_{i2} q_i^{(3)} + \sum_i SN_{i2} q_i^{(2)} + \sum_i SN_{i2} qs_i^{(2)}$	1		
(d) $a = \sum_i SN_i a^* + \sum_i SN_{i1} (p_i^q + q_i^{(3)}) + \sum_i SN_{i2} (p_i^q + q_i^{(2)}) + \sum_i SN_{i2} (p_i^q + qs_i^{(2)})$	1		
15. <u>Balance of Trade Condition</u>			
$x = SXe + SMm$	1		

16. Balance of Trade Identities

- (a) Total Export Value

$$e = \sum_i V_i (p_{ii} + x_{ii})$$
1
- (b) Total Import Value

$$m = \sum_i M_i (p_{ii} + q_{ii})$$
1
- (c) Total Export Volume

$$e_x = \sum_i V_i x_{ii}$$
1
- (d) Total Import Volume

$$m_x = \sum_i M_i q_{ii}$$
1

17. Composite Price Variables

- (a) Price Level Determination

$$p^g = ms - gdp_r$$
1
- (b) Price Deflator for gdp

$$p^z = \sum_i \sum_j K_{ij} \cdot P_{ij}^z$$
1
- (c) Price Deflator for Total Absorption

$$p^e = \sum_i W_i p_i^e$$
1
- (d) Price Deflator for final Absorption of i

$$p_i^e = \sum_{s=1}^2 A_{is} p_{is}$$
2
- (e) Price Deflator for Output of i

$$p_i^z = \sum_{d=1}^2 J_{id} p_{id}$$
2

18. Proportional Trade Taxes

- $$t_i = T_i / (1 + T_i) \cdot m_i$$
2
- $$tq_i = TE_i / (1 + TE_i) \cdot m_i$$
2
- $$v_i = V_i / (1 + V_i) \cdot m_i$$
2
- $$vq_i = VE_i / (1 + VE_i) \cdot m_i$$
2

19. Compensating Variation

$$\begin{aligned}
 cv = & -(A/K) \cdot an - gdp \\
 & - \sum_i TS_i (tn_i + p_i^m + a_2 + q_{ii}) \\
 & - \sum_i TES_i (tq_i + t_i + p_i^m + a_2 + q_{ii}) \\
 & - \sum_i VS_i (vm_i + p_{ii}^e + a_{wi} + q_i^{(4)}) \\
 & - \sum_i VES_i (vq_i + v_i + p_{ii}^e + a_{wi} + q_i^{(4)}) \\
 & - \sum_i E_2 \cdot X_i^e / K + a_{wi} \\
 & + \sum_i E_{wi} X_i^e / K + a_{wi} \\
 & - \sum_i (E_2 - E_i) \cdot X_i^e / K
 \end{aligned}$$
1

Total Number of Equations

$$g^2 + 29g + 14$$

Value Share Coefficients

A	Final absorption
AA_s	Share of absorption of i derived from source s
$B_j^{(1)}$	Share of intermediate use by industry j in total absorption of i
$B_i^{(2)}$	Share of investment in total absorption of commodity i
$BS_i^{(2)}$	Share of stock demand in total absorption of commodity i
$B_i^{(3)}$	Share of household consumption in total absorption of commodity i
$B_i^{(5)}$	Share of government in total absorption of i
E_i	Exchange Rate ($\zeta=1$, official; 2 , market; w_i , export weighted for commodity i)
ES_w	Share of China and R.O.W. in world export markets for i
	Share of intermediate good i in total costs of industry j
H_v^j	Share of primary factor v in total costs of industry j
J_M	Share of good i production to destination 1, export; 2, domestic
K	GOP at factor cost
K_j	Share of factor i in industry j in total GDP at factor prices
L_j	Share of industry j in total employment
M_i	Share of i in total imports
R_i	Base retention rate for good i
S_v^j	Share of primary factor v in primary factor inputs of j

e_i	Official exchange rate (Yuan/US\$)
SM	Imports as a share of nominal gdp
SN_{ij}	Share of end-use demand j for commodity i in final absorption
SX	Exports as a share of nominal gdp
V_i	Share of i in total exports
W_i	Share of good i in total absorption
X_i^f	Export value of good i in foreign currency

Elasticity Parameters

β_i	Global elasticity of excess demand for good i
ϵ_i	Household expenditure elasticity for good i
η_{ij}	Price elasticity of household demand for good i with respect to price j
σ_i^m	Elasticity of substitution between import and domestic products of good i
σ_i^p	Elasticity of substitution between primary factor inputs in sector i
σ_i^T	Elasticity of transformation between domestic and export production of good i
σ_i^w	Elasticity of substitution between Chinese and R.O.W. products in world market for i
Ω_i	Elasticity of import supply for good i to China

DEVELOPING BUYER-SELLER LINKS: THE INTERNATIONAL EXPERIENCE

There is a growing body of literature on international trade that focusses on the nature and importance of buyer-seller links.^{1/} On the one hand, direct links between an exporter and an overseas buyer have been shown to be an important conduit for the diffusion of knowledge and information. It is through such contacts that an exporter learns the nature of his market, that the buyer exercises direct quality control, and often will also transmit valuable design, packaging and production know-how. This tends to be important for consumer goods. On the other hand, it is also true that international trade has become a very complex affair. Accordingly, intermediaries can play the important function of bringing buyers and sellers together. In general, though, the appropriateness of a distribution channel for international trade will depend on the nature of the product, volumes involved and the characteristics of the market. Looking in to the future, the most important concern for China as it seeks to sustain its export drive is to draw lessons about how to access developed country markets for manufactures. It is useful to briefly examine the perceptions of developed country buyers of manufactures and the challenges facing new sellers.

The Developed Country Buyer's Perspective

There is a whole range of buyer types that an exporting country is faced with. Large retailing chains in developed country often buy products directly from manufacturers. For this purpose many retailing chains maintain networks of international representatives and buying offices worldwide. It is estimated that about 20 percent of developing country exports of manufactures are sold through such a channel. Then there are the wholesale importers who buy for resale to retailers or other intermediaries. Finally, there are producers themselves in the importing country who buy either for resale to retailers, or for use in their own production process. There is a growing trend for large manufactures to takeover independent importing firms to buy for them. Indications are that developed country imports by manufacturers exceed those through buying offices of retailing chains.

Price is only one of three elements that buyers in developed country markets look for—the other two equally important elements are quality and timely delivery. Buyers like to develop their relationship with sellers incrementally on the basis of trust. Increasingly, they seem to be willing to nurture long term relationships with "ideal suppliers." Buyers supply information on marketing, styling, packaging and technology via such relationships to ensure that products adhere to quality and delivery standards. Buyers often provide in-plant training and arrange for short-term worker training. This is particularly the case for buyers that are manufacturers. Buyers prefer to work directly with suppliers, they do not like to work through

^{1/} This section draws substantially on Egan and Mody, 1992.

middle men. Even where buyers use trading companies to identify suppliers, they tend to deal directly with the suppliers when it comes to handling defects and problems with specification and quality control.

Although there is this willingness to invest in stable and reliable supply sources, not all buyer-seller relationships are long term. The key is the development of trust between the two parties. The seller's reputation plays an important role in sparking the initial interest of a buyer. Even in the best of relationships, buyers almost always seek to retain a minimum amount of flexibility over their choice of sources. They often seek to restrict the maximum proportion of a seller's output they will buy and/or maintain one or several parallel source of supply.

The Seller's Perspective

While direct links with buyers bring obvious benefits to sellers, there are clear limits to how much buyers are willing to do for their suppliers. The evidence indicates that buyers are not motivated to transfer information that might help suppliers bypass them in the distribution channel or enter the market as competitors. The onus is on the supplier to proactively break new ground on the basis of contacts and information gleaned from the buyer. This may not be easy. More importantly, accessing marketing channels in order to even develop a relationship with a buyer is getting increasingly difficult. Not only do channel structures vary greatly by industry, but even within industries they have become fragmented.^{2/} Negotiating this maize of channels requires sophistication, and above all, information, which is the single biggest barrier to entry for the exporter.

For neophyte exporters, the more generic problem is a lack of understanding of how to interest importers or meet their requirements. An empirical survey of Chinese exporters found that the perceptions of new exporters, being rooted in their own domestic experience, were quite different from the expectations of developed country buyers, and an important phase of learning about supplier selection criteria was in order.^{3/} Unfortunately, there already exist a cadre of experienced suppliers in Asia from whom importers can buy similar products without teaching. New exporters must take more responsibility for their own learning, than did the Four Tigers during their export drives.

In any given industry, access for new exporters has become more challenging, not only because of barriers relating to learning and information, but also because of the shrinking windows of opportunity. The very fact that buyers, in an ever more quality conscious

^{2/} In the bicycle and shoe industries in the US, for example, market segments are delineated by price range, and each segment has its own marketing channels. The sales and imports of discount bicycles, at the low end of the price-scale, are handled by the large retail chains such as Sears, while bicycles for the premium market segment are handled through over 6,000 independent dealers. Within each segment, there are several subsegments defined by size, user (adult/child), and end-use (leisure, running, etc.). The shoe industry is similarly complex.

^{3/} Vernon-Wortzel et al, 1988. Thus, for example, Chinese exporters were found to systematically attach less importance to product quality than American importers. Even in cases, where both parties attached equal degrees of importance, such as timely delivery, differences of interpretation were vast—the Chinese thought that delivering at least some part of the order on time was acceptable as long as this was due to circumstances beyond their control, whereas for the Americans on time delivery meant the whole order not some part of it.

market, are seeking to maintain long-term relationships with their best suppliers, of itself limits opportunities for new exporters. Moreover, as developed country manufacturers come to rely more on external vendors for technology and design, and as manufacturing processes become increasingly based on just-in-time inventory management, buyers are looking to reduce the number of suppliers they deal with. In consequence the barriers to entry to new exporters are becoming even higher.

Finally, in an environment in which buyers are becoming more selective, country reputation has become an important factor to the success of exporters. It is quite common for developed country buyers to assume reputations in direct proportion to the level of economic development of the country. Such perceptions aggravate buyer inertia in moving to new suppliers—buyers are more reluctant to invest in learning about a new country's sources when the general impression about that country is that it is technologically less advanced than their current suppliers. This seems to be the case even for the simplest of consumer goods, with the possible exception of garments and selected textile products.

C. DEVELOPING BUYER-SELLER LINKS: THE ROLE OF TRADING COMPANIES

In the context sketched out above, organizations specializing in export-import can play a useful role in supporting the export drive, particularly of new entrants into world markets. In fact, the continued existence of such organizations in market driven economies not only in East Asia, but also in North America and Europe, suggests that they meet real needs of even well established and experienced trading communities.

There is a great variety of trading companies in the market and different forms have come to predominate in different countries. The role of the giant trading houses of *sogo sosha* in Japan is legendary. Korea is one country that set out deliberately to replicate the Japanese *sogo sosha* model and has done so successfully. Taiwan (China) and Hong Kong on the other hand have relied on small trading companies or on trading companies from other countries.

The Japanese and Korean Experience

Six of the ten largest non-US companies in the world are *sogo sosha*. There are essentially nine *sogo sosha* in Japan. In 1990, their combined value of their transactions account for 30 percent of Japan's GDP.^{4/} The *sogo sosha* have their origins in Meiji Japan. They were created, with active encouragement from government, to provide an indigenous alternative to foreign merchants then handling the bulk of the Japan's trade. Not only did the *sogo sosha* come to dominate Japanese trade, they have proven to be a most enduring institution that has adapted to the fast paced development of the Japanese economy. Over the years, the *sogo sosha* have evolved into complex institutions with distinctive features.

First, *sogo soshas* are not merely a marketing intermediary. In fact, their principal function is that of coordinator of whole product systems or production chains. Their involvement extends to multiple stages and multiple functions. Domestic marketing, provision of logistical support, and procurement of imported materials and equipment is thus as important,

^{4/} Terutomo Ozawa (ed), 1987 and Y. Asao in same.

if not more important a part of their functions, as is the marketing of finished products overseas. In addition, finance is a particularly important service that *sogo soshu* provide to their clients. Smaller client firms rely heavily on *sogo soshu* for working capital and trade credits for purchase (and/or sales).^{5/} *Sogo soshu* also provide a range of other financial services, including guarantee loans and equity investments, but these are always in direct or indirect support of some sort of trading activity, which after all is their primary activity.

Second, their function of coordinator is fulfilled within the framework of complex links with a vast client base comprised of members of industrial groups. *Sogo soshu* have maintained strong links with the giant sister firms of the prewar *zaibatsu*,^{6/} and have also created linkages with *keiretsu*, new and less structured, yet quasi-captive, networks of small and medium-sized firms. The relations between *sogo soshu* and their clients are not rigid nor are they mutually binding. This gives both parties some bargaining leverage which is critical to maintaining a balance between the interests, as perceived by the *sogo soshu*, of the product system as whole and of the welfare of the individual clients.^{7/}

Third, the *sogo soshu* operate on a large scale, and must rely on large volume business for their profitability. While fixed costs of maintaining a worldwide marketing/information network and a large well trained cadre of personnel are high, *sogo soshu* have to rely principally on low trade commissions ^{8/} for their income. High turnover is, therefore, of critical importance to them.

Finally, not only are they functionally diversified, but they are all also general trading companies each dealing in a great variety of products. In fact, diversification has been a key to their success and it has enabled them to spread risk.^{9/}

^{5/} Typically, as much as 60 to 70 percent of a *sogo soshu's* assets are committed to financing suppliers and customers (Yoshiro and Lifson, 1990).

^{6/} The largest existing *sogo soshu* developed as the trading arms of prewar *zaibatsu* (Mitsui, Mitsubishi, Sumitomo). The *zaibatsu*, which were groups comprised of hierarchically arranged subsidiaries reporting to single family held holding companies, were formally dissolved at the end of World War II. However, links, albeit less formal, between constituent firms resurfaced in the postwar era. The postwar era also saw the emergence of a second kind of industrial group, centered around banks (Sanwa, Dai-Ichi Kangyo, Fuyo), linking together new actors on the industrial scene such as Hitachi and Matsushita (Lifson, 1990; Ozawa, 1987).

^{7/} There is, however, an asymmetry of power between the *sogo soshu* and their smaller clients. Size, financial power, information and alternative sources of supply invariably favor the *sogo soshu*, which are in a position to apply tremendous pressure on these clients. In the case of declining industries, such as textiles, such power has been misused by the *sogo soshu* to squeeze higher margins through reduced prices, delayed payments, etc.

^{8/} Typically, 2 percent of sales.

^{9/} Even though some *sogo soshu* may have started out specializing in certain product groups, such as textiles and raw silk in the case of Mitsui and Mitsubishi, they all very rapidly expanded their product coverage. *Sogo soshu* use their multiproduct approach to hedge and to cross-subsidize when necessary. Profits on imports have been used to subsidize losses on exports, and high profits in certain market segments have been used to finance entry into new ones.

The great value of the *sogo sosha* to their clients is that they help them to limit uncertainty, and to reduce costs. Leaving system links to the *sogo sosha* enables clients to allocate scarce resources to investment in plant and equipment rather than in distribution networks, and thereby to reduce production costs. On the other hand, the profits of the *sogo sosha* depend on their ability to exploit the economies of scale that accrue to them through managing the procurement and marketing activities for their systemwide client base. In any given industry, therefore, *sogo sosha* and their clients, complement one another and recognition of this complementarity encourages the maintenance of long-term relationships between them. Although the relationship between the two is not mutually binding, client firms, linked together in a production system by their *sogo sosha*, do not behave entirely in an atomistic manner. This framework tends to maximize the efficiency of production systems as a whole, and arguably has helped Japanese industries achieve greater cost reductions than either under a more rigidly integrated, or a more atomistic framework of industrial organization.^{10/}

There is no doubt that *sogo sosha* have contributed to the development of numerous production systems in Japan and to the successful penetration of Japanese products into global markets. One of the earlier successes of the *sogo sosha* managed product systems was the Japanese textile industry. By the 1920s, *sogo soshas* were handling over 70 percent of Japan's exports and about 90 percent of the country's imports. The 1960s marked another high growth period for the *sogo sosha*, which proved to be ideal institutions for supporting Japan's diversification into heavy and processing industries such as steel, chemicals, petrochemicals, and synthetic fibers.^{11/}

As successful as the *sogo sosha* have been, there are limits to their performance, and these have become increasingly apparent over recent years. Over the years, the dependence of Japanese manufacturing industry on the *sogo sosha* has been declining and by 1990, their share of Japan's exports and imports was down to 50 and 67 percent, respectively, much lower than their shares in the early 1960s. At least two factors account for this. First, the *sogo sosha's* comparative advantage lies in coordinating multiprocess systems and handling large volumes—they are not suited for marketing consumer goods that are manufactured in differentiated and small batches. Moreover, because the *sogo sosha* deal with a highly diversified portfolio of goods, their personnel tend to be generalists. Products whose marketing requires specialized technical knowledge or sustained after-sales support are also not their strong suite. Thus, as Japan's more traditional industries such as textiles and chemicals have faced maturity and decline, and as the country's exports have diversified into consumer goods, automobiles and high technology products, the *sogo sosha's* dominance has naturally diminished. Companies like Sony, Matsushita and Hitachi, whose products now account for a major share

^{10/} See Lifson, 1990, for more on this.

^{11/} Of these, steel has been a particularly striking success. It is difficult to imagine the Japanese steel industry without the involvement of *sogo sosha*. Here the *sogo soshas'* involvement includes the procurement of iron ores and coking coal for the large steel mills, the marketing of intermediate iron and steel products abroad and to smaller downstream manufacturers, and the marketing of finished products of downstream industries. In addition, the *sogo sosha* manage inventories, operate specialized loading and unloading docks, provide other transportation support, maintain storage facilities and are prominent members of consortia in exploration and development of coal and iron ore. Such a management system has helped make Japan the second largest producer of crude steel in the world, with steel exports accounting for over 10 percent of the country's export receipts.

of Japan's exports, have never relied on *sogo sosha* for marketing their products. Likewise, the *sogo sosha* have not been able to become part of the automobile production system. Second, older clients have been growing out of their dependence on *sogo sosha* as they themselves have grown in size and gained exposure to international markets. Thus, for example, although the Mitsubishi Automobiles first started to market its cars through its affiliated *sogo sosha* (Mitsubishi Shoji), this relationship was terminated as soon as it had built up sufficient sales volume.

As a result of these trends, the 1970s saw the profitability of *sogo sosha* plummet, with gross margins being cut in half. *Sogo sosha* have responded in various ways. They have tried to hire specialized and technical personnel in a bid for the business of high technology industries, but with mixed results.^{12/} More importantly, they have been entering new fields of activity. Plant and project exports, real estate, large scale foreign direct investment and third country trade are activities that the *sogo sosha* have pursued aggressively through the 1980s. While these activities provide new opportunities for the *sogo sosha*, they also present new risks. Looking into the future, it seems clear that the *sogo sosha*'s traditional activities have reached their limit, and it is likely that only those *sogo sosha* with sufficient resources to absorb the costs breaking into risky new activities will survive and grow.

Unlike Japan, the history of trading companies in Korea is rather short. In fact, the development of the Korean general trading company (GTC) or *chongap sangsa* (a direct translation of *sogo sosha*) is the result of a deliberate government policy, instituted in 1975, to replicate the success of the *sogo sosha* in expanding Japanese exports. Although the Japanese government did sponsor selected trading companies deemed likely to succeed,^{13/} such assistance was not critical to the success of the *sogo sosha*. In the case of Korea, government support was the key to launching the GTCs. The government established minimum criteria—one of the most important being minimum size in terms of paid-up capital and exports—for designation as a GTC.^{14/} Generous incentives were offered to firms meeting these criteria. Incentives included, priority access to government agency trade and foreign exchange, tax reductions and exemptions, and concessionary export loans. Besides, the Korean GTCs were treated as national champions with the government deliberately conferring high visibility and prestige to their managers, while competition from foreign trading intermediaries, particularly the Japanese *sogo sosha*, was systematically restricted in the early years.

Although the creation of Korean GTCs was inspired by the Japanese experience, the focus of Korean GTCs, unlike their Japanese counterparts, was intended to be restricted to export development. Thus, Korean GTCs were not encouraged to enter such activities as trade financing, which was reserved for the state-owned banking sector, or transport services.

^{12/} Despite a more specialized workforce, *sogo sosha* still have not made significant inroads into the marketing of electrical machinery, electronics and automobiles. They have had notable success though in the case of aircraft, military hardware and ships, or products whose sale requires excellent contacts (Lifson, 1990 p. 73).

^{13/} Chalmers Johnson, 1982.

^{14/} These included minimum size in terms of paid in capital and annual exports, minimum number of overseas branches and number of products handled, minimum of overseas markets and the condition that the firm offer public stock. By the early 1980s, the only criteria that were maintained were export targets and the requirement of a public offering. See Karl Fields, 1989.

Consequently, Korean GTCs are much less functionally diverse than *sogo soshu*. They do not operate as system coordinators and handle a relatively much smaller share of even the import business—less than 15 percent of Korean imports were handled by the GTCs in the mid 1980s.^{15/} A total of 13 companies won designation as GTCs after 1975. Of these nine survive.^{16/} These GTCs started out handling less than 14 percent of Korea's trade, but by the early 1980s, their share of Korea's exports was up to 50 percent. The minimum limits for GTC designation were set at high levels in order to encourage only the very largest of firms. It is no surprise, therefore, that all but one of the existing GTCs are affiliated to a *chaebol*,^{17/} the Korean version of the *zaibatsu*. Each Korean GTC depends much more closely on its affiliated *chaebol*, than does the postwar *sogo soshu* on their respective *keiretsu*. Indeed, Korean GTCs function as exclusive export agents for their respective *chaebols*.^{18/}

As was expected of them, the Korean GTCs did make an impressive contribution to the country's export growth. They helped Korea diversify their exports, in particular by marketing the products of the heavy and chemical industries—almost three quarters of the exports handled by GTCs in the mid-1980s were from these industries. However, much of this performance can be attributed to active government support and the GTCs' very close links with their respective *chaebols*. The focus of the GTCs in the early years was on expanding business, without regard to cost. In effect, the GTCs competed fiercely for government assistance tied to export targets. In so doing they became over-extended and slashed their profit margins. When, in the wake of the second oil crisis, the government cut off all subsidies, the GTCs found themselves in deep financial trouble. They managed to overcome their worst difficulties only because of access to the vast resources of their affiliated *chaebols*. Relative to their Japanese counterparts, Korean GTCs still remain weak financially and dependent on the *chaebols*. Moreover, their share in Korea's exports has stagnated at around 50 percent since 1982.^{19/} The Korean GTCs have been trying to enter new activities such as project exports and third country trade, but face a harder challenge than their Japanese counterparts, because of their greater financial vulnerability.

The Experience of Taiwan (China) and Hong Kong

Impressed with the Japanese experience with big trading companies and with Korea's successful efforts to create their GTCs, Taiwan's economic planners also attempted to develop their own *da maoyishang* or Large Trading Companies (LTCs). In 1978, the Taiwanese government announced incentives for firms designated as LTCs, such designation being contingent upon the satisfaction of a set of minimum criteria. Taiwanese LTCs, however, never

^{15/} Duk-Choong Kim in Ozawa, 1987.

^{16/} They are Samsung, Ssangyong, Daewoo, Hyosung, Lucky-Goldstar, Sunkyong, Kumbo, Hyundai, and Koryo.

^{17/} The ninth, which is also by far the smallest GTC was created by the government to help organize the exports of small and medium scale Korean firms.

^{18/} Karl Fields, 1989.

^{19/} Fields, 1989. Japanese *sogo soshu* account for roughly 8 percent, foreign retailers for another 10 percent, and other direct and indirect channels for the remaining 34 percent of Korea's exports.

really took off. Of the seven firms that were awarded LTC status in 1978, only two remained in 1986, accounting for about 1.5 percent of Taiwan's exports and less than a tenth of one percent of the country's imports. Part of the explanation lies in the nature of the government's LTC policy. Taiwanese incentives to LTCs were very modest compared to what was offered to their Korean counterparts. Nor did Taiwan's LTCs get the type of protection from foreign trading intermediaries that the Korean GTCs enjoyed. Besides, unlike Korea, where the interests of the GTC were promoted irrespective of the implications for small firms, Taiwanese policy towards LTCs was decidedly ambivalent—LTCs were eligible for incentives only if they had small-scale firms as partners.^{20/}

Lukewarm government policy is not the only reason why LTCs failed in Taiwan (China). LTCs faced much greater competition than their Korean counterparts. Roughly half of Taiwan's trade (exports and imports) is handled by Japanese *sogo susha*. Foreign retailers, local manufacturers and government agencies each control an estimated 10 percent, leaving only 20 percent to be handled by local trading companies, of which there are reportedly about 40,000, or 20 times the number in Korea and about 4 times that in Japan.^{21/} Second, Taiwan's LTCs got little or no support from local business groups,^{22/} which while not as important as those in Korea and Japan, could still have given the LTCs a significant boost.

The multiplicity of small trading companies is a trait that Taiwan (China) shares with Hong Kong. However, in Hong Kong, the small trading company is the most important form of trade intermediary. There are about 38,000 registered trading companies in Hong Kong, and 99 percent of them have less than 50 employees.^{23/} These firms account for 80 to 90 percent of Hong Kong's total exports. Unlike in Taiwan (China), the role of foreign trading companies is negligible. Hong Kong trading companies tend to be specialized, both in the type of services they provide and in the number of products they handle. They are either involved in exporting or importing or reexporting. Rarely do they mix these activities. Most Hong Kong export trading companies (ETCs) handle one, or at most, two products. Hong Kong import trading companies (ITCs), likewise tend to specialize in very few products. Hong Kong does have a few large general trading companies such as Jardine or Hutchinson, that are also involved in shipping, financing and insurance. Unlike, their Japanese counterparts, however, their role in Hong Kong's exports is negligible, and they import goods only on an agency basis, on behalf of some of the larger local manufacturers and retailers. Hong Kong, therefore, offers a model that is markedly different to that of Japan and Korea.

Despite their small size, Hong Kong ETCs do not operate on a simple agency or commission basis. They function as fully fledged intermediaries, assuming the risks associated with taking title to goods. While they tend to specialize in one or two products, they

^{20/} They were restricted just to offering duty free access to imported inputs to the extent that were to be used for exports, export guarantees and permission to establish bonded warehouses.

^{21/} Fields, 1989.

^{22/} There are two kinds in Taiwan: *qiye jituan* or "enterprise groups," and *guanxi qiye* or "related enterprises" (Fields, 1989).

^{23/} Khee, 1989. The remainder of this section relies on this paper for information on Hong Kong's trading companies.

are always on the look out for new opportunities and will frequently switch the products they deal in, depending upon the needs of their buyers. Being small, though, they do not maintain a large worldwide network of marketing offices or representatives. They rely more on stable relationships with a limited number of overseas buyers. Their relations with their local clients, on the other hand, tend to be more flexible. Typically, they deal with a vast enterprise network developed and maintained often through strong personal relations. They turn to groups of firms within this network depending upon the requirements of the buyer. This framework, combined with their light administrative structure, makes ETCs very responsive to buyers and enables them to have fast response times. They are particularly well suited to handle small and frequent orders, an important requirement for success in light industrial goods, the mainstay of Hong Kong's exports.

An important role of Hong Kong ETCs is to serve as a risk buffer between buyer and seller. They guarantee quality and on time delivery to the buyer. In many instances, ETCs pay for a certain percentage of defective items, or in case delivery deadlines are not met, they assume the cost of packaging the merchandise themselves or of making alternative transportation arrangements. In the rare case of buyer nonpayment, they absorb the financial consequences. From the point of view of local manufacturers, ETCs also serve an important technical assistance function. They carry out rigorous preshipment inspection and in certain cases, inspect the goods at various stages of production, and thereby provide manufactures valuable information on the quality, packaging, and styling requirements of buyers. Where manufacturers require advice on production know-how to help them meet buyer specifications, ETCs pay for expert assistance, which often comes from importers of machine tool and equipment. Finally, most ETCs provide some kind of preshipment financing to local manufacturers—mostly this financing takes the form of credit for imported inputs or advance payments.

Unlike the ETCs, Hong Kong import trading companies play a more limited role. They function primarily as marketing agents for name brand overseas manufacturers, with whom they attempt to establish exclusive relationships. In general the relations between ITCs and their local clients are not as close as between ETCs and their local clients. For some products such as machinery and equipment, however, ITCs do provide after sales services and advice on production techniques.

The nature of Hong Kong's trade intermediaries reflects in large part the nature of Hong Kong's industry. Of the estimated 50,000 manufacturers in Hong Kong, 94 percent have fewer than 50 workers, and three quarters of their output is light consumer products. It is not surprising, therefore, that Hong Kong's trade is dominated by small trading companies that rely on large and flexible networks of small firms, rather than, as in the case of Japan and Korea, being comprised of giant traders with close links to giant local manufacturers.

D. DEVELOPING BUYER-SELLER LINKS: THE ROLE OF PUBLIC SUPPORT SERVICES

Given the difficulties that neophyte exporters can face in establishing links with foreign buyers, many countries have turned to public intervention of various kinds to try to facilitate the process. Thus, governments have attempted to provide assistance for export marketing for quality control and for other export supply services, with varying degrees of success.

Public Support for Export Marketing

Amongst developing countries, the so-called Four Dragons have undoubtedly had the most effective public export marketing institutions. The Hong Kong Trade Development Council (HKDTC) was set up in 1966; in Taiwan (China), the China External Trade and Development Council (CETDC) was set up in 1970; the Singapore Trade Development Board (STDB) became operational 1983; and the Korea Trade Promotion Corporation (KOTRA) was established in 1962, in imitation of its Japanese counterpart, the Japanese Export Trading Organization (JETRO) which was set up a few years before. The experience of these countries in managing export marketing organizations (EPOs) is quite distinctive.^{24/}

In all four cases, EPOs have had strong private sector participation. Typically, they are managed by boards or councils that include representatives of the private sector. HKDTC, for example, is an independent statutory body managed by a council comprised in part of representatives from the chamber of commerce, the territories leading manufacturers' associations. CETDC, on the other hand is a foundation, half the capital of which was provided by the chamber of commerce, exporters' associations and other major business associations.

The EPOs in all these countries are financed at least in part by their users. KOTRA gets about 70 percent of its funds from the government. The rest comes from the Korea Trade Association. Likewise, the bulk of CETDC's funds are donated by exporters who pay a voluntary minimal levy on their exports. All four EPOs have been kept small and inexpensive. On average, these EPOs spend less than one dollar per thousand dollars of manufactured exports handled. Yet they maintain a fairly large network of overseas offices and tend to employ staff that are sophisticated and well educated.^{25/}

These institutions handle two basic functions: trade related information and inquiry services, and trade promotion (trade fairs, publicity, etc.). In some cases, assistance is also provided in the form of market analysis and development, advice on product design, packaging, and training. Of the four, HKDTC has the narrowest role and it regards itself essentially as a "matchmaker" relying for this on its computer data bank. This data bank reportedly carries essential information on more than 26,000 local manufactures and some 96,000 overseas traders. Foreign buyers are persuaded to divulge detailed information on themselves in exchange for free publications and services. The Council publishes 2.2 million copies of trade publications every year and these are distributed free of charge in 173 countries. An important role for HKDTC is to foster an image of high quality for Hong Kong's products. Overseas offices play an important role. Much of their work consists in organizing trade fairs and shows. They also generate buyer inquiries through direct mailings to buyers, press releases, etc. Promotion events tend to be specialized and organized in the main importing countries, although some events are also organized in Hong Kong. There is an important element of subsidy involved for participants.

The EPOs in the other countries each have roles that are wider in varying degrees than that of HKDTC. They all play a fairly proactive role in terms of market

^{24/} See Keesing, 1988, for details on the experience of EPOs in these four countries.

^{25/} KOTRA has about 80 offices abroad and STDB about 20. The number of staffing ratio in all cases is low, and staff typically have postgraduate degrees.

development. In the case of STDB, for example, an important function of their overseas offices is prospecting for Singapore companies. At any given time, each office works for a select list of firms, for which it prospects up to the stage of the initial order. Then it monitors its successful delivery before moving onto to other firms. Another function undertaken by these institutions is assistance for product development to local manufacturers. KOTRA collects samples of products from leading retailers around the world and furnishes these to various local industry organizations to help them with product design. CETDC, on the other hand, provides grants to hire export consultants, and sponsors design and packaging training and seminars.

The service provided by EPOs overlap quite considerably with those provided by private trading companies in all four countries. Unlike many trading companies, however, some of the EPOs take title to the exports that they handle. Their comparative advantage does not lie in their ability to absorb risks, but rather in their ability to help local firms develop direct contacts with foreign buyers. Thus, in all four countries, EPOs have been most effective in serving the needs of small first time exporters or rising firms just becoming established as exporters, but who want to learn how to trade directly, rather than go through a trading company.

While the experience of these four countries demonstrates that appropriately designed and managed institutions can be effective agents of export promotion, it must be borne in mind that in all cases, the private sector still handles the vast bulk of information flows between buyers and sellers. EPOs in these countries compete vigorously with private trading companies and other marketing intermediaries. The key to their success has been the strong involvement of the local business community in their activities and their ability to occupy a market niche.

Public Support for Quality Control

The importance of product quality is often underestimated by new exporters, who are used to a less demanding domestic market. Intrafirm quality control capabilities are lacking in such cases, and there may be need for developing alternative systems for ensuring product quality. Quality is an important consideration not only for the individual buyer seller-relationship, but also for the exporting country's reputation. Positive national reputations can help a country penetrate markets for new products that it has not previously exported. Conserving country reputation is all the more important, considering that buyers tend to follow a "herd" instinct, based on general perceptions about the country and on information from other buyers.^{26/} Considering the externalities involved, therefore, public intervention in the area of quality control can play an important role in export development.

Quality control can be conducted at several stages of the export chain, ranging from the preshipment stage, to the manufacturing process itself. The experience of several countries shows that while quality control merely at the preshipment stage can have an impact on the export quality of certain industries in the short run, a wider approach to the problem is inevitable in the longer run. Ultimately improvements in export quality cannot be sustained without upstream efforts to control the quality of components, upgrade the level of technology, and even to improve management practices. Moreover, no quality control measures can be

^{26/} Turnbull (1977) and Egan and Mody (1992).

effective in improving product quality by themselves, in the absence of a sound overall policy environment.

The experience of Japan is an example of a "multistage approach" to quality control. Japan's dramatic success in developing a reputation for quality has been the result of a concerted and sustained effort by the government and representatives of the private sector in developing quality control systems at various levels nationwide. The role of the government in this domain goes back to enactment of the Industrial Standardization Law in 1949. This law provided the framework for developing the industrial standard system in Japan and is also the basis for administering the certification system linked to the standard. The certification has reportedly been an important motivating factor for the introduction of quality control systems in Japanese industry. Second, the government started the scheme of prize grants to the best certified factories in 1953 and has provided technical assistance to enterprises planning to introduce standards. Third, the government has provided an effective export inspection scheme dating back to 1955. Finally, the government has provided extensive support for the diffusion of technology in the form of fully funded regional and national testing and research institutions, fiscal and financial incentives for the adoption of new technologies, and training facilities for technical and managerial staff of small firms.

The application of quality control systems in Japanese industry spread at a remarkable rate. Whereas in 1945, only 5 percent of Japanese factories were preparing to introduce statistical quality control, by 1969, 91 percent were practicing it. Public intervention alone did not help Japan achieve these results. An important lesson from the Japanese experience is the importance of private sector initiative and of the involvement of the work force in implementing successful quality control systems. In this context, the role of Japanese business associations has been particularly significant. The Japan Productivity Center, the Japan Management Association, and the Operations Research Society of Japan are private nonprofit organizations that have been very effective in introducing modern management methods in Japanese industry. Likewise, the Japanese Standards Association and the Union of Japanese Scientists and Engineers have helped spread quality control systems to all levels of the manufacturing process through their influential research activities, and their technical consultations. In fact, the concept of Quality Control Circles (QCC) was first introduced and popularized in Japan by the Union of Japanese Scientists and Engineers in 1962.

In Taiwan (China), the government's role in the area of quality control has been particularly noteworthy for the effectiveness of its preshipment inspection for exports. Not many countries have succeeded in providing an efficient preshipment inspection service. In India, for example, the Export Inspection Agency has a reputation for inefficiency and red tape. Moreover, its capacity to provide diagnostic assistance is limited, and more importantly, foreign buyers appear to be skeptical about its the value of the Agency's certification. Taiwan's Bureau of Commodity Inspection and Quarantine, on the other hand, is well respected, although it too has taken some time to develop an efficient scheme for export quality control. An important feature of the Taiwan's scheme is that it is low in inspection intensity. Not all sectors are subject to inspection. Only those sectors are identified for this purpose in which the number of complaints from buyers are disproportionately large. All exporters dealing in these commodities are expected to have their quality control systems graded by the Bureau. Those firms not making the grade are not allowed to export. Those permitted to export are subject to periodic evaluation of their quality control systems, and their product shipments are inspected on a

random basis. From a peak of about 60 percent of exports in 1976, less than 25 percent of Taiwan's exports were subject to export quality inspection in the late 1980s.

As in the case of Japan, however, the Taiwanese government's efforts at quality control extend way beyond the provision of preshipment inspection. Taiwan (China) has taken the question of its international image as quality exporter very seriously. Recognizing the "public good" nature of country reputation, the Taiwanese government has itself paid compensation to buyers for defective export products originating in the country.^{27/} More importantly, Taiwan (China) has invested heavily in a dense network of publicly funded technology assistance and testing centers. These centers work closely with exporters and the Commodity Inspection Bureau on quality related issues at various stages of the manufacturing process. On the one hand, they are used extensively by the Commodity Inspection Bureau to undertake certification and inspection on its behalf. On the other hand, they provide valuable technical assistance to manufacturers in specific sectors. Thus, the Taiwan Electrical Testing Center and the Taiwan Plastics Development Center, for example, are designated by the Inspection Bureau to undertake export quality inspection for most electronics and plastics products. Aside from this, the centers are a much valued resource for manufacturers in the two sectors who use them for advice on product design and technology imports.

^{27/} The government is reported to have paid return shipment for 300,000 bicycles rather than let them be sold in the United States (see Egan and Mody, 1992).

CHINA'S SEZ POLICY—AN EVALUATION

A. INTRODUCTION

The "Spring Wind" speeches of Deng Xiao Ping early in 1992 focussed national and international attention on China's five Special Economic Zones (SEZs). After the events of June 4th 1989 conservative forces who had always been opposed to the SEZs became more vocal in their attacks on the zones. They described them as "bastions of capitalism," and called for them to be abolished. Deng Xiao Ping's intervention was a direct response to these attacks and was aimed at maintaining and increasing the pace of "opening up and economic reform" in China by drawing attention to what he sees as the remarkable success story of China's Special Economic Zones.

As it was observed that overseas Chinese had taken a major role in the economic development of three of the four Little Dragons, and of other countries such as Malaysia and Thailand it was decided to locate the SEZs in places where advantage could be taken of concentrations of such people. In fact, the initiative for the establishment of the first zone came from a Chinese-owned firm in Hong Kong, China Merchants Steam Navigation Company. China Merchants wanted to expand its operations by taking advantage of low cost land across the border in Bao'an County, developing an area of land from which they and other foreign investors could take advantage of the Chinese market and also develop export activities. Acceptance by the State Council of the proposal led to the establishment of the Shekou Industrial Zone in 1979. The area around Shekou was quickly, also in 1979, established as a zone in which advantage could be taken of the proximity of Hong Kong. The new zone was Shenzhen, later to be established as a municipality with its own government. This expanded zone became the first SEZ in China, the Shenzhen Special Economic Zone. The second, in Zhuhai, the area contiguous with Macao, was also established early in 1979, quickly followed by the third, also in Guangdong, at Shantou which has a large and extensive diaspora. The first outside Guangdong, at Xiamen in Fujian was established in 1980. The fifth SEZ, Hainan island, was established in 1988, but by that time there had been many developments in the opening up policy.

The apparent early successes of the SEZs led to a conceptual expansion from the model of South East Asian export processing zones to something more ambitious in terms of policies, activities and physical dimensions. As awareness of the developmental impact of foreign investment and market mechanisms grew, the scope of operation of the zones was extended and the application of the opening up process was extended to other areas, initially to fourteen designated cities and then to whole coastal delta areas and peninsula. This geographical expansion of the areas opened up has continued since 1979 without a break; in 1992 it is being extended to the border areas with the former USSR, and Viet Nam. However, although the application of the opening up policies is being extended to an ever widening area, the "special" nature of the SEZs continues.

What has always distinguished the Special Economic Zones as "special" is their role as economic "laboratories." The SEZs are seen as areas within which the local authorities, under the guidance and overall control of the central government and subject to supervision by provincial governments, can encourage foreign investment and also domestic investment from hinterland authorities by allowing them to operate in a policy environment based much more on market mechanisms than elsewhere in the economy. The effects of these experiments on foreign investment, foreign management techniques, and foreign technology, and the general awareness of developments in markets economies they encourage, are to be watched by authorities and enterprises in the hinterland. By using the SEZs as "windows" in this way the hinterland authorities and enterprises can decide which experiments it could be useful to move over the "bridge" into the greater Chinese economy. In his 1992 "Spring Wind" speeches Deng Xiaoping reiterated that the function of the SEZs was to continue to carry out such experiments with market mechanisms and to be the windows and bridges for the hinterland to the outside world, and for the outside world into China. He also said that he had made a mistake in not extending SEZ treatment to Shanghai from the outset. This position is reflected in the fact that apart from the SEZs the Pudong development area of Shanghai is the only other place in which a market mechanism experiment has been introduced into China. The experiment in question being the permission given to foreign companies to engage in trading activities, including retail trade.

This annex focuses on the special nature of the Special Economic Zones. First it examines the innovations and experiments which have been carried out in the zones and assesses the extent to which they have crossed the bridge into the hinterland. Second it reviews the progress of the SEZs in terms of their economic achievements. It then identifies problems which the SEZs have faced and assesses their overall effectiveness. Finally, recommendations are made for future policy developments.

B. THE EXPERIMENTS

Introduction

Not all of the policy initiatives which make up the "opening up and economic reform" program have begun as experiments in the SEZs. Many reform measures have been introduced on a nationwide basis, for example the "household responsibility system" in agriculture, price reforms, reforms in the management of state enterprises, the development of free commodity markets, the establishment of a private sector, and the decentralization of the management of foreign trade. This section, however, addresses only those reforms which began as experiments in the zones; other policy reforms are referred to in the paper so far as they have affected developments in the SEZs. Some of the experiments represent the removal of obstacles which prohibit, or used to prohibit, certain activities in China, for example the establishment of foreign-funded enterprises (FfEs). And some represent incentives to encourage certain sorts of activity. They can be categorized as those which relate to the characteristics of the economic management system itself and those which relate to specific factor markets. They are covered below according to this categorization.

System Experiments

(a) SEZs as Experiments with the Economic Management System

The establishment of economic zones represents acceptance by a government that there are some economic objectives which it cannot achieve by relying on the domestic economic policy frame. Thus the very existence of zones represents a major experiment in the reform of Chinese economic policy. Initially at least, the model was the export processing zones of South Korea, Taiwan and other Asian countries with successful export records. The single objective approach of export processing zones, was however, quickly dropped in favor of a multi-objective strategy. This was partly in recognition of the fact that China could not at that time attract investment from the sort of firms which had been responsible for the successful development of export processing zones in other countries. It was considered that to attract firms other than those solely interested in labor-intensive processing activities, China would have to trade access to its domestic market for inflows of capital, managerial skill, technology and access to international markets. It was also quickly discovered that there was a vast pent up demand among overseas Chinese, especially in Hong Kong and Taiwan, for holidays and real estate in China. The zones, especially Shenzhen and Xiamen and later Hainan were quickly geared up to meet this demand. The initial industrial estate type of export processing zone development, represented for example by Shekou in Shenzhen and Huli in Xiamen, was quickly added to and the size and scope of the zones enlarged.

As their name implies, export processing zones have a single objective: the development of exports. Within them companies benefit from incentives under various policies not available to companies elsewhere in the country. They are usually relatively small in area, do not include residential areas and have management powers delegated to them which give them a high degree of autonomy, especially with respect to the treatment of investment applications. By contrast, China's Special Economic Zones cover large areas, including agricultural as well as industrial districts. They have multiple objectives and are run by local governments which have to carry the full range of local government responsibilities at the municipal level (except in the case of Hainan which is a province), as well as running the SEZs.

(b) Extra-Plan Investment

Perhaps the most important factor differentiating the SEZs from other areas of China is that investment decisions taken there are to some extent outside the State Plan. As long as they can raise the extra funds from taxation, profits from enterprises they own (wholly or partially) or from banks in the zones, the local governments involved can establish their own infrastructure development and commercial investment plans. And enterprises in the zones, including state enterprises-owned locally or by hinterland authorities, joint-ventures and wholly foreign-owned firms, can make their own investment, production and marketing decisions. This gives the local authorities and state enterprises involved much more autonomy and flexibility than their counterparts elsewhere in the economy and is a major factor in attracting hinterland investment into the zones. The SEZs authorities have been delegated powers, within limits, to approve investment proposals, although this right has been extended to other authorities covered by the open coastal city and area policy.

(c) **Preferential Tax Treatment**

FFEs in the other economic zones, such as Economic and Technological Development Zones, now receive the same tax treatment as FFEs investing in the SEZs. The higher corporation tax rate which obtains outside of the zones is 33 percent. The rate in the zones is set at 15 percent. This is the rate which obtained in Hong Kong at the time the policy was formulated—the aim being not to impose a tax disadvantage on investors compared to Hong Kong, while not giving away tax revenue unnecessarily. The tax holiday of "2 plus 3"—i.e., the first two years in profit are tax free and for the next three the tax rate is only 7½ percent—is also available to FFEs in all zones anywhere in China. There are various special rates depending on the type of activity, for example if after the expiration of the tax holiday a firm is exporting more than 70 percent of its output then the tax rate is only 10 percent.

With respect to tax incentives, of far more significance than the treatment of FFEs is the incentive given to Chinese state enterprises. In the SEZs (and the Economic and Technological Development Zones) they also pay only 15 percent compared to 55 percent elsewhere (this is to be reduced to 33 percent by the end of 1993). They still have to remit a share of their profits, if any, to their "owners" of course and in the case of Xiamen for example this "dividend" is set at a rate which gives the Xiamen Municipal Government a total return of approximately 55 percent (the actual rate being negotiable, depending on the performance of the company). The lower tax rate means that for hinterland owners of state enterprises there is a substantial incentive to invest in the zones.

(d) **Trade Policy**

Since the establishment of the SEZs firms investing there (FFEs automatically and Chinese state enterprises after approval) have been exempted from import licenses on their imports. This covers capital goods specified in the investment plan and intermediate goods and raw materials needed in production. Duty free imports of intermediate goods and raw materials are subject to approval by the Customs service, usually via the registration of an import plan on a six monthly basis. The SEZs are treated as separate customs areas and in addition to being free of import licensing these approved imports also enter duty free (in addition, duty free items are also exempted from all indirect internal taxes). If the products of enterprises in the SEZs are exported they are free of all duties and indirect taxes, as they also are if sold within the zones. If they import items which are sold in the zones without further processing then they pay 50 percent of the full duty and indirect tax rates. If they sell their products onto the Chinese hinterland market, after having obtained approval as import substitutes, they pay full tariffs and indirect taxes. These duty concessions were later extended to enterprises in the ETDZ of the Open Coastal Cities and to those in Science Parks, however, in these cases they are limited to capital goods in general and to all imports when they are being processed for export. There is no exemption or reduction in duty or taxes for imports or output sold in the ETDZ as they are not separate customs areas. As the population of the SEZs increase this concession to firms operating there becomes increasingly important.

The *ex post* collection of duties and indirect taxes sales in the SEZs and to the hinterland parallels the practice in most EPZs around the world. However, in other countries there is either tight control by the customs service on imports of raw materials and intermediate goods held in bond in the factories or strictly controlled by a customs policed perimeter fence around the zone. Only Shenzhen operates such a fence, the "second management line," with all

other zones operating on a basis of trust plus occasional random checks. Firms are required to report sales into the zones or hinterland; private individuals are free to carry their purchases out of the zones without further payment of duties or taxes. Hainan being an island it has a natural barrier, although it is not strictly policed. The other three hinterland zones operate strict surveillance over stocks of imported raw materials and intermediate goods held in bond.

A new development is the establishment of free trade zones. Two have been set up in Shenzhen. One is already operating (the Shataojiao Processing Zone) and a new one with a bridge directly into Hong Kong (the Futian Free Trade Area) is under construction. Residential developments and retail trading are prohibited in Shataojiao while Futian allows both. There are other privileges for firms operating in these subzones, including the freedom for enterprises to lease their land direct from the municipality instead of via the subzone authority and to develop that land in whatever way they please, free from interference from the subzone authority. They can also recruit their labor direct without reference to the Labor Bureau. This free trade area initiative was quickly copied in the hinterland, with a bonded zone with equivalent privileges being set up in Tianjin in 1991 and a new one, the Waigaoqiao Free Trade Area due to come into operation in Pudong in Shanghai in 1992. In Waigaoqiao FFEs can also, uniquely in China, engage in trading activities.

(e) **Foreign Exchange**

One of the first and most important of the policy experiments introduced in the SEZs was the establishment of foreign exchange swap centers.

Originally, all enterprises in the SEZs could retain 100 percent of their export earnings. Later, by 1985, this rate was also applied to firms in development zones in Hainan (before it became an SEZ), Huangpu, Guangzhou, and Xijiang. Enterprises in Tibet were also allowed to retain 100 percent of the foreign exchange earnings. FFEs which were allowed to sell in the domestic market, however, originally had no facility to obtain foreign exchange unless they were one of the few with State Plan allocations, whereas some of those with 100 percent retention needed to sell foreign exchange rights in order to obtain Chinese currency for their local costs, although they were reluctant to do so at official rates. The foreign exchange transaction center established in Shenzhen in 1985 was intended to allow these two types of company to balance, or swap, their foreign exchange market requirements at a mutually agreeable rate. Since then the range of entities allowed to operate in the market has increased and the sums involved have increased as retention rights have been extended. The number of swap centers was increased to meet the increased demand and now approaches 100.

As far as the foreign exchange market is concerned, the only remaining advantages for firms in the SEZs is easier access to foreign banks, including in the case of Xiamen to a foreign-funded, joint-venture bank which can also deal, within limits, in local currency. In the case of Shenzhen, firms may also benefit from the unique situation that a foreign currency, the Hong Kong dollar, is a major component of the money supply and plays an important role in day to day business. Apart from the establishment of foreign banks, which is beginning to take place in the hinterland, these experiments—joint-venture banks and the local use of foreign currency—are unlikely to spread inland in the near future.

(f) Nature of Enterprises

With respect to enterprises, the main feature of the policy experiment in the SEZs relates to the extent of the multi-ownership forms allowed there. While the three forms of foreign-funded enterprise (wholly foreign-owned, joint-venture, and cooperation agreement), private enterprises, state enterprises and collectives, are now found throughout China, the ratio of wholly publicly owned firms is much lower in the SEZs than in the hinterland. This is true even in Xiamen where there are a large number of state enterprises which predate the formation of the SEZ. On the whole, however, Chinese private enterprises are restricted to restaurants and other retail outlets.

The growth of the joint stock sector has also progressed faster in the zones than elsewhere. Foreign ownership participation through the medium of B shares has been taken further in Shenzhen than anywhere else, although in the spring of 1992 one B share was quoted on the Shanghai exchange and more were expected to be introduced. Similarly, although branches of foreign banks are now found elsewhere in China, having been first introduced via the SEZs, the only joint-venture bank China is located in the Xiamen Special Economic Zone: the Xiamen International Bank.

(g) Visas

One experiment still restricted to the SEZs is the more relaxed methods for issuing visas for entry into China. For entry to Hainan foreigners and residents of Taiwan and Hong Kong require no visas at all prior to arrival. Visas for up to two weeks can be issued at the port of arrival and these can be extended for a further two weeks without difficulty or delay. In all four of the other SEZs visas can be issued at the point of entry, as they can when leaving Hainan for the mainland. In all five cases investors in FFEs and their expatriate management staff can be granted multiple entry visas. It is proposed to extend the practice of issuing multiple entry visas to Waigaoqiao Free Trade Zone in Pudong. While seemingly a small matter in itself, this easier access to visas can be an important psychological factor, as obtaining visas abroad can be a time consuming, frustrating and expensive process.

(h) Delegated Government Authority

The four mainland SEZs are governed by their own local governments, each having responsibility for neighboring areas as well. The original, more direct, responsibility of the provincial governments of Guangdong and Fujian has been devolved to the municipal level with their associated peoples' congresses. Hainan was established as a province, being separated from Guangdong, soon after its establishment as an SEZ in 1988. In principle the governments of the zones have a great deal of delegated power. However the operation of that power is subject in many ways to influence and control from the provincial governments in the case of the four mainland zones and from the central government in the case of all five.

At an early stage powers to approve investment in the zones were devolved to their governments, although this was true for nonzone governments too. Currently the zone governments can approve investments by Chinese companies up to limits of 100 million yuan for nonproductive investment (such as hotels), 50 million for heavy industry and 30 million for light industry. In principle there are no limits on approval of foreign investments, but in practice as joint ventures involve investment by Chinese partners, and even investments by wholly

foreign-owned firms involve domestically financed infrastructure investment, the 100/50/30 limits apply in these cases as well. Above these limits central government approval is required, from the State Planning Commission. Approval is also required from the central Ministry of Foreign Economic Relations and Trade (MOFERT) if the investment involves imports or exports of any items covered by quotas or licenses.

The SEZs have considerable freedom of manoeuvre in the area of taxation. The rates set by the central government appear to be maxima and the local governments running the SEZs appear to have the flexibility to set different rates and apply different exemptions and reductions on a firm to firm basis. The only constraint appears to be the need to raise revenue for its own purposes and to make any remittances to provincial and central levels of government, although even here there appears to be some flexibility as Shenzhen has not remitted any tax revenues to the central government for three years. Hainan, as a backward area, does not remit any revenue to the central government but is a net recipient of fiscal transfers.

Dependence on the central government for transfers limits the independence of any authority. For instance, Hainan has been trying to reduce the size of its government, using the slogan "small government, large society." It had reduced the number of government departments to 27, about a third of the number of departments and bureaux in the central government. However, central government departments and bureau which did not have direct counterparts in Hainan began to make difficulties, including refusing to pass on grants on the grounds that without specialized offices there was no way of ensuring that the grants would be used for the purposes for which they were given.

In principle the SEZs have the right to legislate the enactment of rules and regulations for governing the practices of economic agents in their zones. But this freedom is severely curtailed by the "grandfather clause" that any such rules and regulations have to be consistent with central government legislation or position, as interpreted by the bureaucracy of the central government. For example, two "approved" stock exchanges now exist, although there are no centrally established detailed rules and regulations for the day to day operation of such exchanges. The local branches of the People's Bank of China in Shenzhen and Shanghai are "regulating" the two exchanges but have no centrally established regulations to enforce; the operations of the exchanges are being governed by rules and regulations devised by the local governments. And although there is no central government law preventing the establishment of stock exchanges, the initiative of the provincial government of Hainan in setting one up early in 1992 ran into strong resistance from the center, forcing its closure. The Chinese principle of a strong central government working with local governments and peoples' congresses to modify central policies to suit local conditions is being severely tested in the case of SEZs governments which are supposed to be the pioneers of economic experimentation. The three largest SEZs, Hainan, Shenzhen and Xiamen, are now pressing for more genuine autonomy by being allowed to convert themselves into free ports, following the call by Deng Xiao Ping to establish several "socialist Hong Kongs" in China. These moves are being resisted by the central bureaucracy.

On a different level, but related to the delegation of powers issue, is the issue of "zones within the zones". The first economic zone to be created in China was the Shekou Industrial Zone. Although it was incorporated into Shenzhen Special Economic Zone soon after its establishment it kept its status equivalent to that of a county, until the end of its first ten year lease. Even now, it has kept many of the considerable delegated authorities set out in its original

"lease" of the Shekou area. The China Merchants Shekou Industrial Zone Investment and Management Company was given many of the powers of a local government, including the rights to tax, approve investments, develop land and infrastructure, license imports for use in the zone, borrow abroad, issue visas and even experiment with economic reforms. The housing reforms and labor market reforms, and flexibility of controls over land use rights were taken further in Shekou than anywhere else in China. For example, with respect to labor laws the Company has labor bureau status and apart from being able to hire and fire at will, it is not bound by any of the national rules on wage scales. Anyone moving into the zone loses their standing in the national scales and has to work their way up again; elsewhere workers moving from place to place keep their place in the national scales. Pay scales in Shekou are about 30 percent above those in Shenzhen. Evaluation methods have also been introduced which link more clearly enterprise performance and individuals' wages, bonuses and management's income. Managers contracts are voted on annually by the workers, and can in principle be cancelled by democratic vote.

Housing contracts tied to fixed term work contracts were also first introduced in Shekou, and rents are also market determined. The Company's power over land use is sufficiently strong that it was able to block a proposal of the Shenzhen municipal government to locate a power station in Shekou. The Company is the monopoly supplier of utilities in the zone, keeping the land use fees as income. It has an equity stake in many of the 380 companies in Shekou. It kept all tax revenues for the first ten years and now keeps a share of tax revenues in excess of 160 million yuan. Its reported capital rose from 60 million to 1.3 billion yuan over its first five years, all from reinvested profits. When its lease was renewed in 1990 Shekou was incorporated as a subsidiary unit of Nantou county, although it kept many of its quasi-government functions, some only on "license" from the Shenzhen municipal government. There are frequent arguments between the authorities of Shenzhen and those of Shekou, most recently over land use fees.

The proposals for the Yangpu Free Trade Zone in Hainan involve delegated powers similar to those obtaining in Shekou, except that the responsible agency will be a devolved branch of the provincial government. This agency will also have powers to approve investments, up to \$50 million, subject only to the need to report to the State Planning Commission, and powers to license imports and export from the zone. It will supervise the activities of the joint-venture company, to be established by Hong Kong and Japanese property development companies, which would have the responsibility to develop the land, attract investors to establish there and to manage the zone on a day to day basis.

Experiments with Markets

(a) Commodity Markets

Commodity prices in the SEZs are mostly market determined. The development of commodity markets is not unique to the SEZs, but it has gone further there than in the hinterland. There are few, if any, controls on commodity prices (other than the small quantities of rationed items), or on services, in the SEZs. Recent years have seen an extensive development of free markets and private, collective and joint-venture shops, and tertiary sector establishments such as restaurants and hairdressers in all of the SEZs. Locally produced goods are sold free of duty and imported items are only subject to half the standard rate. Imported intermediate products and capital equipment, as already noted, are duty free to producers in the

zones. Markets in producer goods have developed in which commodities are competitively priced.

Competition is limited, however; foreign retailers have not so far been allowed to establish in China. The first experiment with foreign retailing has now been approved for Pudong, with Sino-Japanese joint venture having been given permission to open a department store there. Prices in the SEZs are higher than in international markets but lower than elsewhere in the Chinese economy. In addition, in Xiamen there are many state enterprise companies which were in existence before the creation of the zone and while they benefit from the tax preferences and other incentives they are still subject to planning controls.

(b) Factor Markets

Factor markets in the SEZs are more developed than elsewhere in China. They are still more subject to controls than markets forces and still much less well developed than commodity markets. Since 1978 several experiments have, however, been introduced into the rudimentary markets for capital, labor and land. All were quickly transferred to the rest of the economy. There are currently no experiments in force in the factor markets in the SEZs which are not also operating in the hinterland, although in most cases the extent of application has gone further in the zones.

(i) Capital

The experiment in the capital market with potentially the most far reaching effects has been the development of the joint stock system. This was first tried in Shenzhen Special Economic Zone. State enterprises established there which passed strict criteria relating to capital structure, profitability and accounting practices were allowed to sell shares to the public. Outside of the SEZs, firms were allowed to convert themselves into joint stock companies but were only allowed to trade stock on a horizontal basis among similar companies. On the basis of the lessons learnt from the early development of the stock market in Shenzhen the Government of China decided to consolidate the experiment with the establishment of stock exchanges in Shenzhen and Shanghai in 1991. Initially only three stocks were approved for listing in Shanghai and seven in Shenzhen. The experiment was further extended early in 1992 with the introduction of B shares on both exchanges, B shares being shares which only foreign institutions can deal in and for which settlement has to be in foreign exchange. By March 1992, however, only one B share was traded on the Shanghai exchange and three on the Shenzhen exchange. The adoption of regulations requiring firms wishing to be listed to subject themselves to accounting and auditing practices based on Hong Kong rules, and the requirement that firms wishing to issue B shares should be audited by foreign accounting firms, also represented a significant extension of the joint stock experiment. The number of A and B shares traded on both exchanges, and the number of brokers accredited to each exchange is expected to increase during 1992, including foreign brokers for the first time.

Although formal stock markets on which the general public can deal have not been approved elsewhere, informal markets have developed in many cities. In the case of Hainan the Provincial Government, following the advice of Deng Xiao Ping to act boldly, established a stock exchange in Haikou in March 1992, with three shares being traded. Central authorities forced the closure of exchange a few months later, meanwhile several other cities,

including Guangzhou, Tianjin, Xiamen and Beijing are seeking approval to establish stock exchanges.

Enterprises accepted for listing are currently not allowed to sell a majority of their shares and, except for the foreign participation in joint-venture companies, Boards of Directors and managers continue to be official appointments with "iron armchairs". For the time being, the experiment is simply an additional method of raising finance for the companies and a vehicle for speculation, or simply gambling, for investors.

The significance of the reforms represented by the introduction of the joint stock system and stock markets and exchanges is limited. The introduction of western style accounting and auditing practices and disclosure rules are probably the most significant reform elements. These reforms will restrict the number of firms willing to seek listing or which could qualify for listing. To be of significance to the economic management system the experiment would have to continue to develop regulations setting out criteria for listing on the exchanges and to develop enforceable company law, with enforcement being through an independent judicial system. In addition, companies and shareholders should be able to appoint directors, directors should be able to appoint and fire managers, and takeovers through share purchase, subject to takeover codes, should be introduced. Apart from the limited accountancy requirements for listed companies, the reforms so far have not made any significant change to the Chinese socialist characteristics of the system under which state enterprises operate.

With respect to banking, there have been very few experiments either in the zones or the hinterland in the opening up and economic reform process. The banking system remains basically a centrally planned capital allocation mechanism, even though the details of its administration has changed.

The only real experiments have been with foreign banks. Early on, overseas banks were allowed to set up branches and representative offices, initially just in the SEZs and later also in the hinterland. The scope of their activities has been heavily restricted, being limited to business in foreign currency within the regulations affecting such business. At first their business was largely limited to arranging trade finance. Subsequently they have been allowed to extend their business to include raising overseas loans for import finance, within the limits set by overseas debt surveillance procedures.

Two experiments in banking are still restricted to the SEZs. The first is the existence of a joint-venture bank, the Xiamen International Bank (XIB) in Xiamen. In addition to the range of activities allowed to foreign banks the XIB also operates in the Xiamen foreign exchange swap center, arranges mortgages on property and, uniquely for banks with foreign funding, carried out business in local currency, albeit as yet only on an agency basis. The XIB is currently testing the limits of economic reforms by seeking a bankruptcy order in the courts against a defaulting state enterprise.

In Shenzhen, where the Hong Kong dollar operates as a parallel currency, the Hong Kong and Shanghai Bank is able to operate more or less as a full service bank, including acting as a note issuer. It provides its own currency notes on demand, including via cash machines to cash card and credit card holders. It is probably the only instance anywhere in the world where a bank issues foreign currency through its cash machines; this is one experiment which is unlikely to be spread to the hinterland.

Banks in Xiamen and Shenzhen are now providing mortgage finance although this is still limited and restricted to the residential housing market. This development is possible because a secondary market in residential property is now developing and foreclosing no longer necessarily means writing off the loans.

Despite the small amounts of capital raised through the stock market and that brought in from the hinterland by state enterprises investing in the zones the largest share of domestic capital formation is financed by the banking system. This financing is not allocated according to market determined commercial principles, but according to plan directives and political power. Investment in fixed assets and working capital is financed by the banks even where firms have been making continuous losses and show no signs of ever recovering. This is because in the absence of an effective bankruptcy law any attempt to refuse additional credit would result in nonperforming loans being turned into bad debts on the books of the banks. Profitable firms, being mainly those able to exploit import and export quotas and other monopoly positions, finance part of their operations with reinvested profits, but they also tend to be fully loaned up and maintain the high bank debt to asset ratio now common throughout China.

(ii) Labor

In the case of the labor market the main experiments introduced into the zones have been: the extensive replacement of life long tenure with short term contracts; the ability of firms to recruit some categories of workers on a national basis and to fire unsatisfactory workers; in Shenzhen, the abolition of guaranteed government placement of graduates; and the development of government run social security systems.

Experiments with labor practices have gone further in the SEZs than elsewhere in China, but the labor market is still more characterized by controls than by market forces. The iron armchair of the cadres remains more or less unscathed. The iron rice bowl has, however, been broken for laborers. With the exception of workers in preexisting state enterprises, mostly in Xiamen and Hainan, the majority of unskilled and semi-skilled workers in the SEZs are on two to three year contracts. They never obtain rights of residency. The iron pot, out of which workers take the same regardless of what they put in, is cracked but not broken. National wage scales are enforced as minima in the SEZs, however labor shortages, artificially engendered by restrictions on labor movement, ensure that wages, inclusive of bonuses and piece rates, are substantially higher than workers receive in the hinterland.

Hiring and firing practices are controlled by the labor bureaux. Firms are free to recruit skilled workers and managers from anywhere they want, although in practice the *guanxi* system applies. For unskilled and semi-skilled workers a more restrictive system applies, with tight limits being applied to employment of workers from outside the zones. In the case of Hainan the restricted market is intended to protect the interest of the island's minorities and encourage their absorption into the modern labor force and in Xiamen it is intended to protect the interests of existing workers and their children. In the green field SEZs, Shenzhen, Zhuhai and Shantou, the restriction is mostly now intended to prevent the reliance of the zones on unskilled labor-intensive industries. The result is the extensive development of labor-intensive industry, on a more or less unregulated basis, close to the zones but outside their jurisdiction.

The experiment of allowing more freedom of mobility of workers between firms has been taken much further in the zones. This is partly because firms are free to fire workers

and workers are free to leave firms, either at the end of their contracts or during them with the permission of their employers (with compensation often being paid to the firm if training has been provided). Such flexibility is possible because workers' welfare benefits are not tied to an individual firm. In the first quarter of 1992, 470 of the 1037 labor contracts signed in Xiamen were for workers changing firms, some having been fired and some simply seeking better jobs.

Experiments with government run social security have been taken further in the SEZs than elsewhere in China, with the scheme, for urban workers, being more highly developed in Hainan. Most firms also run supplementary welfare, especially health, services which are available to contract staff, who have no access to free health services provided by the local government. The ease with which firms can fire surplus or unsatisfactory labor depends on whether they are state enterprises or FFEs, the latter having little difficulty once they have shown good cause, whereas the former are still expected to hold on to redundant staff and even to take on workers they do not need to help keep unemployment down. The main difference for state enterprises operating in the SEZs as against the hinterland with respect to labor practices is that the greater reliance on the use of contract labor reduces the burden of their having to provide the welfare services expected of state enterprises in the hinterland.

Workers with permanent resident rights in the SEZs prefer to work for state enterprises in order to gain access to the welfare benefits, whereas contract workers prefer to work for FFEs because higher wages compensate for the more restricted welfare benefits. The gap between the average wages of state enterprises and FFEs in Xiamen early in 1992 was roughly 25 percent, the difference between the 3600 yuan per year in the state enterprises and the 4,300 in the FFEs. In addition to the wages, the FFEs also have to pay a percentage of the wage bill to the Labor Bureau to cover the government provided social security benefits; different rates apply for wholly foreign-owned enterprises, joint-ventures, and FFEs based on cooperation agreements. In Xiamen, outsiders are not allowed to work in the state enterprises. Skilled workers and graduates on the other hand prefer to work for FFEs as they do not need the same job security and are attracted by the higher skill premia.

Contract labor recruited from outside the zones are second class citizens. They have no right to rations of subsidized food, to housing, to free health care provided by the local government or to protection by the civil authorities. If they stay in zones when the contracts end, in the hope of getting a new job then they join the growing army of illegal residents. Illegal residents are present in large numbers in all zones. They are estimated to number around half a million in Shenzhen alone, or a quarter of the total population. Without any access to official or firm provided housing they survive in illegal sublets or, at the bottom of the market, on the streets and in shanty towns.

Many, if not most, of the contract workers are young women who work on the shift system in the labor-intensive assembly and processing factories. The gender imbalance this represents has generated some social problems, especially when the women reach marriageable age. Their productivity is alleged to decline as they fail to find partners or they create demands for more expensive housing and social services if they do marry and have children. The Shekou Industrial Zone in Shenzhen has an agreement with the Shenzhen municipal authority that the authority takes over the contracts of women as they reach marriageable age while Shekou recruits replacement teenagers.

The experiment of removing the placement system for university graduates is still only found in Shenzhen, where graduates have to find their own jobs. Excess demand for graduates in Shenzhen means that this is no real problem; most register as cadres in the hope of avoiding the vagaries of the market later in life.

The experiments in the labor markets have been taken further in the SEZs than elsewhere in the Chinese economy, where the three irons still hold sway. The contract system is being extended slowly, especially in the joint-venture and private sector but progress is slow. In contrast most workers in the SEZs are now on fixed term contracts, except for cadres, who continue to sit in iron armchairs. Experiments with social security systems have crossed the bridge into the hinterland, but are still at a very early stage of development and limited to small area.

(iii) Land

The main experiments in the land market have been the sale of land use rights, the development of secondary markets in land and property built on it, and the granting of rights to develop land commercially to foreign companies. All of these were first tried in the SEZs and all have been extended to the economy at large, although not on the same scale as in the zones.

The concept of property rights in land use was introduced in the contract responsibility system in the rural sector in the early days of opening up and economic reform. However, the sale of leases giving the right to use and develop land covering several years, initially ten to fifteen and later thirty, fifty and even seventy years, including to foreigners, was an experiment introduced into the SEZs. The leases covered uses in the primary, secondary and tertiary sectors. Initially the prices for the leases were set by the municipal authorities, although later the more market oriented pricing methods of auctions and tendering were introduced. Secondary markets in the leases exist in principle, although the short time period in which they have been available means that little use has been made of it except in the residential market, particularly in Shenzhen and Xiamen. Extensive buying of land for speculative purposes, especially in Shenzhen and Hainan by investors from Hong Kong, Taiwan and Singapore, threatens development planning and may produce a backlash in the form of regulations covering the practice of speculative investment in land use rights.

The practice of leasing land for development and commercial subletting by foreign companies was the earliest experiment with land use rights, with the granting of a ten year lease for the development of Shekou to the China Merchants Steam Navigation Company, a Hong Kong company even if owned by the Chinese government. Resistance from conservative elements in the government prevented other such leases being granted until 1992, following the "Spring Wind" speeches of Deng Xiao Ping. A small experiment with such commercial development leases was tried, successfully, in 1987 in Tianjin where part of the Economic and Technological Development Zone (ETDZ) was leased to an American company to develop and exploit. More recently, the State Council finally approved the proposal to lease the Yangpu area of Hainan to a consortium of foreign firms led by two Japanese and Hong Kong firms. Under the terms of the head lease the company would finance the development of the infrastructure and service facilities and then sell, for its own profit, the subleases for the use of the developed land for other companies to build factories or other commercial facilities on.

The leasehold ownership of land use rights has spread beyond the SEZs, especially for FFEs to the ETDZ and science parks in other open cities and areas. The use of auctions and tendering processes to establish the price of leases has also been extended to the hinterland, but an institutional framework for the development of a meaningful secondary market in leases and commercial buildings is not yet in place.

Chinese Characteristics

The two previous sections focussed attention on the policy experiments which have been introduced in the SEZs. Even though, as we have seen, the SEZs are more market oriented than the hinterland, the markets there are still constrained and distorted.

The most constrained markets are the factor markets, with the allocation of factors of production more often reflecting political priorities than market signals. Although some market elements have been introduced into factor markets, connections still dominate. Labor markets are constrained by *de jure* restrictions on freedom of movement and by *de facto* restrictions due to the lack of housing markets and centrally managed social security systems. Wages are higher in the SEZs than they would be in a market system, some firms, especially state enterprises, have excessive labor forces and inappropriate appointments are made under the *guanxi* system. There are no capital markets. The stock market is likely to play only a very minor role for years to come. The main source of funds is the domestic banking system which has not been effectively reformed and does not follow commercial principles. For borrowers, capital is artificially cheap; for some firms it is free. In the land market, while auctions have been introduced for some land use rights, the strength of the bidders at them is partly a function of their access to artificially cheap capital from the banking or planning systems. In addition, some land use rights are allocated without charge or at discounted rates, in some cases because of the presumed existence of externalities, in other cases not. Inadequate leasehold law also means that the "freeholders" can and do sometimes harass lessees for surcharges to land use fees. In sum, factors are not allocated, in the SEZs as in the rest of China, in accordance with expected marginal productivity.

Commodity markets, including the markets for services, are more developed, but again there are serious impediments to their efficient operation. In the first case, access to them from the supply side is obviously affected by the distortions in the allocations of factors of production. Second, there is still substantial protection for many products and services which maintain some prices at artificially high levels. Third, the markets themselves are inefficient, partly because of the remaining presence of controls, partly because of the prohibition of foreign involvement in managing markets and partly because the institutional frameworks for wholesale markets and markets in producer goods are still underdeveloped. And fourth, some producers are simply exploiting monopoly rights granted to them by the central government, in particular import and export quotas, without which they would in many cases be unable to survive without even greater cross subsidies or infusions of cheap or free capital.

In order to work efficiently markets need to be regulated in order to ensure that market exchanges take place between economic and legal equals and to prevent cheating and corruption. The legal and regulatory framework of markets in the west has developed over hundreds of years. It is also in a constant state of change as it needs to respond to changing circumstances. In China it is still very much in an embryonic state, as the process involves the devolution of power from the political and bureaucratic machines to the legal system. Laws to

protect the interests of consumers, workers, capitalists and other economic agents hardly exist and the development of the regulations and enforcement mechanisms needed to ensure the effective and efficient application of government policy has only just begun. The result is that even within the constraints already listed, the markets which have been developed in the SEZs, as in the rest of China, are not working as efficiently as they could.

C. ACHIEVEMENTS: THE EXPERIMENTS

It is easy to be impressed by the physical development of the SEZs over the last twelve years, or four in the case of Hainan, especially if one has been watching them grow throughout that period. In the three zones in Guangdong modern cities have sprung up on what was farmland, in the case of Shenzhen a city, with adjacent areas of Bao'an county, of more than two million inhabitants, compared to less than sixty thousand before the SEZs policy was announced. In Xiamen, large industrial estates have mushroomed on land hacked out of the mountainside by hand. Hainan gives the impression of a dynamic modern economic frontier, with Haikou a boom town. From the physical perspective the SEZs have indeed made great strides. In economic terms, the growth rates of gross output, exports, foreign investment, and economic and social infrastructure are the stuff that dreams are made on.

However, in assessing this performance, attention needs to be devoted to the cost of all this development, in particular the opportunity cost of the resources crammed into the SEZs. The preceding subsection on the Chinese socialist characteristics of the zones gives some cause for concern about the specific forms of opening up and economic reform being used to develop the SEZs. The existence of policy distortions and market imperfections suggest that some of the developments may represent a wasteful misallocation of resources. Some of the development may well have taken place in any case in response to the opening up and economic reform in general, as previously prohibited activities were allowed. The question is, how much of the development is based on comparative advantage and accurately reflects the locational advantages of the SEZs, and how much represents an inefficient use of resources, attracted by the rents created by the distortions and imperfections.

When assessing the significance of the SEZs it is also necessary to keep in mind their laboratory function. Not all experiments succeed and the costs of any failures should be put down to the national reform process and not directly against the internal benefits of the SEZs. On the other hand, benefits accruing in the hinterland as a result of policies successfully tested in the SEZs and transferred "over the bridge" should also be taken into account.

There are two sources of misallocation inducing distortion. The first is the intentional distortion, the preferential policies intended to attract investment, but which in some cases may be redundant and only result in misallocation. The second is the interface of the two economic management systems, the socialist and the market, which generates rents which attract rent seeking activities.

The logic of incentive policies derives from two arguments. The first is the classic infant industry, or infant economy, argument. The second is the level playing field argument, according to which China has to offer incentives to potential investors similar to those available in countries competing for the attention of those investors. The first is used to justify tax holidays and reduced tax rates and also discounted input prices. The second is also used to justify these cost reducing incentives, but in addition it is used to justify their continuation well

beyond the time at which the steep part of the slope of the learning curve peters out. The level playing field argument is also used to justify the extension of the incentives to Chinese enterprises investing in the SEZs.

For some foreign companies the tax incentives are redundant because of double taxation agreements between their home countries and China. For others they are redundant because just as they avoid and evade taxes in their home countries, they will also seek to avoid and evade taxes in China. In addition, for many of the labor-intensive, low-skill, industries which represent the majority of enterprises set up in the SEZs there are no significant learning curves; factoring set up costs into the investment decision would have little impact. As far as Chinese enterprises are concerned the incentives are unlikely to encourage any significant increase in total investment, they will only distort the locational distribution of that investment. The opportunity cost of investing in the hinterland is artificially increased and as a result some factors of production are inefficiently moved to the SEZs, drawn by the incentives rather than by economic logic. Trickle up rather than trickle down is at play as capital, skilled labor and management talent move to the zones out of the hinterland, attracted by the artificially high returns. Food and raw materials are also attracted into the SEZs out of the hinterland, by the higher prices they can obtain there in the uncontrolled markets.

The interface between the socialist and market economic management systems is also a source of resource misallocation because of the rents it generates. The socialist economic management system in China, despite the years of opening up and economic reform, is still characterized by extensive de jure and de facto controls. The dominance of controls over the movement and use of factors of production has already been noted. Rents created by the restrictions on the movement of labor and the artificially low price of capital and land attract rent seeking activities. Those enterprises and individuals with the best connections, or *guanxi*, are the most successful at capturing these rents rather than the individuals and enterprises which are most likely to use the resources efficiently.

Despite access to the distortion rents it is still estimated that one third of state enterprises in the SEZs are loss making and only sustained by access to continual injections of cheap finance by the banking system. Others survive, or increase their profits, by forming joint ventures with mainland Chinese companies operating in Hong Kong, sometimes even set up by themselves in order to gain access to the privileges available to FFEs.

To these economic costs must be added the social costs of illegal activities encouraged by the freer, more flexible, environment which prevails in the SEZs. Smuggling, fraud and theft are all allegedly growth industries in the SEZs, attracted by the greater market determined rewards and also by the greater range of goods and assets on which to spend them.

It is difficult, if not impossible, to quantify the these costs associated with SEZ development. Similarly, it is difficult to quantify the benefits to the national economy of the foreign investment which has taken place in the hinterland after having successfully tested the water in the SEZs, or the benefits from the adoption of policies on a national basis after they have been successfully experimented with in the SEZs. The acceptance of foreign investment at all was one of those experiments, but, as we have seen, there are many more: the adoption of competitive bidding for construction contracts; improved access to foreign exchange via swap markets; the development of a private housing market; moves towards a centrally organized social security system; the joint stock company system with associated stock markets and stock

exchanges; and the establishment of foreign banks. All of these policy innovations were first introduced into the SEZs and later crossed the bridge into the hinterland. The other major innovation to cross over was the zone approach itself, according to which preferential policies are restricted to specific areas, such as the ETDZs, the Science Parks, the Pudong Development Area, and the northern border towns. The "zone with a zone" approach has also crossed over, with specialized zones being set up within the Pudong Development Area.

D. ACHIEVEMENTS: THE DATA

The Zones

The original Special Economic Zone was Shekou Industrial Zone, but as we have seen this was quite quickly incorporated into the larger Shenzhen Special Economic Zone, although as we have also seen it continued to benefit from special privileges. The two other original zones in Guangdong Province also expanded the areas they cover, as Table 1 shows. The small original area of the fourth SEZ to be founded, Xiamen in Fujian Province was also expanded and now covers the whole of Xiamen island and parts of the neighboring mainland. Proposals are in hand for a further expansion of all four zones. The fifth SEZ, Hainan island was part of Guangdong Province when it was set up in April 1988, but it was quickly given Province status, in August 1988.

Table 1: BASIC DATA

	Shenzhen	Shantou /a	Zhuhai	Xiamen	Hainan
Original size (km ²)	327.5	6.8	1.6	2.5	34,000
Current size (km ²)	327.5	234	23.4	130.0	34,000
Population (10,000)	100.98	826	85.64	37.0	639.0

/a Data on Shantou from L.C. Reardon, "The SEZS Come of Age."

Source: The *China Review*, November/December 1991.

The whole of Hainan island was established as an SEZ but the provincial government there has followed a policy of establishing zones within the zone, partly on an industrial estate type basis and partly on a specialized basis such as the tourist development area at Sanya, the free trade area at Yangpu and the zone in Haikou which is restricted to investors from Macao and Hong Kong. This zones within zones approach has also been followed by the other SEZs, especially the larger zones in Shenzhen and Xiamen. All five include farmland where investors have been invited to develop commercial agriculture. All five have also developed a tourism industry and a residential housing market aimed primarily at overseas Chinese, especially compatriots in Taiwan, Macao and Hong Kong and residents of Singapore. Indeed, the locations of three of the original zones were determined by proximity to these Chinese communities, Shenzhen being contiguous to Hong Kong, Zhuhai to Macao, Xiamen the closest mainland town to Taiwan (and one with many connection with people on that island).

Shantou was selected because of its extensive links with overseas Chinese communities, particularly in Indonesia and Singapore. Hainan is also close to Hong Kong, but is also easily accessible from Taiwan and Singapore, and also Japan. All five SEZs are in the south eastern coastal area in which the opening up and economic reform program has been emphasized.

Investment

The bulk of the investment in the zones comes from China itself. As Table 2 shows, in the four mainland zones investment in capital construction, including infrastructure,

Table 2: INVESTMENT

	Shenzhen	Shantou	Zhuhai	Xiamen	Hainan
<i>Total Investment in Capital Construction in 1990 (Y billion)</i>	4.943	0.68	1.099	0.468	2.2
<i>Foreign Funds Used (\$ billion)</i>	0.51	0.084	0.108	0.073	0.075
<i>Total number of enterprises established (no.)</i>	1,632	1,082	795	746	n.a.
<i>in 1990 (Y million) /a</i>	14,690	5,825	4,146	7,247	n.a.
<i>of which: Foreign funded</i>	945	226	194	171	n.a.
	10,028	1,786	1,873	1,099	n.a.
<i>State and collective Enterprises</i>	1,252	615	390	461	n.a.
	4,112	4,039	2,273	3,632	n.a.
<i>Others /b</i>	13	241	211	125	n.a.
	28	-	-	1,809	n.a.

/a Millions of yuan committed.

/b Others included joint ventures between SOEs and collectively owned enterprises (COEs), and between SOE with private entrepreneurs and private enterprises.

Sources: *Beijing Review*, April 8, 1991.

has been financed mainly from Chinese sources. In recent years the bulk has come from local government out of locally raised taxes, much also coming from reinvested profits and bank loans. Support from the central and provincial governments was limited to the early years, although with an as yet much lower tax and banking base, Hainan continues to depend on subventions from the center, through the planning system. In the case of Hainan especially, but

also the other four, funding for infrastructure development has also been obtained from the international financial institutions and bilateral donors, although details are not available.

In addition to the investment in infrastructure, Chinese funds are also invested in enterprises in all three sectors, primary, secondary and tertiary Chinese state enterprises and collective enterprises are the dominant form of enterprise in all five SEZ (Table 2). These data underestimate the proportion of Chinese funds in the total as in addition to the wholly owned state and collective enterprises and domestic joint ventures, there is considerable Chinese funding in the figures for investment in joint-venture and cooperative FFEs. It is also now, accepted, but difficult to document, that some of the so called foreign investment in joint-venture FFEs is actually Chinese, coming into China from Chinese-owned enterprises abroad, especially in Hong Kong. Some of this is perfectly legal, the Chinese enterprise abroad being well established banks or other enterprises. Some, however, are reputedly firms established abroad illegally with the purpose of building up foreign exchange balances, partly with the intention of funding joint ventures back in China in order to benefit from preferential treatment, in particular lower taxes. It is difficult to quantify such flows, but their existence should be born in mind when assessing gross flows. The other data problem is that much of the "investment" made by Chinese partners takes the form of bank loans, about 90 percent of their total investment in Shenzhen being financed in this way, according to local officials.

Table 3 shows that wholly foreign-owned FFEs have become a significant factor in the opening up process. In the early years of opening up there were very few such

Table 3: FOREIGN DIRECT INVESTMENT BY TYPE OF ENTERPRISE

	Shenzhen	Shantou	Zhuhai	Xiamen
Total fund used (1990) (\$ million)	349	61	55	73
<i>of which:</i>				
Joint ventures	260	8	10	13
Joint cooperation	30	14	16	4
Wholly foreign-owned	59	39	30	36

Source: Mission interviews.

enterprises, partly because of an unwillingness on the Chinese side to accept them and partly due to caution on the part of foreign investors. They now account for a significant share of total investment.

Xiamen differs from the other SEZs in that it already had a significant state enterprises based industrial sector when it became a SEZ. So in addition to encouraging new investment Xiamen Municipality is also encouraging investment aimed at rehabilitating and technologically upgrading these enterprises. This included inviting foreign investors to take over individual production lines.

As Table 4 shows, most of the foreign investors come, and most of the foreign investment comes, from Hong Kong and Macao, and Taiwan, with Hong Kong dominating in

Table 4: SOURCE OF FOREIGN INVESTMENT, 1990

	Shenzhen	Shantou	Zhuhai	Xiamen	Hainan
Contracts Approved (1990)	796	n.a.	375	262	261
<i>of which:</i>					
Hong Kong/Macao	699	n.a.	326	86	n.a.
Taiwan	45	n.a.	28	147	n.a.
Singapore	5	n.a.	2	3	n.a.
Japan	-	n.a.	4	7	n.a.
Foreign investment agreed in above contracts (\$ million)	693	n.a.	89/a	485	162
<i>of which:</i>					
Hong Kong/Macao	n.a.	n.a.	64	139	93
Taiwan	n.a.	n.a.	4	221	6
Singapore	n.a.	n.a.	3	8	1
Japan	n.a.	n.a.	8	8	67

/a Data relates to funds utilized, not committed.

Source: Mission interviews.

four of the five SEZs, the exception being Xiamen where Taiwan is the main player. Much of this investment is in processing and assembly and tertiary sector activities, and the average investment is lower than the average. Investment has been growing rapidly in recent years.

Sectoral Disposition

Leaving aside the government financed investment in infrastructure and social investment, there have been three waves in the sectoral disposition of investment in the SEZs. The initial emphasis was in the primary (agriculture and aquaculture) and tertiary (construction) sectors. The shift was then to the manufacturing sector, while more recently the tertiary sector has regained prominence (Table 5).

Contrary to the hopes of central and local governments, there is very little investment in high-tech industry in the manufacturing sector. There is no data which allows us to scientifically categorize firms by level of technology, but the large proportion of firms which are involved in simple processing and assembling activities, simple labor-intensive production, or are predominantly involved in trading activities suggests that low-tech is dominant. Many high-tech products are produced in the zones, sometimes with high-tech equipment, but that

Table 5: SECTORAL ALLOCATION OF FOREIGN INVESTMENT, 1990

	Shenzhen
<i>Foreign Investment Agreed (\$ million)</i>	
Agriculture, forestry, husbandry & fishery	1
Industry	559
Construction	1
Communication	4
Trade & Catering	52
Housing and resident services & public utilities	38

Source: Mission interviews.

actual processes which are carried out are only low—tech processes. Many enterprises are simply screwdriver factories. A factory in Xiamen "producing" state of the art video recorders is a good example. All of the inputs are imported, including the labelling and packaging, (which is carefully designed to suggest that the recorders are imported as finished items), and the only processes which take place in the factory are assembly, testing and packaging. The imported testing equipment is high-tech.

Production

Table 6 shows what all the investment has resulted in. Gross output in the zones has increased rapidly, as suggested in the Table. The growth rates remain high, the gross output

Table 6: OUTPUT IN THE ZONES

	Shenzhen	Shantou	Zhuhai	Xiamen
<i>Output in 1990, Y billion</i> (Overseas Prices)				
Primary	0.78	0.20	0.37	0.28
Secondary	6.68	1.59	1.33	2.42
Tertiary	6.04	1.13	1.47	1.67
GDP Total, 1990	13.50	2.92	3.17	4.34
1991	17.40	n.a.	n.a.	6.25
GNP 1980	0.27	n.a.	0.24	0.64

Sources: *People's Daily* (Overseas Edition), February 17, 1992, and mission interviews.

of the three zones for which data is available for 1990 and 1991, Shenzhen, Xiamen and Hainan, show annual rates of increase of 29 percent, 44 percent and 15 percent respectively.

Foreign Trade

Table 7 shows that the four mainland zones for which relevant data is available have seen a remarkable growth in exports since the early years of their foundation, even though

Table 7: EXPORTS FROM SEZs

	Shenzhen	Shantou	Zhuhai	Xiamen	Hainan
<i>Current Prices (\$100 million)</i>					
1981	0.17	2.72	2.22	1.41	
1989	0.78	2.99	3.65	-	-
1990	29.96	4.19	4.56	7.82	4.71
1991	59.90	8.20	11.10	12.70	-
<i>Sectoral Breakdown for 1990</i>					
Agriculture	3.47	0.18	0.73	n.a.	-
Industry	24.57	n.a.	2.92	5.20	-
Tertiary	1.92	n.a.	n.a.	n.a.	-
<i>Exports by foreign-funded enterprises in 1990</i>					
(\$100 million)	16.62	1.74	1.91	2.36	-
8 or % of 2	55%	42%	42%	30%	-
<i>Exports carried out by municipal FTCs</i>					
	11.30	n.a.	2.17	3.92	1.39/a

/a Provincial FTC.

Source: *People's Daily* (Overseas Edition), February 17, 1992, and mission interviews.

the incomparability and incompleteness of the data do not allow accurate rates to be calculated. The most rapid rates have been in the most recent years, as the foreign investment has grown and matured. Table 7 also show that FFEs now play a major role in the export performance of the SEZs, although it is still a little smaller than the share accounted for by the Foreign Trade Corporations owned by the Special Economic Zone authorities themselves, except in Shenzhen where FFEs now dominate exporting.

As Table 8 shows, Hong Kong is by far the most important destination for the exports of the Special Economic Zones, with the exception of Xiamen where it accounts for less than a third. In the other four it accounts for more than three quarters. Some of this trade is

Table 8: DESTINATION OF EXPORTS FROM SEZS

	Shenzhen	Shantou	Zhuhai	Xiamen	Hainan
Hong Kong	85.07	86.79	n.a.	30.20	79.83
USA	3.17	1.47	n.a.	6.10	2.45
Singapore	1.39	2.80	n.a.	2.47	0.77
Japan	1.32	6.09	n.a.	11.33	7.08
Germany	0.48	n.a.	n.a.	10.45	1.38
Russia	n.a.	0.54	n.a.	n.a.	0.77
Thailand	n.a.	n.a.	n.a.	n.a.	1.45

Source: Mission interviews.

entrepot trade, being reexported from Hong Kong, but inadequate data do not allow us to put a reliable estimate on how much this accounts for.

It should be borne in mind when interpreting SEZ trade data is that it not only includes exports produced in the zones but also exports made on behalf of inland provinces on an agency basis. The data on this trade is difficult to come by, but that which is available suggests that almost 30 percent of the exports of Shenzhen is such agency trade, while the figure for Xiamen is even higher at 42.1 percent. This is an important point when trying to assess the balance of payments position of the zones.

E. CONCLUSIONS AND RECOMMENDATIONS

The Special Economic Zones have played an important role in China's opening up and economic reform process. They have been windows for the Chinese to see into the outside world which was for so long closed for them and for foreigners to see into China, for most a totally unknown quantity. The SEZs have also been important bridges over which foreign capital, technology, goods, managers and ideas have crossed into the hinterland and over which the products of the hinterland have access to world markets. They have been important economic laboratories in which some of the features of western capitalism could be experimented with and when found appropriate to Chinese conditions allowed to cross the bridge into the hinterland. Some of the remarkable growth in China's income and trade since 1979 can be attributed to the lessons learnt from looking through the window and from learning from the experiments carried out in the SEZs. Now, as pressure to create zones of various kinds mounts across the country, is a good time to assess to roles of the SEZs and to decide that future roles they could usefully be asked to play.

The hinterland no longer needs SEZs as windows to the outside world nor does it need bridges connecting to them. As more of the country is opened up, as more foreign investors settle in the hinterland, as access to television expands, and as more Chinese travel abroad there is no need for special windows. And as other open cities develop connections with the outside world and as their infrastructure develops, especially in Guangzhou, Shanghai and Tianjin, and as the time for Hong Kong's reintegration into China fast approaches resources and

knowledge can flow directly into and out of the hinterland without the need for special arrangements with the SEZs.

The role that SEZs must continue to play is that of economic laboratories. Experiments with market mechanisms are still in a very early stage and much remains to be done. As long as there is fear and political resistance to the introduction of market practices into China and as long as much of the hinterland remains bound up in a centrally controlled economic management system, then the SEZs will have an important role to play as locations where experiments are accepted and where conditions are more likely to ensure that the experiments can be carried out meaningfully.

The distortions we have drawn attention to are the result of incomplete experiments. Partial removal of barriers to market mechanisms may well have dramatic effects, but this does not mean that the changes are efficient, or even represent a welfare gain. The steps along the path of liberalization in the SEZs have been based on misconceptions as to the nature of markets, they have allowed remaining distortions in the system to become more profound in their impact, and have unfortunately created groups with vested interests in the partially reformed system.

It is widely believed in China that creating a situation in which prices can be freely determined by the participants in the exchange process represents the introduction of western style markets. However, the price formation process itself is only part of the market process, and a relatively unimportant one on its own. Of much more importance is the determination of access to the market and the establishment of working rules and regulations for participants in the market. All of the markets which have been created in China, even in the SEZs, are limited access markets and have not had rules and regulations established adequate to prevent the abuse of market power. The result is that the markets which exist simply create rents for those with access to them and participants with power ensure that those rents accrue to themselves. People with good *guanxi* are able to award themselves or their connections privileged access to markets and thus ensure that the rewards of the market do not necessarily accrue to those who can make the most contribution to it. We have seen some examples of this in this paper: the distribution of trade quotas and licenses, the allocation of land use rights, the granting of residency rights (with, for example, the associated privileged access to private housing markets for speculative purposes), the allocation of bank credit, and access to supplies of intermediate producer goods.

The possibility of market failure and the abuse of market power are fully appreciated in the west. Many forms of regulatory mechanisms have been devised over many years to help overcome them. An important new role for the Special Economic Zones would be to experiment with the introduction of such checks and balances. The System Reform Commission could be asked to develop a program along these lines in cooperation with the Special Economic Zone authorities. Many experiments will need to be introduced, covering codes of practice in various markets, backed up where necessary with the force of law, which itself would involve an experimental introduction of an independent judiciary. Among the innovations needed are laws to protect consumers and workers rights, to require enterprises to be subjected to audit and to make full and public disclosure of their accounts and the interest of their directors, and antimonopoly legislation and fair trading laws with associated watch-dog bodies and ombudsmen. In some cases what is needed is the political will to ensure that existing laws are provided with the necessary enforcement mechanisms to ensure their effective implementation, one example being the bankruptcy laws.

One of the main problems with the development of markets in China is the lack of a cohort of Chinese citizens with knowledge of how markets operate. In particular, there is a lack of awareness of the importance of regulations. Much more attention needs to be given to the training of market operators, perhaps in new colleges established in the SEZs. In the meantime, and while such trainees gain experience, much more reliance will have to be placed on foreign investors with the necessary experience, possibly on management contract arrangements. A major step forward would be the acceptance of more widespread foreign involvement in the commercial infrastructure of development. Experiments allowing foreign banks into the domestic currency market in the zones are believed to be at the planning stage. The coverage of this experiment should be expanded to include, not only foreign retailers, as has been done in some cities, but also travel agents, estate agents, labor recruitment agencies, freight and forward agencies, and insurance companies. The potential benefits from expanding competition in these markets in this way are enormous, certainly far in excess of the benefits of the existing experiments with fast food outlets—although they have established that the principle is politically acceptable. The additional benefits from the inflow of capital and know-how would be pure externalities.

Another important reform which could be introduced to improve the efficiency with which the SEZs operate would be for the government to remove as many as possible of the policy distortions for which it is currently responsible. The most important measure here would be the removal of tax and other incentives given to firms which invest in the SEZs. Firms should be encouraged to locate where it makes most economic sense and their decisions should not be distorted with tax breaks. Support for locations on regional development grounds can be effected by intergovernmental transfers, such as those already in place. As a minimum, the preferential tax treatment which induces Chinese state enterprises to locate in the SEZs should be abolished, but better still would be the adoption of a standard national corporation tax. Serious foreign investors will not be affected by this due to the existence of tax sparing arrangements in most western countries; others who would complain because it interferes with their tax avoidance and evasion practices will find other ways to avoid and evade taxes. The 50 percent reduction in import duties for imports sold in the SEZs, and for locally produced goods, should also be abolished. All other incentives which induce enterprises and individuals to locate in the SEZs for artificial reasons should be abolished. Only firms for which the SEZs are efficient locations would then be attracted. For these firms there is still a great deal of scope for support through the removal of obstacles to their efficient operation: freedom from production controls and reduction of bureaucratic procedures, simpler import/export procedures plus the continuation of the existing effective duty drawback system, and secure access to utilities and infrastructure are among the more important ones.

Finally, plans to increase the number of SEZs should be resisted, although the de facto SEZ nature of the Pudong Development Area in Shanghai should be formally recognized. The new SEZs being mooted for such places as Lhasa and Tumen should be resisted. They do not have any locational attractions for the role of economic laboratories. Similarly, proposals to develop Hainan, Shenzhen and Xiamen as freeports should be resisted, at least until they have demonstrated that they have developed the necessary administrative and enforcement mechanisms for managing the rules and regulations needed to sustain a more efficient market based economic management system.

ECONOMIC ZONES IN CHINA: A TAXONOMY

A. THE ZONES ZOO

The original motive for establishing economic zones in China, in Shekou and the four pioneering Special Economic Zones, was to geographically restrict activities for which there was strong political opposition. Later, as opposition to foreign involvement in the Chinese economy became muted, the logic of the zones came closer to that of export processing zones in other countries: the geographical restriction of more liberal economic policies than the government is prepared to see apply in the whole of the economy. The muting of opposition to foreign involvement in the economy led to the establishment of open coastal cities, open deltas and peninsulas, and most recently open border towns and areas, including Tibet. "Open" simply means that economic activities involving foreigners are permitted; the policy frame within which firms in open areas operate are nationally defined, available to any firm operating in an open area. In addition to the Special Economic Zones and open areas China has also established other forms of economic zone, in some cases simply to reap industrial estate type agglomeration economies—the economies of scale of infrastructure or the external economies of common specialized services. In other cases the intention is simply to restrict the application of preferential policies. In terms of national policy, the Economic and Technological Development Zones (ETDZs) and the Science Parks are examples of the first type of zone and the Free Trade Areas and Export Processing Zones examples of the latter. While the application of national taxation across the zones is common, using their delegated powers local authorities can vary the benefits of operating in the zones under their jurisdiction, for example by varying local taxes, land use charges and charges for utilities and infrastructure. In some cases the application of national commercial policies is modified between the different type of zone. A brief readers guide to the different type of zone follows.

Special Economic Zones (SEZ)

There are five SEZs: Shenzhen, Shantou, Zhuhai in Guangdong Province, Xiamen in Fujian Province, and Hainan itself a province, carved out of Guangdong in 1988. The main distinguishing feature between the SEZ and other types of zone is that they are more or less coterminous with levels of local government, municipal in the case of the first four and provincial in the case of Hainan. In addition to the local administrative authority Hainan and Shenzhen have powers to make laws (as long as they are consistent with national laws) and all are separate planning entities—i.e., they are directly linked to the national plan and not through the provincial plan (except in Hainan, where they are the same). In the four municipal cases, the local government area is larger than that designated as SEZ so that the governments have to manage SEZ policies and non-SEZ policies in the same jurisdiction. The SEZ areas, including all of Hainan, are separate customs areas and all movements of goods into and out of the zones are subject to license or administrative approval, although most imports are eligible for preferential treatment. For export oriented, "high-tech" and foreign-funded enterprises the

preferential customs and tax treatment is now the same that such enterprises receive elsewhere in China, except that imported goods sold in the SEZs are allowed a 50 percent reduction in tariffs, and as from early 1992 imports into Shenzhen are only subjected to *ex post* approval by customs. The two main operational features of the SEZs which distinguish them from other zones in China are the greater freedom for enterprises to manage their firms' activities and the encouragement given by the central government to the SEZ authorities to experiment with economic and social policy.

Free Trade Areas (FTA)

Free trade areas are a relatively recent innovation in China. Three are now operating, or expected to come into operation in 1992: The Waigaoqiao Free Trade Area in the Pudong Development District of Shanghai; the Tianjin Harbour Free Trade Zone in Tianjin; and the Futian Free Trade Area in Shenzhen. In the Spring of 1992 the State Council approved the establishment of the Yangpu Free Trade Area in Hainan. The Yangpu zone in a special case in itself in that the right to exploit it has been leased to a foreign company (the only precedent for this being Shekou, but in that case the foreign company is owned by the Chinese Government while in the case of Yangpu it is a Japanese/Hong Kong joint venture). Candidates for early approval by the State Council for free trade area status are zones in Dalian, and Guangzhou. Proposals are also before the State Council, or are expected to arrive there soon, from the authorities in Hainan (the Jingpan zone), the SEZs of Xiamen, Shantou, and Zhuhai, the municipalities of Yantai and Qingdao in Shandong Province and Ningbo Zhejiang Province. As understood in China, a Free Trade Area is a fenced off zone where imports and exports can be made freely without any tariffs, duties or taxes being imposed as long as the products are not sold into the domestic market in which case all domestic impositions are payable. Enterprises, including foreign funded enterprises, are allowed to establish trading firms and bonded entrepot activities as well as export oriented export production units. Beyond these basic principles the administration of the FTAs can reflect local conditions, for example the Waigaoqiao zone prohibits residential development and retail trade while the Futian FTA allows both.

Export Processing Zones (EPZ)

Only two zones designated as EPZs are currently established in China: the Jinqiao Export Processing Zone in Pudong and the Shataojiao in Shenzhen. They are similar to Free Trade Areas except that permitted activities are restricted to production activities, trading and other commercial activities being prohibited. Shataojiao is a fenced, bonded zone with a strong emphasis on foreign investment and on export orientation, with a bridge directly linking it to Hong Kong. Jinqiao on the other hand is an unfenced zone with individual factories being bonded and there is less emphasis on both foreign investment and export orientation.

Financial and Trade Zones

There is as yet only one Financial and Trade Zone, the Lujiazui zone in Pudong, Shanghai. This zone is intended to rebuild Shanghai's status as a regional financial and commercial center. Wholly foreign owned and joint venture banks, finance companies, insurance companies and trading companies are to be established there. The first foreign funded enterprise involved in the retail trade (other than boutique shops in hotels) in China is being built in this zone. This is a joint venture between Shanghai's No. 1 Department Store and the Yaohan International Company of Japan. Directly across the Huangpu River from the Bund, the zone

will have office blocks and the tallest TV tower in Asia dominating the new Shanghai skyline. Existing facilities such as the stock exchange and futures markets will move there as facilities are developed.

Pudong Development Area

In his Spring Wind speeches in South China in 1992 Deng Xiao Ping referred to the failure to include Shanghai as one of the centers of opening up to the outside world, along with the Special Economic Zones, as a mistake. The mistake was partly economic in that it failed to take advantage of Shanghai's comparative advantage. In an attempt to correct the mistake and allow Shanghai to catch up with the south, the State Council began, in 1990, to extend preferential policies to Shanghai to encourage the opening up and reform process there. One part of the new initiative is the development of a 350 km² area of land across the Huangpu from the old Puxi area of Shanghai and between the Huangpu and Yangtze rivers. It is a massive development plan, the first phase alone, covering the five years from 1990 to 1995 is estimated to cost Y 10 billion; of this only about 40 percent has been raised so far. As much of the land was farm land, the bill for turning it into an international city, complete with roads, bridges, tunnels, airport and all utilities will be enormous. It is the single most ambitious development project in China today. So far most of the investments are by Chinese companies and local governments, with increasing signs of large-scale involvement of foreign enterprises. Apart from the specific arrangements for the Waigaoqiao Free Trade Area all of the preferential policies available in Pudong are also available in the rest of Shanghai, and foreign investors have so far demonstrated a preference for locating there, especially in the Minhang, Caohejing and Hongqiao ETDZs. Initial development in Pudong is concentrated on the three specialized zones of Waigaoqiao, Jinqiao and Lujiazui.

Economic and Technological Development Zones (ETDZs)

The ETDZs were originally restricted to the 14 Open Coastal Cities, although initially Wenzhou and Beihei were not included in the list of those permitted to establish an ETDZ. The original list of 14 ETDZs, approved by the State Council in 1984 and 1985, included the three in Shanghai. Subsequently, as the "Opening Up" process has spread inland many more cities and towns have established, with and without State Council approval, what they call ETDZ in which the same policies apply, sometimes on a more favorable basis than in the original 14. The most recent additions to the list, which is now estimated to include more than 200 sites, include Nansha in Guangzhou, Shenyang in Liaoning, and Guiyang in Guizhou. In 1992 Wenzhou, one of the original 14, was granted permission by the State Council to establish an ETDZ.

High Technology Development Zones (Science Parks)

As with the ETDZ, High Technology Development Zones (HTDZs) can be set up by any authority and national policies applied to firms investing there. And as with the ETDZ many local governments have done so, and again there is no definitive list of all such zones in operation. By the middle of 1991, 27 HTDZs had received approval from the State Council. One, Caohejing New Technology Development Zone in Shanghai is counted both as one of the 27 HTDZs and one of the 15 official ETDZ.

B. ZONES WITHIN ZONES

All of the Special Economic Zones have developed subzones within their jurisdictions. In some cases they are simply industrial estates where land clearing efforts and utility provision have been concentrated, such as the Huli District in Xiamen and the Jingpan zone in Haikou, Hainan. In at least the three largest zones, Shenzhen, Hainan, and Pudong, specialized zones have also been developed. In Shenzhen, apart from the unique Shekou Industrial Development Area there is also eight subzones including a science park (a second one is planned), one free trade area and one export processing zone. Hainan has five development zones: Haikou Economic Zone based on Haikou Port, concentrating on light and tertiary industries; Sanya Development Zone which will concentrate on tourism; Yangpu, a free trade area with mixed industrial development and also tourism and services; Qinglan Development Zone, based on agriculture and food processing; and Bashu Development Zone based on mineral exploitation, refining and smelting and metal working. The three zones of Pudong, Waigaoqiao Free Trade Zone, Jinqiao Export Processing Zone and Liujiazui Financial and Trade Zone, have already been described. The smaller SEZs also have specialized subzones, such as the export oriented agricultural district in Zhuhai and the Longhu, Zhuchi and Donghu industrial districts in Shantou. All of the SEZs also have areas being developed as tourist spot and districts for the development of apartments and villas for overseas Chinese. Zhuhai also has plans to develop a Formula 1 racetrack.

C. THE POLICY PACKAGE

The Chinese Government is in the process of moving away from a system of regional variations in economic incentives, particularly those which have favored the coastal provinces. The move is towards sectoral incentives regardless of location. The process, however, is not yet complete.

The 1991 revisions to the foreign exchange retention system removed all geographic differential except two: all foreign exchange earned by Tibet enterprises can be kept within that province and all newly generated foreign exchange in ETDZ can be retained by the local authorities in the first five years of the zones' establishment. Apart from a small number of exceptions, the general rate for the share of foreign exchange earnings which does not have to be remitted to the central authorities is now 50 percent, in the form of foreign exchange for foreign-funded enterprises and foreign exchange quotas for Chinese enterprises with direct trading rights. Of the 50 percent transmitted to the government 30 percent is at the official rate and 20 percent at the swap rate.

Preferential tax rates do exist in the zones, but these are the same in the SEZs, the ETDZs, HTDZs and Pudong. All foreign-funded enterprises outside of the zones pay 33 percent after their tax holidays expire, while in the zones all enterprises pay 15 percent. The rate of 55 percent for Chinese enterprises not in the zones is in the process of being reduced to 33 percent. For these enterprises, the "dividend" collected by the owners is at least in some cases being adjusted so that the total "take" remains at 55 percent. Foreign-invested manufacturing enterprises in all zones are exempt from taxes for the first two profit making years and pay tax at a 50 percent reduced rate for a further three. In the SEZs only, service sector enterprises with foreign investment are tax exempt for the first profit making year followed by two years at 50 percent. And foreign banks in the SEZ and Pudong, but not the ETDZ, also have one year exemption and two years at 50 percent, but only if their capital

exceeds \$10 million. All foreign firms are exempt from profits tax on those profits which are remitted abroad. To be eligible for any of these exemptions and reductions the investment involved must be for a contracted period of at least 10 years.

Additional exemptions and/or reductions are available to foreign funded enterprises in all zones if they introduce high technology production processes, if they export more than 70 percent of their production, or if they are investing in infrastructure facilities.

In addition to the exemptions and reductions of profits (or business) tax, there are also exemptions and reductions of other taxes, mainly local taxes. Apart from total exemption for foreign-funded enterprises and refunds for other enterprises of value-added tax or its equivalent, the rates of local taxes which apply vary from zone to zone, often being negotiated on an individual enterprise basis. Duty drawback is, however, payable on exports from all zones, and all zones exempt most firms from property taxes.

The treatment of imports and exports does not vary according to whether a firm is located in a SEZ or other form of zone. No tariffs are charged on any item imported or exported by firms in the zones for use in production, although imports which companies sell in the SEZs for local consumption attract 50 percent of the listed duty. Such sales are not allowed in the other types of zone. Export duties are not levied on products imported into any type of zone and then reexported with at least 20 percent value-added having been added by processing in the zones.

Other forms of preferential treatment which used to be restricted to the SEZ are also now available in other zones and open coastal areas. Land use rights can be assigned, sold and transferred for periods up to 70 years in all zones. Priority access to lending from Chinese banks is also now available to all foreign funded enterprises in all types of zone.

D. CONCLUSIONS

In sum, compared to other types of zones, the Special Economic Zones are no longer so special as far as preferential policy treatment for enterprises located there is concerned. Equally, the reduction in (although not absence of) planning control and in other forms of government interference which is claimed as an important benefit by all types of enterprise in the Special Economic Zones, is also found in other zones such as the ETDZs and in Pudong.

The SEZs would become "special" again in policy terms if the current pressure to have them designated as free ports, or at least free trade zones was to be accepted as part of a strategy to develop several "Socialist Hong Kongs." The SEZs have argued they are such Hong Kongs, though in the germ, and that allowing them to become free ports would enable to compete with Hong Kong on a level playing field. At the moment there is no freedom of movement of goods, services or factors of production into and out of the SEZs, except on a limited basis into the Free Trade Areas. All such movements are subject to control or approval. In a free port all movements into and out of the port are free from any restriction (apart from the usual run of basic prohibitions such as drugs and felons) or fiscal imposition. Enterprises allowed to establish in such free ports would be free to source raw materials, labor and capital requirement from the cheapest source available and be able to sell in the highest priced market available.

Even to turn the Special Economic Zones into Free Trade Areas, in which there was freedom of movement only of goods, would be a major change and make them more attractive as offshore production centers, competing more equally with Hong Kong and the export processing zones; allowing free movement of capital would enhance that status. But in both cases the administrative problems associated with policing the borders in order to ensure that movements of goods and capital from the zones into the mainland were subject to domestic commercial policy and capital controls would be a major undertaking fraught with difficulties. Smuggling is already a major problem. With unrestricted movement of duty free goods into the zones, the lack of an enforceable barrier between the customs zones would be certain to increase the severity of the problem. Free movement of people, the other requirement of a free port is unlikely to be acceptable to the present government of China for the foreseeable future. The limited openness of Hainan, where foreigners can be granted visas at the border for two weeks, renewable for a further two, led to considerable resistance, any more liberal treatment appears inconceivable. The development of the three existing and currently proposed free trade areas, particularly those in Yangpu, will provide interesting tests of the feasibility of running free trade zones in China on a limited basis, particularly with respect to movements of products into the mainland customs area.

DESCRIPTION OF THE SMART TRADE PRODUCTION MODEL USED TO SIMULATE THE EFFECTS OF A THIRTY AND FIFTY PERCENT LIBERALIZATION OF NONTARIFF BARRIERS AND TARIFFS

The Model

The model used for this report's trade liberalization projections is described in UNCTAD/World Bank (1989). It is a partial equilibrium model of the same type as that used by Cline (1978) in evaluating the Tokyo Round.^{1/} Two reduced form equations are estimated to calculate trade creation and trade diversion separately for each market at the most detailed tariff-line level.

Trade creation is the increase in imports due to lower prices as a consequence of reduced protection. Trade diversion, on the other hand, does not increase total trade, but leads to substitution among suppliers. The summation of trade creation and trade diversion gives the total trade expansion effect.

In the MFN-based liberalization analyzed in this report, exporters who previously enjoyed preferences suffer an erosion in them, while those who had no preferential access make a gain. In other words, trade is diverted toward those suppliers experiencing only MFN treatment. The preference margins of developing countries—for example, the African Caribbean, and Pacific (ACP) countries of the Lomé Convention, the Generalized System of Preferences (GSP) and other special schemes—are eroded on products where they are applied and this may dampen the gains connected with the overall MFN liberalization.

Elasticities

The key inputs to the model—besides trade flows, tariffs, preferences and the existence of nontariff barriers—are the three elasticities used. These are as follows: (a) important (price) demand elasticities, (b) supply elasticities, and (c) the cross (price) elasticities of substitution.

Import Demand Elasticities. For these, the best available estimates were used.^{2/} This was not a consistent series in terms of estimation methods and the market and

^{1/} See also IMF (1984) and Sapir and Baldwin (1983) for similar model applications. Page, Davenport and Hewitt (1991) employ a similar model for analyzing preliminary Uruguay Round results.

^{2/} See Cline (1978), Laird and Yeats (1986) and Stern (1975).

specific years they pertained to. Despite these shortcomings, they broadly reflect the differences across products and area better alternative than the use of simple assumptions.

Supply Elasticities. These were assumed to be infinite in the projections across the board. As long as increases in exports are incremental, this is a valid assumption. For large increases, especially in the case of small countries, this is obviously not realistic.

Cross-Elasticity of Substitution. This is a critical input that determines the scope of trade diversion. This elasticity was assumed to be 1.5 for all products. Estimates of this elasticity are extremely sparse, and in any case, as any estimate is specific to the product and the pairs of countries (or groups of countries) in question, there are a large number of combinations. This value was based on a survey by Cline (1978).

The Treatment of Nontariff Barriers

Various technical problems prevent direct estimation of nominal equivalents for many nontariff barriers that are applied in developed country markets. This report used several compendia, including IMF (1984) and Laird and Yeats (1990), to compile as much information as possible on the ad valorem equivalence of these measures, and these data were employed in the projects. Two points should be noted. The liberalization simulations understate the effects of nontariff barriers because only partial information on their incidence is available. Also, some of the estimates that were available may have fairly wide margins of error due to technical difficulties in deriving these data.

Time Horizon

A static model measures the effect of an exogenous change—in this case a preferential liberalization—resulting from shorter-term adjustments. These adjustments typically exclude installments of new capital and x-efficiency gains. It is customary to assume that the time horizon for these shorter-term adjustments is not much longer than one to three years.

Shortcomings of the Simulation

The following shortcomings of the simulation model used should be borne in mind while interpreting the results:

- The model is a partial equilibrium model, omitting economy-wide interactions through production factors.
- It is a static framework, excluding investment, capital accumulation, technological changes.
- Because it is a static model, it provides a shorter-term analysis.
- The crucial elasticities used are rough estimates.

In spite of these limitations, national and international organizations have widely used such models for analyzing the first round effects of a trade liberalization. The World Bank and UNCTAD have worked jointly to make the model used in this study's simulations available to developing countries in order to quantify the effects of the Uruguay Round on their own exports.

AN ASSESSMENT OF CHINA'S CHANGING REVEALED COMPARATIVE ADVANTAGE IN LABOR-INTENSIVE MANUFACTURES

The present analysis of China's export profile employs measures of a products' labor intensity that were derived by the World Bank (1992) and earlier by the United States National Bureau of Economic Research (see Lary, 1968). The analysis uses the criteria of relative value added per employee, both in the United States and other countries, to identify the degree to which products are either capital or labor intensive. Products whose value added per employee falls below the national average for all US manufacturing activity are classified as labor intensive while capital-intensive goods consists of products whose relative value added is above the US average.^{1/}

While there is a strong theoretical basis for postulating a positive relationship between labor intensity and developing countries like China's exports, there are certain products where other factors may be more important determinants of manufacturing activity. Some production processes tend to locate near areas of raw material production, particularly if transportation costs for manufacturing inputs greatly exceeds those for higher state (semi-finished or fabricated) goods. If China were not endowed with the required natural resources this could negate the positive attractive effects of high labor intensity.^{2/} In other cases, transport costs might dictate that manufacturing activity be located closer to centers of consumption. This would be the case where nominal transport costs are relatively low on production inputs, but are more important for the final manufactured good. Aside from these locational factors, there are

^{1/} The factor intensity index for industry j (L_j) is defined as follows:

$$L_j = (V_j \div N_j) / (V_t \div N_t) \times 100$$

where V_j and V_t represent value added in industry j and all United States manufacturing respectively, while N_j and N_t represent the number of workers in the industry and in all manufacturing activity. There is an inverse relation between the numeric value of the index and the labor intensity of a given product. That is, the lower the value the higher the labor intensity of the product. (See Annex Table 1). It also follows that products with very high index values are capital intensive in production. The selection of items based on value added per employee in the United States was supplemented by detailed examination of manufacturing imported by developed countries from their trading partners to see if additional products needed to be taken into account. On this basis, several items such as batteries, lamps, and miscellaneous manufactures were added to the labor intensive list since relative value added in other countries appeared below the United States average.

^{2/} Krause (1984) provides a detailed list of products which have these natural resource based production characteristics.

other reasons why a country like China may not be a major exporters of some labor-intensive products. Trade barriers in major markets can be one such important constraint. Many empirical studies have documented the restrictive effects of trade barriers developing countries often face in textiles, clothing, foodstuffs, footwear and other products. Production incentive like subsidies, procurement practices, and tax and tariff regulations may also distort trade patterns. However, in spite of these offsetting effects numerous studies have shown that labor intensity is a most useful guide for analysis of past trends and predicting the future composition of developing countries' exports (see Lary, 1968 or Yeats, 1989 for illustrative examples).

Table 1 of this annex provides a list of those manufactured products which employ labor-intensive techniques and also indicates the index value for each product.^{3/} In addition, the table also indicates China's average exports of each item over 1979-90 and 1989/90 period as well as its revealed comparative advantage (RCA) index at the two points in time. Two years of data were used for the computations in order to reduce the influence of any "unusual" factors in a single years statistics. Finally, the table also shows the 1979/80 share of each product in world trade as well as the share change that occurred over the decade. This latter information was given to indicate whether China's comparative advantage was generally in products of increasing or decreasing global importance. The results are slightly biased toward the former as 53 percent of the products in which China had a revealed comparative advantage in over 1989/90 experienced an increase in their share of world trade over the last decade.

One important point that should be noted is that in 1989/90 China had an aggregate RCA index of only 0.24 in items that were identified as capital intensive in production and this value actually fell from 0.41 in 1979/80. There were about 5 to 8 individual capital-intensive products with RCAs over one in the two periods but all were cross-classified in the "natural resource based" production group. The implications are that, for the near term, China's major export opportunities mainly lie within the labor-intensive products listed in Table 1.

^{3/} The index has been computed at two points in time (1965 and 1982) to help identify production processes that were changing from labor to capital intensive or the reverse (i.e., accounting machines (SITC 714.2), toilet articles (SITC 899.5, etc.). It could not be computed for the exact same period for which the trade data were compiled since the required production data are only compiled over irregular intervals. In general, most of the products classified in the labor intensive group in 1965 also fell in that same category in the 1980s. Due to problems in establishing a direct concordance between the SIC based production data, which were used to estimate the labor intensity indices, and the SITC system used for tabulating trade data, some labor intensity indices for the latter had to be expressed as a range. See a World Bank study (Yeats, 1989) for details concerning these computations.

Table 1: CHINA'S REVEALED COMPARATIVE ADVANTAGE IN LABOR-INTENSIVE PRODUCTS, 1979/80 AND 1989/90

SITC	Description	Labor intensity index		China's exports (\$ million)		Product's share in world trade (%)		China's revealed comparative advantage	
		1965	1982	1979/80	1989/90	1979/80	1989/90 chng.	1979/80	1989/90
032/a	Fish, tinned or prepared	93	102	49	252	.00173	.00078	1.89	0.84
052	Dried fruit	90-100/h	134	48	72	.00107	-.00050	2.87	1.07
053	Fruit preserved	90-100	116	161	406	.00431	-.00030	2.40	0.85
055/a	Vegetables preserved	90-100	116	487	1,461	.00743	-.00545	4.19	6.21
062/a	Sugar preparations	84	140	16	27	.00095	-.00031	1.07	0.29
081.4	Meat or fish meal	93-102/h	120	3	8	.00109	-.00171	0.17	0.08
099	Food preparations, nes	108	182	68	171	.00256	.00240	1.70	0.52
122.1/a	Cigars and cheroots	80	60	0	0	.00040	-.00023	0.00	0.52
243	Wood shaped	44-65/h	70	26	301	.01406	-.00760	0.12	0.28
411.1	Oil of fish or whales	102	120	0	0	.00004	-.00008	0.00	0.00
551	Essential Oils	n.a./i	n.a.	107	248	.00210	-.00065	3.26	1.44
611	Leather	80	69	42	295	.00369	-.00030	0.73	0.62
612	Leather manufactures	50-55/h	53	5	182	.00093	-.00033	0.34	1.21
613	Fur skins tanned or dressed	100	n.a.	201	121	.00122	-.00072	10.54	2.04
621	Materials of rubber	n.a./i	n.a.	14	19	.00185	-.00018	0.49	0.10
629.9	Other rubber articles, nes	76-96/h	76-96/h	5	42	.00137	.00023	0.23	0.22
631.1/a	Veneer Sheets	68	55-57	1	8	.00101	-.00036	0.06	0.11
631.2/a	Plywood	68	55-57	27	23	.00285	-.00029	0.61	0.07
631.4/a	Reconstituted wood	48-80/h	44-80	0	1	.00105	-.00012	0.00	0.00
631.8/a	Wood simply worked	44-65	55	3	55	.00121	-.00039	0.16	0.56
632	Wood manufactures, nes	48-80	44-80/h	71	534	.00327	-.00060	1.39	1.16
633	Cork manufactures	48-80	65	5	11	.00037	-.00006	0.86	0.29
642/b	Articles of paper	73-88	80-125/h	87	520	.00489	.00035	1.14	0.84
651	Textile yarn	60	49	544	2,500	.01206	-.00223	2.89	2.15
652	Cotton fabrics	60-67/h	49-51/h	1,322	3,396	.00745	-.00070	11.36	4.24
653.1	Silk fabrics	67-75	57-67	347	1,657	.00077	.00077	28.84	12.24
653.2	Woven wool fabrics	71	62	49	139	.00244	-.00103	0.24	0.83
653.3	Linen, etc. fabrics	81-87/h	57-67/h	1	293	.00013	.00019	0.46	7.72
653.4	Jute fabrics, woven	63	49	3	1	.00047	-.00038	0.40	0.00
653.5	Synthetic fabrics	67-75/h	57-67/h	351	1,479	.00754	.00414	2.98	2.16
653.6	Woven regenerated fabrics	67-75	57-67	115	445	.00163	.00058	4.52	1.70
653.7	Nonclastic knit fabrics	81-87	57-67	11	749	.00205	.00000	0.34	3.07
653.9	Woven fabrics, nes	81-87	57-67	2	22	.00222	-.00214	0.59	2.34
654	Lace, ribbons, tulle	57-85	51-68	60	219	.00113	-.00007	3.40	1.73

...continued

SITC	Description	Labor intensity index		China's exports (\$ million)		Product's share in world trade (%)		China's revealed comparative advantage	
		1965	1982	1979/80	1989/90	1979/80	1989/90 chng.	1979/80	1989/90
655/c	Special textile products	57-85/h	51-68/h	89	268	.00408	.00001	1.40	0.55
656	Textiles products, nes	57-85	51-68	974	2,489	.00389	-.00090	16.02	7.01
657	Floor covers	78-80	37-62	474	1,155	.00497	-.00156	0.39	2.85
661.3/a	Building stone worked	57	65	30	195	.00101	.00042	1.90	1.15
661.8/a	Mineral building products	84-86/h	83-86/h	2	6	.00063	-.00022	0.21	0.12
662/a	Clay refractory products	71-75	76	54	77	.00419	-.00127	0.83	0.23
663/a	Other nonmetal products	82	85	36	100	.00360	-.00068	0.64	0.29
664	Glass	139/i	128	32	280	.00387	.00007	0.30	0.60
665	Glassware	84-94/h	107	54	136	.00321	-.00052	1.08	0.43
666	Pottery	69	48-72/h	234	993	.00022	.00175	6.82	4.25
667/d	Pearls and precious stones	55-87/h	84	60	92	.00190	-.00030	2.02	0.48
678.5	Iron tube fittings	92	101	18	182	.00196	-.00054	0.59	1.07
693	Wire products	82	73	31	117	.00209	-.00057	0.95	0.65
694	Steel, copper nails, etc.	100	88	110	429	.00354	-.00047	1.99	1.18
695	Hand tools	98	102	157	712	.00627	-.00128	1.60	1.20
696	Cutlery	73	121	51	329	.00145	-.00035	2.25	2.52
697	Base metal household goods	82-99/h	79	103	556	.00331	-.00099	1.99	2.02
698.1	Locksmiths wares	90	n.a.	99	403	.00233	.00043	2.72	1.23
698.3	Iron chains and parts	91-102/h	82	22	113	.00078	-.00026	1.81	1.83
698.5	Pins, hooks, etc.	80	120	14	64	.00037	.00000	2.43	1.46
698.8	Misc. base metal goods	91-102/h	82	11	30	.00110	-.00020	0.64	0.28
698.9	Other base metal goods	91-102	82	24	226	.00418	-.00034	0.37	0.49
712/c	Agricultural machinery	100	122-124/h	10	47	.01129	-.00534	0.06	0.07
714.7	Accounting machines	89	122-134	4	541	.00197	-.00011	0.13	2.45
714.3	Statistical machines	89	122-134	0	226	.01176	.01932	0.00	0.09
714.9	Office machines, nes	89	122-134	6	419	.00746	.00433	0.05	0.30
715.1	Machine tools for metal	97-105/h	92	67	349	.00758	-.00046	0.57	0.41
715.2	Metal working machinery	97-105	92	1	6	.00208	-.00079	0.03	0.04
717.1	Textile machinery	76	76	97	183	.00664	-.00002	0.95	0.03
717.3	Sewing machines	99	71	52	116	.00162	.00013	2.06	0.65
718.1	Paper mill machinery	87	99	5	26	.00206	.00065	0.30	0.08
718.3	Food machinery	105	96	10	19	.00170	-.00007	0.38	0.10
719.2	Pumps and centrifuges	108	113	18	205	.01270	-.00023	0.09	0.14
719.5	Power tools, nes	89-103/h	80-113/h	6	65	.00487	-.00005	0.08	0.11
719.6	Nonelectric machines, nes	89-103	77-88	8	82	.00507	.00057	0.10	0.12
719.8	Other machines, nonelectric	89-103	77-88	27	124	.00918	.00256	0.18	0.09

...continued

SITC	Description	Labor intensity index		China's exports (\$ million)		Product's share in world trade (%)		China's revealed comparative advantage	
		1965	1982	1979/80	1989/90	1979/80	1989/90 chng.	1979/80	1989/90
719.91	Foundry molds, etc.	89-103/h	77-88/h	0	80	.00103	.00054	0.00	0.46
719.92	Cocks, valves, etc.	89-103	77-88	11	89	.00541	-.00023	0.13	0.14
722	Electric power machinery	72-107	95-100	94	2,103	.02374	.00102	0.25	0.72
723.2	Electric insulating equipment	80-104	72-107	9	20	.00068	-.00008	0.85	0.28
724.2	Radio receivers	98	96	43	3,591	.00585	.01521	0.47	1.43
724.9	Telecommunication equip.	95-102/h	105-120/h	26	2,335	.00147	.00048	1.13	2.73
725.03	Domestic electric goods	98	92	39	1,424	.00168	.00027	1.49	6.15
725.05	Electric space heaters	101	90	10	1,630	.00253	.00128	0.25	3.61
729.1	Batteries, accumulators	121	110	56	210	.00198	.00023	1.81	0.80
729.2	Electric lamps, bulbs	130	132	43	158	.00188	-.00018	1.46	0.78
729.3	Transistors, valves, etc.	80	95	3	196	.01451	.01272	0.01	0.06
729.4	Automotive electrical machinery	72-107/h	102	7	51	.00287	.00032	0.16	0.14
729.9	Other electrical machinery	72-107	102	33	524	.00264	.00681	0.80	0.47
731	Railway vehicles	101	100	11	143	.00283	-.00137	0.25	0.82
732.8	Motor vehicle parts	103	120	15	82	.03044	.00089	0.03	0.22
732.9	Motorcycles and parts	73-78/h	72	14	11	.00320	-.00167	0.28	0.06
733.1	Bicycles and parts	73-78	72	85	438	.00188	.00041	2.89	1.61
812.4	Lighting equipment	90	96	78	718	.00189	.00072	2.64	2.31
821	Furniture	63-74/h	48-70/h	222	1,142	.01070	.00196	1.33	0.76
831	Travel goods and handbags	46-57	48-63	150	5,230	.00289	.00132	3.32	10.46
841.1	Textile clothing not knit	42-55	36-64	1,379	15,768	.01935	.00514	4.56	5.42
841.2	Clothing accessories not knit	42-55	36-64	204	1,000	.00164	.00025	7.96	4.45
841.3	Leather clothing	39-67	43-61	246	1,576	.00171	.00112	9.20	4.68
841.4	Clothing accessories knit	42-55	36-64	597	9,658	.00695	.01009	5.50	4.77
841.5	Headgear	42-55	36-64	33	470	.00051	.00030	4.13	4.88
841.6	Rubber clothing	79-96	82	7	85	.00029	.00007	1.55	2.00
842	Fur clothing	97	90	122	264	.00144	-.00081	5.42	3.52
851	Footwear	46-63/h	46-54/h	331	5,703	.01112	.00069	1.90	4.07
861.2	Spectacles and frames	73	79	1	116	.00102	.00024	0.06	0.78
861.3	Optical instruments	96	109	4	154	.00097	.00063	0.27	0.81
861.4	Still cameras	108	210/i	4	369	.00265	-.00051	0.10	1.45
861.6	Photographic equipment	108	210/i	0	39	.00403	.00153	0.00	0.06
861.7	Medical instruments	95	117	8	109	.00282	.00108	0.18	0.24
864.1	Watches, movements, cases	63-89/h	66	66	1,597	.00048	.00376	8.79	3.17
864.2	Clocks and parts	63-89	66	50	600	.00206	-.00053	1.55	3.30

...continued

SITC	Description	Labor intensity index		China's exports (\$ million)		Product's share in world trade (%)		China's revealed comparative advantage	
		1965	1982	1979/80	1989/90	1979/80	1989/90 chng.	1979/80	1989/90
891	Sound recorders	74-106/h	64-160/h	40	2,550	.01005	.00619	0.25	1.32
892/f	Printed matter	74-81	71-82	13	135	.00652	-.00048	0.13	0.19
893	Articles of plastic	76-96	81-87	40	2,278	.00789	.00381	0.32	1.64
894/g	Toys and sporting goods	55-74	86	181	10,692	.00771	.00378	1.50	7.83
895.2	Pens and pencils	72-81	92-94/h	45	132	.00096	.00005	3.00	1.09
897.1	Real jewelry	55-87	79-84	85	322	.00341	.00088	1.60	0.63
897.2	Imitation jewelry	62	65	15	258	.00068	.00009	1.41	2.82
899.1	Carved goods	62-67/h	80	32	30	.00023	-.00013	8.92	2.50
899.2	Brooms and products	85	71	494	1,070	.00102	-.00009	30.99	9.68
899.3	Candles, matches, etc.	59-71	80	41	203	.00087	-.00027	3.01	2.85
899.4	Umbrellas, canes, etc.	72	80	31	669	.00039	.00011	5.08	11.26
899.5	Toilet goods	62-67/h	272/k	26	170	.00113	-.00028	1.47	1.68
899.6	Hearing aids	99-102	99-116/h	0	3	.00079	.00042	0.00	0.02
899.9	Other manufactures, nes	62-67	80	96	1,637	.00087	-.00034	7.06	11.39

Note: The values shown for the labor intensity index are *inverse* indicators. That is, the lower the value the higher the labor intensity for the product. A value of 100 indicates the item has the average labor intensity for all US manufacturing activity.

/a Identified by Krause (1984) as a product that is also natural resource intensive in production.

/b Includes 641.7 handmade paper.

/c Excludes 655.1 felt and articles n.e.s. and 655.5 elastic fabrics not knit.

/d Excludes 667.2 nonindustrial diamonds not set.

/e Excludes 712.3 dairy farm equipment.

/f Excludes 892.2 newspapers and periodicals.

/g Excludes 894.3 nonmilitary arms and 894.5 amusements for fairs.

/h Due to the fact that the SIC classification of the United States has undergone a number of major revisions, and the fact that an exact concordance to the SITC system does not exist, it has been necessary to express some of the factor proportions indices as a likely range rather than a specific average for the SITC group. See Lary (1968, pp. 191-2 for a SIC concordance relating to the 1960s).

/i Although factor intensity indices could not be computed for these products they were included in the original NBER list on the basis of data drawn from non-United States sources.

/j The corresponding SIC product is 3861 "photographic equipment and supplies" which employed 119,300 workers in 1982 and produced a value added of \$14,059.1 million. As such it moved from about average to very high capital intensity in production over 1965-82.

/k Available concordances between the SITC and SIC place this product in SIC group 2844 "toilet preparations." In 1982, this SIC group had 60,400 employees and produced \$7,130.6 million which accounts for the very high values added per employee ratio.

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Table A1.1: CHINA'S EXPORTS AS REPORTED BY PARTNER COUNTRIES
(\$ million)

Commodity	1985	1986	1987	1988	1989	1990	1991
00 Live animals	303	282	300	314	316	346	379
01 Meat and preparations	283	339	316	314	388	376	365
02 Dairy products and eggs	69	81	95	74	67	68	67
03 Fish and preparations	376	667	956	1,482	1,479	1,716	1,663
04 Cereals and preparations	662	580	359	403	541	329	924
05 Fruit and vegetables	920	1,280	1,489	1,915	1,973	1,940	2,143
06 Sugar and preps honey	90	118	152	121	139	268	108
07 Coffee tea cocoa spices	466	542	436	488	487	492	346
08 Animal feeding stuff	222	471	500	816	638	533	699
09 Misc food preparations	70	77	91	62	74	103	126
10 U.N. Special Code	0	0	0	0	0	0	0
11 Beverages	81	93	135	158	193	203	241
12 Tobacco and mfrs	28	38	43	72	121	152	199
20 U.N. Special Code	0	0	0	0	0	0	0
21 Hides,skins,furs undrad	153	141	177	232	161	170	106
22 Oilseeds,nuts,kernels	413	498	538	575	511	591	676
23 Rubber crude,synthetic	2	2	1	8	9	13	17
24 Wood lumber and cork	19	29	48	113	121	116	149
25 Pulp and waste paper	3	4	7	7	7	9	7
26 Textile fibres	1,179	1,146	1,559	1,635	1,594	1,054	1,177
27 Crude fertilz,minrils nes	302	338	385	488	630	613	595
28 Metalliferous ores,scrap	183	202	286	442	482	322	222
29 Crude animal,veg mat nes	452	544	720	816	961	904	874
30 U.N. Special Code	0	0	0	0	0	0	0
32 Coal, coke, briquettes	250	282	352	427	544	580	763
33 Petroleum and products	6,904	3,878	3,878	3,604	3,437	4,833	4,097
34 Gas natural and manufctd	4	2	3	3	2	12	3
35 Electric energy	0	0	0	0	5	7	6
40 U.N. Special Code	0	0	0	0	0	0	0
41 Animal oils and fats	0	0	0	0	1	1	1
42 Fixed vegetable oil, fat	96	96	95	78	64	109	96
43 Processd anml veg oil, etc.	2	3	3	3	5	13	5
50 U.N. Special Code	0	0	0	0	0	0	0
51 Chem. elements, compounds	648	850	1,103	1,445	1,624	1,680	1,710
52 Coal,petroleum etc chems	31	16	31	37	53	102	109
53 Dyes,tanning,colour prod	68	120	151	182	244	284	272
54 Medicinal etc products	257	304	364	449	497	542	510
55 Perfume,cleaing etc prd	109	118	139	188	201	215	206
56 Fertilizers manufactured	3	7	12	15	21	24	22
57 Explosives,pyrotech prod	148	166	184	184	237	243	244
58 Plastic materials etc	47	70	99	182	197	285	304
59 Chemicals nes	134	172	209	260	258	267	267
60 U.N. Special Code	0	0	0	0	0	0	0
61 Leather,dressed fur,etc	71	84	129	208	246	370	433
62 Rubber manufactures nes	39	62	59	80	106	98	95
63 Wood,cork manufacts nes	53	69	105	177	263	375	467
64 Paper,paperboard and mfr	166	217	277	320	391	440	440
65 Textile yarn,fabric etc	3,626	4,721	6,406	6,934	7,594	7,422	8,654
66 Nonmetal mineral mfs nes	295	398	521	723	927	1,171	1,890
67 Iron and steel	102	151	339	945	895	1,235	1,761
68 Nonferrous metals	279	218	522	909	581	610	631
69 Metal manufactures nes	473	638	846	1,182	1,444	1,771	1,913
70 U.N. Special Code	0	0	0	0	0	0	0
71 Machinery, nonelectric	282	382	676	1165	1638	2113	2443
72 Electrical machinery	536	1,015	2,191	4,049	6,430	8,749	10,448
73 Transport equipment	88	113	270	309	449	588	833
80 Unspecial code	0	0	0	0	0	0	0
81 Plumbg, heating, lghtng equ	44	61	84	161	277	460	700
82 Furniture	157	180	284	415	510	635	875
83 Travel goods,handbags	458	684	1,170	1,725	2,245	2,989	3,696
84 Clothing	3,689	5,826	7,761	9,470	13,118	16,044	18,625
85 Footwear	330	450	717	1,227	2,135	3,701	5,904
86 Instrmnts,watches,clocks	254	423	596	1,082	1,435	1,911	2,354
89 Misc manufctrd goods nes	1,545	2,336	3,997	6,118	8,998	11,648	13,647
90 Unspecial code	0	0	0	0	0	0	0
91 Mail not classed by kind	1	1	1	2	1	1	1
93 Special transactions	276	308	401	501	419	454	476
94 Zoo animals,pets	5	7	8	6	6	7	8
95 War firearms,ammunition	3	2	7	5	10	12	11
96 Coin nongold, noncurrent	4	2	3	5	6	8	2
Total	27,751	31,903	42,593	55,309	68,402	82,327	96,001

Source: UN COMTRADE Database.

Table A1.2: CHINA'S EXPORTS AS REPORTED BY ITSELF
(\$ million)

Commodity	1985	1986	1987	1988	1989	1990	1991
00 Live animals	n.a.	n.a.	347	386	395	430	439
01 Meat and preparations	n.a.	n.a.	520	585	657	791	906
02 Dairy products and eggs	n.a.	n.a.	90	96	90	79	82
03 Fish and preparations	n.a.	n.a.	721	969	1039	1370	1181
04 Cereals and preparations	n.a.	n.a.	579	681	719	614	1169
05 Fruit and vegetables	n.a.	n.a.	1290	1618	1623	1760	1946
06 Sugar and preps honey	n.a.	n.a.	156	111	237	318	202
07 Coffee tea cocoa spices	n.a.	n.a.	488	524	568	534	491
08 Animal feeding stuff	n.a.	n.a.	585	917	864	758	855
09 Misc food preparations	n.a.	n.a.	47	58	74	82	116
10 Unspecial code	n.a.	n.a.	0	0	0	0	0
11 Beverages	n.a.	n.a.	116	143	173	171	218
12 Tobacco and mfrs	n.a.	n.a.	58	93	141	170	311
20 Unspecial code	n.a.	n.a.	0	0	0	0	0
21 Hides,skins,furs undrad	n.a.	n.a.	137	176	122	153	77
22 Oil seeds,nuts,kernels	n.a.	n.a.	674	684	645	619	741
23 Rubber crude,synthetic	n.a.	n.a.	3	7	12	20	13
24 Wood lumber and cork	n.a.	n.a.	35	99	96	89	112
25 Pulp and waste paper	n.a.	n.a.	1	5	4	2	1
26 Textile fibres	n.a.	n.a.	1509	1672	1546	1096	1126
27 Crude fertilz,minrils nes	n.a.	n.a.	361	446	544	516	512
28 Metalliferous ores,scrap	n.a.	n.a.	265	380	329	175	119
29 Crude animal,veg mat nes	n.a.	n.a.	645	724	844	809	700
30 Unspecial code	n.a.	n.a.	0	0	0	0	0
32 Coal,coke,briquettes	n.a.	n.a.	536	594	680	755	829
33 Petroleum and products	n.a.	n.a.	3976	3319	3594	4393	3830
34 Gas natural and manufactd	n.a.	n.a.	3	3	2	3	4
35 Electric energy	n.a.	n.a.	3	3	6	8	13
40 Unspecial code	n.a.	n.a.	0	0	0	0	0
41 Animal oils and fats	n.a.	n.a.	0	0	0	1	1
42 Fixed vegetable oil,fat	n.a.	n.a.	79	72	83	155	144
43 Process anml veg oil,etc	n.a.	n.a.	2	2	3	5	5
50 Unspecial code	n.a.	n.a.	0	0	0	0	0
51 Chem elements,compounds	n.a.	n.a.	1073	1394	1541	1716	1860
52 Coal,petroleum etc chems	n.a.	n.a.	26	31	39	79	78
53 Dyes,tanning,colourprod	n.a.	n.a.	175	229	288	366	335
54 Medicinal etc products	n.a.	n.a.	421	484	566	643	774
55 Perfume,cleaing etc prd	n.a.	n.a.	136	183	255	319	220
56 Fertilizers manufactured	n.a.	n.a.	12	18	17	25	25
57 Explosives,pyrotech prod	n.a.	n.a.	185	300	248	214	163
58 Plastic materials etc	n.a.	n.a.	81	131	151	277	251
59 Chemicals nes	n.a.	n.a.	186	234	239	240	283
60 Unspecial code	n.a.	n.a.	0	0	0	0	0
61 Leather,dressed fur,etc	n.a.	n.a.	91	102	104	183	192
62 Rubber manufactures nes	n.a.	n.a.	101	113	147	194	237
63 Wood,cork manufacta nes	n.a.	n.a.	89	143	209	297	414
64 Paper,paperboard and mfr	n.a.	n.a.	253	271	290	294	322
65 Textile yarn,fabric etc	n.a.	n.a.	5945	6603	7191	7202	7993
66 Nonmetal mineral mfs nes	n.a.	n.a.	439	579	793	1316	1668
67 Iron and steel	n.a.	n.a.	422	1010	709	1282	1669
68 Non-ferrous metals	n.a.	n.a.	591	820	461	601	566
69 Metal manufactures nes	n.a.	n.a.	792	998	1198	1429	1693
70 Unspecial code	n.a.	n.a.	0	0	0	0	0
71 Machinery,non-electric	n.a.	n.a.	578	1395	2089	2721	3521
72 Electrical machinery	n.a.	n.a.	1367	2129	2855	3957	4858
73 Transport equipment	n.a.	n.a.	1726	2367	3072	4065	5431
80 Unspecial code	n.a.	n.a.	0	0	0	0	0
81 Plumbg,heatng,lightng equ	n.a.	n.a.	60	77	106	129	187
82 Furniture	n.a.	n.a.	177	235	272	322	465
83 Travel goods,handbags	n.a.	n.a.	253	348	401	385	492
84 Clothing	n.a.	n.a.	5322	6613	8131	9610	12749
85 Footwear	n.a.	n.a.	528	815	1283	1957	2320
86 Instrmnts,watches,clocks	n.a.	n.a.	588	828	976	1304	1490
89 Misc manufactd goods nes	n.a.	n.a.	1945	2500	3334	3919	4706
90 Unspecial code	n.a.	n.a.	0	0	0	0	0
91 Mail not classed by kind	n.a.	n.a.	0	0	0	0	0
93 Special transactions	n.a.	n.a.	2638	2193	496	1160	723
94 Zoo animals,pets	n.a.	n.a.	7	5	7	11	13
95 War firearms,ammunition	n.a.	n.a.	0	0	0	0	0
96 Coin nongold,noncurrent	n.a.	n.a.	0	0	0	0	0
Total	0	0	39437	47516	52538	62091	71842

Source: UN COMTRADE Database.

Table A1.3: THE RELATIVE IMPORTANCE OF THE THIRTY LARGEST MARKETS
FOR CHINA'S EXPORTS, 1984-90

	All foods (SITC 0+1+22+4) share of all exports (%)			Manufacturers (SITC 5 to 8 less 68) share of all exports (%)		All products (SITC 0 to 9) share of all exports (%)	
	1984	1984-90 change	1984	1984-90 change	1989/90 value of exports (\$ mill.)	1984	1984-90 change
Hong Kong	33.3	-6.7	38.6	14.4	42,252	26.5	16.4
Japan	19.5	2.1	9.2	-1.0	7,149	20.5	-6.0
United States	2.5	2.3	11.7	-3.0	7,072	9.3	-1.0
USSR	7.0	2.3	1.9	1.2	2,300	2.4	1.2
Singapore	3.5	0.1	2.8	-0.9	1,516	5.0	-1.8
Germany, Fed. Republic	3.0	-0.1	4.1	-0.9	2,547	3.1	-0.1
Korea, Rep.	0.0	3.9	0.0	1.3	699	0.0	2.0
Netherlands	2.2	0.2	1.5	-0.2	1,037	1.3	0.2
Italy	0.8	0.3	1.1	0.2	1,083	1.2	0.1
United Kingdom	2.0	-0.9	1.5	-0.4	880	1.3	1.0
Thailand	3.0	-1.5	0.5	0.8	885	1.0	0.3
France	1.1	0.2	1.3	-0.3	817	0.9	0.1
Macau	1.3	-0.4	1.9	-1.0	752	1.2	-0.4
Korea, Dem. Republic	0.3	0.6	0.2	0.1	227	0.9	-0.3
Czechoslovakia	1.3	-0.6	0.3	0.3	505	0.5	-
Malaysia	2.0	-1.0	0.9	-0.4	399	0.8	-0.3
Pakistan	0.4	0.8	1.8	-1.3	544	1.0	-0.4
Indonesia	1.0	0.5	0.1	0.3	252	0.3	-0.2
Saudi Arabia	0.6	0.7	0.9	-0.4	435	0.5	-
Romania	0.7	-0.3	0.8	-0.5	354	1.2	-0.8
United Arab Emirates	0.0	0.2	0.0	0.6	458	0.3	0.1
Cuba	0.7	0.4	0.5	-0.1	306	0.4	-
Philippines	1.4	0.8	0.1	0.1	171	0.9	-0.6
Poland	1.1	-1.0	0.5	-0.4	356	0.5	-0.4
Taiwan, China	0.0	0.6	0.0	0.5	264	0.0	0.5
Spain	0.0	0.3	0.1	0.3	286	0.3	-
Sweden	0.2	0.3	0.4	-0.2	178	0.4	-0.1
India	0.1	0.3	0.1	-	116	0.2	0.1
Iran	0.0	0.2	0.0	0.4	269	0.6	-0.3

**Table A1.4: REEXPORTS OF CHINESE PRODUCTS FROM
HONG KONG TO THE REST OF THE WORLD (SELECTED YEARS)
(\$ blion)**

Export market	Value of reexports	
	1984	1990
Japan	0.27	2.10
USA	1.10	10.50
EC	n.a.	6.20
Other	1.95	12.10
<u>Total</u>	<u>3.32</u>	<u>29.00</u>

Source: Hong Kong Review of Overseas Trade, Census and Statistics Department, Hong Kong, various years.

	1984	1990
<i>Memo Items:</i>		
Average Exchange Rate (HK\$ to \$)	7.818	7.709
Reexports of Chinese products back to China	0.27	1.80

**Table A1.5: COMMODITY COMPOSITION OF REEXPORTS OF CHINESE PRODUCTS
FROM HONG KONG TO THE REST OF THE WORLD
(SELECTED DESTINATIONS 1990)
(HK\$ billion)**

SITC (Revision 2) Category	Country of destination		
	USA	Germany	Japan
Misc. manufactured articles (mainly baby carriages, toys & sporting goods)	24.0	4.4	2.1
Articles of apparel & clothing accessories	15.0	6.3	6.0
Footwear	9.0	-	-
Telecommunications & sound recording equipment	8.4	-	-
Textile yarn fabrics	-	-	0.9
Travel goods	-	1.5	-
Electrical machinery, apparatus & appliances	6.4	0.9	0.8
Total Reexports	81.7	21.4	16.0

Source: Hong Kong Review of Overseas Trade in 1990. Census and Statistics Dept., Hong Kong.

**Table A1.6: THE GEOGRAPHIC DIVERSIFICATION OF CHINA'S MANUFACTURED EXPORTS,
COMPARED WITH OTHER COUNTRIES (1990)**

Import market	Exporters and Share of Trade Destined from Specific Markets						
	USA	EEC (10)	China ^a	Rep. of Korea	Taiwan, China	Singapore	Hong Kong
Japan	9.6	2.3	11.5	16.8	9.2	5.5	4.9
United States	-	7.8	25.6	31.6	34.4	28.1	30.7
Germany	5.2	11.8	7.6	4.6	5.1	5.2	8.4
France	3.8	11.2	2.2	1.8	1.8	2.1	1.7
United Kingdom	6.7	7.9	3.3	2.8	3.1	4.1	6.2
Italy	1.9	6.5	1.3	1.2	1.6	1.6	0.9
Netherlands	3.2	6.2	1.3	1.6	3.0	2.6	2.3
Belgium-Luxembourg	2.3	6.5	0.6	0.7	0.8	0.9	0.4
Canada	23.5	0.9	2.0	2.8	2.5	1.1	2.4
Sweden	1.0	2.4	0.3	1.3	0.6	1.0	6.4
Taiwan, China	2.7	0.5	1.7	1.8	-	4.5	1.8
Switzerland	1.1	4.1	0.2	0.6	0.6	0.6	1.3
Spain	1.2	4.1	0.7	0.7	0.9	0.6	0.6
Australia	2.6	0.7	0.9	1.5	2.0	2.3	1.6
Saudi Arabia	1.0	0.7	0.5	1.2	0.7	0.5	0.2
Norway	0.4	0.9	0.1	0.2	0.2	0.3	0.4
Hong Kong	1.5	0.7	6.2	5.6	13.6	4.9	-
Korea, Rep. of	3.1	0.6	2.7	-	1.6	2.2	0.8
Austria	0.3	2.9	0.1	0.4	0.4	0.3	0.7
Denmark	0.3	1.3	0.5	0.4	0.3	0.2	0.4
Yugoslavia	0.1	0.9	0.1	-	0.1	0.2	0.1
Mexico	7.7	0.3	0.1	0.8	0.5	0.2	0.3
Singapore	2.4	0.6	1.9	2.7	3.3	-	3.1
Finland	0.3	0.9	0.1	0.2	0.2	0.2	0.3
Indonesia	0.5	0.3	0.4	1.7	1.8	-	0.5
India	0.6	0.7	0.1	0.6	0.3	1.4	0.2
Malaysia	1.0	0.3	0.5	1.1	1.7	13.5	0.7
Israel	0.8	0.6	-	-	0.2	0.1	0.1
South Africa	0.5	0.6	-	-	-	-	0.4
Thailand	0.8	0.4	1.3	1.5	2.1	4.7	0.9
Brazil	1.5	0.4	-	0.2	0.2	-	0.1
China	1.2	0.5	-	-	-	1.1	20.3
Kuwait	0.1	0.1	0.2	0.2	0.1	0.1	-
New Zealand	0.3	0.1	0.1	0.2	0.3	0.4	0.2
Venezuela	0.8	0.2	-	0.1	0.1	-	-
<i>Memo Item</i>							
Share of exports going to the EC	-	-	-	19.2	13.8	16.6	17.3

^a Adjusted for reexports thru Hong Kong.

Source: UN COMTRADE and staff estimates.

Table A1.7: EXPORTS OF TVES
TVE Export Earnings by Region—(Y billion)

	Export		% Share	
	1988	1990	1988	1990
TVE Total	29.87	-	100.00	-
East China	26.38	-	88.32	-
Central China	2.72	-	9.10	-
West China	0.77	-	2.58	-
National Total	176.67	298.58	100.00	-
East China	26.38	-	14.93	-
Central China	2.72	-	1.54	-
West China	0.77	-	0.44	-

Source: China TVE Yearbook, 1989; *China Statistical Yearbook*, 1991.

Composition and Growth of TVE Exports

	Composition by Value, 1988	Average Growth 1986-88
Chemicals	5.25	16.31
Electrical	3.83	19.36
Minerals	4.57	12.04
Foodstuffs	9.16	13.63
Traditional products	1.63	10.77
Animal husbandry	4.05	15.64
Textiles	15.53	11.19
Clothing	12.63	17.00
Arts and crafts	13.51	12.78
Other	29.87	15.89

Source: Township and Village Enterprise Yearbook, 1989.

Table A1.8: CHINA: STRUCTURE OF IMPORTS (CIF) CUSTOMS BASIS
(\$ million)

Commodity		1984	1987	1988	1989	1990	1991
FOOD	S0+S1+S4	2,362	3,109	4,256	5,382	4,596	3,884
Food	S0	2,169	2,496	3,541	4,305	3,458	2,965
Beverages	S1	116	263	346	201	157	200
Animal fat	S4	77	349	369	875	982	719
PETROLEUM (Mineral Fuels)	S3	132	529	775	1647	1269	2,105
INTERMEDIATE	S5+S2+D61+D63+D65 to D68	12,961	18,654	25,506	25,489	21,041	23,427
Chemicals and related products	S5	4,005	5,090	9,234	7,745	6,890	9,498
Crude materials (non-food)	S2	2,404	3,388	5,287	4,971	4,041	5,058
Leather+Cork=D61+D63=LightIn.	-D64 to D68	234	729	842	747	538	1,267
Leather	D61	53	184	224	280	374	642
Cork	D63	181	544	618	467	564	625
Textile Yarn (yarn, fabrics etc.)	D65	913	3,577	4,201	4583	5276	3637
Nonmetallic minerals	D66	213	342	430	520	453	443
Iron and Steel	D67	4,124	4,787	4,624	5797	2852	2694
Nonferrous metals	D68	1,068	741	887	1125	590	830
CONSUMER GOODS	D64+D62+D82 to D89	556	1,953	2,259	2,125	2,516	6,115
Paper (Paper and related products)	D64	227	727	610	634	745	969
Rubber	D62	13	45	51	50	50	76
Furniture	D82	20	42	61	68	72	49
Travel goods	D83	1	3	8	6	6	7
Clothing	D84	6	30	46	58	63	3173
Footwear	D85	2	1	2	3	9	11
Photo supplies	D88	-	-	-	-	-	-
Miscellaneous	D89	287	1,105	1,481	1,356	1,570	1,829
Capital goods	(S7+S8+S9+D61, D68-d82, D85, d88, d89)	8,070	18,779	22,158	24,235	23,639	28,044
of which transport equipment	S73	1,865	4,058	4,811	5,296	5,957	7,525
MISCELLANEOUS	S9	0	192	316	213	285	217
Total		24,082	43,216	55,268	59,140	53,345	63,791

Source: Trade Data (SITC Revision 1), China's Customs Statistics, various years.

Table A1.9: STRUCTURE OF CHINA'S IMPORTS (CIF) CUSTOMS BASIS
(A Comparison with Other Countries for 1990)
(\$ million)

Commodity		China	Korea (China)	Taiwan	Brazil	India	Malaysia
Food	S0+S1+S4	4,596	3,612	2,921	2,091	768	1,882
Food	S0	3,458	3,240	2,527	1,963	569	1,693
Beverages	S1	157	188	297	52	6	108
Animal fat	S4	982	184	97	75	193	81
Petroleum (Mineral Fuels)	S3	1,269	11,001	5,896	6,009	6,496	1,485
Intermediate	S5+S2 +D61+D63 +D65 to D68	21,041	25,309	18,465	6,121	9,619	6,763
Chemicals and related products	S5	6,890	7,413	6,947	3,561	3,076	2,452
Crude materials (nonfood)	S2	4,041	8,627	4,368	1,195	2,246	943
Leather	D61	374	769	277	198	83	23
Cork	D63	564	407	314	15	7	26
Textile Yarn (yarn, fabrics, etc.)	D65	5,276	1,967	1,018	252	238	950
Nonmetallic minerals	D66	453	889	620	168	2,176	309
Iron and Steel	D67	2,852	3,300	2,885	295	1,166	1,466
Nonferrous metals	D68	590	1,936	2,036	437	627	594
Consumer goods	d64+d62+d82 to d89	2,516	2,388	2,805	1,066	550	1,763
Paper and related products	D64	745	443	659	278	249	552
Rubber	D62	50	186	183	123	57	91
Furniture	D82	72	129	114	9	3	44
Travel goods	D83	6	15	54	5	0	14
Clothing	D84	63	151	291	59	1	77
Footwear	D85	9	21	70	21	0	21
Photo supplies	D88	0	0	0	0	0	0
Miscellaneous	D89	1,570	1,443	1,434	571	239	965
Capital goods	(S7+S8+S9-D61.D68- D82.D85,D88,D89)	23,639	26,965	22,029	7,168	4,890	15,884
of which:							
Transport equip.	S73	5,957	2,721	3,828	786	916	2,784
Miscellaneous	S9	285	311	1,299	2	1,476	65
Total		53,345	69,585	53,415	22,458	23,799	27,841

Source: Trade Data (SITC Revision 1), China's Customs Statistics, 1990.

**Table A1.10: ORIGIN OF CHINA'S IMPORTS: A COMPARISON WITH OTHER COUNTRIES OF EAST ASIA
(SELECTED YEARS)
(\$ millions)**

Year	Thailand Origin of Imports	Indonesia Value of Imports	Taiwan (China) Value of Imports	Korea Value of Imports	China	
					Value of Imports	Value of Imports
1984	World	10,518	13,865	22,062	30,609	26,185
	Japan	2,833	3,308	6,464	7,613	8,194
	USA	1,409	2,562	5,093	6,861	3,871
	EC	1,317	2,123	1,975	2,790	3,335
	Other	4,959	5,872	8,530	13,345	10,785
	of which: Hong Kong	-	-	-	-	-
1990	World	33,129	21,837	53,415	69,585	53,345
	Japan	10,138	5,299	16,015	18,566	7,587
	USA	3,600	2,520	12,633	16,938	6,571
	EC	4,806	4,061	6,952	8,399	8,018
	Other	14,585	9,957	17,815	25,682	31,169
	of which: Hong Kong	-	-	-	-	-

Source: United Nations COMTRADE Database and China's Customs Statistics, various years.

Table A2.1: THE CHANGING NUMBER OF FTCs

Jurisdiction	Peak number (1988)	Number eliminated	Number surviving (1991)
Provincial, municipal or other local	2,956	1,083	1,873
Special Economic Zones	1,293	200	1,098
National	826	119	707
<u>Total</u>	<u>5,075</u>	<u>1,402</u>	<u>3,673</u>

Source: MOFERT.

Table A2.2: CHINA: LIST OF PRODUCTS SUBJECT TO MANDATORY PLANNING
(Arranged According to Harmonized Commodity Description and Coding System)

Serial number	HS Code number	Description	Category
1	100110	Durum wheat	M
2	100190	Wheat nes and meslin	M
3	100200	Rye	M
4	100300	Barley	M
5	100400	Oats	M
6	100510	Maize (corn) seed	M
7	100590	Maize (corn) nes	M
8	100610	Rice in the husk (paddy or rough)	M
9	100620	Rice, husked (brown)	M
10	100630	Rice, semi-milled or wholly milled, whether or not polished or glazed	M
11	100640	Rice, broken	M
12	100700	Grain sorghum	M
13	100810	Buckwheat	M
14	100820	Millet	M
15	100830	Canary seed	M
16	100890	Cereals unmilled nes	M
17	110100	Wheat or meslin flour	M
18	110210	Rye flour	M
19	110220	Maize (corn) flour	M
20	110230	Rice flour	M
21	110290	Cereal flour nes	M
22	110311	Wheat groats and meal	M
23	110312	Oat groats and meal	M
24	110313	Maize (corn) groats and meal	M
25	110314	Rice groats and meal	M
26	110319	Cereal groats and meal nes	M
27	110321	Wheat pellets	M
28	110329	Cereal pellets nes	M
29	110411	Barley, rolled or flaked grains	M
30	110412	Oats, rolled or flaked grains	M
31	110419	Cereals, rolled or flaked grains nes	M
32	110421	Barley, hulled, pearled, sliced or kibbled	M
33	110422	Oats, hulled, pearled, sliced or kibbled	M
34	110423	Maize (corn), hulled, pearled, sliced or kibbled	M
35	110429	Cereals, hulled, pearled, sliced or kibbled nes	M
36	110430	Germ of cereals, whole, rolled, flaked or ground	M
37	120100	Soya beans	M
38	260111	Iron ores & concentrates, other than roasted iron pyrites, nonagglomerated	M
39	260112	Iron ores & concentrates, other than roasted iron pyrites, agglomerated	M
40	260120	Roasted iron pyrites	M
41	310210	Urea, whether/not in aqueous solution in packages weighing more than 10 kg	M
42	310221	Ammonium sulphate, in packages weighing more than 10 kg	M
43	310229	Ammonium sulphate/nitrate mixtures/double salts in pack weighing > 10 kg	M
44	310230	Ammonium nitrate, whether or not in aqueous solution in pack weighing > 10 kg	M
45	310240	Ammonium nitrate mixed w/ cal carb o non-fer subts in pack weighing > 10 kg	M
46	310250	Sodium nitrate, in packages weighing more than 10 kg	M
47	310260	Calcium nitrate/ammonium nitrate mx or double salts in pack of > 10 kg	M
48	310270	Calcium cyanamide in packages weighing more than 10 kg	M
49	310280	Urea/ammonium nitrate mx in aqueous/ammonical sol in pack of > 10 kg	M
50	310290	Mineral or chem fertilizers nitrogenous, nes, in pack weighing > 10 kg	M
51	310310	Superphosphates, in packages weighing more than 10 kg	M
52	310320	Basic slag, in packages weighing more than 10 kg	M
53	310390	Mineral/chemical fertilizers, phosphatic, nes, in packages weighing > 10 kg	M
54	310410	Carnallite, sylvite & other crude potassium salts, in package weighing > 10 kg	M
55	310420	Potassium chloride, in packages weighing more than 10 kg	M
56	310430	Potassium sulphate, in packages weighing more than 10 kg	M
57	310490	Mineral/chemical fertilizers, potassic, nes, in packages weighing > 10 kg	M
58	310510	Fertilizers in tablets or similar forms or in packages not exceeding 10 kg	M
59	310520	Fertilizers cntg nitrogen, phosphorus & potassium in packs weighing <= 10 kg	M
60	310530	Diammonium phosphate, in packages weighing more than 10 kg	M
61	310540	Monoammonium phosphate & mx thereof w/ diammonium phosphate, in pack <= 10 kg	M
62	310551	Fertilizers containing nitrates & phosphates, nes, in pack weighing <= 10 kg	M
63	310559	Fertilizers containing nitrogen & phosphorus, nes, in pack weighing <= 10 kg	M
64	310560	Fertilizers containing phosphorus & potassium, in packages weighing <= 10 kg	M
65	310590	Fertilizers nes, in packages not exceeding 10 kg	M

Serial number	HS Code number	Description	Category
66	390110	Polyethylene having a specific gravity of less than 0.94	M
67	390120	Polyethylene having a specific gravity of 0.94 or more	M
68	390130	Ethylene-vinyl acetate copolymers	M
69	390190	Polymers of ethylene nes, in primary forms	M
70	390210	Polypropylene	M
71	390220	Polyisobutylene	M
72	390230	Propylene copolymers	M
73	390290	Polymers of propylene nes or of olefins nes, in primary forms	M
74	390311	Polystyrene, expandable	M
75	390319	Polystyrene nes	M
76	390320	Styrene-acrylonitrile (SAN) copolymers	M
77	390330	Acrylonitrile-butadiene-styrene (ABS) copolymers	M
78	390390	Polymers of styrene nes, in primary forms	M
79	390410	Polyvinyl chloride, not mixed with any other substances	M
80	390421	Polyvinyl chloride nes, not plasticised	M
81	390422	Polyvinyl chloride nes, plasticised	M
82	390430	Vinyl chloride-vinyl acetate copolymers	M
83	390440	Vinyl chloride copolymers nes	M
84	390450	Vinylidene chloride polymers	M
85	390461	Polytetrafluoroethylene	M
86	390469	Fluoro-polymers nes	M
87	390490	Polymers of vinyl chloride nes, or of other halogenated olefins	M
88	390511	Polyvinyl acetate, in aqueous dispersion	M
89	390519	Polyvinyl acetate nes	M
90	390520	Polyvinyl alcohols, whether or not containing unhydrolysed acetate groups	M
91	390590	Polyvinyl esters nes; other vinyl polymers in primary forms	M
92	391910	Self-adhesive plates, sheets, film, etc., of plastic in rolls <20 cm wide	M
93	391990	Self-adhesive plates, sheets, film, etc., of plastic nes	M
94	392010	Film and sheet, etc., noncellular, etc., of polymers of ethylene	M
95	392020	Film and sheet, etc., noncellular, etc., of polymers of propylene	M
96	392030	Film and sheet, etc., noncellular, etc., of polymers of styrene	M
97	392041	Film & sheet, etc., noncellular, etc., of polymers of vinyl chloride, rigid	M
98	392042	Film & sheet, etc., noncellular, etc., of polymers of vinyl chloride, flexible	M
99	392051	Film and sheet, etc., noncellular, etc., of polymethyl methacrylate	M
100	392059	Film and sheet, etc., noncellular, etc., of acrylic polymers nes	M
101	392061	Film and sheet, etc., noncellular, etc., of polycarbonates	M
102	392062	Film and sheet, etc., noncellular, etc., of polyethylene terephthalates	M
103	392063	Film and sheet, etc., noncellular, etc., of unsaturated polycarbon	M
104	392069	Film and sheet, etc., noncellular, etc., of polyesters nes	M
105	392071	Film and sheet, etc., noncellular, etc., of regenerated cellulose	M
106	392072	Film and sheet, etc., noncellular, etc., of vulcanized rubber	M
107	392073	Film and sheet, etc., noncellular, etc., of cellulose acetate	M
108	392077	Film and sheet, etc., noncellular, etc., of cellulose derivatives nes	M
109	392091	Film and sheet, etc., noncellular, etc., of polyvinyl butyryl	M
110	392092	Film and sheet, etc., noncellular, etc., of polyamides	M
111	392093	Film and sheet, etc., noncellular, etc., of amino-resins	M
112	392094	Film and sheet, etc., noncellular, etc., of phenolic resins	M
113	392099	Film and sheet, etc., noncellular, etc., of plastics nes	M
114	392111	Film and sheet, etc., cellular of polymers of styrene	M
115	392112	Film and sheet, etc., cellular of polymers of vinyl chloride	M
116	392113	Film and sheet, etc., cellular of polyurethane	M
117	392114	Film and sheet, etc., cellular of regenerated cellulose	M
118	392119	Film and sheet, etc., cellular of plastics nes	M
119	392190	Film and sheet, etc., nes of plastics	M
120	400110	Natural rubber latex, whether or not prevulcanized	M
121	400121	Natural rubber in smoked sheets	M
122	400122	Technically specified natural rubber (TSNR)	M
123	400129	Natural rubber in other forms nes	M
124	400130	Balata, gutta-percha, gunyule, chicle and similar gums	M
125	440310	Poles, treated/painted, etc.	M
126	440320	Logs, poles, coniferous nes	M
127	440331	Logs, Meranti, light & dark red & Bakau	M
128	440332	Logs, white Lauan, Meranti, Serya yellow Meranti & Alan	M
129	440333	Logs, Keruing, Ramin, Kapur, Teak, Jongkong, Merbau, etc.	M
130	440334	Logs, Okoume, Obeche, Sapelli, Sipo, Acajou d'Afrique, etc.	M
131	440335	Logs, Tiama, Mansonia, Llomba, Dib-tou, Limba and Azob	M
132	440391	Logs, Oak	M

Serial number	HS Code number	Description	Category
133	440392	Logs, Beech	M
134	440399	Logs, nonconiferous nes	M
135	440610	Ties, railway/tramway, wood not impregnated	M
136	440690	Ties, railway/tramway, wood nes	M
137	440710	Lumber, coniferous (softwood) 6 mm and thicker	M
138	440721	Lumber, Meranti red (light & dark), Meranti Bakau, White Lauan, etc.	M
139	440722	Lumber, Okoum [®] , Obeche, Sapelli, Sipo, Acajou d'Afrique, Makor [®] , etc.	M
140	440723	Lumber, Baboon, Mahogany (Swietenia spp), Imbuia and Balsa	M
141	440791	Lumber, Oak	M
142	440792	Lumber, Beech	M
143	440799	Lumber, nonconiferous nes	M
144	440810	Veneer, coniferous (softwood) less than 6 mm thick	M
145	440820	Veneer, tropical woods, less than 6 mm thick	M
146	440890	Veneer, nonconiferous nes, less than 6 mm thick	M
147	470100	Mechanical wood pulp	M
148	470200	Chemical wood pulp, dissolving grades	M
149	470311	Chemical wood pulp, soda or sulphate, coniferous, unbleached	M
150	470319	Chemical wood pulp, soda or sulphate, non-coniferous, unbleached	M
151	470321	Chemical wood pulp, soda or sulphate, coniferous, semi-bl or bleached, nes	M
152	470329	Chemical wood pulp, soda/sulphate, non-coniferous, semi-bl/bleachd, nes	M
153	470411	Chemical wood pulp, sulphite, coniferous unbleached	M
154	470419	Chemical wood pulp, sulphite, nonconiferous, unbleached	M
155	470421	Chemical wood pulp, sulphite, coniferous semi-bleached or bleached, nes	M
156	470429	Chemical wood pulp, sulphite, nonconiferous, semi-bl or bleached, nes	M
157	470500	Semi-chemical wood pulp	M
158	470610	Cotton linters pulp	M
159	470691	Mechanical pulps of other fibrous material (o/t cotton linters)	M
160	470692	Chemical pulps of other fibrous material (o/t cotton linters)	M
161	470693	Semi-chemical pulps of other fibrous material (o/t cotton linters)	M
162	510111	Greasy shorn wool, not carded or combed	M
163	510119	Greasy wool (other than shorn wool) not carded or combed	M
164	510121	Degreased shorn wool, not carded, combed or carbonized	M
165	510129	Degreased wool (other than shorn wool), not carded, combed or carbonized	M
166	510130	Carbonized wool, not carded or combed	M
167	510310	Noils of wool or of fine animal hair	M
168	510400	Garnetted stock of wool or of fine or coarse animal hair	M
169	510510	Carded wool	M
170	520100	Cotton, not carded or combed	M
171	520210	Cotton yarn waste (including thread waste)	M
172	520291	Garnetted stock of cotton	M
173	520299	Cotton waste, nes	M
174	520300	Cotton, carded or combed	M
175	740110	Copper mattes	M
176	740120	Cement copper (precipitated copper)	M
177	740200	Copper unrefined, copper anodes for electrolytic refining	M
178	740311	Copper cathodes and sections of cathodes unwrought	M
179	740312	Wire bars, copper, unwrought	M
180	740313	Billets, copper, unwrought	M
181	740319	Refined copper products, unwrought, nes	M
182	740321	Copper-zinc base alloys, unwrought	M
183	740322	Copper-tin base alloys, unwrought	M
184	740323	Copper-nickel base alloys or coppernickel-zinc base alloys, unwrought	M
185	740329	Copper alloys, unwrought (other than master alloys of heading No 74.05)	M
186	740400	Waste and scrap, copper or copper alloy	M
187	740500	Master alloys of copper	M
188	740610	Powders, copper, of nonlamellar structure	M
189	740620	Powders, copper, of lamellar structure and flakes	M
190	740710	Bars, rods and profiles of refined copper	M
191	740721	Bars, rods and profiles of copper-zinc base alloys	M
192	740722	Bars, rods & profiles of copper-nickel or copper-nickel-zinc base alloys	M
193	740729	Bars, rods and profiles, copper alloy nes	M
194	740811	Wire of refined copper of which the max cross sectional dimension > 6 mm	M
195	740819	Wire of refined copper of which the max cross sectional dimension < /=6 mm	M
196	740821	Wire, copper-zinc base alloy	M
197	740822	Wire, copper-nickel base alloy or copper-nickel-zinc base alloy	M
198	740829	Wire, copper alloy, nes	M
199	740911	Plate, sheet & strip of refined copper, in coil, exceeding 0.15 mm thick	M

Serial number	HS Code number	Description	Category
200	740919	Plate, sheet & strip of refined copper, not in coil, exceeding 0.15 mm thick	M
201	740921	Plate, sheet & strip of copper-zinc base alloys, in coil, > 0.15 mm thick	M
202	740929	Plate, sheet & strip of copper-zinc base alloys, not in coil, > 0.15 mm thick	M
203	740931	Plate, sheet & strip of copper-tin base alloys, in coil, > 0.15 mm thick	M
204	740939	Plate, sheet & strip of copper-tin base alloys, not in coil, > 0.15 mm thick	M
205	740940	Plate, sheet & strip of copper-Ni/cop-Ni-zinc base alloy, > 0.15 mm thick	M
206	740990	Plate, sheet & strip of copper alloy, nes	M
207	741011	Foil of refined copper, not backed	M
208	741012	Foil, copper alloy, not backed	M
209	741021	Foil of refined copper, backed	M
210	741022	Foil, copper alloy, backed	M
211	741110	Pipes and tubes, refined copper	M
212	741121	Pipes and tubes, copper-zinc base alloy	M
213	741122	Pipes and tubes, copper-nickel base alloy or copper-nickel-zinc base alloy	M
214	741129	Pipes and tubes, copper alloy, nes	M
215	741210	Fittings, pipe or tube, of refined copper	M
216	741220	Fittings, pipe or tube, copper alloy	M
217	741300	Strand wire, cable, plaited bands & the like of copper not elec insulated	M
218	741410	Endless bands of copper wire for machinery	M
219	741490	Cloth, grill and netting of copper wire and expanded metal of copper	M
220	741510	Nails, tacks, drawing pins, staples & sim art of copper or i/s w copper heads	M
221	741521	Washers, copper, including spring washers	M
222	741529	Articles of copper, not thread, nes, sim to those of headg 7415.10&21	M
223	741531	Screws, copper, for wood	M
224	741532	Screws, bolts and nuts of copper excluding wood screws	M
225	741539	Articles of copper threaded, nes similar to bolts, nuts and screws	M
226	741600	Springs, copper	M
227	741700	Cooking or heating apparatus, domestic, nonelectric & parts thereof of copper	M
228	741810	Table, kitchen or other household articles and parts thereof of copper	M
229	741820	Sanitary ware and parts thereof of copper	M
230	741910	Chain and parts thereof of copper	M
231	741991	Articles of copper, not further worked than cast, molded, stamped or forged	M
232	741999	Articles of copper, nes	M

Table A2.3: CHINA: LIST OF FIRST CATEGORY IMPORTS
(Arranged According to Harmonized Commodity Description and Coding System)

Serial number	HS Code number	Description	Category
1	100190	Wheat nes and meslin	F
2	100200	Rye	F
3	100300	Barley	F
4	100400	Oats	F
5	100510	Maize (corn) seed	F
6	100590	Maize (corn) nes	F
7	100610	Rice in the husk (paddy or rough)	F
8	100620	Rice, husked (brown)	F
9	100650	Rice, semi-milled or wholly milled, whether or not polished or glazed	F
10	100640	Rice, broken	F
11	100700	Grain sorghum	F
12	100810	Buckwheat	F
13	100820	Millet	F
14	100830	Canary seed	F
15	100890	Cereals unmilled nes	F
16	110100	Wheat or meslin flour	F
17	110210	Rye flour	F
18	110220	Maize (corn) flour	F
19	110230	Rice flour	F
20	110290	Cereal flour nes	F
21	110311	Wheat groats and meal	F
22	110312	Oat groats and meal	F
23	110313	Maize (corn) groats and meal	F
24	110314	Rice groats and meal	F
25	110319	Cereal groats and meal nes	F
26	110321	Wheat pellets	F
27	110329	Cereal pellets nes	F
28	110411	Barley, rolled or flaked grains	F
29	110412	Oats, rolled or flaked grains	F
30	110419	Cereals, rolled or flaked grains nes	F
31	110421	Barley, hulled, pearled, sliced or kibbled	F
32	110422	Oats, hulled, pearled, sliced or kibbled	F
33	110423	Maize (corn), hulled, pearled, sliced or kibbled	F
34	110429	Cereals, hulled, pearled, sliced or kibbled nes	F
35	110430	Germ of cereals, whole, rolled, flaked or ground	F
36	120100	Soya beans	F
37	170111	Raw sugar, cane	F
38	170112	Raw sugar, beet	F
39	170191	Refined sugar, in solid form, containing added flavour or colour matter	F
40	170199	Refined sugar, in solid form, nes	F
41	240110	Tobacco, unmanufactured, not stemmed or stripped	F
42	240120	Tobacco, unmanufactured, partly or wholly stemmed or stripped	F
43	240130	Tobacco refuse	F
44	240210	Cigars, cheroots and cigarillos, containing tobacco	F
45	240220	Cigarettes containing tobacco	F
46	240290	Cigars, cheroots, cigarillos and cigarettes, catg tobacco substitutes	F
47	270900	Petroleum oils and oils obtained from bituminous minerals, crude	F
48	271000	Petroleum oils & oils obtained from bituminous minerals, other than crude etc	F
49	310210	Urea, with/nt in aqueous solution in packages weighg more than 10 kg	F
50	310221	Ammonium sulphate, in packages weighing more than 10 kg	F
51	310229	Ammonium sulphate/nitrate mixtures/double salts in pack weighg > 10 kg	F
52	310230	Ammonium nitrate, whether or not in aqueous sol in pack weighg > 10 kg	F
53	310240	Ammonium nitrate mixd w cal carb o non-fit subts in pack weighg > 10 kg	F
54	310250	Sodium nitrate, in packages weighing more than 10 kg	F
55	310260	Calcium nitrate/ammonium nitrate mx or double salts in pack of > 10 kg	F
56	310270	Calcium cyanamide in packages weighing more than 10 kg	F
57	310280	Urea/ammonium nitrate mx in aqueous/ammoniacal sol in pack of > 10 kg	F
58	310290	Mineral or chem fertilizers nitrogenous, nes, in pack weighing > 10 kg	F
59	310310	Superphosphates, in packages weighing more than 10 kg	F
60	310320	Basic slag, in packages weighing more than 10 kg	F
61	310390	Mineral/chemical fertilizers, phosphatic, nes, in packages weighg > 10 kg	F
62	310410	Carrollite, sylvite & oth crude potassium salts, in package weighg > 10 kg	F
63	310420	Potassium chloride, in packages weighing more than 10 kg	F
64	310430	Potassium sulphate, in packages weighing more than 10 kg	F
65	310490	Mineral/chemical fertilizers, potassic, nes, in packages weighing > 10 kg	F

Serial number	HS Code number	Description	Category
66	310510	Fertilizers in tablets or similar forms or in packages not exceeding 10 kg	F
67	310520	Fertilizers cntg nitrogen, phosphorus & potassium in packs weighing < /= 10kg	F
68	310530	Diammonium phosphate, in packages weighing more than 10 kg	F
69	310540	Monoummonium phosphate & mix thereof w diammonium phosphate, in pack < /= 10kg	F
70	310551	Fertilizers containing nitrates & phosphates, nes, in pack weighing < /= 10kg	F
71	310559	Fertilizers containing nitrogen & phosphorus, nes, in pack weighing < /= 10kg	F
72	310560	Fertilizers containing phosphorus & potassium, in packages weighing < /= 10 kg	F
73	310590	Fertilizers nes, in packages not exceeding 10 kg	F
74	380810	Insecticides, packaged for retail sale or formulated	F
75	380820	Fungicides, packaged for retail sale or formulated	F
76	380830	Herbicides, anti-sprout prod & plant growth regs, packd f retail/formulad	F
77	380840	Disinfectants, packaged for retail sale or formulated	F
78	380890	Pesticides including rodenticides, nes, packaged for retail sale/formulad	F
79	390110	Polyethylene having a specific gravity of less than 0.94	F
80	390120	Polyethylene having a specific gravity of 0.94 or more	F
81	390130	Ethylene-vinyl acetate copolymers	F
82	390190	Polymers of ethylene nes, in primary forms	F
83	390311	Polystyrene, expansible	F
84	390319	Polystyrene nes	F
85	390320	Styrene-acrylonitrile (SAN) copolymers	F
86	390330	Acrylonitrile-butadiene-styrene (ABS) copolymers	F
87	390390	Polymers of styrene nes, in primary forms	F
88	390410	Polyvinyl chloride, not mixed with any other substances	F
89	390421	Polyvinyl chloride nes, not plasticised	F
90	390422	Polyvinyl chloride nes, plasticised	F
91	390430	Vinyl chloride-vinyl acetate copolymers	F
92	390440	Vinyl chloride copolymers nes	F
93	390450	Vinylidene chloride polymers	F
94	390461	Polytetrafluoroethylene	F
95	390469	Fluoro-polymers nes	F
96	390511	Polyvinyl acetate, in aqueous dispersion	F
97	390519	Polyvinyl acetate nes	F
98	390520	Polyvinyl alcohols, whether or not containg unhydrolysed acetate groups	F
99	390590	Polyvinyl esters nes; other vinyl polymers in primary forms	F
100	391510	Polyethylene waste and scrap	F
101	391520	Polystyrene waste and scrap	F
102	391530	Polyvinyl chloride waste and scrap	F
103	391590	Plastics waste and scrap nes	F
104	391910	Self-adhesive plates, sheets, film etc, of plastic in rolls < 20 cm wide	F
105	391990	Self-adhesive plates, sheets, film etc, of plastic nes	F
106	392010	Film and sheet, etc., non-cellular, etc., of polymers of ethylene	F
107	392020	Film and sheet, etc., non-cellular, etc., of polymers of propylene	F
108	392030	Film and sheet, etc., non-cellular, etc., of polymers of styrene	F
109	392041	Film & sheet, etc., non-cellular, etc., of polymers of vinyl chloride, rigid	F
110	392042	Film & sheet, etc., non-cellular, etc., of polymers of vinyl chloride, flexible	F
111	392051	Film and sheet, etc., noncellular, etc., of polymethyl methacrylate	F
112	392059	Film and sheet, etc., noncellular, etc., of acrylic polymers nes	F
113	392061	Film and sheet, etc., noncellular, etc., of polycarbonates	F
114	392062	Film and sheet, etc., noncellular, etc., of polyethylene terephthalates	F
115	392063	Film and sheet, etc., noncellular, etc., of unsaturated polyesters	F
116	392069	Film and sheet, etc., noncellular, etc., of polyesters nes	F
117	392071	Film and sheet, etc., noncellular, etc., of regenerated cellulose	F
118	392072	Film and sheet, etc., noncellular, etc., of vulcanised rubber	F
119	392073	Film and sheet, etc., noncellular, etc., of cellulose acetate	F
120	392079	Film and sheet, etc., noncellular, etc., of cellulose derivatives nes	F
121	392091	Film and sheet, etc., noncellular, etc., of polyvinyl butyl	F
122	392092	Film and sheet, etc., non-cellular, etc., of polyamides	F
123	392093	Film and sheet, etc., non-cellular, etc., of amino-resins	F
124	392094	Film and sheet, etc., non-cellular, etc., of phenolic resins	F
125	392099	Film and sheet, etc., non-cellular, etc., of plastics nes	F
126	392111	Film and sheet, etc., cellular of polymers of styrene	F
127	392112	Film and sheet, etc., cellular of polymers of vinyl chloride	F
128	392113	Film and sheet, etc., cellular of polyurethane	F
129	392114	Film and sheet, etc., cellular of regenerated cellulose	F
130	392119	Film and sheet, etc., cellular of plastics nes	F
131	392190	Film and sheet, etc., nes of plastics	F
132	400110	Natural rubber latex, whether or not prevulcanised	F

Serial number	HS Code number	Description	Category
133	400121	Natural rubber in smoked sheets	F
134	400122	Technically specified natural rubber (TSNR)	F
135	400129	Natural rubber in other forms nes	F
136	400130	Balata, gutta-percha, guayule, chicle and similar gums	F
137	400211	Styrene-butadiene rubber(SBR)/carboxylated styrene-butadiene rubber(XSBR) latex	F
138	400219	Styrene-butadiene rubber(SBR)/carboxylated styrene-butadiene rubber(XSBR) nes	F
139	400220	Butadiene rubber (BR)	F
140	400231	Isobutene-isoprene (butyl) rubber (IIR)	F
141	400239	Halo-isobutene-isoprene rubber (CIIR or BIIR)	F
142	400241	Chloroprene (chlorobutadiene) rubber (CR), latex	F
143	400249	Chloroprene (chlorobutadiene) rubber (CR) nes	F
144	400251	Acrylonitrile-butadiene rubber (NBR), latex	F
145	400259	Acrylonitrile-butadiene rubber (NBR) nes	F
146	400260	Isoprene rubber (IR)	F
147	400270	Ethylene-propylene-non-conjugated diene rubber (EPDM)	F
148	400280	Mixtures of any product of heading No 40.01 w any product of this heading	F
149	400291	Synthetic rubber and facies derived from oils, etc., latex	F
150	400299	Synthetic rubber and facies derived from oils, etc., nes	F
151	400300	Reclaimed rubber in primary forms or in plates, sheets or strips	F
152	440310	Poles, treated/painted, etc.	F
153	440320	Logs, poles, coniferous nes	F
154	440331	Logs, Meranti, light & dark red & Bakau	F
155	440332	Logs, white Lauan, Meranti, Sengaya yellow Meranti & Alan	F
156	440333	Logs, Keruing, Ramin, Kapur, Teak, Jongkong, Merbau, etc.	F
157	440334	Logs, Okoume, Obeche, Sapelli, Sipo, Acajou d'Afrique, etc	F
158	440335	Logs, Tiamu, Mansonia, Lloba, Diboutou, Limba and Azob	F
159	440391	Logs, Oak	F
160	440392	Logs, Beech	F
161	440399	Logs, non-coniferous nes	F
162	440610	Tics, railway/tramway, wood not impregnated	F
163	440690	Tics, railway/tramway, wood nes	F
164	440710	Lumber, coniferous (softwood) 6 mm and thicker	F
165	440721	Lumber, Meranti red (light & dark), Meranti Bakau, White Lauan, etc.	F
166	440722	Lumber, Okoume, Obeche, Sapelli, Sipo, Acajou d'Afrique, Makor, etc.	F
167	440723	Lumber, Baboon, Mahogany (Swietenia spp), Imbuia and Balsa	F
168	440791	Lumber, Oak	F
169	440792	Lumber, Beech	F
170	440799	Lumber, non-coniferous nes	F
171	440810	Veneer, coniferous (softwood) less than 6 mm thick	F
172	440820	Veneer, tropical woods, less than 6 mm thick	F
173	440890	Veneer, non-coniferous nes, less than 6 mm thick	F
174	510111	Greasy shorn wool, not carded or combed	F
175	510119	Greasy wool (other than shorn wool) not carded or combed	F
176	510121	Degreased shorn wool, not carded, combed or carbonised	F
177	510129	Degreased wool (other than shorn wool), not carded, combed or carbonised	F
178	510130	Carbonised wool, not carded or combed	F
179	510310	Wools of wool or of fine animal hair	F
180	510400	Garnetted stock of wool or of fine or coarse animal hair	F
181	510510	Carded wool	F
182	520100	Cotton, not carded or combed	F
183	520210	Cotton yarn waste (including thread waste)	F
184	520291	Garnetted stock of cotton	F
185	520299	Cotton waste, nes	F
186	520300	Cotton, carded or combed	F
187	520411	Cotton sewing thread >=85% by weight of cotton, not put up for retail sale	F
188	520419	Cotton sewing thread, <85% by weight of cotton, not put up for retail sale	F
189	520420	Cotton sewing thread, put up for retail sale	F
190	520511	Cotton yarn, >=85%, single, uncombed, >=714.29dtex, not put up	F
191	520512	Cotton yarn, >=85%, single, uncombed, 714.29 > dtex >= 232.56, not put up	F
192	520513	Cotton yarn, >=85%, single, uncombed, 232.56 > dtex >= 192.31 not put up	F
193	520514	Cotton yarn, >=85%, single, uncombed, 192.31 > dtex >= 125, not put up	F
194	520515	Cotton yarn, >=85%, single, uncombed, <125dtex, not put up for retail sale	F
195	520521	Cotton yarn, >=85%, single, combed, >=714.29, not put up	F
196	520522	Cotton yarn, >=85%, single, combed, 714.29 > dtex >= 232.56, not put up	F
197	520523	Cotton yarn, >=85%, single, combed, 232.56 > dtex >= 192.31, not put up	F
198	520524	Cotton yarn, >=85%, single, combed, 192.31 > dtex >= 125, not put up	F
199	520525	Cotton yarn, >=85%, single, combed, <125dtex, not put up for retail sale	F

Serial number	HS Code number	Description	Category
200	520531	Cotton yarn, >=85%, multi, uncombed, >=714.29dtex, not put up, nes	F
201	520532	Cotton yarn, >=85%, multi, uncombed, 714.29 > dtex >=232.56, nt put up, nes	F
202	520533	Cotton yarn, >=85%, multi, uncombed, 232.56 > dtex >=192.31, nt put up, nes	F
203	520534	Cotton yarn, >=85%, multi, uncombed, 192.31 > dtex >=125, nt put up, nes	F
204	520535	Cotton yarn, >=85%, multi, uncombed, <125 dtex, not put up, nes	F
205	520541	Cotton yarn, >=85%, multiple, combed, >=714.29dtex, not put up, nes	F
206	520542	Cotton yarn, >=85%, multi, combed, 714.29 > dtex >=232.56, nt put up, nes	F
207	520543	Cotton yarn, >=85%, multi, combed, 232.56 > dtex >=192.31, nt put up, nes	F
208	520544	Cotton yarn, >=85%, multiple, combed, 192.31 > dtex >=125, not put up, nes	F
209	520545	Cotton yarn, >=85%, multiple, combed, <125 dtex, not put up, nes	F
210	520611	Cotton yarn, <85%, single, uncombed, >=714.29, not put up	F
211	520612	Cotton yarn, <85%, single, uncombed, 714.29 > dtex >=232.56, nt put up	F
212	520613	Cotton yarn, <85%, single, uncombed, 232.56 > dtex >=192.31, not put up	F
213	520614	Cotton yarn, <85%, single, uncombed, 192.31 > dtex >=125, nt put up	F
214	520615	Cotton yarn, <85%, single, uncombed, <125dtex, not put up for retail sale	F
215	520621	Cotton yarn, <85%, single, combed, >=714.29dtex, nt put up	F
216	520622	Cotton yarn, <85%, single, combed, 714.29 > dtex >=232.56, not put up	F
217	520623	Cotton yarn, <85%, single, combed, 232.56 > dtex >=192.31, not put up	F
218	520624	Cotton yarn, <85%, single, combed, 192.31 > dtex >=125, not put up	F
219	520625	Cotton yarn, <85%, single, combed, <125dtex, not put up for retail sale	F
220	520631	Cotton yarn, <85%, multiple, uncombed, >=714.29, not put up, nes	F
221	520632	Cotton yarn, <85%, multiple, uncombed, 714.29 > dtex >=232.56, nt put up, nes	F
222	520633	Cotton yarn, <85%, multiple, uncombed, 232.56 > dtex >=192.31, nt put up, nes	F
223	520634	Cotton yarn, <85%, multiple, uncombed, 192.31 > dtex >=125, nt put up, nes	F
224	520635	Cotton yarn, <85%, multiple, uncombed, <125 dtex, not put up, nes	F
225	520641	Cotton yarn, <85%, multiple, combed, >=714.29, nt put up, nes	F
226	520642	Cotton yarn, <85%, multiple, combed, 714.29 > dtex >=232.56, nt put up, nes	F
227	520643	Cotton yarn, <85%, multiple, combed, 232.56 > dtex >=192.31, nt put up, nes	F
228	520644	Cotton yarn, <85%, multiple, combed, 192.31 > dtex >=125, nt put up, nes	F
229	520645	Cotton yarn, <85%, multiple, combed, <125 dtex, not put up, nes	F
230	520710	Cotton yarn (o/t sewing thread) >=85% by weight of cotton, put up	F
231	520790	Cotton yarn (o/t sewg thread) <85% by wt of cotton, put up f retl sale	F
232	520811	Plain weave cotton fabric, >=85%, not more than 100 g/m2, unbleached	F
233	520812	Plain weave cotton fabric, >=85%, >100 g/m2 to 200 g/m2, unbleached	F
234	520813	Twill weave cotton fabric, >=85%, not more than 200 g/m2, unbleached	F
235	520819	Woven fabrics of cotton, >=85%, not more than 200 g/m2, unbleached, nes	F
236	520821	Plain weave cotton fabrics, >=85%, not more than 100 g/m2, bleached	F
237	520822	Plain weave cotton fabric, >=85%, >100 g/m2 to 200 g/m2, bleached	F
238	520823	Twill weave cotton fabric, >=85%, not more than 200 g/m2, bleached	F
239	520829	Woven fabrics of cotton, >=85%, nt more than 200 g/m2, bleached, nes	F
240	520831	Plain weave cotton fabric, >=85%, not more than 100 g/m2, dyed	F
241	520832	Plain weave cotton fabric, >=85%, >100g/m= to 200g/m=, dyed	F
242	520833	Twill weave cotton fabrics, >=85%, not more than 200 g/m2, dyed	F
243	520839	Woven fabrics of cotton, >=85%, not more than 200 g/m2, dyed, nes	F
244	520841	Plain weave cotton fabric, >=85%, not more than 100 g/m2, yarn dyed	F
245	520842	Plain weave cotton fabrics, >=85%, >100 g/m2 to 200 g/m2, yarn dyed	F
246	520843	Twill weave cotton fabric, >=85%, not more than 200 g/m2, yarn dyed	F
247	520849	Woven fabrics of cotton, >=85%, nt more than 200 g/m2, yarn dyed, nes	F
248	520851	Plain weave cotton fabrics, >=85%, not more than 100 g/m2, printed	F
249	520852	Plain weave cotton fabric, >=85%, >100 g/m2 to 200 g/m2, printed	F
250	520853	Twill weave cotton fabric, >=85%, not more than 200 g/m2, printed	F
251	520859	Woven fabrics of cotton, >=85%, not more than 200 g/m2, printed, nes	F
252	520911	Plain weave cotton fabric, >=85%, more than 200 g/m2, unbleached	F
253	520912	Twill weave cotton fabric, >=85%, more than 200 g/m2, unbleached	F
254	520919	Woven fabrics of cotton, >=85%, more than 200 g/m2, unbleached, nes	F
255	520921	Plain weave cotton fabric, >=85%, more than 200 g/m2, bleached	F
256	520922	Twill weave cotton fabrics, >=85%, more than 200 g/m2, bleached	F
257	520929	Woven fabrics of cotton, >=85%, more than 200 g/m2, bleached, nes	F
258	520931	Plain weave cotton fabrics, >=85%, more than 200 g/m2, dyed	F
259	520932	Twill weave cotton fabrics, >=85%, more than 200 g/m2, dyed	F
260	520939	Woven fabrics of cotton, >=85%, more than 200 g/m2, dyed, nes	F
261	520941	Plain weave cotton fabrics, >=85%, more than 200 g/m2, yarn dyed	F
262	520942	Denim fabrics of cotton, >=85%, more than 200 g/m2	F
263	520943	Twill weave cotton fab, o/t denim, >=85%, more than 200 g/m2, yarn dyed	F
264	520949	Woven fabrics of cotton, >=85%, more than 200 g/m2, yarn dyed, nes	F
265	520951	Plain weave cotton fabrics, >=85%, more than 200 g/m2, printed	F
266	520952	Twill weave cotton fabrics, >=85%, more than 200 g/m2, printed	F

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267	520959	Woven fabrics of cotton, $\geq 85\%$, more than 200 g/m ² , printed, nes	F
268	521011	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , unbl	F
269	521012	Twill weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , unbl	F
270	521019	Woven fab of cotton, $< 85\%$ mixed with m-m fib, ≤ 200 g/m ² , unbl, nes	F
271	521021	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , bl	F
272	521022	Twill weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , bl	F
273	521029	Woven fabrics of cotton, $< 85\%$ mixed with m-m fib, ≤ 200 g/m ² , bl, nes	F
274	521031	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , dyd	F
275	521032	Twill weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , dyd	F
276	521039	Woven fabrics of cotton, $< 85\%$ mixed with m-m fib, ≤ 200 g/m ² , dyed, nes	F
277	521041	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , yarn dyd	F
278	521042	Twill weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , yarn dyd	F
279	521049	Woven fabrics of cotton, $< 85\%$ mixed w m-m fib, ≤ 200 g/m ² , yarn dyed, nes	F
280	521051	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , printd	F
281	521052	Twill weave cotton fab, $< 85\%$ mixed w m-m fib, not more than 200 g/m ² , printd	F
282	521059	Woven fabrics of cotton, $< 85\%$ mixed with m-m fib, ≤ 200 g/m ² , printed, nes	F
283	521111	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , unbleachd	F
284	521112	Twill weave cotton fab, $< 85\%$ mixed with m-m fib, more than 200 g/m ² , unbl	F
285	521119	Woven fabrics of cotton, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , unbl, nes	F
286	521121	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , bleachd	F
287	521122	Twill weave cotton fab, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , bleachd	F
288	521129	Woven fabrics of cotton, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , bl, nes	F
289	521131	Plain weave cotton fab, $< 85\%$ mixed with m-m fib, more than 200 g/m ² , dyed	F
290	521132	Twill weave cotton fab, $< 85\%$ mixed with m-m fib, more than 200 g/m ² , dyed	F
291	521139	Woven fabrics of cotton, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , dyd, nes	F
292	521141	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , yarn dyd	F
293	521142	Denim fabrics of cotton, $< 85\%$ mixed with m-m fib, more than 200 g/m ²	F
294	521143	Twill weave cotton fab, o/t denim, $< 85\%$ mixed w m-m fib, > 200 g/m ² , yarn dyd	F
295	521149	Woven fabrics of cotton, $< 85\%$ mixed with m-m fib, > 200 g/m ² , yarn dyed, nes	F
296	521151	Plain weave cotton fab, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , printd	F
297	521152	Twill weave cotton fab, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , printd	F
298	521159	Woven fabrics of cotton, $< 85\%$ mixed w m-m fib, more than 200 g/m ² , printed, nes	F
299	521211	Woven fabrics of cotton, weighing not more than 200 g/m ² , unbleached, nes	F
300	521212	Woven fabrics of cotton, weighing not more than 200 g/m ² , bleached, nes	F
301	521213	Woven fabrics of cotton, weighing not more than 200 g/m ² , dyed, nes	F
302	521214	Woven fabrics of cotton, ≤ 200 g/m ² , of yarns of different colours, nes	F
303	521215	Woven fabrics of cotton, weighing not more than 200 g/m ² , printed, nes	F
304	521221	Woven fabrics of cotton, weighing more than 200 g/m ² , unbleached, nes	F
305	521222	Woven fabrics of cotton, weighing more than 200 g/m ² , bleached, nes	F
306	521223	Woven fabrics of cotton, weighing more than 200 g/m ² , dyed, nes	F
307	521224	Woven fabrics of cotton, > 200 g/m ² , of yarns of different colours, nes	F
308	521225	Woven fabrics of cotton, weighing more than 200 g/m ² , printed, nes	F
309	540210	High tenacity yarn (o/t sewg thread), nylon/oth polyamides fi, not put up	F
310	540220	High tenacity yarn (o/t sewg thread), of polyester filaments, not put up	F
311	540231	Textured yarn nes, of nylon/oth polyamides fi, ≤ 50 tex/s.y., not put up	F
312	540232	Textured yarn nes, of nylon/oth polyamides fi, > 50 tex/s.y., not put up	F
313	540233	Textured yarn nes, of polyester filaments, not put up for retail sale	F
314	540239	Textured yarn of synthetic filaments, nes, not put up	F
315	540241	Yarn of nylon or other polyamides fi, single, untwisted, nes, not put up	F
316	540242	Yarn of polyester filaments, partially oriented, single, nes, not put up	F
317	540243	Yarn of polyester filaments, single, untwisted, nes, not put up	F
318	540249	Yarn of synthetic filaments, single, untwisted, nes, not put up	F
319	540251	Yarn of nylon or other polyamides fi, single, > 50 turns/m, not put up	F
320	540252	Yarn of polyester filaments, single, > 50 turns per metre, not put up	F
321	540259	Yarn of synthetic filaments, single, > 50 turns per metre, nes, not put up	F
322	540261	Yarn of nylon or other polyamides fi, multiple, nes, not put up	F
323	540262	Yarn of polyester filaments, multiple, nes, not put up	F
324	540269	Yarn of synthetic filaments, multiple, nes, not put up	F
325	550110	Filament tow of nylon or other polyamides	F
326	550120	Filament tow of polyesters	F
327	550130	Filament tow of acrylic or modacrylic	F
328	550190	Synthetic filament tow, nes	F
329	550310	Staple fibers of nylon or other polyamides, not carded or combed	F
330	550320	Staple fibers of polyesters, not carded or combed	F
331	550330	Staple fibers of acrylic or modacrylic, not carded or combed	F
332	550340	Staple fibers of polypropylene, not carded or combed	F
333	550390	Synthetic staple fibers, not carded or combed, nes	F

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334	550610	Staple fibers of nylon or other polyamides, carded or combed	F
335	550620	Staple fibers of polyester, carded or combed	F
336	550630	Staple fibers of acrylic or modacrylic, carded or combed	F
337	550690	Synthetic staple fibers, carded or combed, nes	F
338	550911	Yarn, >/=85 % nylon or other polyamides staple fibers, single, not put up	F
339	550912	Yarn, >/=85 % nylon o oth polyamides staple fibers, multi, not put up, nes	F
340	550921	Yarn, >/=85 % of polyester staple fibers, single, not put up	F
341	550922	Yarn, >/=85 % of polyester staple fibers, multiple, not put up, nes	F
342	550931	Yarn, >/=85 % of acrylic or modacrylic staple fibers, single, not put up	F
343	550932	Yarn, >/=85 % acrylic/modacrylic staple fibers, multiple, not put up, nes	F
344	550941	Yarn, >/=85 % of other synthetic staple fibers, single, not put up	F
345	550942	Yarn, >/=85 % of other synthetic staple fibers, multiple, not put up, nes	F
346	550951	Yarn of polyester staple fibers mixed w/ arti staple fib, not put up, nes	F
347	550952	Yarn of polyester staple fib mixed w wool/fine animal hair, nt put up, nes	F
348	550953	Yarn of polyester staple fibers mixed with cotton, not put up, nes	F
349	550959	Yarn of polyester staple fibers, not put up, nes	F
350	550961	Yarn of acrylic staple fib mixed w wool/fine animal hair, not put up, nes	F
351	550962	Yarn of acrylic staple fibers mixed with cotton, not put up, nes	F
352	550969	Yarn of acrylic staple fibers, not put up, nes	F
353	550991	Yarn of oth synthetic staple fibers mixed w/wool/fine animal hair, nes	F
354	550992	Yarn of other synthetic staple fibers mixed with cotton, not put up, nes	F
355	550999	Yarn of other synthetic staple fibers, not put up, nes	F
356	720110	Pig iron, non-alloy, containg by wght </=0.5 % phosphorus in primary form	F
357	720120	Pig iron, non-alloy, contg by wght >0.5 % of phosphorus in primary form	F
358	720130	Pig iron, alloy in primary forms	F
359	720140	Spiegeleisen in primary forms	F
360	720211	Ferro-manganese, containing by weight more than 2% of carbon	F
361	720219	Ferro-manganese, nes	F
362	720221	Ferro-silicon, containing by weight more than 55% of silicon	F
363	720229	Ferro-silicon, nes	F
364	720230	Ferro-silico-manganese	F
365	720241	Ferro-chromium containing by weight more than 4% of carbon	F
366	720249	Ferro-chromium, nes	F
367	720250	Ferro-silico-chromium	F
368	720260	Ferro-nickel	F
369	720270	Ferro-molybdenum	F
370	720280	Ferro-tungsten and ferro-silico-tungsten	F
371	720291	Ferro-titanium and ferro-silico-titanium	F
372	720292	Ferro-vanadium	F
373	720293	Ferro-niobium	F
374	720299	Ferro-alloys, nes	F
375	720310	Ferrous products obtained by direct reduction of iron ore, nes	F
376	720390	Spongy ferrous prods. or iron havg a minimum purity by weight of 99.94 %	F
377	720410	Waste and scrap, cast iron	F
378	720421	Waste and scrap, stainless steel	F
379	720429	Waste and scrap, of alloy steel, other than stainless	F
380	720430	Waste and scrap, of tinned iron or steel	F
381	720441	Ferrous waste & scrap, i or s, from the mechanical working of metal, nes	F
382	720449	Ferrous waste and scrap, iron or steel, nes	F
383	720450	Remelting scrap ingots, of iron or steel	F
384	720510	Granules of pig iron or spiegeleisen	F
385	720521	Powders, alloy steel	F
386	720529	Powders, iron or steel, other than alloy	F
387	720610	Ingots, iron or non-alloy steel, of a purity of less than 99.94 % iron	F
388	720690	Primary forms, iron/non-alloy steel, nes, of a purity < 99.94 % iron	F
389	720711	Semi-fin prod, i/nas, rect/sq cross-sect cntg by wgt <.25 % c, width <2X thk	F
390	720712	Semi-fin prod, iron/n-al steel, rect/sq cross sect, cntg by wgt <.25 % carb	F
391	720719	Semi-fin prod, iron or non-alloy steel, cntg by wght <.25 % carbon, nes	F
392	720720	Semi-fin prod, iron/non-alloy steel, containing by weight .25 %/more carbon	F
393	720811	Flat rolled prod, i/nas, in coil, hr, >/=600mm wide, >10mm thk, myp 355 mpa	F
394	720812	Flat rolled prod, i/nas, in coil, hr, w >/=600mm, 4.75 </=thk </=10mm, 355mpa	F
395	720813	Flat rolled prod, i/nas, in coil, hr, w >/=600mm, 3mm </=thk <4.75mm, 355mpa	F
396	720814	Flat rolled prod, i/nas, in coil, hr, >/=600mm wide, <3mm thk, myp 275 mpa	F
397	720821	Flat rolled prod, i/nas, in coil, hr, >/=600mm wide, >10mm thk, nes	F
398	720822	Flat rolled prod, i/nas, in coil, hr, w >/=600mm, 4.75mm </=thk </=10mm, nes	F
399	720823	Flat rolled prod, i/nas, in coil, hr, >/=600mm wide, 3mm </=thk <4.75mm, nes	F
400	720824	Flat rolled prod, i/nas, in coil, hr, >/=600mm wide, less than 3mm thk, nes	F

Serial number	HS Code number	Description	Category
401	720831	Flat rolled prod,i/nas,nic,hr,600mm < /=w < /=1250mm, > /=4mmthk,355mpa	F
402	720832	Flat rolled prod, i/nas, nic, hr > /=600mm wide, > 10mm thk, myp 355 mpa	F
403	720833	Flat rolled prod,i/nas,nic,hr,w> /=600mm,4.75mm < /=thk < /=10mm,myp355mpa	F
404	720834	Flat rolled prod,i/nas,nic,hr,w> /=600mm,3mm < /=thk < 4.75mm,myp355mpa	F
405	720835	Flat rolled prod,i/nas,nic,hr,w> /=600mm,less than 3mm thk,myp 355 mpa	F
406	720841	Flat rolled prod,i/nas,nic,hr,600mm < /=width < /=1,250mm, > /=4mmthk,nes	F
407	720842	Flat rolled prod, i/nas, not in coil, hr > /=600mm wide, > 10mm thk, nes	F
408	720843	Flat rolled prod,i/nas,nt in coil,hr,w> /=600,4.75 < /=thk < /=10mm,nes	F
409	720844	Flat rolled prod,i/nas,nt in coil,hr,w> /=600,3mm < /=thk < 4.75mm,nes	F
410	720845	Flat rolled prod,i/nas,nt in coil,hr,width > /=600mm, < 3mm thk, nes	F
411	720890	Flat rolled prod, i/nas, not further worked than hot rolled, nes	F
412	720911	Flat rolled prod,i/nas,in coil,cr,w> /=600mm, > /=3mmthk,myp 355 mpa	F
413	720912	Flat rolled prod,i/nas,in coil,cr,w> /=600mm,1mm < thk < 3mm,myp 275 mpa	F
414	720913	Flat rolled prod,i/nas,in coil,cr,w> /=600mm,thk > /=0.5max1mm,myp 275mpa	F
415	720914	Flat rolled prod,i/nas,in coil,cr, > /=600mm wide, < 0.5mm thk,myp 275 mpa	F
416	720921	Flat rolled prod,i/nas,in coil,cr, > /=600mm wide,3mm or more thk,nes	F
417	720922	Flat rolled prod,i/nas,in coil,cr, > /=600mm wide,1mm < /=thk < 3mm, nes	F
418	720923	Flat rolled prod,i/nas,in coil,cr,w> /=600mm,0.5 < /=thk < /=1mm,nes	F
419	720924	Flat rolled prod,i/nas,in coil,cr,w> /=600mm,less than 0.5mm thk,nes	F
420	720931	Flat rolled prod,i/nas,nt in coil,cr,w > /=600mm, > /=3mm thk,myp 355 mpa	F
421	720932	Flat rolled prod,i/nas,nt in coil,cr,w> /=600mm,1mm < thk < 3mm,myp 355mpa	F
422	720933	Flat rolled prod,i/nas,nt in coil,cr,w> /=600,thk > /=0.5max1mm,myp355mpa	F
423	720934	Flat rolled prod,i/nas,not in coil,cr,w> /=600,thk < 0.5mm,myp355mpa	F
424	720941	Flat rolled prod,i/nas,not in coil,cr > /=600mm wide, > /=3mm thk,nes	F
425	720942	Flat rolled prod,i/nas,not in coil,cr > /=600mm wide,1mm < thk < 3mm,nes	F
426	720943	Flat rolled prod,i/nas,nt in coil,cr, > /=600mm,0.5 < /=thk < /=1mm,nes	F
427	720944	Flat rolled prod,i/nas,not in coil,cr,w> /=600,thk < 0.5mm,nes	F
428	720990	Flat rolled prod, i/nas, not in coil, cr > /=600mm wide, nes	F
429	721011	Flat rolled prod,i/nas,plated or coated with tin,w> /=600mm, > /=0.5mmthk	F
430	721012	Flat rolled prod,i/nas,plated or coated with tin, > /=600mm wide, < 0.5mm thk	F
431	721020	Flat rolled prod,plated or coated w lead, > /=600mm wide,including terne-plate	F
432	721031	Flat rolled prod,steel,elec pltd/ctd w zinc,thk < 3mm myp275, > /=3 myp355	F
433	721039	Flat rolled prod,i/nas,electro pltd or ctd w zinc, > /=600mm wide, nes	F
434	721041	Flat rolled prod,i/nas,pltd or ctd w zinc,corrugated, > /=600mmwide,nes	F
435	721049	Flat rolled prod,i/nas,plated or coated with zinc, > /=600mm wide, nes	F
436	721050	Flat rolled prod,i/nas,pltd/ctd w chrom oxid/chrom&chrom oxid, > /=600mm	F
437	721060	Flat rolled prod,i/nas,plated or coated with aluminium, > /=600mmwide	F
438	721070	Flat rolled prod,i/nas,painted, varnished or plast coated, > /=600mm wide	F
439	721090	Flat rolled prod, i/nas, clad, plated or coated, > /=600mm wide, nes	F
440	721111	Flat rolled prod,i/nas,hr,rolled on 4 face,150 < w < 600mm,thk > /=4mm,myp355	F
441	721112	Flat rolled prod, i/nas, hr, < 600mm wide > /=4.75mm thk, myp 355 mpa	F
442	721119	Flat rolled prod,i/nas,hr,w < 600,thk < 3mmmyp275,thk > /=3mm myp 355,nes	F
443	721121	Flat rolled prod,i/nas,hr,rolled on 4 faces,150mm < w < 600mm, > /=4mmthk,nes	F
444	721122	Flat rolled prod, i/nas, hr, < 600mm wide, > /=4.75mm thk, nes	F
445	721129	Flat rolled prod, i/nas, hr, < 600mm wide nes	F
446	721130	Flat rolled prod,i/nas,cr,w < 600,thk < 3mmmyp 275, > /=3mm myp 355	F
447	721141	Flat rolled prod,i/nas,cr,w < 600mm cntg by wght less than 0.25% carbon	F
448	721149	Flat rolled prod, i/nas, cold rolled or cold reduced, < 600mm wide	F
449	721190	Flat rolled prod, i/nas, < 600mm wide, not clad, plated or coated, nes	F
450	721210	Flat rolled prod, i/nas, < 600mm wide, plated or coated with tin, nes	F
451	721221	Flat rolled prod,steel, < 600mm wide, < 3mm thk myp 275, > /=3mm thk myp 355	F
452	721229	Flat rolled prod, i/nas, < 600mm wide, clad, plated or coated, nes	F
453	721230	Flat rolled prod, i/nas, < 600mm wide, o/w plated or coated with zinc	F
454	721240	Flat rolled prod,i/nas, < 600mm wide,painted, varnished or plast coated	F
455	721250	Flat rolled prod, i/nas, < 600mm wide, plated or coated, nes	F
456	721260	Flat rolled prod, i/nas, < 600mm wide, clad	F
457	721310	Bars&rods,i/nas,hr,in irreg wound coils,cntg indent,ribs,etc prod d sp	F
458	721320	Bars & rods, i/nas, hr, in irreg wound coils, of free cutting steel	F
459	721331	Bars/rod,i/nas,hr,in irreg wnd coil of circ c sect,dia < 14mm,ctg < 0.25% C	F
460	721339	Bars & rods,i/nas,hr,containing by weight less than 0.25% carbon,nes	F
461	721341	Bars&rods,i/nas,hr,of circ cross sect < 14mm dia,ctg by wt .25% < /=C < .6%	F
462	721349	Bars & rods,i/nas,hr,containing by wght 0.25% < /=carbon < 0.6%	F
463	721350	Bars&rods,iron/non-alloy steel,hr containg by wght 0.6%/more carbon	F
464	721410	Bars & rods, iron or non-alloy steel forged	F
465	721420	Bars & rods,i/nas,hr,hd or hc,ctg indent,ribs,etc,prod dur sp/tar,nes	F
466	721430	Bars & rods,i/nas,hot rolled drawn or extruded of free cuttg steel,nes	F
467	721440	Bars&rods,i/nas,hot rolled,drawn or extruded,cntg by wght < 0.25% C,nes	F

Serial number	HS Code number	Description	Category
468	721450	Bars & rods, i/nas, hr, hd or hc, cntg by wght 0.25% < /= carbon < 0.6% nes	F
469	721460	Bars & rods, i/nas, hr, hd or hc, cntg by wght 0.6% or more carbon, nes	F
470	721510	Bars & rods, i/nas, nfw than cold formed or finished of free cuttg steel	F
471	721520	Bars & rods, i/nas, nfw than cold formd/finishd, cntg by wght < 0.25% carbon	F
472	721530	Bars & rods, i/nas, nfw than cold formd/finishd, cntg by wght 0.25% < /= C < 0.6%	F
473	721540	Bars & rods, i/nas, nfw than cold formd/finishd, cntg by wght < /= 0.6% carbon	F
474	721590	Bars & rods, i/nas, nes	F
475	721610	Sections, U, I/H, i/nas, nfw than hot rolled/drawn/extrudd, height < 80mm	F
476	721621	Sections, L, i/nas, nfw than hot rolld, drawn or extrudd, of a height < 80mm	F
477	721622	Sections, T, i/nas, nfw than hot rolld, drawn or extrudd, of a height < 80mm	F
478	721631	Sections, U, i/nas, nfw than hot rolld, drawn or extrudd, hght 80mm or more	F
479	721632	Sections, I, i/nas, nfw than hot rolld, drawn or extrudd, hght 80mm or more	F
480	721633	Sections, H, i/nas, nfw than hot rolld, drawn or extrudd, hght 80mm or more	F
481	721640	Sections, L or T, i/nas, nfw than hot rolld, drawn or extrudd, hght > /= 80mm	F
482	721650	Angles, shapes & sect, i/nas, nfw than hot rolld/drawn/extrudd, hght > /= 80mm	F
483	721660	Angles, shapes and sections, i/nas, nfw than cold formed or cold finished	F
484	721690	Angles, shapes and sections, iron or non-alloy steel, nes	F
485	721711	Wire, i/nas, polishd or not, but not plaid or coated, cntg by wght < 0.25% C	F
486	721712	Wire, i/nas, plaid or coated with zinc, containg by wght less than 0.25% C	F
487	721713	Wire, i/nas, plaid or coated with oth base metals nes, cntg by wght < 0.25% C	F
488	721719	Wire, i/nas, containing by weight less than 0.25% carbon, nes	F
489	721721	Wire, i/nas, polishd/not, but not plaid/coatd, cntg by wght 0.25% < /= C < 0.6%	F
490	721722	Wire, i/nas, plaid or coated w zinc cntg by wght 0.25% < /= carbon < 0.6%	F
491	721723	Wire, i/nas, plaid/coatd w oth base met nes, cntg by wght 0.25% < /= C < 0.6%	F
492	721729	Wire, iron or non-alloy steel, nes cntg by wght 0.25% < /= carbon < 0.6%	F
493	721731	Wire, i/nas, polished or not, but nt plaid or coatd, cntg by wght > /= 0.6% C	F
494	721732	Wire, i/nas, plaid or coated with zinc containg by wght 0.6% or more carbon	F
495	721733	Wire, i/nas, plaid or coatd w oth base met nes, cntg by wght > /= 0.6% carbon	F
496	721739	Wire, iron or non-alloy steel, nes containg by weight 0.6% or more carbon	F
497	721810	Ingot and other primary forms, stainless steel	F
498	721890	Semi-finished products, stainless steel	F
499	721911	Flat rolld prod, stainless steel, hr, in coil, w > /= 600mm, thk > 10mm	F
500	721912	Flat rolld prod, stainless steel, hr, in coil, w > /= 600mm, 4.75 < /= thk < 10mm	F
501	721913	Flat rolld prod, stainless steel, hr in coil, w > /= 600mm, 3 < /= thk < 4.75mm	F
502	721914	Flat rolld prod, stainless steel, hr in coil, w > /= 600mm, thk < 3mm	F
503	721921	Flat rolled prod, stainless steel, hr, nic, > /= 600mm wide, over 10mm thick	F
504	721922	Flat rolld prod, stainless steel, hr, nic, w > /= 600mm, 4.75mm < /= thk < /= 10mm	F
505	721923	Flat rolled prod, stainless steel, hr, nic, w > /= 600mm, 3mm < /= thk < 4.75mm	F
506	721924	Flat rolld prod, stainless steel, hr, nic, > 600mm wide, less than 3mm thick	F
507	721931	Flat rolled prod, stainless steel, cr, > 600mm wide, 4.75mm or more thick	F
508	721932	Flat rolled prod, stainless steel, cr, w > /= 600mm, 3mm < /= thick < 4.75mm	F
509	721933	Flat rolled prod, stainless steel, cr, 600mm wide, 1mm < thick < 3mm	F
510	721934	Flat rolled prod, stainless steel, cr, w > /= 600mm, 0.5mm < /= thick < 1mm	F
511	721935	Flat rolled prod, stainless steel, cr, > 600mm wide, less than 0.5mm thick	F
512	721990	Flat rolled prod, stainless steel, 600mm or more wide, nes	F
513	722011	Flat rolled prod, stainless steel, hr < 600mm wide, exceeding 4.75mm thick	F
514	722012	Flat rolled prod, stainless steel, hr < 600mm wide, less than 4.75mm thick	F
515	722020	Flat rolled prod, stainless steel, < 600mm wide, cold rolled or reduced	F
516	722090	Flat rolled prod, stainless steel, cr < 600mm wide, nes	F
517	722100	Bars & rods, stainless steel, hot rolled in irregularly wound coils	F
518	722210	Bars & rods, stainless steel, nfw than hot rolled, hot drawn or extruded	F
519	722220	Bars & rods, stainless steel, nfw than cold formed or cold finished	F
520	722230	Bars & rods, stainless steel, nes	F
521	722240	Angles, shapes and sections, stainless steel	F
522	722300	Wire of stainless steel	F
523	722410	Ingot & other primary forms of alloy steel, o/t stainless	F
524	722490	Semi-finished products of alloy steel o/t stainless	F
525	722510	Flat rolled products of silicon electrical steel, > /= 600mm wide	F
526	722520	Flat rolled products of high speed steel > /= 600mm wide	F
527	722530	Flat rolled prod, as, o/t stainless, in coils, nfw than hr, w > /= 600mm, nes	F
528	722540	Flat rolled prod, as, o/t stainless, nic nfw than hr, > /= 600mm wide, nes	F
529	722550	Flat rolld prod, as, o/t stainless, nfw than cold rolld, > /= 600mm wide, nes	F
530	722590	Flat rolled prod, as, o/t stainless, > /= 600mm wide, nes	F
531	722610	Flat rolled prod, of silicon electrical steel, < 600mm wide	F
532	722620	Flat rolled prod, of high speed steel, < 600mm wide	F
533	722691	Flat rolled prod, as, o/t stainless, nfw than hot rolled, < 600mm wide, nes	F
534	722692	Flat rolled prod, as, o/t stainless, nfw than cold rolled, < 600mm wide	F

Serial number	HS Code number	Description	Category
535	722699	Flat rolled prod, as, o/t stainless, <600mm wide, nes	F
536	722710	Bars & rods, of high speed steel, hr, in irregularly wound coils	F
537	722720	Bars & rods, of silico-manganese steel, hr, in irregularly wound coils	F
538	722790	Bars&rods, alloy steel, o/t stainless hr, in irregularly wound coils, nes	F
539	722810	Bars and rods of high speed steel, nes	F
540	722820	Bars and rods of silico-manganese steel nes	F
541	722830	Bars&rods, alloy steel, o/t stainless n/w thin hot rolled/drawn/extrud, nes	F
542	722840	Bars & rods, as, o/t stainless, not further worked than forged	F
543	722850	Bars&rods, as, o/t stainless, not further worked than cold formed/finishd	F
544	722860	Bars & rods, as, o/t stainless, nes	F
545	722870	Angles, shapes and sections, as, o/t stainless, nes	F
546	722880	Bars & rods, hollow drill, alloy or nonalloy steel	F
547	722910	Wire of high speed steel	F
548	722920	Wire of silico-manganese steel	F
549	722990	Wire of alloy steel, o/t stainless	F
550	730110	Sheet piling, i/s whether/not drilled/punchd/made from assem elements	F
551	730120	Angles, shapes and sections, welded, iron or steel	F
552	730210	Rails, iron or steel	F
553	730220	Sleepers (cross-ties), iron or steel	F
554	730230	Switch blades, crossing frogs, point rods & other crossing pieces, i or s	F
555	730240	Fish plates and sole plates, iron or steel	F
556	730290	Rail or tramway construction material of iron or steel, nes	F
557	730300	Tubes, pipes and hollow profiles of cast iron	F
558	730410	Pipes, line, iron or steel, smls, of a kind used for oil or gas pipelines	F
559	730420	Casings, tubg & drill pipe, i or s, smls, for use in drillg for oil or gas	F
560	730431	Tubes, pipe&hollow profiles, i/nas, smls, od/cr, of circ cross section, nes	F
561	730439	Tubes, pipe & hollow profiles, i or nas, smls, of circ cross section, nes	F
562	730441	Tube, pipe&hollow profile, stain steel, smls, od/cr of circ cross sect, nes	F
563	730449	Tube, pipe&hollow profile, stainless steel, smls, of circ cross sect, nes	F
564	730451	Tubes, pipe&hollow profile, as, (o/t stain) smls, od/cr of circ cross sect	F
565	730459	Tube, pipe&hollow profile, as, (o/t stainless) smls, circ cross sect, nes	F
566	730490	Tubes, pipe & hollow profiles, iron or steel, smls, nes	F
567	730511	Pipe, line, i/s, longitudinally subm arc wld, int/ext cc sect, dia >406.4mm	F
568	730512	Pipe, line, i/s, longitudinally wld w int/ext circ c sect, ext dia >406.4mm	F
569	730519	Pipe, line, i or s, int/ext circ cross sect, wld, ext dia >406.4mm, nes	F
570	730520	Casings, i/s, int/ext circ c sect, wld ext dia >406.4mm, oil/gas drill, nes	F
571	730531	Tubes & pipe, i or s, longitudinally welded, external dia >406.4mm, nes	F
572	730539	Tubes & pipe, i or s, welded, riveted or sim closed, ext dia >406.4mm, nes	F
573	730590	Tubes & pipe, i or s, riveted or sim closed, ext dia >406.4mm, nes	F
574	730610	Pipe, line, i or s, weldd, riveted or sim closed, nes, for oil or gas pipeline	F
575	730620	Casing/tubing, i or s, welded, riveted or sim closed, nes, for oil/gas drillg	F
576	730630	Tubes, pipe & hollow profiles, iron or nas, welded, of circ cross sect, nes	F
577	730640	Tube, pipe&hollow profile, stainless steel, weldd, of circ cross sect, nes	F
578	730650	Tubes, pipe&hollow profiles, al/s, (o/t stain) wld, of circ cross sect, nes	F
579	730660	Tubes, pipe & hollow profiles, i/s, welded, of non circ cross sect, nes	F
580	730690	Tubes, pipe & hollow profiles, iron or steel, welded, nes	F
581	730711	Fittings, pipe or tube, of non-malleable cast iron	F
582	730719	Fittings, pipe or tube, cast, of iron or steel, nes	F
583	730721	Flanges, stainless steel	F
584	730722	Threaded elbows, bends and sleeves of stainless steel	F
585	730723	Fittings, butt welding, stainless steel	F
586	730729	Fittings pipe or tube of stainless steel, nes	F
587	730791	Flanges, iron or steel, nes	F
588	730792	Threaded elbows, bend and sleeves, iron or steel, nes	F
589	730793	Fittings, butt welding, iron or steel, nes	F
590	730799	Fittings, pipe or tube, iron or steel, nes	F
591	730810	Bridges and bridge sections, iron or steel	F
592	730820	Towers and lattice masts, iron or steel	F
593	730830	Doors, windows & their frames & thresholds for doors of iron or steel	F
594	730840	Props&similar equipment for scaffolding, shutterg/pit-propping, i/s	F
595	730890	Structures&parts of structures, i/s (ex prefab bldgs of headg no.9406)	F
596	730900	Reservoirs, tanks, vats&sim ctar, cap >300L, i o s (ex liq/compr gas type)	F
597	731010	Tanks, caaks, drums, cans, boxes&sim contr, i or s, capc >/=50L but <300L	F
598	731021	Cans, iron o steel, cap <50 litres, to be closed by crimpg o soldering, nes	F
599	731029	Cans, iron or steel, capacity <50 litres nes	F
600	731100	Containers for compressed or liquefied gas of iron or steel	F
601	731210	Stranded wire, ropes&cables of iron or steel, not electrically insulated	F

Serial number	HS Code number	Description	Category
602	731290	Plaited bands, slings and the like of iron or steel, not elec insulated	F
603	731300	Wire, barbed, twisted hoop, single flat or twisted double of iron or steel, for fencing	F
604	731411	Woven products, stainless steel	F
605	731419	Woven products, iron or steel, other than stainless	F
606	731420	Grill, netting, fencing, iron or steel, welded inter, cross-sect dim $> \sqrt{=3}$ mm, m ² $> \sqrt{=100}$ cm ²	F
607	731430	Grill, netting, fencing, iron or steel, welded at the intersection, nes	F
608	731441	Grill, netting, fencing, iron or steel, plated or coated with zinc	F
609	731442	Grill, netting, fencing, iron or steel, plastic coated	F
610	731449	Grill, netting, fencing, iron or steel, nes	F
611	731450	Expanded metal, iron or steel	F
612	732510	Cast articles of non-malleable cast iron nes	F
613	732591	Balls, grinding and similar articles of iron or steel, cast for mills	F
614	732599	Articles of iron or steel, cast, nes	F
615	732511	Balls, grinding & similar articles of iron or steel, forged or stamped, not further worked	F
616	732619	Articles of iron or steel, forged or stamped, but not further worked	F
617	732620	Articles of wire, iron or steel, nes	F
618	732690	Articles, iron or steel, nes	F

Source: GATT (1992b).

Table A2.4: CHINA: LIST OF SECOND CATEGORY IMPORTS
(Arranged According to Harmonized Commodity Description and Coding System)

Serial number	HS Code number	Description	Category
1	281511	Sodium hydroxide (caustic soda) solid	S
2	390210	Polypropylene	S
3	390220	Polyisobutylene	S
4	390230	Propylene copolymers	S
5	390290	Polymers of propylene nes or of olefins nes, in primary forms	S
6	390610	Polymethyl methacrylate	S
7	390690	Acrylic polymers nes, in primary forms	S
8	391211	Cellulose acetates, nonplasticised	S
9	391212	Cellulose acetates, plasticised	S
10	391220	Cellulose nitrates (incl collodions)	S
11	391231	Carboxymethylcellulose and its salts	S
12	391239	Cellulose ethers nes, in primary forms	S
13	391290	Cellulose derivatives nes, in primary forms	S
14	441211	Plywood, at least 1 outer ply of tropical woods (ply's < 6 mm)	S
15	441212	Plywood, at least 1 outer ply of nonconiferous wood nes (ply's < 6 mm)	S
16	441219	Plywood nes, at least 1 outer ply of coniferous wood (ply's < 6 mm)	S
17	441221	Panels, 1 outer ply nonconiferous & 1 ply of particle board	S
18	441229	Panels, 1 outer ply nonconiferous wood nes	S
19	441291	Panels, 1 outer ply coniferous wood, & 1 ply of particle board	S
20	441299	Panels, 1 outer ply coniferous wood nes	S
21	470100	Mechanical wood pulp	S
22	470200	Chemical wood pulp, dissolving grades	S
23	470311	Chemical wood pulp, soda or sulphate, coniferous, unbleached	S
24	470319	Chemical wood pulp, soda or sulphate, nonconiferous, unbleached	S
25	470321	Chemical wood pulp, soda or sulphate, coniferous, semi-bl or bleached, nes	S
26	470329	Chemical wood pulp, soda/sulphate, nonconiferous, semi-bl/bleached, nes	S
27	470411	Chemical wood pulp, sulphite, coniferous unbleached	S
28	470419	Chemical wood pulp, sulphite, nonconiferous, unbleached	S
29	470421	Chemical wood pulp, sulphite, coniferous semi-bleached or bleached, nes	S
30	470429	Chemical wood pulp, sulphite, nonconiferous, semi-bl or bleached, nes	S
31	470500	Semi-chemical wood pulp	S
32	470610	Cotton linters pulp	S
33	470691	Mechanical pulps of other fibrous material (o/t cotton linters)	S
34	470692	Chemical pulps of other fibrous material (o/t cotton linters)	S
35	470693	Semi-chemical pulps of other fibrous material (o/t cotton linters)	S
36	470710	Waste and scrap of unbleached kraft or corrugated paper and paperboard	S
37	470720	Waste and scrap of paper/paperboard made of bl chem pulp, not colrd, nes	S
38	470730	Waste and scrap of paper/paperboard made mainly of mechanical pulp, nes	S
39	470790	Waste & scrap of paper or paperboard, nes (includg unsorted waste & scrap)	S
40	840410	Auxiliary plant for use with steam or vapour generating boilers nes	S
41	840420	Condensers for steam or vapour power units	S
42	840490	Parts for auxiliary plant & condenser for steam/vapour generatg unit nes	S
43	840810	Marine propulsion engines, diesel	S
44	852810	Television receivers includg video monitors & video projectors, colour	S
45	852820	TV receivers an includg video monitr & video projectrs monochrome	S
46	854011	Cathode-ray television picture tubes, inc video monitor tubes, colour	S
47	854012	Cathode-ray TV picture tube incl video monitor tube, B&W/oth monochrom	S

Source: GATT (1992b).

Table A2.5: CHINA: LIST OF FIRST CATEGORY EXPORTS

Line number	HS 6-digit code	Label
1	90210	Green tea (not fermented) in packages not exceeding 3 kg
2	90220	Green tea (not fermented) in packages exceeding 3 kg
3	90230	Black tea (fermented)&partly fermented tea in packages not exceedg 3 kg
4	90240	Black tea (fermented) & partly fermented tea in packages exceedg 3 kg
5	100510	Maize (corn) seed
6	100590	Maize (corn) nes
7	100610	Rice in the husk (paddy or rough)
8	100620	Rice, husked (brown)
9	100630	Rice, semi-milled or wholly milled, whether or not polished or glazed
10	100640	Rice, broken
11	120100	Soya beans
12	230400	Soybean oil-cake&oth solid residues,whether or not ground or pellet
13	240110	Tobacco, unmanufactured, not stemmed or stripped
14	240120	Tobacco, unmanufactured, partly or wholly stemmed or stripped
15	240130	Tobacco refuse
16	240210	Cigars, cheroots and cigarillos, containing tobacco
17	240220	Cigarettes containing tobacco
18	240290	Cigars, cheroots, cigarillos and cigarettes, cntg tobacco substitutes
19	240310	Smokg tobacco,whether o not cntg tobacco substitutes in any proportion
20	240391	Homogenized or reconstituted tobacco
21	240399	Tobacco extracts and essences
22	261100	Tungsten ores and concentrates
23	261710	Antimony ores and concentrates
24	270111	Anthracite, whether or not pulverised but not agglomerated
25	270112	Bituminous coal, whether or not pulverised but not agglomerated
26	270119	Coal nes, whether or not pulverised but not agglomerated
27	270120	Coal briquettes, ovoids and similar manufactured solid fuels
28	270210	Lignite, whether or not pulverised, but not agglomerated
29	270220	Lignite, agglomerated
30	270300	Peat (including peat litter), whether or not agglomerated
31	270900	Petroleum oils and oils obtained from bituminous minerals, crude
32	271000	Petroleum oils&oils obtained from bituminous minerals,o/than crude, etc.
33	282580	Antimony oxides
34	284180	Metallic tungstates (wolframates)
35	500100	Silk-worm cocoons suitable for reeling
36	500200	Raw silk (not thrown)
37	500310	Silk waste, not carded or combed
38	500390	Silk waste, nes
39	500400	Silk yarn (other than yarn spun from silk waste) nt put up f retl sale
40	500500	Yarn spun from silk waste, not put up for retail sale
41	500600	Silk yarn&yarn spun from wilk waste,put up f retail sale;silk-worm gut
42	500710	Woven fabrics of noil silk
43	500720	Woven fabrics of silk/silk waste,o/t noil silk,85%/more of such fibers
44	500790	Woven fabrics of silk, nes
45	520100	Cotton, not carded or combed
46	520210	Cotton yarn waste (including thread waste)
47	520291	Garnetted stock of cotton
48	520299	Cotton waste, nes
49	520300	Cotton, carded or combed
50	520411	Cotton sewg thread >/=85% by wght of cotton,not put up for retail sale
51	520419	Cotton sewg thread, <85% by weight of cotton,not put up for retail sale
52	520420	Cotton sewing thread, put up for retail sale

Line number	HS 6-digit code	Label
53	520511	Cotton yarn, >/=85%,single,uncombd,>/=714.29 dtex, nt put up
54	520512	Cotton yarn,>/=85%,single,uncombed,714.29 >dtex>/=232.56, not put up
55	520513	Cotton yarn,>/=85%,single,uncombed,232.56 >dtex>/=192.31, not put up
56	520514	Cotton yarn,>/=85%,single,uncombed,192.31 >dtex>/=125, not put up
57	520515	Cotton yarn,>/=85%,single,uncombd,<125 dtex,nt put up f retail sale
58	520521	Cotton yarn,>/=85%, single, combed,>/=714.29, not put up
59	520522	Cotton yarn,>/=85%,single,combed, 714.29 >dtex>/=232.56, not put up
60	520523	Cotton yarn,>/=85%, single, combed, 232.56 >dtex>/=192.31, not put up
61	520524	Cotton yarn,>/=85%, single, combed, 192.31 >dtex>/=125, not put up
62	520525	Cotton yarn,>/=85%,single,combed,<125 dtex,not put up for retail sale
63	520531	Cotton yarn,>/=85%, multi, uncombed,>/=714.29 dtex, not put up, nes
64	520532	Cotton yarn,>/=85%,multi,uncombed,714.29 >dtex>/=232.56,nt put up,nes
65	520533	Cotton yarn,>/=85%,multi,uncombed,232.56 >dtex>/=192.31,nt put up,nes
66	520534	Cotton yarn,>/=85%,multi,uncombed,192.31 >dtex>/=125,nt put up, nes
67	520535	Cotton yarn,>/=85%,multi,uncombed, <125 dtex, not put up, nes
68	520541	Cotton yarn,>/=85%, multiple, combed,>/=714.29 dtex, not put up, nes
69	520542	Cotton yarn,>/=85%,multi,combed,714.29 >dtex>/=232.56,nt put up,nes
70	520543	Cotton yarn,>/=85%,multi,combed,232.56 >dtex>/=192.31,nt put up,nes
71	520544	Cotton yarn,>/=85%,multiple,combed,192.31 >dtex>/=125,not put up,nes
72	520545	Cotton yarn,>/=85%, multiple, combed, <125 dtex, not put up, nes
73	520611	Cotton yarn, <85%, single, uncombed,>/=714.29, not put up
74	520612	Cotton yarn, <85%, single, uncombed, 714.29 >dtex>/=232.56, nt put up
75	520613	Cotton yarn, <85%, single, uncombed,232.56 >dtex>/=192.31, not put up
76	520614	Cotton yarn, <85%, single, uncombed, 192.31 >dtex>/=125, nt put up
77	520615	Cotton yarn,<85%,single,uncombed,<125 dtex,not put up for retail sale
78	520621	Cotton yarn, <85%, single, combed,>/=714.29 dtex,nt put up
79	520622	Cotton yarn, <85%, single, combed, 714.29 >dtex>/=232.56, not put up
80	520623	Cotton yarn, <85%, single, combed, 232.56 >dtex>/=192.31, not put up
81	520624	Cotton yarn, <85%, single, combed, 192.31 >dtex>/=125, not put up
82	520625	Cotton yarn,<85%,single,combed,<125 dtex,not put up for retail sale
83	520631	Cotton yarn, <85%, multiple, uncombed,>/=714.29, not put up, nes
84	520632	Cotton yarn,<85%,multiple,uncombed,714.29 >dtex>/=232.56,nt put up,nes
85	520633	Cotton yarn,<85%,multiple,uncombed,232.56 >dex>/=192.31,nt put up,nes
86	520634	Cotton yarn,<85%,multiple,uncombed,192.31 >dtex>/=125,nt put up,nes
87	520635	Cotton yarn, <85%, multiple, uncombed, <125 dtex, not put up, nec
88	520641	Cotton yarn, <85%, multiple, combed,>/=714.29, nt put up, nes
89	520642	Cotton yarn,<85%,multiple,combed,714.29 >dtex>/=232.56,nt put up,nes
90	520643	Cotton yarn,<85%,multiple,combed,232.56 >dtex>/=192.31,nt put up,nes
91	520644	Cotton yarn,<85%,multiple,combed,192.31 >dtex>/=125,nt put up,nes
92	520645	Cotton yarn, <85%, multiple, combed, <125 dtex, not put up, nes
93	520710	Cotton yarn (o/t sewing thread)>/=85% by weight of cotton, put up
94	520790	Cotton yarn (o/t sewg thread) <85% by wt of cotton,put up f reil sale
95	520811	Plain weave cotton fabric,>/=85%, not more than 100 g/m2, unbleached
96	520812	Plain weave cotton fabric,>/=85%, >100 g/m2 to 200 g/m2, unbleached
97	520813	Twill weave cotton fabric,>/=85%, not more than 200 g/m2, unbleached
98	520819	Woven fabrics of cotton,>/=85%, not more than 200 g/m2,unbleached, nes
99	520821	Plain weave cotton fabrics,>/=85%, not more than 100 g/m2, bleached
100	520822	Plain weave cotton fabric,>/=85%, >100 g/m2 to 200 g/m2, bleached
101	520823	Twill weave cotton fabric,>/=85%, not more than 200 g/m2, bleached
102	520829	Woven fabrics of cotton,>/=85%, nt more than 200 g/m2, bleached, nes
103	520831	Plain weave cotton fabric,>/=85%, not more than 100 g/m2, dyed
104	520832	Plain weave cotton fabric,>/=85%, >100g/m= to 200g/m=, dyed
105	520833	Twill weave cotton fabrics,>/=85%, not more than 200 g/m2, dyed

Line number	HS 6-digit code	Label
106	520839	Woven fabrics of cotton, $\geq 85\%$, not more than 200 g/m ² , dyed, nes
107	520841	Plain weave cotton fabric, $\geq 85\%$, not more than 100 g/m ² , yarn dyed
108	520842	Plain weave cotton fabrics, $\geq 85\%$, > 100 g/m ² to 200 g/m ² , yarn dyed
109	520843	Twill weave cotton fabric, $\geq 85\%$, not more than 200 g/m ² , yarn dyed
110	520849	Woven fabrics of cotton, $\geq 85\%$, not more than 200 g/m ² , yarn dyed, nes
111	520851	Plain weave cotton fabrics, $\geq 85\%$, not more than 100 g/m ² , printed
112	520852	Plain weave cotton fabric, $\geq 85\%$, > 100 g/m ² to 200 g/m ² , printed
113	520853	Twill weave cotton fabric, $\geq 85\%$, not more than 200 g/m ² , printed
114	520859	Woven fabrics of cotton, $\geq 85\%$, not more than 200 g/m ² , printed, nes
115	520911	Plain weave cotton fabric, $\geq 85\%$, more than 200 g/m ² , unbleached
116	520912	Twill weave cotton fabric, $\geq 85\%$, more than 200 g/m ² , unbleached
117	520919	Woven fabrics of cotton, $\geq 85\%$, more than 200 g/m ² , unbleached, nes
118	520921	Plain weave cotton fabric, $\geq 85\%$, more than 200 g/m ² , bleached
119	520922	Twill weave cotton fabrics, $\geq 85\%$, more than 200 g/m ² , bleached
120	520929	Woven fabrics of cotton, $\geq 85\%$, more than 200 g/m ² , bleached, nes
121	520931	Plain weave cotton fabrics, $\geq 85\%$, more than 200 g/m ² , dyed
122	520932	Twill weave cotton fabrics, $\geq 85\%$, more than 200 g/m ² , dyed
123	520939	Woven fabrics of cotton, $\geq 85\%$, more than 200 g/m ² , dyed, nes
124	520941	Plain weave cotton fabrics, $\geq 85\%$, more than 200 g/m ² , yarn dyed
125	520942	Denim fabrics of cotton, $\geq 85\%$, more than 200 g/m ²
126	520943	Twill weave cotton fab, o/t denim, $\geq 85\%$, more than 200 g/m ² , yarn dyed
127	520949	Woven fabrics of cotton, $\geq 85\%$, more than 200 g/m ² , yarn dyed, nes
128	520951	Plain weave cotton fabrics, $\geq 85\%$, more than 200 g/m ² , printed
129	520952	Twill weave cotton fabrics, $\geq 85\%$, more than 200 g/m ² , printed
130	520959	Woven fabrics of cotton, $\geq 85\%$, more than 200 g/m ² , printed, nes
131	521011	Plain weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , unbl
132	521012	Twill weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , unbl
133	521019	Woven fab of cotton, < 85% mixd with m-m fib, ≤ 200 g/m ² , unbl, nes
134	521021	Plain weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , bl
135	521022	Twill weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , bl
136	521029	Woven fabrics of cotton, < 85% mixd with m-m fib, ≤ 200 g/m ² , bl, nes
137	521031	Plain weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , dyd
138	521032	Twill weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , dyd
139	521039	Woven fabrics of cotton, < 85% mixd with m-m fib, ≤ 200 g/m ² , dyed, nes
140	521041	Plain weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , yarn dyd
141	521042	Twill weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , yarn dyd
142	521049	Woven fabrics of cotton, < 85% mixed w m-m fib, ≤ 200 g/m ² , yarn dyed, nes
143	521051	Plain weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , printed
144	521052	Twill weave cotton fab, < 85% mixd w m-m fib, not more than 200 g/m ² , printed
145	521059	Woven fabrics of cotton, < 85% mixed with m-m fib, ≤ 200 g/m ² , printed, nes
146	521111	Plain weave cotton fab, < 85% mixd w m-m fib, more than 200 g/m ² , unbleachd
147	521112	Twill weave cotton fab, < 85% mixed with m-m fib, more than 200 g/m ² , unbl
148	521119	Woven fabrics of cotton, < 85% mixd w m-m fib, more than 200 g/m ² , unbl, nes
149	521121	Plain weave cotton fab, < 85% mixd w m-m fib, more than 200 g/m ² , bleachd
150	521122	Twill weave cotton fab, < 85% mixd w m-m fib, more than 200 g/m ² , bleachd
151	521129	Woven fabrics of cotton, < 85% mixd w m-m fib, more than 200 g/m ² , bl, nes
152	521131	Plain weave cotton fab, < 85% mixed with m-m fib, more than 200 g/m ² , dyed
153	521132	Twill weave cotton fab, < 85% mixed with m-m fib, more than 200 g/m ² , dyed
154	521139	Woven fabrics of cotton, < 85% mixd w m-m fib, more than 200 g/m ² , dyd, nes
155	521141	Plain weave cotton fab, < 85% mixd w m-m fib, more than 200 g/m ² , yarn dyd
156	521142	Denim fabrics of cotton, < 85% mixed with m-m fib, more than 200 g/m ²
157	521143	Twill weave cotton fab, o/t denim, < 85% mixd w m-m fib, > 200 g/m ² , yarn dyd
158	521149	Woven fabrics of cotton, < 85% mixd with m-m fib, > 200 g/m ² , yarn dyed, nes

Line number	HS 6-digit code	Label
159	521151	Plain weave cotton fab, <85% mixd w m-m fib, more than 200 g/m2, printd
160	521152	Twill weave cotton fab, <85% mixd w m-m fib, more than 200 g/m2, printd
161	521159	Woven fabrics of cotton, <85% mixd w m-m fib, mor thn 200g/m2, printd, nes
162	521211	Woven fabrics of cotton, weighing not more than 200 g/m2, unbleached, nes
163	521212	Woven fabrics of cotton, weighing not more than 200 g/m2, bleached, nes
164	521213	Woven fabrics of cotton, weighing not more than 200 g/m2, dyed, nes
165	521214	Woven fabrics of cotton, <=200g/m2, of yarns of different colours, nes
166	521215	Woven fabrics of cotton, weighing not more than 200 g/m2, printed, nes
167	521221	Woven fabrics of cotton, weighing more than 200 g/m2, unbleached, nes
168	521222	Woven fabrics of cotton, weighing more than 200 g/m2, bleached, nes
169	521223	Woven fabrics of cotton, weighing more than 200 g/m2, dyed, nes
170	521224	Woven fabrics of cotton, >200 g/m2, of yarns of different colours, nes
171	521225	Woven fabrics of cotton, weighing more than 200 g/m2, printed, nes
172	580410	Tulles & other net fabrics, not incl woven, knitted or crocheted fabrics
173	580421	Mechanically made lace of man-made fib, in the piece, in strips/motifs
174	580429	Mechanically made lace of oth tex mat, in the piece, in strips/in motifs
175	580430	Hand-made lace, in the piece, in strips or in motifs
176	581010	Embroidery without visible ground, in the piece, in strips or in motifs
177	581091	Embroidery of cotton, in the piece, in strips or in motifs, nes
178	581092	Embroidery of man-made fibers, in the piece, in strips or in motifs, nes
179	581099	Embroidery of oth textile materials, in the piece, in strips/motifs, nes
180	710110	Pearls natural whether or not worked or graded
181	710121	Pearls cultured unworked
182	710122	Pearls cultured worked
183	710210	Diamonds unsorted whether or not worked
184	710221	Diamonds industrial unworked or simply sawn, cleaved or bruted
185	710229	Diamonds industrial nes excluding mounted or set diamonds
186	710231	Diamonds nonindustrial unworked or simply sawn, cleaved or bruted
187	710239	Diamonds nonindustrial nes excluding mounted or set diamonds

Source: GATT (1992b).

Table A2.6: CHINA: LIST OF SECOND CATEGORY EXPORTS

Line number	HS 6-digit code	Label
1	10310	Swine, live pure-bred breeding
2	10391	Swine, live except pure-bred breeding weighing less than 50 kg
3	10392	Swine, live except pure-bred breeding weighing 50 kg or more
4	20210	Bovine carcasses and half carcasses, frozen
5	20220	Bovine cuts bone in, frozen
6	20230	Bovine cuts boneless, frozen
7	20321	Swine carcasses and half carcasses, frozen
8	20322	Hams, shoulders and cuts thereof, of swine, bone in, frozen
9	20329	Swine cuts, frozen nes
10	20721	Fowls, domestic, whole, frozen
11	20722	Turkeys, domestic, whole, frozen
12	20723	Ducks, geese and guinea fowls, domestic, whole, frozen
13	20810	Rabbit or hare meat and edible meat offal, fresh, chilled or frozen
14	30613	Shrimps and prawns, frozen, in shell or not, including boiled in shell
15	30619	Crustaceans nes, frozen, in shell or not including boiled in shell
16	40900	Honey, natural
17	50210	Bristles, hair and waste of pigs, hogs or boars
18	50400	Guts, bladders and stomachs of animals except fish whole or in pieces
19	50510	Feathers used for stuff&down cleaned,disinfected or treated for presv
20	50590	Feathers&down nes elnd,disinfectd presvd,featherd pts&skins pdr&waste
21	71190	Vegetables nes&mixtures provis presvd but nt f immediate consumptn
22	71290	Vegetables and mixtures dried, but not further prepared nes
23	71320	Chickpeas, dried, shelled, whether or not skinned or split
24	71331	Urd,mung,black/green gram beans drid shelld,whether/not skinnd/split
25	71332	Beans,small red (Adzuki) dried,shelled,whether or not skinned or split
26	80231	Walnuts in shell, fresh or dried
27	80232	Walnuts, fresh or dried, shelled or peeled
28	80240	Chestnuts, fresh or dried, whether or not shelled or peeled
29	90420	Fruits of the genus Capsicum or Pimenta, dried, crushed or ground
30	100810	Buckwheat
31	120210	Ground-nuts in shell not roasted or otherwise cooked
32	120220	Ground-nuts shelld,whether or not broken,not roasd or otherwise cookd
33	120740	Sesamum seeds, whether or not broken
34	130190	Natural gums, resins, gum-resins and balsam, except arabic gum
35	140420	Cotton linters
36	151540	Tung oil&its fractions,whether o not refind,but not chemically modifid
37	170199	Refined sugar, in solid form, nes
38	200310	Mushrooms prepared or preserved other than by vinegar or acetic acid
39	200560	Asparagus preparad or preservd,o/t by vinegar or acetic acid,not frozen
40	200590	Veg nes&mix of veg prep/presvd o/t by vinegar/acetic acid,not frozen
41	200811	Ground-nuts nes o/w prep or presvd,sugared,sweetened,spirited or not
42	250100	Salt (includg table salt&denaturd salt) pure sodium chloride&sea water
43	282590	Inorganic bases nes; metal oxides, hydroxides and peroxides nes
44	284610	Cerium compounds
45	284690	Compds of rare-earth met nes,of yttrium/scandium/mx of these metals
46	330124	Essential oils of peppermint
47	330125	Essential oils of other mints
48	360410	Fireworks
49	380610	Rosin
50	380620	Rosin salts or resin acid salts
51	380630	Ester gums
52	380690	Resin acids&derivs nes;rosin deriv nes;rosin spirit&rosin oils;run gum

Line number	HS 6-digit code	Label
53	410110	Bovine skins, whole, raw
54	410310	Goat or kid hides and skins, raw, nes
55	410710	Swine leather, nes
56	420329	Gloves mittens&mitts,o/t for sport,of leather o of composition leather
57	430110	Raw mink furskins, whole
58	430211	Tanned or dressed mink furskins, whole, not assembled
59	440310	Poles, treated/painted, etc.
60	440320	Logs, poles, coniferous nes
61	440331	Logs, Meranti, light & dark red & Bakau
62	440332	Logs, white Lauan, Meranti, Seraya yellow Meranti & Alan
63	440333	Logs, Keruing, Ramin, Kapur, Teak, Jongkong, Merbau,, etc.
64	440334	Logs, Okoum, Obeche, Sapelli, Sipo, Acajou d'Afrique,, etc.
65	440335	Logs, Tiama, Mansonia, Llomba, Dib=tou, Limba and Azob
66	440391	Logs, Oak
67	440392	Logs, Beech
68	440399	Logs, nonconiferous nes
69	440610	Ties, railway/tramway, wood not impregnated
70	440690	Ties, railway/tramway, wood nes
71	440710	Lumber, coniferous (softwood) 6 mm and thicker
72	440721	Lumber, Meranti red (light & dark), Meranti Bakau, White Lauan, etc.
73	440722	Lumber, Okoum, Obeche, Sapelli, Sipo, Acajou d'Afrique, Makor, etc.
74	440723	Lumber, Baboen, Mahogany (Swietenia spp), Imbuia and Balsa
75	440791	Lumber, Oak
76	440792	Lumber, Beech
77	440799	Lumber, nonconiferous nes
78	440810	Veneer, coniferous (softwood) less than 6 mm thick
79	440820	Veneer, tropical woods, less than 6 mm thick
80	440890	Veneer, nonconiferous nes, less than 6 mm thick
81	460120	Mats, matting and screens of vegetable plaiting materials
82	480510	Paper, fluting (corrugating medium), in rolls, semi-chemical, uncoated
83	510210	Fine animal hair, not carded or combed
84	510530	Fine animal hair, carded or combed
85	520821	Plain weave cotton fabrics, >/=85%, not more than 100 g/m2, bleached
86	520822	Plain weave cotton fabric, >/=85%, >100 g/m2 to 200 g/m2, bleached
87	520823	Twill weave cotton fabric, >/=85%, not more than 200 g/m2, bleached
88	520829	Woven fabrics of cotton, >/=85%, nt more than 200 g/m2, bleached, nes
89	520921	Plain weave cotton fabric, >/=85%, more than 200 g/m2, bleached
90	520922	Twill weave cotton fabrics, >/=85%, more than 200 g/m2, bleached
91	520929	Woven fabrics of cotton, >/=85%, more than 200 g/m2, bleached, nes
92	521021	Plain weave cotton fab, <85% mixd w m-m fib,not more than 200 g/m2,bl
93	521022	Twill weave cotton fab, <85% mixd w m-m fib,not more than 200 g/m2,bl
94	521029	Woven fabrics of cotton, <85% mixd with m-m fib, </=200 g/m2, bl, nes
95	521121	Plain weave cotton fab, <85% mixd w m-m fib,more than 200 g/m2,bleachd
96	521122	Twill weave cotton fab, <85% mixd w m-m fib,more than 200 g/m2,bleachd
97	521129	Woven fabrics of cotton, <85% mixd w m-m fib,more than 200 g/m2,bl,nes
98	530310	Jute and other textile bast fibers, raw or retted
99	530390	Jute and other tex bast fib,not spun,nes;tow and waste of these fibers
100	531010	Woven fabrics of jute or of other textile bast fibers, unbleached
101	531090	Woven fabrics of jute or of other textile bast fibers, o/t unbleached
102	570110	Carpets of wool or fine animal hair, knotted
103	570241	Carpets of wool/fine animal hair,of wovn pile construction,made up,nes
104	570291	Carpets of wool or fine animal hair, woven, made up, nes
105	570310	Carpets of wool or fine animal hair, tufted

Line number	HS 6-digit code	Label
106	570500	Carpets and other textile floor coverings, nes
107	700311	Cast glass sheets nonwired coloured, etc. havg an absorbg/reflectg layer
108	700319	Cast glass sheets nonwired nes
109	700320	Cast glass sheets wired
110	700330	Cast glass profiles
111	700410	Drawn glass sheets, coloured, etc. havg an absorbg or reflectg layer
112	700490	Drawn glass in sheets nes
113	700510	Float glass, etc. in sheets, nonwired havg an absorbent or reflectg layer
114	700521	Float glass, etc. in sheets, nonwired coloured throughout the mass, etc.
115	700529	Float glass, etc. in sheets, nonwired nes
116	700530	Float glass, etc. in sheets, wired
117	720110	Pig iron, nonalloy, containg by wght $\leq 0.5\%$ phosphorus in primary form
118	720120	Pig iron, nonalloy, contg by wght $> 0.5\%$ of phosphorus in primary form
119	720221	Ferro-silicon, containing by weight more than 55% of silicon
120	720229	Ferro-silicon, nes
121	720280	Ferro-tungsten and ferro-silico-tungsten
122	730110	Sheet piling, i/s whether/not drilled/punched/made from assem elements
123	730120	Angles, shapes and sections, welded, iron or steel
124	730210	Rails, iron or steel
125	730220	Sleepers (cross-ties), iron or steel
126	730230	Switch blades, crossing frogs, point rods & other crossing pieces, i or s
127	730240	Fish plates and sole plates, iron or steel
128	730290	Rail or tramway construction material of iron or steel, nes
129	730300	Tubes, pipes and hollow profiles of cast iron
130	730410	Pipes, line, iron or steel, smls, of a kind used for oil or gas pipelines
131	730420	Casings, tubg & drill pipe, i or s, smls, for use in drill for oil or gas
132	730431	Tubes, pipe & hollow profiles, i/nas, smls, cd/cr, of circ cross section, nes
133	730439	Tubes, pipe & hollow profiles, i or nas, smls, of circ cross section, nes
134	730441	Tube, pipe & hollow profile, stain steel, smls, cd/cr of circ cross sect, nes
135	730449	Tubes, pipe & hollow profiles, stainless steel, smls, of circ cross sect, nes
136	730451	Tubes, pipe & hollow profile, as, (o/t stain) smls, cd/cr of circ cross sect
137	730459	Tube, pipe & hollow profile, as, (o/t stainless) smls, circ cross sect, nes
138	730490	Tubes, pipe & hollow profiles, iron or steel, smls, nes
139	730511	Pipe, line, i/s, longitudinally subm arc wld, int/ext cc sect, dia > 406.4 mm
140	730512	Pipe, line, i/s, longitudinally wld w int/ext circ c sect, ext dia > 406.4 mm
141	730519	Pipe, line, i or s, int/ext circ cross sect, wld, ext dia > 406.4 mm, nes
142	730520	Casings, i/s, int/ext circ c sect, wld ext dia > 406.4 mm, oil/gas drill, nes
143	730531	Tubes & pipe, i or s, longitudinally welded, external dia > 406.4 mm, nes
144	730539	Tubes & pipe, i or s, welded, riveted or sim closed, ext dia > 406.4 mm, nes
145	730590	Tubes & pipe, i or s, riveted or sim closed, ext dia > 406.4 mm, nes
146	730610	Pipe, line, i or s, weldd, rivetd or sim clsd, nes, for oil or gas pipeline
147	730620	Casing/tubing, i or s, welded, riveted or sim clsd, nes, for oil/gas drillg
148	730630	Tubes, pipe & hollow profiles, iron or nas, welded, of circ cross sect, nes
149	730640	Tube, pipe & hollow profile, stainless steel, weldd, of circ cross sect, nes
150	730650	Tubes, pipe & hollow profiles, al/s, (o/t stain) wld, of circ cross sect, nes
151	730660	Tubes, pipe & hollow profiles, i/s, welded, of non circ cross sect, nes
152	730690	Tubes, pipe & hollow profiles, iron or steel, welded, nes
153	790111	Zinc not alloyed unwrought containing by weight 99.99% or more of zinc
154	790112	Zinc not alloyed unwrought containing by weight less than 99.99% of zinc
155	790120	Zinc alloys unwrought
156	800110	Tin not alloyed unwrought
157	800300	Tin bars, rods, profiles and wire
158	810110	Powders, tungsten (wolfram)

Line number	HS 6- digit code	Label
159	810191	Tungsten (wolfram) unwrought, incl bar&rod simply sinterd; waste/scrap
160	810192	Tungsten profile, plate, sheet, strip&foil, inc bar&rod nt simply sinterd
161	810193	Wire, tungsten (wolfram)
162	810199	Tungsten (wolfram) and articles thereof nes

Source: GATT (1992b).

Table A2.7: LIST OF PRODUCTS SUBJECT TO STATE PRICE CONTROL

Tariff lines	Descriptions
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A. List of Agricultural Products Subject to State Pricing by Tariff Lines

The category subject to state-fixed purchasing prices:

1006	Rice
1001	Wheat and meslin
1005	Maize (corn)
1201	Soybeans, whether or not broken
5201	Cotton, not carded or combed
2401	Unmanufactured tobacco, tobacco refuse, tobacco, not stemmed/stripped
50020010	Steam filature silk
50020020	Tussah silk
0902	Tea, whether or not flavored

The category subject to state-fixed retail prices:

11010000	Wheat or meslin flour
1006	Rice
1005	Maize (corn)
1201	Soybeans, whether or not broken
4403	Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared
23040000	Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soybean oil

3. The category subject to state-fixed retail prices:

4403	Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared
44039990	Other wood
4407	Wood sawn or clipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed, of a thickness exceeding 6 mm.
4412	Plywood, veneered panels and similar laminated wood

Tariff lines	Descriptions
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**B. List of Manufactured Products Subject
to State Pricing by Tariff Lines**

Products of Light Industry (11 items)

25010010	Salt
34022010	Synthetic detergents in power form
8528	Television receivers (including video monitors and video projectors), whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus
4801	Papers
4813	Cigarette paper, whether or not cut to size or in the form of booklet or tubes
48114010	Insulating paper and paper board
4701-4705	Wood pulps
4707	Waste and scraps of paper or paperboard
28353100	Sodium triphosphate (sodium tripolyphosphate)
2902	Cyclic Hydrocarbons
2827	Chlorides, chloride oxides and chloride hydroxides

Textiles and knitted fabrics (7 items)

5205-5207	Cotton yarns
5208-5212	Woven fabrics of cotton
5111-5113	Woven fabrics of carded wool or of carded fine animal hair; woven fabrics of combed wool or of combed fine animal hair
5109	Yarn of wool or of fine animal hair, put up for retail sale

Pharmaceuticals and medical equipment (2 items)

3003-3006	Pharmaceuticals
9018-9023	Medical equipment

Synthetic materials (8 items)

39074000	Polycarbonates
39052000	Polyvinyl alcohols, whether or not containing unhydrolysed acetate groups
39021000	Polypropylene
20337100	6-hexanelactam (epsilon-caprolactam)
39094000	Phenolic resins
29212210	Nylon-66 salt
29161400	Esters of methacrylic acid
3901	Polymers of ethylene, in primary forms

Tariff lines	Descriptions
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C. List of Products of Heavy Industry Subject to State-Fixed Prices

The Category Subject to State-Fixed Ex-factory Prices (21 items)

2701-2705	Coal and fuels manufactured from coal
2709-2711	Petroleum oils and gases
2501-2530	Mineral products for chemistry
3101-3105	Chemical fertilizers
2801-2851	Inorganic chemicals
2936-2941	Organic chemicals
3901-3914	Plastics and copolymers
3203-3215	Pigments and other coloring matter
4001-4017	Rubber and articles thereof
3701-3707	Cinematographic films and goods
2515-2530	Building materials
4403-4418	-
6801-6811	-
7001-7008	-
7201-7205	Pig iron and granules and powers thereof
7208-7216	Steel and articles thereof
7218-7229	-
2601-2621	Ores and semi-product of iron and nonferrous metals
7401-7406	-
7501-7504	-
7601-7603	-
7801-7804	-
7901-7903	-
8001-8005	-
2704-0010	Coke and semi-coke
7407-7419	Products of nonferrous metals
7505-7508	-
7604-7616	-
7805-7806	-
7904-7907	-
8006-8007	-
8101-8113	-
8501-8505	Electric motors, generators and parts thereof
8901-8905	Ships and boats for civil use
8802	Aircrafts for civil use
3601-3603	Explosives and device thereof

The Category Subject to State-Fixed Retail Prices (3 items)

2701-2716	Mineral fuels and products of their distribution
3102-3105	Chemical fertilizers
3808	Herbicides and others

Table A2.8: TRENDS IN EXCHANGE RATES

Year-quarter	Official exchange rate (Yuan/\$)	Secondary market rate (Yuan/\$)	Weighted exchange rate for exports (Yuan/\$)	Real effective exchange rate (official) 1980=10	Real effective exchange rate (secondary market) (1980=10)	Nominal effective exchange rate (official) 1980=10	Nominal effective exchange rate (secondary market) 1980=10
1987-I	3.72	5.25	4.39	4.05	2.87	5.41	3.84
1987-II	3.72	5.3	4.42	3.96	2.78	5.31	3.73
1987-III	3.72	5.46	4.49	4.07	2.78	5.44	3.71
1987-IV	3.72	5.61	4.55	3.97	2.78	5.24	3.48
1988-I	3.72	5.7	4.59	3.97	2.64	5.17	3.38
1988-II	3.72	6.3	4.86	4.13	2.59	5.23	3.09
1988-III	3.72	6.6	4.99	4.67	2.44	5.60	3.16
1988-IV	3.72	6.65	5.01	4.72	2.63	5.48	3.07
1989-I	3.72	6.65	5.01	4.95	2.64	5.67	3.17
1989-II	3.72	6.6	4.99	5.23	2.77	6.06	3.42
1989-III	3.72	6.55	4.97	5.24	2.95	6.36	3.61
1989-IV	3.89	5.9	4.77	4.86	2.98	6.16	4.07
1990-I	4.72	5.91	5.24	3.93	3.21	5.26	4.20
1990-II	4.72	5.81	5.20	3.96	3.14	5.45	4.43
1990-III	4.72	5.8	5.20	3.70	3.22	5.27	4.39
1990-IV	4.97	5.7	5.29	3.33	3.08	4.84	4.24
1991-I	5.22	5.8	5.68	3.19	2.92	4.75	4.33
1991-II	5.31	5.84	5.73	3.33	2.91	4.95	4.33
1991-III	5.36	5.87	5.77	3.30	3.03	4.93	4.51
1991-IV	5.39	5.87	5.77	3.15	3.02	4.79	4.36
1992-I	5.46	5.95	5.85	3.12	2.87	4.80	4.37
1992-II	5.5	6.25	6.10	3.13	2.75	4.84	4.26
1992-III	5.5	7	6.70	3.07	2.46	4.76	3.81
1993-I	5.73	8.41	7.87	3.16	3.17	4.88	3.35

Source: International Monetary Fund and Staff Estimates.

**Table A3.1: AVERAGE TARIFF LEVELS
(Percent)**

HS Chapter	Trade weighted	Unweighted
0	34.7	44.4
1	24.8	42.7
2	18.8	27.4
3	18.6	40.1
4	23.2	35.1
5	60.1	66.2
6	71.1	79.9
7	18.9	27.6
8	32.2	34.1
9	42.6	48.9
<u>Total</u>	<u>31.9</u>	<u>42.8</u>

Note: These trade weighted tariff levels have been estimated using first quarter import data for 1992 at the six-digit HS level, and information on tariff rates at the nine-digit level of disaggregation, both provided by the Customs Directorate.

Source: Chinese Customs Directorate and staff estimates.

Table A3.2: CHINA AVERAGE TARIFF RATES
(by SITC 2-digit codes)

Line number	SITC Rev 2 2 digit	Simple avg tariff rate	Weighted avg Tariff Rate	Difference simple-weighted
1	0	0.00	0.00	0.0
2	1	54.62	50.46	4.2
3	2	57.18	31.43	25.8
4	3	38.88	32.36	6.5
5	4	36.86	6.96	29.9
6	5	53.12	45.17	7.9
7	6	52.14	39.95	12.2
8	7	44.54	48.01	-3.5
9	8	22.33	6.84	15.5
10	9	65.40	73.15	-7.8
11	11	126.25	88.48	37.8
12	12	116.67	143.44	-26.8
13	21	36.53	15.69	20.8
14	22	46.56	50.15	-3.6
15	23	22.06	26.94	-4.9
16	24	11.84	14.96	-3.1
17	25	2.00	2.00	0.0
18	26	31.80	27.62	4.2
19	27	27.21	18.95	8.3
20	28	6.32	4.76	1.6
21	29	35.29	30.99	4.3
22	32	15.00	15.00	0.0
23	33	18.37	10.64	7.7
24	34	30.00	59.00	-29.0
25	41	41.25	36.17	5.1
26	42	29.12	25.83	3.3
27	43	46.00	45.35	0.7
28	51	19.59	18.71	0.9
29	52	21.26	21.51	-0.3
30	53	31.54	31.51	0.0
31	54	22.37	31.06	-8.7
32	55	85.35	50.22	35.1
33	56	5.38	5.05	0.3
34	57	39.33	30.15	9.2
35	58	33.37	32.09	1.3
36	59	30.38	32.62	-2.2
37	61	47.95	27.85	20.1
38	62	36.53	35.87	0.7
39	63	31.50	22.05	9.5
40	64	36.66	34.27	2.4
41	65	70.73	66.17	4.6
42	66	44.79	28.74	16.1
43	67	14.97	13.45	1.5

Line number	SITC Rev 2 Simple avg 2 digit	Weighted avg tariff rate	Difference Tariff Rate	simple-weighted
44	68	15.69	14.24	1.5
45	69	45.56	50.69	-5.1
46	71	21.86	21.79	0.1
47	72	21.65	21.08	0.6
48	73	24.60	22.01	2.6
49	74	31.62	38.45	-6.8
50	75	41.82	34.82	7.0
51	76	52.16	34.80	17.4
52	77	37.74	28.37	9.4
53	78	61.97	78.69	-16.7
54	79	10.11	6.95	3.2
55	81	57.02	53.16	3.9
56	82	81.67	80.12	1.5
57	83	80.00	80.00	0.0
58	84	87.45	84.60	2.9
59	85	78.52	70.36	8.2
60	87	21.33	19.14	2.2
61	88	49.26	52.63	-3.4
62	89	60.23	60.11	0.1
63	95	60.00	60.00	0.0
64	97	0.00	0.00	0.0
Overall average		<u>40.30</u>	<u>36.62</u>	<u>3.68</u>

Source: Chinese Customs Directorate and staff estimates.

Table A3.3a: CHINA: STRUCTURE OF PRODUCTION, IMPORTS AND EXPORTS
[by two-digit SITC (revision 2) category, 1985]

Serial #	SITC 2 code	Label	GVIO 1985 (Current) (\$ mil.)	GVIO 1985 (Current) (\$ mil.)	Imports 1985 (Current) (\$ mil.)	Exports 1985 (Current) (\$ mil.)	Share of GVIO 1985 (% total)	Imports /GVIO (%)	Exports /GVIO (%)
	0	Live animals, chiefly for food	-	-	-	-	-	-	-
1	1	Meat and preparations	11,577	3,942	6.3	431.1	1.4	0.2	10.9
2	2	Dairy products, birds' eggs	1,179	402	29.1	53.1	0.1	7.2	13.2
3	3	Fish and preparations	1,067	363	41.3	267.9	0.1	11.4	73.8
4	4	Cereals and preparations	26,443	9,004	902.7	1007.5	3.3	10.0	11.2
5	5	Vegetables and fruit	4,011	1,366	47.5	781.6	0.5	3.5	57.2
6	6	Sugar and preps, honey	8,119	2,765	263.1	74.1	1.0	9.5	2.7
7	7	Coffee, tea, cocoa, spices	3,407	1,160	38.5	414.7	0.4	3.3	35.7
8	8	Feeding stuff for animals	2,487	847	78.7	224.6	0.3	9.3	26.5
9	9	Misc. edible products	2,253	767	21.4	62.0	0.3	2.8	8.1
10	11	Beverages	13,713	4,669	20.2	67.5	1.7	0.4	1.4
11	12	Tobacco and manufactures	20,226	6,887	173.3	32.9	2.5	2.5	0.5
	21	Oilseeds and oleaginous fruit	-	-	-	-	-	-	-
	22	Hides, skins, furskins	-	-	-	-	-	-	-
12	23	Rubber, crude	371	126	205.5	3.5	0.0	162.5	2.8
13	24	Cork and wood	8,069	2,748	812.5	8.9	1.0	29.6	0.3
14	25	Pulp and waste paper	58	20	208.8	0.2	0.0	1056.8	1.2
15	26	Textile fibers and waste	18,589	6,330	1,031.8	1,076.6	2.3	16.3	17.0
16	27	Crude fertilizer, minerals nes	5,173	1,762	51.4	250.3	0.6	2.9	14.2
17	28	Metalliferous ores, scrap	3,640	1,239	520.7	214.8	0.4	42.0	17.3
18	29	Crude animal, veg. mat nes	4,662	1,588	91.4	377.0	0.6	5.8	23.7
19	32	Coal, coke and briquettes	24,393	8,306	59.7	328.4	3.0	0.7	4.0
20	33	Petroleum and products	45,980	15,657	46.4	6,300.5	5.7	0.3	40.2
21	34	Gas, natural and manufactured	1,556	530	1.9	3.1	0.2	0.4	0.6
22	35	Electric current	29,195	9,941	53.9	2.6	3.6	0.5	0.0
23	41	Animal oils and fats	-	-	-	-	-	-	-
24	42	Fixed vegetable oil, fat	6,813	2,320	83.4	125.5	0.8	3.6	5.4
25	43	Processed animal veg oil, etc.	197	67	2.8	0.9	0.0	4.1	1.4
26	51	Organic chemicals	8,974	3,056	648.9	291.7	1.1	21.2	9.5
27	52	Inorganic chemicals	9,067	3,088	298.5	270.3	1.1	9.7	8.8
28	53	Dyes, tanning, color prod	6,198	2,110	131.2	72.7	0.8	6.2	3.4
29	54	Medicinal, pharm. products	8,078	2,751	96.1	280.8	1.0	3.5	10.2
30	55	Perfume, cleaning, etc., prod	5,612	1,911	24.1	103.5	0.7	1.3	5.4
31	56	Fertilizers, manufactured	13,223	4,503	1,375.6	1.7	1.6	30.5	0.0
32	57	Explosives, pyrotech prod	832	283	1.4	106.0	0.1	0.5	37.4
33	58	Plastic materials, etc.	11,705	3,986	1,346.4	39.1	1.4	33.8	1.0
34	59	Chemical materials nes	7,446	2,536	236.3	114.8	0.9	9.3	4.5
35	61	Leather, dressed fur, etc.	4,037	1,375	135.6	42.1	0.5	9.9	3.1
36	62	Rubber manufactures nes	10,646	3,625	14.1	48.7	1.3	0.4	1.3
37	63	Wood, cork manufactures nes	2,639	898	244.5	23.9	0.3	27.2	2.7
38	64	Paper, paperboard and mfr	15,989	5,444	407.2	142.1	2.0	7.5	2.6
39	65	Textile yarn, fabrics, etc.	97,651	33,252	1,502.3	3,051.7	12.0	4.5	9.2
40	66	Nonmetal mineral mfs nes	41,542	14,146	308.3	213.1	5.1	2.2	1.5
41	67	Iron and steel	55,054	18,747	6,650.0	110.3	6.8	35.5	0.6
42	68	Nonferrous metals	20,220	6,885	1,532.7	193.6	2.5	22.3	2.8
43	69	Metal manufactures nes	21,021	7,158	328.5	400.0	2.6	4.6	5.6
44	71	Power generating equipment	15,154	5,160	302.0	46.3	1.9	5.9	0.9
45	72	Machs for special industries	26,965	9,182	4,902.6	142.6	3.3	53.4	1.6
46	73	Metalworking machinery	11,634	3,962	287.8	27.1	1.4	7.3	0.7
47	74	General industrial machinery nes	18,933	6,447	980.6	47.9	2.3	15.2	0.7
48	75	Office machines, adp. equipment	1,532	522	956.6	9.8	0.2	183.4	1.9
49	76	Telecomm, sound equipment	13,803	4,700	2,389.5	86.8	1.7	50.8	1.8
50	77	Electric machinery nes, etc.	36,746	12,513	1,249.4	111.4	4.5	20.0	0.9
51	78	Road vehicles	29,775	10,139	3,063.0	54.5	3.7	30.2	0.5
52	79	Other transport equipment	7,830	2,666	1,366.7	193.3	1.0	51.3	7.3
53	81	Plumbing, heating, lighting equipment	1,625	553	35.6	35.2	0.2	6.4	6.4
54	82	Furniture, parts thereof	4,735	1,612	32.7	85.3	0.6	2.0	5.3
55	83	Travel goods, handbags	860	293	2.5	79.0	0.1	0.9	27.0
56	84	Clothing and accessories	16,301	5,551	13.8	1955.9	2.0	0.2	34.9
57	85	Footwear	9,801	3,337	7.0	242.3	1.2	0.2	7.3
58	87	Precision instruments nes	7,068	2,407	835.8	31.8	0.9	34.7	1.3
59	88	Photo equ, optical goods, etc.	3,950	1,345	371.0	60.3	0.5	27.6	4.5
	89	Misc manufactured goods nes	21,640	7,369	500.1	813.9	2.7	6.8	11.0
	95	Not classified elsewhere	-	-	-	-	-	-	-
	97	Not classified elsewhere	-	-	-	-	-	-	-
		Total	81,1463	81,1463	37371.2	21619.0	100.0		

Source: China Statistical Yearbook, 1991 p. 360 for 1990 data on GVIO, NVIO; China Industrial Census for 1985 data.

Table A3.3b: CHINA: STRUCTURE OF PRODUCTION, IMPORTS, AND EXPORTS
[by 2-digit SITC (Revision 2) Category, 1990]

Serial #	SITC 2 CODE	Label (Current) Yuan mil.	GVIO 1990 (Current) \$ mil.	GVIO 1990 (Current) \$ mil.	Imports 1990 (Current) \$ mil.	Exports 1990 (% total)	Share of GVIO 1990 (%)	Imports /GVIO 1990 (%)	Exports /GVIO
0		Live animals chiefly for food	-	-	-	-	0.0	-	-
1	1	Meat and preparations	23,205	4,851	54	791	1.2	1.1	16.3
2	2	Dairy products, birds' eggs	2,364	494	81	55	0.1	16.3	11.1
3	3	Fish and preparations	2,138	447	102	1,370	0.1	22.9	306.4
4	4	Cereals and preparations	53,004	11,081	2,353	614	2.8	21.2	5.5
5	5	Vegetables and fruit	8,274	1,730	83	1,760	0.4	4.8	101.7
6	6	Sugar and preps. honey	16,273	3,402	389	318	0.9	11.4	9.3
7	7	Coffee, tea, cocoa, spices	7,933	1,658	30	534	0.4	1.8	32.2
8	8	Feeding stuff for animals	12,352	2,582	305	758	0.7	11.8	29.4
9	9	Misc edible products	4,580	958	46	107	0.2	4.8	11.1
10	11	Beverages	34,789	7,273	27	171	1.9	0.4	2.4
11	12	Tobacco and manufactures	51,199	10,704	130	170	2.8	1.2	1.6
	21	Hides, skins and furskins	-	0	0	0	0.0	-	-
	22	Oil seeds and oleaginous fruit	-	0	0	0	0.0	-	-
12	23	Rubber, crude	883	185	365	20	0.0	197.9	10.7
13	24	Cork and wood	13,604	2,844	509	112	0.7	17.9	3.9
14	25	Pulp and waste paper	147	31	287	2	0.0	934.8	6.8
15	26	Textile fibers and waste	50,359	10,528	1,841	1,096	2.7	17.5	10.4
16	27	Crude fertiliz. minrils nes	13,133	2,746	34	516	0.7	1.2	18.8
17	28	Metalliferous ores, scrap	13,862	2,898	950	210	0.7	32.8	7.3
18	29	Crude animal, veg mat nes	13,031	2,724	81	809	0.7	3.0	29.7
19	32	Coal, coke and briquettes	51,693	10,807	74	755	2.8	0.7	7.0
20	33	Petroleum and products	90,662	18,954	1,054	4,472	4.9	5.6	23.6
21	34	Gas, natural and manufact	3,440	719	27	3	0.2	3.8	0.4
22	35	Electric current	67,663	14,146	117	8	3.6	0.8	0.1
23	41	Animal oils and fats	-	-	-	-	0.0	-	-
24	42	Fixed vegetable oil, fat	13,657	2,855	947	155	0.7	33.2	5.4
25	43	Processd animl veg oil, etc.	534	112	2	5	0.0	1.6	4.7
26	51	Organic chemicals	24,131	5,045	1,131	838	1.3	22.4	16.6
27	52	Inorganic chemicals	24,626	5,148	215	842	1.3	4.2	16.4
28	53	Dyes, tanning, colourprod	16,832	3,519	244	366	0.9	6.9	10.4
29	54	Medicinal, pharm products	22,604	4,726	417	643	1.2	8.8	13.6
30	55	Perfume, cleaning, etc., prod	15,242	3,187	87	319	0.8	2.7	10.0
31	56	Fertilizers, manufactured	35,912	7,508	2,603	25	1.9	34.7	0.3
32	57	Explosives, pyrotech prod	1,997	417	0	211	0.1	0.0	50.6
33	58	Plastic materials, etc.	30,051	6,283	1,499	265	1.6	23.9	4.2
34	59	Chemical materials nes	19,524	4,082	474	240	1.0	11.6	5.9
35	61	Leather, dressed fur, etc.	9,686	2,025	374	183	0.5	18.5	9.0
36	62	Rubber manufactures nes	22,623	4,730	50	194	1.2	1.1	4.1
37	63	Wood, cork manufactr nes	4,832	1,010	564	273	0.3	55.8	27.0
38	64	Paper, paperboard and mfr	40,141	8,392	745	294	2.2	8.9	3.5
39	65	Textile yarn, fabrics, etc	212,175	44,358	5,426	7,219	11.4	12.2	16.3
40	66	Nonmetal mineral mfs nes	87,580	18,310	453	1,316	4.7	2.5	7.2
41	67	Iron and steel	131,755	27,545	2,852	1,282	7.1	10.4	4.7
42	68	Nonferrous metals	55,990	11,706	579	597	3.0	4.9	5.1
43	69	Metal manufactures nes	48,816	10,206	540	1,437	2.6	5.3	14.1
44	71	Power generating equipmt	32,120	6,715	1,730	271	1.7	25.8	4.0
45	72	Machs for specl industrys	55,284	11,558	5,936	1,480	3.0	51.4	12.8
46	73	Metaworking machinery	23,947	5,007	791	261	1.3	15.8	5.2
47	74	Genrl industrl machy nes	38,984	8,150	1,732	536	2.1	21.2	6.6
48	75	Office machines, adp equip	3,675	768	772	575	0.2	100.4	48.8
49	76	Telecomm, sound equipment	34,627	7,239	2,540	2,623	1.9	35.1	36.2
50	77	Electric machinery nes, etc.	84,729	17,714	2,050	1,219	4.6	11.6	6.9
51	78	Road vehicles	68,819	14,388	4,284	3,814	3.7	29.8	26.5
52	79	Oth transport equipment	18,833	3,937	1,680	252	1.0	42.7	6.4
53	81	Plumbg, heating, lighting equ	3,657	765	59	128	0.2	7.7	16.7
54	82	Furniture, parts thereof	8,137	1,701	72	322	0.4	4.3	18.9
55	83	Travel goods, handbags	2,037	426	6	385	0.1	1.5	90.5
56	84	Clothing and accessories	39,298	8,216	48	9,669	2.1	0.6	117.7
57	85	Footwear	22,661	4,738	9	1,957	1.2	0.2	41.3
58	87	Precision instruments nes	13,344	2,790	788	193	0.7	28.3	6.9
59	88	Photo equ, optical gds etc	8,450	1,767	880	1,149	0.5	49.8	65.0
89		Misc manufactd goods nes	49,671	10,384	1,456	3,726	2.7	14.0	35.9
95		Not classified elsewhere	-	-	-	-	0.0	-	-
97		Not classified elsewhere	-	-	-	-	0.0	-	-
		Total	1,861,572	389,190	52,973	59,718	100.0	13.6	15.3

Note: Exchange Rate for 1990 is \$1 = Y 4.7832.

Memo Item: (1) This represents GVIO of enterprises with independent accounting. Sectoral shares are based on concordance between SITC Revision 2 and Chinese Industrial Classification as obtained from 1985 Industrial Census. Source: Staff estimates.
(2) Total GVIO for the overall Chinese economy for 1990 was Y 2,392,436 billion.

Table A3.4: CHINA: LIST OF PRODUCTS SUBJECT TO IMPORT LICENSE
(as of August 1992)
(Arranged According to Harmonized Commodity Description and Coding System)

Serial number	HS Code number	Description
1	30559	Fish nes, dried, whether or not salted but not smoked
2	50690	Bones & horn-cores degelatinisd,unwkd,dcfatted o simply prepr,powder&waste
3	50790	Whalcbone,horns,etc unworkd or simply prepard,unshapd,and powder&waste
4	51000	Ambergris, castoreum etc., bile drid/not&animal gland&prod for pharm prep
5	80290	Nuts edible, fresh or dried, whether or not shelled or peeled, nes
6	90111	Coffee, not roasted, not decaffeinated
7	90112	Coffee, not roasted, decaffeinated
8	90122	Coffee, roasted, decaffeinated
9	90700	Cloves (whole fruit, cloves and stems)
10	90830	Cardamoms
11	91020	Saffron
12	121120	Ginseng roots usd primly in pharm,perf,insecticide,fungicide/sim purp
13	121190	Plants & pts of plants(incl sed&fruit) usd in pharm,perf,insect etc nes
14	130190	Natural gums, resins, gum-resins and balsam, except arabic gum
15	210110	Coffee extracts, essences & concentrates and preparations thereof
16	390740	Polycarbonates
17	720410	Waste and scrap, cast iron
18	720429	Waste and scrap, of alloy steel, other than stainless
19	720441	Ferrous waste & scrap,i or s,from the mechanical working of metal,nes
20	720449	Ferrous waste and scrap, iron or steel, nes
21	720450	Remelting scrap ingots, of iron or steel
22	720711	Semi-fin prod,i/nas,rect/sq cross-sect cntg by wgt<.25% c,width<2X thk
23	720712	Semi-fin prod,iron/n-al steel,rect/sq cross sect,cntg by wgt<.25% carb
24	720719	Semi-fin prod, iron or non-alloy steel, cntg by wght <.25% carbon, nes
25	720720	Semi-fin prod,iron/non-alloy steel,containg by weight .25%/more carbon
26	720811	Flat rolld prod,i/nas,in coil,hr,>/=600mm wide, >10mm thk,my p 355 mpa
27	720812	Flat rolld prod,i/nas,in coil,hr,w>/=600mm,4.75</=thk </=10mm,355mpa
28	720813	Flat rolled prod,i/nas,in coil,hr,w>/=600mm,3mm</=thk <4.75mm,355mpa
29	720814	Flat rolled prod,i/nas,in coil,hr,>/=600mm wide, <3mm thk,my p 275 mpa
30	720821	Flat rolled prod, i/nas, in coil, hr, >/=600mm wide, >10mm thk, nes
31	720822	Flat rolled prod,i/nas,in coil,hr,w>/=600mm,4.75mm</=thk </=10mm,nes
32	720823	Flat rolled prod,i/nas,in coil,hr,>/=600mm wide,3mm </=thk <4.75mm,nes
33	720824	Flat rolled prod,i/nas,in coil,hr,>/=600mm wide,less than 3mm thk,nes
34	720831	Flat rolled prod,i/nas,nic,hr,600mm</=w</=1250mm,>/=4mm thk,355mpa
35	720832	Flat rolled prod, i/nas, nic, hr >/=600mm wide, >10mm thk, my p 355 mpa
36	720833	Flat rolled prod,i/nas,nic,hr,w>/=600mm,4.75mm</=thk </=10mm,my p355mpa
37	720834	Flat rolled prod,i/nas,nic,hr,w>/=600mm,3mm</=thk <4.75mm,my p 355mpa
38	720835	Flat rolld prod,i/nas,nic,hr,w>/=600mm,less than 3mm thk,my p 355 mpa
39	720841	Flat rolled prod,i/nas,nic,hr,600mm</=width </=1,250mm,>/=4mm thk,nes
40	720842	Flat rolled prod, i/nas, not in coil, hr >/=600mm wide, >10mm thk, nes
41	720843	Flat rolld prod,i/nas,nt in coil,hr,w>/=600,4.75</=thk </=10mm,nes
42	720844	Flat rolled prod,i/nas,nt in coil,hr,w>/=600,3mm </=thk <4.75mm,nes
43	720845	Flat rolled prod,i/nas,nt in coil,hr,width>/=600mm, <3mm thk, nes
44	720890	Fiat rolled prod, i/nas, not further worked than hot rolled, nes
45	720911	Flat rolled prod,i/nas,in coil,cr,w>/=600mm,>/=3mm thk,my p 355 mpa
46	720912	Flat rolld prod,i/nas,in coil,cr,w>/=600mm,1mm <thk <3mm,my p 275 mpa
47	720913	Flat rolld prod,i/nas,in coil,cr,w>/=600mm,thk>/=0.5 max1mm,my p 275mpa
48	720914	Flat rolled prod,i/nas,in coil,cr,>/=600mm wide, <0.5mm thk,my p 275 mpa
49	720921	Flat rolled prod,i/nas,in coil,cr,>/=600mm wide,3mm or more thk,nes
50	720922	Flat rolled prod,i/nas,in coil,cr,>/=600mm wide,1mm </=thk <3mm, nes
51	720923	Flat rolld prod,i/nas,in coil,cr,w>/=600mm,0.5</=thk </=1mm,nes

Serial number	HS Code number	Description
52	720924	Flat rolled prod,i/nas,in coil,cr,w >/=600mm,less than 0.5mm thk,nes
53	720931	Flat rolled prod,i/nas,nt in coil,cr,w >/=600mm, >/=3mm thk,myp 355 mpa
54	720932	Flat rolled prod,i/nas,nt in coil,cr,w >/=600mm,1mm <thk <3mm,myp 355mpa
55	720933	Flat rolled prod,i/nas,nt in coil,cr,w >/=600,thk >/=0.5max1mm,myp 355mpa
56	720934	Flat rolled prod,i/nas,not in coil,cr,w >/=600,thk <0.5mm,myp 355mpa
57	720941	Flat rolled prod,i/nas,not in coil,cr >/=600mm wide, >/=3mm thk,nes
58	720942	Flat rolled prod,i/nas,not in coil,cr >/=600mm wide,1mm <thk <3mm,nes
59	720943	Flat rolled prod,i/nas,nt in coil,cr, >/=600mm,0.5 </=thk </=1mm,nes
60	720944	Flat rolled prod,i/nas,not in coil,cr,w >/=600,thk < 0.5mm,nes
61	720990	Flat rolled prod, i/nas, not in coil, cr >/=600mm wide, nes
62	721011	Flat rolled prod,i/nas,pltd or coatd wth tin,w >/=600mm, >/=0.5mm thk
63	721012	Flat rolled prod,i/nas,pltd or coatd with tin, >/=600mm wide, <0.5mm thk
64	721020	Flat rolled prod,pltd o coatd w lead, >/=600mm wide,includgterne-plate
65	721031	Flat rolled prod,steel,elec pltd/ctd w zinc,thk <3mm myp275, >/=3 myp355
66	721039	Flat rolled prod,i/nas,electro pltd or ctd w zinc, >/=600mm wide, nes
67	721041	Flat rolled prod,i/nas,pltd or ctd w zinc,corrugated, >/=600m wide,nes
68	721049	Flat rolled prod,i/nas,plated or coated with zinc, >/=600mm wide, nes
69	721050	Flat rolled prod,i/nas,pltd/ctd w chrom oxid/chrom&chrom oxid, >/=600mm
70	721060	Flat rolled prod,i/nas,plated or coated with aluminium, >/=600mm wide
71	721070	Flat rolled prod,i/nas,painted, varnished or plast coated, >/=600mm wide
72	721090	Flat rolled prod, i/nas, clad, plated or coated, >/=600mm wide, nes
73	721111	Flat rolled prod,i/nas,hr,rold on 4 face,150 <w <600mm,thk >/=4mm,myp 355
74	721112	Flat rolled prod, i/nas, hr, <600mm wide >/=4.75mm thk, myp 355 mpa
75	721119	Flat rolled prod,i/nas,hr,w <600,thk <3mm myp275,thl >/=3mm myp 355,nes
76	721121	Flat rolled prod,i/nas,hr,rold on 4 faces,150mm <w <600mm, >/=4mm thk,nes
77	721122	Flat rolled prod, i/nas, hr, <600mm wide, >/=4.75mm thk, nes
78	721129	Flat rolled prod, i/nas, hr, <600mm wide nes
79	721130	Flat rolled prod,i/nas,cr,w <600,thk <3mm myp 275, >/=3mm myp 355
80	721141	Flat rolled prod,i/nas,cr,w <600mm cntg by wght less than 0.25% carbon
81	721149	Flat rolled prod, i/nas, cold rolled or cold reduced, <600mm wide
82	721190	Flat rolled prod, i/nas, <600mm wide, not clad, plated or coated, nes
83	721210	Flat rolled prod, i/nas, <600mm wide, plated or coated with tin, nes
84	721221	Flat rolled prod,steel, <600mm wide, <3mm thk myp 275, >/=3mm thk myp 355
85	721229	Flat rolled prod, i/nas, <600mm wide, clad, plated or coated, nes
86	721230	Flat rolled prod, i/nas, <600mm wide, o/w plated or coated with zinc
87	721240	Flat rolled prod,i/nas, <600mm wide,painted, varnished or plast coated
88	721250	Flat rolled prod, i/nas, <600mm wide, plated or coated, nes
89	721260	Flat rolled prod, i/nas, <600mm wide, clad
90	721310	Bars&rods,i/nas,hr,in irreg wound coils,cntg indent,ribs,etc prod d rp
91	721320	Bars & rods, i/nas, hr, in irreg wound coils, of free cutting steel
92	721331	Bars/rod,i/nas,hr,in irreg wnd coil of circ c sect,dia <14mm,ctg <0.25%C
93	721339	Bars & rods,i/nas,hr,containing by weight less than 0.25% carbon,nes
94	721341	Bars&rods,i/nas,hr,of circ cross sect <14mm dia,ctg by wt .25% </=C <.6%
95	721349	Bars & rods,i/nas,hr,containing by wght 0.25% </=carbon <0.6%
96	721350	Bars&rods,iron/non-alloy steel,hr containg by wght 0.6%/more carbon
97	721410	Bars & rods, iron or non-alloy steel forged
98	721420	Bars & rods,i/nas,hr,hd or he,cntg indent,ribs,etc,prod dur rp/tar,nes
99	721430	Bars & rods,i/nas,hot rolled drawn or extruded of free cuttg steel,nes
100	721440	Bars&rods,i/nas,hot rolled,drawn or extruded,cntg by wght <0.25%C,nes
101	721450	Bars & rods,i/nas,hr,hd or he,cntg by wght 0.25% </=carbon <0.6% nes
102	721460	Bars & rods,i/nas,hr,hd or he,cntg by wght 0.6% or more carbon,nes
103	721510	Bars & rods,i/nas,nfw than cold formed or finished of free cuttg steel
104	721520	Bars&rods,i/nas,nfw than cold formd/finishd,cntg by wght <0.25% carbon
105	721530	Bars&rods,i/nas,nfw than cold formd/finishd,ctg by wgt 0.25% </=C <0.6%

Serial number	HS Code number	Description
106	721540	Bars&rods,i/nas,nfw than cold formd/finishd,cntg by wght </= .6% carbon
107	721590	Bars & rods, i/nas, nes
108	721610	Sections,U,I/H,i/nas,nfw than hot rolled/drawn/extruudd,height <80mm
109	721621	Sections,L,i/nas,nfw than hot rolld,drawn or extruudd,of a height <80mm
110	721622	Sections,T,i/nas,nfw than hot rolld,drawn or extruudd,of a height <80mm
111	721631	Sections,U,i/nas,nfw than hot rolld,drawn or extruudd,hght 80mm or more
112	721632	Sections,I,i/nas,nfw than hot rolld,drawn or extruudd,hght 80mm or more
113	721633	Sections,H,i/nas,nfw than hot rolld,drawn or extruudd,hght 80mm or more
114	721640	Sections,L or T,i/nas,nfw thn hot rolld,drawn or extruded,hght >/=80mm
115	721650	Angles,shapes§,i/nas,nfw thn hot rolld/drawn/extruudd,hght >/=80mm
116	721660	Angles,shapes and sections,i/nas,nfw than cold formed or cold finished
117	721690	Angles, shapes and sections, iron or non-alloy steel, nes
118	721711	Wire,i/nas,polishd or not,but not pltd or coated,cntg by wght <0.25%C
119	721712	Wire,i/nas,pltd or coatd with zinc,containg by wght less than 0.25%C
120	721713	Wire,i/nas,pltd o coatd with oth base metals nes,cntg by wght <0.25%C
121	721719	Wire, i/nas, containing by weight less than 0.25% carbon, nes
122	721721	Wire,i/nas,polishd/not,but not pltd/ctd,cntg by wght 0.25% </=C <0.6%
123	721722	Wire,i/nas,pltd o coatd w zinc cntg by wght 0.25% </=carbon < 0.6%
124	721723	Wire,i/nas,pltd/ctd w oth base met nes,cntg by wght 0.25% </= C <0.6%
125	721729	Wire,iron or non-alloy steel,nes cntng by wght: 0.25% </=carbon <0.6%
126	721731	Wire,i/nas,polished or not,but nt pltd or ctd,contg by wght >/=0.6%C
127	721732	Wire,i/nas,pltd o coatd with zinc containg by wght 0.6% o more carbon
128	721733	Wire,i/nas,pltd o ctd w oth base met nes,cntg by wght >/=0.6% carbon
129	721739	Wire,iron o non-alloy steel,nes containg by weight 0.6% o more carbon
130	721810	Ingots and other primary forms, stainless steel
131	721890	Semi-finished products, stainless steel
132	721911	Flat rolld prod,stainless steel,hr,in coil,w>/=600mm,thk> 10mm
133	721912	Flat rolld prod,stainless steel,hr,in coil,w>/=600mm,4.75 </=thk <10mm
134	721913	Flat rolld prod,stainless steel,hr in coil,w>/=600mm,3 </=thk <4.75mm
135	721914	Flat rolld prod,stainless steel,hr in coil,w>/=600mm,thk < 3mm
136	721921	Flat rolled prod,stainless steel,hr,nic,>/=600mm wide,over 10mm thick
137	721922	Flat rolld prod,stainless steel,hr,nic,w>/=600mm,4.75mm </=thk </=10mm
138	721923	Flat rolled prod,stainless steel,hr,nic,w>/=600mm,3mm </=thk <4.75mm
139	721924	Flat rolld prod,stainless steel,hr,nic,>600mm wide,less than 3mm thick
140	721931	Flat rolled prod,stainless steel,cr,>600mm wide,4.75mm or more thick
141	721932	Flat rolled prod, stainless steel, cr,w>/=600mm,3mm </=thick <4.75mm
142	721933	Flat rolled prod, stainless steel, cr, 600mm wide, 1mm <thick <3mm
143	721934	Flat rolled prod, stainless steel, cr,w>/=600mm,0.5mm </=thick <1mm
144	721935	Flat rolled prod,stainless steel,cr,>600mm wide,less than 0.5mm thick
145	721990	Flat rolled prod, stainless steel, 600mm or more wide, nes
146	722011	Flat rolled prod,stainless steel,hr <600mm wide,exceeding 4.75mm thick
147	722012	Flat rolled prod,stainless steel,hr <600mm wide,less than 4.75mm thick
148	722020	Flat rolled prod, stainless steel, <600mm wide, cold rolled or reduced
149	722090	Flat rolled prod, stainless steel, cr <600mm wide, nes
150	722100	Bars & rods, stainless steel, hot rolled in irregularly wound coils
151	722210	Bars & rods,stainless steel,nfw than hot rolled,hot drawn or extruded
152	722220	Bars & rods, stainless steel, nfw than cold formed or cold finished
153	722230	Bars & rods, stainless steel, nes
154	722240	Angles, shapes and sections, stainless steel
155	722300	Wire of stainless steel
156	722410	Ingots & other primary forms of alloy steel, o/t stainless
157	722490	Semi-finished products of alloy steel o/t stainless
158	722510	Flat rolled products of siliconelectrical steel,>/=600mm wide
159	722520	Flat rolled products of high speed steel >/=600mm wide

Serial number	HS Code number	Description
160	722530	Flat rolled prod,as,o/t stainless,in coils,nfw thn hr,w >/=600mm,nes
161	722540	Flat rolled prod,as,o/t stainless,nic nfw thn hr, >/=600mm wide, nes
162	722550	Flat rolled prod,as,o/t stainless,nfw thn cold rolled, >/=600mm wide,nes
163	722590	Flat rolled prod, as, o/t stainless, >/=600mm wide, nes
164	722610	Flat rolled prod, of silicon electrical steel, <600mm wide
165	722620	Flat rolled prod, of high speed steel, <600mm wide
166	722691	Flat rolled prod,as,o/t stainless,nfw than hot rolled, <600mm wide,nes
167	722692	Flat rolled prod, as, o/t stainless, nfw than cold rolled, <600mm wide
168	722699	Flat rolled prod, as, o/t stainless, <600mm wide, nes
169	722710	Bars & rods, of high speed steel, hr, in irregularly wound coils
170	722720	Bars & rods, of silico-manganese steel, hr, in irregularly wound coils
171	722790	Bars&rods,alloy steel,o/t stainless hr,in irregularly wound coils,nes
172	722810	Bars and rods of high speed steel, nes
173	722820	Bars and rods of silico-manganese steel nes
174	722830	Bars&rods,alloy steel,o/t stainless nfw thn hot roild/drawn/extrud,nes
175	722840	Bars & rods, as, o/t stainless, not further worked than forged
176	722850	Bars&rods,as,o/t stainless,not further workd than cold formed/finishd
177	722860	Bars & rods, as, o/t stainless, nes
178	722870	Angles, shapes and sections, as, o/t stainless, nes
179	722880	Bars & rods, hollow drill, alloy or nonalloy steel
180	722910	Wire of high speed steel
181	722920	Wire of silico-manganese steel
182	722990	Wire of alloy steel, o/t stainless
183	730431	Tubes,pipe&hollow profiles,i/nas,smls,cd/cr,of circ cross section,nes
184	730439	Tubes,pipe & hollow profiles,i or nas,smls,of circ cross section,nes
185	730441	Tube,pipe&hollow profile,stain steel,smls,cd/cr of circ cross sect,nes
186	730449	Tubes,pipe& hollow profiles,stainless steel,smls,of circ cross sect,nes
187	730451	Tubes,pipe&hollow profile,as,(o/t stain) smls,cd/cr of circ cross sect
188	730459	Tube,pipe&hollow profile,as,(o/t stainless) smls,circ cross sect,nes
189	730490	Tubes, pipe & hollow profiles, iron or steel, smls, nes
190	730531	Tubes & pipe,i or s,longitudinally welded,external dia >406.4mm,nes
191	730539	Tubes & pipe,i or s,welded,rivcted or sim closed,ext dia >406.4mm,nes
192	730590	Tubes & pipe, i or s, rivcted or sim closed, ext dia >406.4mm, nes
193	730630	Tubes,pipe & hollow profiles,iron or nas,welded,of circ cross sect,nes
194	730640	Tube,pipe&hollow profile,stainless steel,weldd,of circ cross sect,nes
195	730650	Tubes,pipe&hollow profiles,al/s,(o/t stain) wld,of circ cross sect,nes
196	730660	Tubes,pipe & hollow profiles,i/s,welded,of non circ cross sect,nes
197	730690	Tubes, pipe & hollow profiles, iron or steel, welded, nes
198	731210	Stranded wire,ropes&cables of iron or steel,not electrically insulated
199	810510	Cobalt,unwrought,matte&oth intermediate products,waste,scrap&powders
200	844520	Textile spinning machines
201	847989	Machines & mechanical appliances nes having individual functions
202	852031	Magnetic tape rec incorporatg sound reproducg apparatus,cassette-type
203	852039	Magnetic tape recorders incorporating sound reproducing apparatus, nes
204	852090	Magnetic tape recorders and other sound recording apparatus, nes
205	852711	Radio broad rece capable of op w/o an external source of power&combind
206	852721	Radio rece nt capabl of op w/o ext source of power f motor veh,combind
207	852731	Radio broad rece combind with sound recordg or reproducg apparatus nes
208	852820	TV receivers an includg video monitr&video projectrs monochrome
209	854012	Cathode-ray TV picture tube incl video monitor tube,B&W/oth monochrom
210	880211	Helicopters of an unladen weight not excceding 2,000 kg
211	880212	Helicopters of an unladen weight excceding 2,000 kg
212	880220	Aircraft nes of an unladen weight not excceding 2,000 kg
213	880230	Aircraft nes of an unladen weight > 2,000 kg but not excccdg 15,000 kg

Serial number	HS Code number	Description
214	880240	Aircraft nes of an unladen weight exceeding 15,000 kg
215	890800	Vessels and other floating structures for breaking up
216	900610	Cameras of a kind used for preparing printing plates or cylinders
217	901210	Microscopes other than optical microscopes and diffraction apparatus
218	283711	Cyanides and cyanide oxides of sodium
219	360200	Prepared explosives, o/t propellant powders
220	360300	Safety/detonatg fuses;percussn/detonatg caps;igniters;elec detonatrs
221	390330	Acrylonitrile-butadiene-styrene (ABS) copolymers
222	400211	Styren-butadien rubber(SBR)/carboxyltd styren-butadien rbr(XSBR) latex
223	400219	Styren-butadien rubber(SBR)/carboxyltd styren-butadien rubbr(XSBR) nes
224	400220	Butadiene rubber (BR)
225	400231	Isobutene-isoprene (butyl) rubber (IIR)
226	400239	Halo-isobutene-isoprene rubber (CIIR or BIIR)
227	400241	Chloroprene (chlorobutadiene) rubber (CR), latex
228	400249	Chloroprene (chlorobutadiene) rubber (CR) nes
229	400251	Acrylonitrile-butadiene rubber (NBR), latex
230	400259	Acrylonitrile-butadiene rubber (NBR) nes
231	400260	Isoprene rubber (IR)
232	400270	Ethylene-propylene-non-conjugated diene rubber (EPDM)
233	400280	Mixtures of any product of headg No 40.01 w any product of this headg
234	400291	Synthetic rubber and facticc derived from oils, etc, latex
235	400299	Synthetic rubber and facticc derived from oils, etc, nes
236	440310	Poles, treated/painted etc
237	440320	Logs, poles, coniferous nes
238	440331	Logs, Meranti, light & dark red & Bakau
239	440332	Logs, white Lauan, Meranti, Seraya yellow Meranti & Alan
240	440333	Logs, Keruing, Ramin, Kapur, Teak, Jongkong, Merbau, etc
241	440334	Logs, Okoum ^m , Obeche, Sapelli, Sipo, Acajou d'Afrique, etc
242	440335	Logs, Tiama, Mansonia, Llomba, Dib ^m ou, Limba and Azob ^m
243	440391	Logr, Oak
244	440392	Logs, Beech
245	440399	Logs, nonconiferous nes
246	440610	Ties, railway/tramway, wood not impregnated
247	440690	Ties, railway/tramway, wood nes
248	440710	Lumber, coniferous (softwood) 6 mm and thicker
249	440721	Lumber, Meranti red (light & dark), Meranti Bakau, White Lauan etc
250	440722	Lumber, Okoum ^m , Obeche, Sapelli, Sipo, Acajou d'Afrique, Makor ^m etc
251	440723	Lumber, Baboen, Mahogany (Swietenia spp), Imbuia and Balsa
252	440791	Lumber, Oak
253	440792	Lumber, Beech
254	440799	Lumber, nonconiferous nes
255	440810	Vencer, coniferous (softwood) less than 6 mm thick
256	440820	Vencer, tropical woods, less than 6 mm thick
257	440890	Vencer, non-coniferous nes, less than 6 mm thick
258	470100	Mechanical wood pulp
259	470200	Chemical wood pulp, dissolving grades
260	470311	Chemical wood pulp, soda or sulphate, coniferous, unbleached
261	470319	Chemical wood pulp, soda or sulphate, non-coniferous, unbleached
262	470321	Chemical wood pulp,soda or sulphate,coniferous,semi-bl or bleached,nes
263	470329	Chemical wood pulp,soda/sulphate,non-coniferous,semi-bl/bleachd,nes
264	470411	Chemical wood pulp, sulphite, coniferous unbleached
265	470419	Chemical wood pulp, sulphite, nonconiferous, unbleached
266	470421	Chemical wood pulp,sulphite,coniferous semi-bleached or bleached,nes
267	470429	Chemical wood pulp,sulphite,nonconiferous,semi-bl or bleached,nes

Serial number	HS Code number	Description
268	470500	Semi-chemical wood pulp
269	841810	Combined refrigerator-freezers, fitted with separate external doors
270	841821	Refrigerators, household type, compression-type
271	841822	Refrigerators, household type, absorption-type, electrical
272	841829	Refrigerators, household type, nes
273	841830	Freezers of the chest type, not exceeding 800 l capacity
274	841840	Freezers of the upright type, not exceeding 900 l capacity
275	841850	Refrigerating or freezing display counters, cabinets, show-cases, etc
276	841891	Furniture designed to receive refrigerating or freezing equipment
277	240210	Cigars, cheroots and cigarillos, containing tobacco
278	240220	Cigarettes containing tobacco
279	240310	Smokg tobacco,whether o not cntg tobacco substitutes in any proportion
280	270900	Petroleum oils and oils obtained from bituminous minerals, crude
281	271000	Petroleum oils&coils obtained from bituminous minerals,o/than crude etc
282	291737	Dimethyl terephthalate
283	292122	Hexamethylenediamine and its salts
284	293371	6-hexanelactam (epsilon-caprolactam)
285	390210	Polypropylene
286	390230	Propylene copolymers
287	390760	Polyethylene terephthalate
288	441211	Plywood, at least 1 outer ply of tropical woods (ply's <6 mm)
289	441212	Plywood, at least 1 outer ply of non-coniferous wood nes (ply's <6 mm)
290	441219	Plywood nes, at least 1 outer ply of coniferous wood (ply's <6 mm)
291	441221	Panels, 1 outer ply non-coniferous & 1 ply of particle board
292	441229	Panels, 1 outer ply non-coniferous wood nes
293	441291	Panels, 1 outer ply coniferous wood, & 1 ply of particle board
294	441299	Panels, 1 outer ply coniferous wood nes
295	540210	High tenacity yarn (o/t sewg thread),nylon/oth polyamides fi,nt put up
296	540231	Texturd yarn nes,of nylon/oth polyamides fi, </=50tex/s.y.,not put up
297	540232	Texturd yarn nes,of nylon/oth polyamides fi, > 50 tex/s.y.,not put up
298	540239	Textured yarn of synthetic filaments, nes, not put up
299	540241	Yarn of nylon or other polyamides fi,single,untwisted,nes,not put up
300	540242	Yarn of polyester filaments,partially oriented,single,nes,not put up
301	540243	Yarn of polyester filaments, single, untwisted, nes, not put up
302	540249	Yarn of synthetic filaments, single, untwisted, nes, not put up
303	540251	Yarn of nylon or other polyamides fi, single, >50 turns/m, not put up
304	540252	Yarn of polyester filaments, single, >50 turns per metre, not put up
305	540259	Yarn of synthetic filaments,single,>50 turns per metre,nes,not put up
306	540261	Yarn of nylon or other polyamides fi, multiple, nes, not put up
307	540262	Yarn of polyester filaments, multiple, nes, not put up
308	540269	Yarn of synthetic filaments, multiple, nes, not put up
309	540310	High tenacity yarn (o/t sewg thread),of viscose rayon filamt,nt put up
310	540320	Textured yarn nes,of artificial filaments,not put up for retail sale
311	540331	Yarn of viscose rayon filaments, single, untwisted, nes, not put up
312	540332	Yarn of viscose rayon filaments,single, >120 turns per m,nes,nt put up
313	540333	Yarn of cellulose acetate filaments, single, nes, not put up
314	540339	Yarn of artificial filaments, single, nes, not put up
315	540341	Yarn of viscose rayon filaments, multiple, nes, not put up
316	540342	Yarn of cellulose acetate filaments, multiple, nes, not put up
317	540349	Yarn of artificial filaments, multiple, nes, not put up
318	540410	Synthetic mono,>/=67dtex, no cross sectional dimension exceeds 1 mm
319	540710	Woven fab of high tenacity fi yarns of nylon oth polyamides/polyesters
320	540720	Woven fab obtaind from strip/the like of synthetic textile materials
321	540741	Woven fab,>/=85% of nylon/other polyamides filaments,unbl or bl,nes

Serial number	HS Code number	Description
322	540742	Woven fabrics, >/=85% of nylon/other polyamides filaments, dyed, nes
323	540743	Woven fab, >/=85% of nylon/other polyamides filaments, yarn dyed, nes
324	540744	Woven fabrics, >/=85% of nylon/other polyamides filaments, printed, nes
325	540751	Woven fabrics, >/=85% of textured polyester filaments, unbl or bl, nes
326	540752	Woven fabrics, >/=85% of textured polyester filaments, dyed, nes
327	540753	Woven fabrics, >/=85% of textured polyester filaments, yarn dyed, nes
328	540754	Woven fabrics, >/=85% of textured polyester filaments, printed, nes
329	540760	Woven fabrics, >/=85% of non-textured polyester filaments, nes
330	540771	Woven fab, >/=85% of synthetic filaments, unbleached or bleached, nes
331	540772	Woven fabrics, >/=85% of synthetic filaments, dyed, nes
332	540773	Woven fabrics, >/=85% of synthetic filaments, yarn dyed, nes
333	540774	Woven fabrics, >/=85% of synthetic filaments, printed, nes
334	540781	Woven fabrics of synthetic filaments, <85% mixd w cotton, unbl o bl, nes
335	540782	Woven fabrics of synthetic filaments, <85% mixed with cotton, dyed, nes
336	540783	Woven fabrics of synthetic filaments, <85% mixed w cotton, yarn dyd, nes
337	540784	Woven fabrics of synthetic filaments, <85% mixd with cotton, printed, nes
338	540791	Woven fabrics of synthetic filaments, unbleached or bleached, nes
339	540792	Woven fabrics of synthetic filaments, dyed, nes
340	540793	Woven fabrics of synthetic filaments, yarn dyed, nes
341	540794	Woven fabrics of synthetic filaments, printed, nes
342	540810	Woven fabrics of high tenacity filament yarns of viscose rayon
343	540821	Woven fab, >/=85% of artificial fi o strip of art tex mat, unbl/bl, nes
344	540822	Woven fab, >/=85% of artificial fi or strip of art tex mat, dyed, nes
345	540823	Woven fab, >/=85% of artificial fi or strip of art tex mat, y dyed, nes
346	540824	Woven fab, >/=85% of artificial fi or strip of art tex mat, printd, nes
347	540831	Woven fabrics of artificial filaments, unbleached or bleached, nes
348	540832	Woven fabrics of artificial filaments, dyed, nes
349	540833	Woven fabrics of artificial filaments, yarn dyed, nes
350	540834	Woven fabrics of artificial filaments, printed, nes
351	550110	Filament tow of nylon or other polyamides
352	550120	Filament tow of polyesters
353	550130	Filament tow of acrylic or modacrylic
354	550190	Synthetic filament tow, nes
355	550200	Artificial filament tow
356	550310	Staple fibers of nylon or other polyamides, not carded or combed
357	550320	Staple fibers of polyesters, not carded or combed
358	550330	Staple fibers of acrylic or modacrylic, not carded or combed
359	550340	Staple fibers of polypropylene, not carded or combed
360	550390	Synthetic staple fibers, not carded or combed, nes
361	550410	Staple fibers of viscose, not carded or combed
362	550490	Artificial staple fibers, oft viscose, not carded or combed
363	550610	Staple fibers of nylon or other polyamides, carded or combed
364	550620	Staple fibers of polyesters, carded or combed
365	550630	Staple fibers of acrylic or modacrylic, carded or combed
366	550690	Synthetic staple fibers, carded or combed, nes
367	550700	Artificial staple fibers, carded or combed
368	550911	Yarn, >/=85% nylon or other polyamides staple fibers, single, not put up
369	550912	Yarn, >/=85% nylon o oth polyamides staple fibers, multi, not put up, nes
370	550921	Yarn, >/=85% of polyester staple fibers, single, not put up
371	550922	Yarn, >/=85% of polyester staple fibers, multiple, not put up, nes
372	550931	Yarn, >/=85% of acrylic or modacrylic staple fibers, single, not put up
373	550932	Yarn, >/=85% acrylic/modacrylic staple fibers, multiple, not put up, nes
374	550941	Yarn, >/=85% of other synthetic staple fibers, single, not put up
375	550942	Yarn, >/=85% of other synthetic staple fibers, multiple, not put up, nes

Serial number	HS Code number	Description
376	550951	Yarn of polyester staple fibers mixd w/ arti staple fib,not put up,nes
377	550952	Yarn of polyester staple fib mixd w wool/fine animl hair,nt put up,nes
378	550953	Yarn of polyester staple fibers mixed with cotton, not put up, nes
379	550959	Yarn of polyester staple fibers, not put up, nes
380	550961	Yarn of acrylic staple fib mixd w wool/fine animal hair,not put up,nes
381	550962	Yarn of acrylic staple fibers mixed with cotton, not put up, nes
382	550969	Yarn of acrylic staple fibers, not put up, nes
383	550991	Yarn of oth synthetic staple fibers mixed w/wool/fine animal hair,nes
384	550992	Yarn of other synthetic staple fibers mixed with cotton,not put up,nes
385	550999	Yarn of other synthetic staple fibers, not put up, nes
386	551011	Yarn, >/=85% of artificial staple fibers, single, not put up
387	551012	Yarn, >/=85% of artificial staple fibers, multiple, not put up, nes
388	551020	Yarn of artifical staple fib mixd w wool/fine animl hair,not put up,nes
389	551030	Yarn of artifical staple fibers mixed with cotton, not put up, nes
390	551090	Yarn of artificial staple fibers, not put up, nes
391	551219	Woven fabrics,containg >/=85% of polyester staple fibers,o/t unbl or bl
392	551221	Woven fabrics,containg >/=85% of acrylic staple fibers,unbleached or bl
393	551229	Woven fabrics,containing >/=85% of acrylic staple fibers,o/t unbl or bl
394	551291	Woven fabrics,containing >/=85% of oth synthetic staple fibers,unbl/bl
395	551299	Woven fabrics,containg >/=85% of other synthetic staple fib,o/t unbl/bl
396	551311	Plain weave polyest stapl fib fab, <85%,mixd w/cotton, </=170g/m2,unbl/bl
397	551312	Twill weave polycest stapl fib fab, <85%,mixd w/cotton, </=170g/m2,unbl/bl
398	551313	Woven fab of polyest staple fib, <85% mixd w/cot, </=170g/m2,unbl/bl,nes
399	551319	Woven fabrics of oth syn staple fib, <85%,mixd w/cot, </=170g/m2,unbl/bl
400	551321	Plain weave polyester staple fib fab, <85%,mixd w/cotton, </=170g/m2,dyd
401	551322	Twill weave polyest staple fib fab, <85%,mixd w/cotton, </=170g/m2,dyd
402	551323	Woven fab of polyester staple fib, <85%,mixd w/cot, </=170 g/m2,dyd,nes
403	551329	Woven fabrics of oth syn staple fib, <85% mixd w/cotton, </=170g/m2,dyed
404	551331	Plain weave polyest stapl fib fab, <85% mixd w/cot, </=170g/m2,yarn dyd
405	551332	Twill weave polycest stapl fib fab, <85% mixd w/cot, </=170g/m2,yarn dyd
406	551333	Woven fab of polyest staple fib, <85% mixd w/cot, </=170 g/m2,dyd nes
407	551339	Woven fab of oth syn staple fib, <85% mixd w/cot, </=170g/m2,yarn dyd
408	551341	Plain weave polyester stapl fib fab, <85%,mixd w/cot, </=170g/m2,printd
409	551342	Twill weave polyest staple fib fab, <85%,mixd w/cot, </=170g/m2,printd
410	551343	Woven fab of polyester staple fib, <85%,mixd w/cot, </=170g/m2,ptd,nes
411	551349	Woven fab of oth syn staple fib, <85%,mixed w/cot, </=170g/m2,printed
412	551411	Plain weave polyest staple fib fab, <85%,mixd w/cotton, >170g/m2,unbl/bl
413	551412	Twill weave polycest stapl fib fab, <85%,mixd w/cotton, >170g/m2,unbl/bl
414	551413	Woven fab of polyester staple fib, <85% mixd w/cot, >170g/m2,unbl/bl,nes
415	551419	Woven fabrics of oth syn staple fib, <85%,mixed w/cot, >170 g/m2,unbl/bl
416	551421	Plain weave polyester staple fiber fab, <85%,mixd w/cotton, >170g/m2,dyd
417	551422	Twill weave polyester staple fiber fab, <85%,mixd w/cotton, >170g/m2,dyd
418	551423	Woven fabrics of polyester staple fib, <85%,mixed w/cot, >170 g/m2,dyed
419	551429	Woven fabrics of oth synthetic staple fib, <85%,mixd w/cot, >170g/m2,dyd
420	551431	Plain weave polyester staple fib fab, <85% mixd w/cot, >170g/m2,yarn dyd
421	551432	Twill weave polyester staple fib fab, <85% mixd w/cot, >170g/m2,yarn dyd
422	551433	Woven fab of polyester stapl fib, <85% mixd w/cot, >170g/m2,yarn dyd nes
423	551439	Woven fabrics of oth syn staple fib, <85% mixd w/cot, >170 g/m2,yarn dyd
424	551441	Plain weave polyester staple fiber fab, <85%,mixd w/cot, >170g/m2,printd
425	551442	Twill weave polyester staple fiber fab, <85%,mixd w/cot, >170g/m2,printd
426	551443	Woven fab of polyester staple fibers <85%,mixd w/cot, >170g/m2,ptd,nes
427	551449	Woven fabrics of oth syn staple fib, <85%,mixed w/cot, >170 g/m2,printed
428	551511	Woven fab of polyester staple fib mixd w viscose rayon staple fib,nes
429	551512	Woven fabrics of polyester staple fibers mixd w man-made filaments,nes

Serial number	HS Code number	Description
430	551513	Woven fab of polyester staple fibers mixd w/wool/fine animal hair,nes
431	551519	Woven fabrics of polyester staple fibers, nes
432	551521	Woven fabrics of acrylic staple fibers,mixd w man-made filaments,nes
433	551522	Woven fab of acrylic staple fibers,mixd w/wool/fine animal hair,nes
434	551529	Woven fabrics of acrylic or modacrylic staple fibers, nes
435	551591	Woven fabrics of oth syn staple fib,mixed with man-made filaments,nes
436	551592	Woven fabrics of oth syn staple fib,mixd w/wool o fine animal hair,nes
437	551599	Woven fabrics of synthetic staple fibers, nes
438	551611	Woven fabrics,containg >/=85% of artificial staple fibers,unbleached/bl
439	551612	Woven fabrics, containing >/=85% of artificial staple fibers, dyed
440	551613	Woven fabrics, containing >/=85% of artificial staple fib, yarn dyed
441	551614	Woven fabrics, containing >/=85% of artificial staple fibers, printed
442	551621	Woven fabrics of artificial staple fib, <85%,mixd w man-made fi,unbl/bl
443	551622	Woven fabrics of artificial staple fib, <85%,mixd with man-made fi,dyd
444	551623	Woven fabrics of artificial staple fib, <85%,mixd with m-m fi,yarn dyd
445	551624	Woven fabrics of artificial staple fib, <85%,mixd w man-made fi,printd
446	551631	Woven fab of arti staple fib, <85% mixd w/wool/fine animal hair,unbl/bl
447	551632	Woven fabrics of arti staple fib, <85% mixd w/wool/fine animal hair,dyd
448	551633	Woven fab of arti staple fib, <85% mixd w/wool/fine animl hair,yarn dyd
449	551634	Woven fab of arti staple fib, <85% mixd w/wool/fine animal hair,printd
450	551641	Woven fabrics of artificial staple fib, <85% mixd with cotton,unbl o bl
451	551642	Woven fabrics of artificial staple fib, <85% mixed with cotton, dyed
452	551643	Woven fabrics of artificial staple fib, <85% mixed with cotton,yarn dyd
453	551644	Woven fabrics of artificial staple fib, <85% mixed with cotton,printed
454	551691	Woven fabrics of artificial staple fibers, unbleached or bleached, nes
455	551692	Woven fabrics of artificial staple fibers, dyed, nes
456	551693	Woven fabrics of artificial staple fibers, yarn dyed, nes
457	551694	Woven fabrics of artificial staple fibers, printed, nes
458	560122	Wadding of man-made fibers and articles thereof, o/t sanitary articles
459	580131	Woven uncut weft pile fabrics of manmade fibers,o/t terry&narrow fab.
460	580132	Cut corduroy fabrics of man-made fibers, o/t narrow fabrics
461	580133	Woven weft pile fabrics of man-made fibers, nes
462	580134	Woven warp pile fab of man-made fib, "pingl" (uncut),o/t terry&nar fab
463	580135	Woven warp pile fabrics of man-made fib,cut,o/t terry & narrow fabrics
464	580136	Chenille fabrics of man-made fibers, o/t narrow fabrics
465	620113	Mens/boys overcoats & similar articles of man-made fibers,not knitted
466	620193	Mens/boys anoraks and similar articles,of man-made fibers,not knitted
467	620213	Womens/girls overcoats&sim articles of man-made fibers,not knitted
468	620293	Womens/girls anoraks & similar article of man-made fibers,not knitted
469	620312	Mens/boys suits, of synthetic fibers, not knitted
470	620323	Mens/boys ensembles, of synthetic fibers, not knitted
471	620333	Mens/boys jackets and blazers, of synthetic fibers, not knitted
472	620343	Mens/boys trousers and shorts, of synthetic fibers, not knitted
473	620413	Womens/girls suits, of synthetic fibers, not knitted
474	620423	Womens/girls ensembles, of synthetic fibers, not knitted
475	620433	Womens/girls jackets, of synthetic fibers, not knitted
476	620443	WOMENS/GIRLS DRESSES, OF SYNTHETIC FIBERS, NOT KNITTED
477	620444	Womens/girls dresses, of artificial fibers, not knitted
478	620453	Womens/girls skirts, of synthetic fibers, not knitted
479	620463	Womens/girls trousers and shorts, of synthetic fibers, not knitted
480	620530	Mens/boys shirts, of man-made fibers, not knitted
481	620640	Womens/girls blouses and shirts, of man-made fibers, not knitted
482	621133	Mens/boys garments nes, of man-made fibers, not knitted
483	621143	Womens/girls garments nes, of man-made fibers, not knitted

Serial number	HS Code number	Description
484	845011	Automatic washing machines, of a dry linen capacity not exceeding 10 kg
485	845012	Washg mach of a dry linen capacity ≤ 10 kg, with built-in dryer, nes
486	845019	Household/laundry-type washg mach of a dry linen capa ≤ 10 kg, nes
487	852190	Video recording or reproducing apparatus nes
488	170111	Raw sugar, cane
489	170112	Raw sugar, beet
490	170199	Refined sugar, in solid form, nes
491	210690	Food preparations nes
492	220110	Mineral&acrated waters not cntg sugar or sweeteng matter nor flavoured
493	220210	Waters incl mineral&acrard, containg sugar o sweeteng matter o flavourd
494	380810	Insecticides, packaged for retail sale or formulated
495	380820	Fungicides, packaged for retail sale or formulated
496	380830	Herbicides, anti-sproutg prod&plant growth regs, packd f retail/formltd
497	380840	Disinfectants, packaged for retail sale or formulated
498	400110	Natural rubber latex, whether or not prevulcanised
499	400121	Natural rubber in smoked sheets
500	400122	Technically specified natural rubber (TSNR)
501	400129	Natural rubber in other forms nes
502	401110	Pneumatic tire new of rubber f motor car incl station wagons&raeg cars
503	401120	Pneumatic tires new of rubber for buses or lorries
504	401191	Pneumatic tires new of rubber nes, having a 'herring-bone' or sim tread
505	401210	Retreaded tires
506	401220	Pneumatic tires used
507	401290	Solid o cushiond tires, interchangeable tire treads&tire flaps of rbr
508	401310	Inner tubes of rubber for motor cars etc buses or lorries
509	510111	Greasy shorn wool, not carded or combed
510	510119	Greasy wool (other than shorn wool) not carded or combed
511	510121	Degreased shorn wool, not carded, combed or carbonised
512	510129	Degreased wool (other than shorn wool), not carded, combed or carbonised
513	510130	Carbonised wool, not carded or combed
514	510310	Noils of wool or of fine animal hair
515	510510	Carded wool
516	510521	Combed wool in fragments
517	510529	Wool tops and other combed wool, other than combed wool in fragments
518	540220	High tenacity yarn (o/t sewg thread), of polyester filaments, not put up
519	540233	Textured yarn nes, of polyester filaments, not put up for retail sale
520	840731	Engines, spark-ignition reciprocating, displacing not more than 50 cc
521	840732	Engines, spark-ignition reciprocating, displacg > 50 cc but nt more 250cc
522	840733	Engines, spark-ignition reciprocating displacing > 250 cc to 1000 cc
523	840734	Engines, spark-ignition reciprocating displacing more than 1000 cc
524	840790	Engines, spark-ignition type nes
525	840820	Engines, diesel, for the vehicles of Chapter 87
526	841430	Compressors of a kind used in refrigerating equipment
527	841510	Air conditioning machines window or wall types, self-contained
528	841581	Air cond mach nes inc a ref unit&a valve f rev of the cool/heat cycle
529	841582	Air cond mach nes, inc a refrigerating unit
530	841583	Air cond mach nes, not incorporating refrigerating unit
531	846910	Automatic typewriters and wordprocessing machines
532	847010	Electronic calculators capable of oper w/o an external source of power
533	847021	Electronic calculating machines, incorporating a printing device, nes
534	847029	Electronic calculating machines, nes
535	847110	Analogue or hybrid automatic data processing machines
536	847120	Digital auto data process mach cntg in same housg a CPU input&output
537	847191	Digital process units whether/not presentd w the rest of a system etc

Serial number	HS Code number	Description
538	847192	Input or output units, whether or not presented with the rest of a system etc
539	847193	Storage units, whether or not presented with the rest of a system
540	852110	Video recording or reproducing apparatus magnetic tape-type
541	852290	Parts and accessories of apparatus of heading Nos 85.19 to 85.21, nes
542	852530	Television cameras
543	852810	Television receivers includg video monitors & video projectors, colour
544	854011	Cathode-ray television picture tubes, inc video monitor tubes, colour
545	870120	Road tractors for semi-trailers (truck tractors)
546	870210	Diesel powered buses with a seating capacity of > nine persons
547	870290	Buses with a seating capacity of more than nine persons nes
548	870310	Snowmobiles, golf cars and similar vehicles
549	870321	Automobiles w reciprocating piston engine displacg not more than 1000 cc
550	870322	Automobiles w reciprocating piston engine displacg > 1000 cc to 1500 cc
551	870323	Automobiles w reciprocating piston engine displacg > 1500 cc to 3000 cc
552	870324	Automobiles with reciprocating piston engine displacing > 3000 cc
553	870331	Automobiles with diesel engine displacing not more than 1500 cc
554	870332	Automobiles with diesel engine displacing more than 1500 cc to 2500 cc
555	870333	Automobiles with diesel engine displacing more than 2500 cc
556	870390	Automobiles nes including gas turbine powered
557	870421	Diesel powered trucks with a GVW not exceeding five tonnes
558	870422	Diesel powered trucks w a GVW exc five tonnes but not exc twenty tonnes
559	870423	Diesel powered trucks with a GVW exceeding twenty tonnes
560	870431	Gas powered trucks with a GVW not exceeding five tonnes
561	870432	Gas powered trucks with a GVW exceeding five tonnes
562	870490	Trucks nes
563	870510	Mobile cranes
564	870520	Mobile drilling derricks
565	870530	Fire fighting vehicles
566	870540	Mobile concrete mixers
567	870590	Special purpose motor vehicles nes
568	870600	Chassis fitted w engines for the vehicles of heading Nos 87.01 to 87.05
569	870710	Bodies for passenger carrying vehicles
570	870790	Bodies for tractors, buses, trucks and special purpose vehicles
571	870850	Drive axles with differential for motor vehicles
572	871110	Motorcycles with reciprocating piston engine displacing 50 cc or less
573	871120	Motorcycles with reciprocating piston engine displacg > 50 cc to 250 cc
574	871130	Motorcycles with reciprocating piston engine displacg > 250 cc to 500 cc
575	871140	Motorcycles with reciprocating piston engine displacg > 500 cc to 800 cc
576	871150	Motorcycles with reciprocating piston engine displacg more than 800 cc
577	871419	Motorcycle parts nes
578	900640	Instant print cameras
579	900651	Cameras, single lens reflex, for roll film of a width not exceeding 35 mm
580	900652	Cameras for roll film of a width less than 35 mm
581	900653	Cameras for roll film of a width of 35 mm, nes
582	900659	Photographic, other than cinematographic cameras nes
583	900911	Electrostatic photo-copying apparatus, direct process type
584	900912	Electrostatic photo-copying apparatus, indirect process type
585	900921	Photo-copying apparatus, incorporating an optical system, nes
586	900922	Contact type photo-copying apparatus, nes
587	900930	Thermo-copying apparatus
588	901819	Electro-diagnostic apparatus, nes
589	902211	Apparatus based on the use of X-rays for medical, surgical, dental/vet uses
590	910111	Wrist-watches w mech display, battery powered & with case of precious metal
591	910121	Wrist-watches, with automatic winding & with case of precious metal, nes

Serial number	HS Code number	Description
592	910129	Wrist-watches, with a case of precious metal, nes
593	910211	Wrist-watches, battery/accumulator powered w mechanical display only nes
594	910221	Wrist-watches with automatic winding nes
595	910229	Wrist-watches, nes
596	910811	Watch movements, assembled, battery powered with mechanical display
597	910820	Watch movements, complete and assembled, with automatic winding, nes
598	910891	Watch movements, complete and assembled, measuring 33.8 mm or less, nes
599	911011	Complete movements of watches, unassembled or partly assembled
600	911012	Incomplete movements of watches, assembled
601	911019	Rough movements of watches

Source: GATT (1992a) and Office of the United States Trade Representative (1992).

Table A3.5: CHINA: LIST OF PRODUCTS SUBJECT TO IMPORT CONTROL
(as of August 1992)
(Arranged According to Harmonized Commodity description and Coding System)

Serial number	HS Code number	Description
1	391810	Floor, wall and ceiling coverings etc, of polymers of vinyl chloride
2	680221	Monumental/buildg stone,cut/sawn flat/even,marble/travertine/alabaster
3	680911	Plaster boards etc not ornamental faced o reinforced w paper/paperboard
4	690790	Tiles, cubes and sim nes, unglazed ceramics
5	700529	Float glass etc in sheets, non-wired nes
6	701990	Glass fibers (including glass wool) and articles thereof nes
7	731100	Containers for compressed or liquefied gas of iron or steel
8	761010	Doors, windows and their frames and thresholds for doors of aluminium
9	840120	Machinery and apparatus for isotopic separation and parts thereof
10	840619	Steam and vapour turbines nes
11	840810	Marine propulsion engines, diesel
12	841360	Rotary positive displacement pumps nes
13	841370	Centrifugal pumps nes
14	841391	Parts of pumps for liquid whether or not fitted with a measurg device
15	841410	Vacuum pumps
16	841451	Fans: table,roof etc w a self-cont elec mtr of an output nt excdgd 125W
17	841480	Air or gas compressors, hoods
18	841710	Furnaces&ovens n-elec f the roast,melt/h-treat of ores,pyrites,metals
19	841960	Machinery for liquefying air or gas
20	841989	Machinery,plant/laboratory equip f treat of mat by change of temp nes
21	842119	Centrifuges nes
22	842129	Filtering or purifying machinery and apparatus for liquids nes
23	842230	Mach f fil/clos/seal/etc.btle/can/box/ bag/ctnr nes,mach f aeratg bev
24	842240	Packing or wrapping machinery nes
25	842389	Weighing machinery, nes
26	842511	Pulley tackle/hoists electr (exc skip hoists/hoists f raisg vehicles)
27	842520	Pit-head winding gear winches specially designed for use underground
28	842539	Winches or capstans nes
29	842620	Tower cranes
30	842649	Derricks,cranes or work trucks fitted with a crane,self-propelled nes
31	842710	Self-propelled works trucks powered by an electric motor
32	842720	Self-propelled works trucks nes
33	842790	Trucks fitted with lifting or handling equipment, non-powered
34	842810	Lifts and skip hoists
35	842820	Pneumatic elevators and conveyors
36	842832	Cont-action elevators/conveyors for goods/mat, bucket types nes
37	842833	Cont-action elevators/conveyors for goods/mat, belt type nes
38	842911	Bulldozers and angledozers, crawler type
39	842920	Graders and levellers, self-propelled
40	842930	Scrapers, self-propelled
41	842940	Tamping machines and road rollers, selfpropelled
42	842951	Front end shovel loaders
43	842952	Shovels and excavators with a 360 revolving superstructure
44	842959	Self-propelled excavating machinery nes
45	843031	Coal or rock cutters, self-propelled
46	843039	Coal or rock cutters, not self-propelled
47	843041	Boring or sinking machinery nes, selfpropelled
48	843143	Parts of boring or sinking machinery, whether or not self-propelled
49	843230	Seeders, planters and transplanters
50	843351	Combine harvester-threshers
51	843910	Machinery for making pulp of fibrous cellulosic material

Serial number	HS Code number	Description
52	844110	Cutting machines for paper pulp, paper or paperboard of all kinds
53	844180	Machinery for making up paper pulp, paper or paperboard nes
54	844210	Phototype-setting and composing machines
55	844311	Reel fed offset printing machinery
56	844350	Printing machinery nes
57	844400	Machines for extruding, drawing, text or cutting m-m textile materials
58	844621	Machines f weavg fabrics of a width exc 30 cm,shuttle type,power loom
59	844630	Machines for weavg fabrics of a width exceedg 30 cm shuttleless type
60	844790	Mach f makg gimpd yarn/tulle/lace/embroidery/trimmgs/braid/net/tuflg
61	845110	Dry-cleaning machines o/t hdg No 84.50
62	845140	Washing,bleachg or dyeg machines (o/t machines of headg No 84.50)
63	845180	Mach f wring/dress/finishg/coatg/impreg tex yarns etc(o/t hdg No8450)
64	845229	Sewing machines, other than book-sewing machines, nes
65	845290	Parts of sewing machines, nes
66	845521	Hot or combination hot & cold metal rolling mills
67	845819	Horizontal lathes nes for removing metal
68	845899	Lathes nes for removing metal
69	846019	Fl-surf grindg mach in which pos of 1 axis acc to 0.01 mm nes rem met
70	846029	Grindg mach in which pos of 1 axis to an acc to 0.01mm nes f rem met
71	846090	Mach-tools for deburring polishing etc for fin met nes o/t hdg 84.61
72	846140	Gear cutting,gear grindg or gear finishg machines by removg metal
73	846291	Hydraulic presses for working metal
74	846410	Sawg mach f wrkg stone/ceram/concr/asb/cement etc/for cold workg glass
75	846420	Grindg/polish mach f wrkg ston/ceram/concr/asb/cem etc/f cold wrkg gls
76	846593	Grinding/sandg o polishg mach for workg wood/cork/bone/hard rubber etc
77	847410	Sorting/screening/separatg or washg mach for stone/ores or oth min etc
78	847520	Machines for manufacturing or hot working glass or glassware
79	847710	Injection-moulding machines for working rubber or plastics nes
80	847720	Extruders for working rubber or plastics nes
81	847730	Blow moulding machines for working rubber or plastics nes
82	847751	Mach f moulding/retreadg pneu tires/for moulding/formg inner tubes nes
83	847780	Mach for workg rubber/plastics/for the mfr of prods form these mat nes
84	847930	Press f the mfr of part/fib board/f treat wood etc nes hvg indiv func
85	848010	Boxes, moulding, for metal foundry
86	850220	Generating sets with spark-ignition internal combustion piston engines
87	850230	Electric generating sets, nes
88	850423	Liq dielectric transf havg a power handlg capacity exceedg 10,000 KVA
89	850440	Static converters, nes
90	850450	Inductors, electric
91	851521	Electric mach/app for resistance welding of metal fully or partly auto
92	851531	Elec mach&app for arc (inc plasma arc) weldg of met fully/partly auto
93	851580	Electric/laser/ultrasonic mach etc f weld/cut nes/for hot spray of met
94	851710	Telephone sets
95	851720	Teleprinters
96	851730	Telephonic or telegraphic switching apparatus
97	851740	Apparatus, for carrier-current line systems, nes
98	851840	Audio-frequency electric amplifiers
99	852510	Transmission apparatus for radio-teleph radio-broadcastg or television
100	852520	Transmission apparatus, for radioteleph incorporatg reception apparatus
101	852910	Aerials&aerial reflectors of all kinds;parts suitable f use therewith
102	853530	Isolatg switches & make-and-break switches,voltage exceed 1,000 volts
103	853540	Lighting arresters,voltage limiters & surge supp voltage > 1,000 volts
104	853720	Boards,panels,includg numerical control panels,for a voltage > 1,000 V
105	854320	Signal generators

Serial number	HS Code number	Description
106	854420	Co-axial cable and other co-axial electric conductors
107	860110	Rail locomotives powered from an external source of electricity
108	860610	Railway tank cars, not self-propelled
109	870110	Pedestrian controlled tractors
110	870410	Dump trucks designed for off-highway use
111	900711	Cinema cameras f film of less than 16 mm width/for double-8 mm film
112	901180	Microscopes, optical, nes
113	901520	Theodolites and tachometers
114	901540	Photogramn.ctrical surveying instruments and appliances
115	901580	Surveyg,hydrographic,occanographic,metcorologic/geophysicalinst nes
116	901600	Balances of a sensitivity of 5 cg or better with or without weights
117	901811	Electro-cardiographs
118	901832	Tubular metal needles and needles for sutures
119	901849	Instruments and appliances, used in dental sciences, nes
120	902229	Apparatus basd on the use of alpha beta/gamma radiations,for oth uses
121	902410	Machines & appliances for testing the mechanical properties of metals
122	902680	Instruments&apparatus for measurg o check variables of liq o gases,nes
123	902710	Gas or smoke analysis apparatus
124	902720	Chromatographs and electrophoresis instruments
125	902730	Spectrometers,spectrophotometers&spectrographs usg optical radiations
126	902750	Instruments and apparatus using optical radiations (UV,visible,IR),nes
127	903020	Cathode-ray oscilloscopes and cathoderay oscillographs
128	903031	Multimeters
129	903039	Inst & app,for measurg or checkg voltage,current,etc w/o a record dev
130	903040	Instruments & apparatus,specially designed for telecommunications nes
131	903081	Inst & app for measurg or checkg elec qty,with a recordg device,nes
132	903089	Instruments & apparatus for measurg or checkg electrical quantities nes
133	903140	Optical instruments and appliances, nes
134	903180	Measuring or checking instruments, appliances and machines, nes
135	903289	Automatic regulating or controlling instruments and apparatus, nes
136	930690	Munitions of war&pts thereof & other ammunitions&projectiles&pts thereof

Source: Office of the United States Trade Representative (1992).

**Table A3.6: LIST OF HARMONIZED SYSTEM CATEGORIES
SUBJECT TO EXPORT LICENSING**

HS No.	0207 4300	0802 3200	1211 9015	2008 1120	2617 1090
	0208 1000	0802 4000	1211 9016	2008 1130	
Ch. 1	0210 1110	0805 2000	1211 9017	2008 1190	Ch. 27
0102 9600		0805 4000	1211 9018		2701 1100
0103 9110	Ch. 3	0807 1020	1211 9019	Ch. 22	2701 1290
0103 9120	0301 9210	0808 2011	1211 9021	2206 0000	2701 1900
0103 9200	0306 1321	0813 4030	1211 9022	2208 9000	2702 1000
0104 2090	0306 1329		1211 9023		2703 0000
0105 9190	0306 1400	Ch. 9	1211 9024	Ch. 23	2704 0010
0105 9991	0306 2391	0902 1010	1211 9025	2304 0000	2707 1000
0105 9992	0306 2491	0902 1090	1211 9026		2707 2000
0106 0021	0306 2499	0902 2010	1211 9027	Ch. 24	2707 3000
		0902 2090	1211 9028	2401 1010	2709 0000
Ch. 2	Ch. 4	0902 3010	1211 9029	2401 2010	2710 0011
0201 1000	0407 0020	0902 3090	1211 9031		2710 0051
0201 2000	0407 0022	0902 4010	1211 9049	Ch. 25	2710 0012
0201 3000	0407 0023	0902 4090	1211 2020	2501 0010	2710 0013
0202 1000	0407 0091	0904 2010		2504 1000	2710 0021
0202 2000	0407 0092	0906 1000	Ch. 13	2508 3000	2710 0031
0202 3000	0409 0000	0906 2000	1301 9040	2511 1000	2710 0032
0203 1100	0401 0020		1302 1200	2519 1000	2710 0052
0203 1200		Ch. 10	1302 1910	2519 9090	2711 1100
0203 1900	Ch. 5	1005 9000		2523 1000	2712 2000
0203 2100	0502 1010	1006 1000	Ch. 14	2523 2900	
0203 2200	0504 0011	1006 2000	1401 9090	2526 1020	Ch. 28
0203 2900	0505 1000	1006 4000	1404 2000	2526 2200	2804 7000
0204 1000	0506 9010	1007 0000		2529 2100	2805 3010
0204 2100	0507 9020	1008 1000	Ch. 15	2529 2200	2805 3090
0204 2200			1508 1000	2530 9020	2811 1900
0204 2300	Ch. 6	Ch. 11	1508 9000		2812
0204 3000	0601 1090	1103 1300	1515 4000	Ch. 26	10002815
0204 4100		1104 2300		2601 1100	1100
0204 4200	Ch. 7		Ch. 17	2601 1200	2815 1200
0204 4300	0703 2000	Ch. 12	1701 9910	2601 2000	2825 8000
0204 5000	0709 5100	1201 0000	1701 9920	2602 0000	2825 9011
0206 3000	0710 8000	1202 1000		2603 0000	2825 9012
0206 4100	0711 9011	1202 2000	Ch. 19	2604 0000	2836 2000
0206 4900	0711 9090	1207 4000	1902 1920	2607 0000	2836 6000
0207 1010	0712 3020	1208 1000		2608 0000	2841 8010
0207 1020	0712 9020	1211 1060	Ch. 20	2609 0000	2841 8020
0207 1030	0712 9040	1211 1000	2001 9000	2610 0000	2841 8090
0207 2100	0713 3100	1211 2090	2003 1010	2611 0000	2845 1000
0207 2310	0713 3200	1211 9011	2005 6010	2612 2000	2846 1010
0207 2320		1211 9012	2005 9020	2613 1000	2846 1090
0207 3900	Ch. 8	1211 9013	2005 9030	2613 9000	2846 9011
0207 4100	0802 3100	1211 9014	2005 9050	2617 1010	2846 901

2846 9020	Ch. 39	4403 3500	Ch. 51	5206 3500	Ch. 56
2846 9030	3902 1000	4403 9100	5102 1010	5206 4100	5601 2900
2846 9090	3902 3000	4403 9200	5102 1020	5206 4200	
2849 1000		4403 9910	5105 3010	5206 4300	Ch. 57
2849 9090	3903 1100	4403 9920	5105 3021	5206 4400	5701 1000
2851 0090	3903 1900	4403 9930	5105 3029	5206 4500	5701 9010
	3903 3000	4403 9940		5207 1000	5701 9090
Ch. 29		4403 9990	Ch. 52	5207 9000	5703 1000
2904 2090	Ch. 40	4406 1000	5201 0000	5208 1300	5703 2000
2906 1100	4001 1000	4407 1000	5203 0000	5208 1900	5703 3000
2907 1500	4001 2100	4407 9100	5204 1100	5208 2100	5703 9000
2918 1400	4001 2200	4407 9200	5204 1900	5208 2200	
2920 9000	4001 2900	4407 9910	5204 2000	5208 2300	Ch. 58
2932 1200	4011 1000	4407 9920	5205 1100	5208 2900	5801 2100
2932 1300	4011 2000	4407 9990	5205 1200	5209 1100	5801 2200
2935 0020	4011 3000	4412 1100	5205 1300	5209 1200	5801 2300
2936 2700	4011 4000	4412 1200	5205 1500	5209 1900	5801 2400
2934 9090	4011 9100	4412 1900	5205 2100	5209 2100	5801 2500
2939 4000			5205 2200	5209 2200	5802
2939 9090	Ch. 41	Ch. 46	5205 2300	5209 2900	11005804
2941 4000	4101 1000	4601 2000	5205 2400	5210 1100	3000
	4101 2100	4601 2230	5205 2500	5210 1200	5810 9100
Ch. 30	4101 2200		5205 3100	5210 1900	5810 9200
3001 9010	4101 2200	Ch. 48	5205 3200	5210 2100	5810
3004 9052	4101 2900	4801 0000	5205 3300	5210 2200	99005811
3004 9053	4101 3000	4803 0000	5205 3400	5211 1100	0010
3004 9055	4103 1010	4808 1000	5205 3500	5211 1200	
3004 9090	4103 9010		5205 4100	5211 1900	Ch. 60
	4104 2210	Ch. 50	5205 4200	5211 2100	6001 2100
Ch. 32	4106 1200	5001 0000	5205 4300	5211 2200	6001 9100
3204 1500		5002 0010	5205 4400	5211 2900	6002 1010
	Ch. 42	5002 0020	5205 4500	5212 1100	6002 2010
Ch. 33	4203 2910	5002 0090	5206 1100	5212 1200	6002 3010
3301 2100		5003 1000	5206 1200	5212 2100	6002 4200
3301 2500	Ch. 43	5003 9000	5206 1300	5212 2200	6002 9200
3301 2930	4301 1000	5004 0000	5206 1400	5212 2900	
3301 2940	4302 1100	5005 0010	5206 1500		Ch. 61
		5005 0090	5206 2100	Ch. 53	6104 3200
Ch. 34	Ch. 44	5007 1010	5206 2200	5303 1000	6104 3300
3406 0000	4403 1000	5007 1090	5206 2300	5305 9110	6104 3900
	4403 2000	5007 2011	5206 2400	5305 9911	6104 4200
Ch. 36	4403 3100	5007 2019	5206 2500	5305 9912	6104 4300
3604 1000	4403 3200	5007 2021	5206 3100	5308 9010	6104 4400
	4403 3310	5007 2029	5206 3200	5310 1200	6104 4900
Ch. 38	4403 3390	5007 2031	5206 3300	5311 0011	6104 4900
3806 1000	4403 3400	5007 2039	5206 3400		6104 5200

6104 5300	Ch. 70	7214 2000	7306 2000	7606 9100	8471 2010
6104 5900	7004 9000	7214 3000	7306 3000	7606 9200	8471 2020
	7005 2900	7214 4000	7306 4000	7608 1000	8471 2030
Ch. 62		7214 5000	7306 5000	7608 2000	8471 9110
6211 3200	Ch. 71	7214 6000	7306 6000		8471 9120
6211 3300	7101 1000	7215 1000	7306 9000	Ch. 78	8471 9130
6211 4200	7101 2100	7215 2000	7312 1000	7801 1000	8471 9210
6211 4300	7101 2200	7215 3000	7317 0000	7801 9100	8471 9230
6213 2000	7102 1000	7215 4000		7801 9900	8471 9310
6213 9000	7102 3100	7215 9000	Ch. 74	7802 2000	8471 9390
	7102 3900	7216 1000	7407 1000	7803 0000	8482 1000
Ch. 63		7216 2100	7407 2100	7804 1100	8482 4000
6302 2110	Ch. 72	7216 2200	7407 2200	7804 1900	8482 5000
6302 3191	7201 1000	7216 3100	7407 2900		
6302 3110	7201 2000	7216 3200	7408 1100	Ch. 79	Ch. 85
6302 3210	7201 3000	7216 3300	7408 1900	7901 1100	8505 1110
6302 3921	7202 1100	7216 4010	7408 2100	7901 2100	8528 2081
6302 4010	7202 1900	7216 4020	7408 2200	7901 2000	8528 2082
6302 5110	7202 2100	7216 5010	7408 2290	7902 0000	8528 2083
6302 5210	7202 2900	7216 5090	7409 1100	7903 1000	8528 2084
6302 5310	7202 3000	7216 6000	7409 1900	7903 9000	8528 2090
6303 1100	7202 4100	7216 9000	7409 2100	7903 0000	
6303 1200	7202 4900	7217 1100	7409 2900	7905 0000	Ch. 87
6303 1900	7202 8010	7217 1200	7409 3100	7906 0000	8712 0010
6303 9100	7204 1000	7217 1300	7409 3900		
6303 9200	7204 2100	7217 2100	7409 4000	Ch. 80	Ch. 96
6303 9900	7204 2900	7217 2200	7409 9000	8001 1000	9601 9000
6304 1110	7204 3000	7217 3100	7411 1000	8001 2020	9603 4011
6304 1921	7204 4100	7217 3200	7411 2100	8003 0000	9609 1010
6304 1931	7204 4900	7229 1000	7411 2200		
6304 9110	7204 5000	7229 2000	7411 2900	Ch. 81	
6304 9210	7206 1000	7229 9000		8110 0010	
6304 9310	7207 1100		Ch. 76	8110 0090	
6304 9921	7207 1200	Ch. 73	7601 1000	8101 1000	
6305 1000	7207 1900	7304 3190	7601 2000	8104 1100	
6305 3100	7207 2000	7304 3990	7602 0000	8104 1900	
6305 3900	7208 1100	7304 4190	7604 1000	8104 2000	
	7208 1200	7304 4990	7604 2900	8104 3000	
Ch. 65	7213 1000	7305 1100	7605 1100	8104 9010	
6505 9010	7213 2000	7305 1200	7605 1900	8110 0010	
	7213 3100	7305 1900	7605 2100	8111 0090	
Ch. 69	7213 3900	7305 2000	7605 2900		
6911 1010	7213 4100	7305 3100	7606 1110	Ch. 84	
6912 0010	7213 4900	7305 3900	7606 1190	8408 1000	
	7213 5000	7305 900	7606 1210	8408 2090	
	7214 1000	7306 1000	7606 1290	8471 1000	

Table A3.7: ESTIMATES OF PROTECTION BASED ON INTERNATIONAL PRICE COMPARISONS

HS code (1)	Product description (2)	Official price (3)	Free market price (Yuan/t) (4)	International price (\$/ton) (5)	Tariff rate (6)	Import NTB tariff equiv. (%) (7)	Export tax (8)	Export NTB tax equiv. (%) (9)	Licensing status	
									Export	Import
0202	Pork (frozen)	5,400.15	4,641.31	1,076.00	0.50	-51	0.00	25	Y	N
0203	Beef (frozen)	6,542.87	6,990.80	2,660.00	0.50	-70	0.00	54	Y	N
0902	Tea	18,535.41	25,051.52	1,853.00	0.00	131	0.00	-136	N	N
1001	Wheat	-	789.14	128.00	0.00	5	0.00	-7	N	N
1005	Maize	329.28	354.11	107.48	0.00	-44	0.00	43	Y	N
1006	Rice	550.82	996.88	287.17	0.00	-41	0.00	40	Y	N
1101	Wheat flour	524.54	938.48	162.00	0.06	-6	0.00	-1	N	N
1201	Soybeans	-	1,888.42	239.60	0.00	35	0.00	-37	Y	N
2611	Tungsten	127,69.18	13,954.51	6,763.30	0.00	-65	0.20	55	Y	N
2701	Coal	47.70	64.51	39.70	0.00	-72	0.40	53	Y	N
2709	Crude oil	200.79	109.22	130.00	0.00	-86	0.00	85	Y	Y
2710	Refined petroleum	842.57	1,050.93	223.50	0.10	-27	0.00	18	Y	Y
281511	Sodium hydroxide	1,918.85	1,842.83	322.00	0.03	-5	0.00	0	Y	N
310210	Nitrogenous fertilizer (urea)	532.29	843.16	172.00	0.05	-20	0.00	15	N	N
310420	Potassium fertilizer (KCl)	783.09	783.09	108.90	0.05	17	-	-25	N	N
390210	Polypropylene	4,949.80	5,625.91	844.00	0.00	14	-	-16	N	Y
390311	Polystyrene	4,766.65	7,168.23	572.00	0.00	114	-	-118	N	N
401110	Rubber tires for cars	1,710.00	1,640.00	300.00	0.60	-42	0.00	5	N	Y
440319	Wood logs, coniferous	236.20	284.31	70.00	0.00	-31	0.00	29	N	Y
440391	Wood logs, oak	349.44	555.77	221.00	0.00	-57	0.00	56	Y	Y
440710	Lumber, coniferous	500.43	647.26	110.00	0.00	1	0.00	-3	Y	Y
440791	Lumber, oak	549.85	549.85	471.00	0.00	-80	0.00	80	Y	Y
441212	Plywood nonconiferous	2,349.00	2,631.00	500.00	0.80	-50	0.00	8	Y	N
441219	Plywood, coniferous	1,941.00	1,941.00	150.00	0.80	23	0.00	-125	Y	Y
4702-5	Chemical wood pulp	4,950.00	4,295.34	550.00	0.02	31	0.00	-36	N	Y
5101	Wool	64,541.88	63,618.23	3,530.00	0.00	208	0.00	-214	N	Y
5509	Yarn of synthetic staple	11,493.61	11,240.83	1,000.00	0.70	13	0.00	-96	N	Y
720450	Steel in ingots	-	1,057.44	539.00	0.00	-66	0.00	66	Y	Y
720711	Semi-finished steel	1,055.99	1,168.47	469.00	0.00	-57	0.00	57	Y	Y
7208-12	Flat-rolled products of steel	1,069.01	1,621.97	469.00	0.00	-41	0.00	40	Y	Y
7210-16	Bars & rods of iron & steel	1,368.83	1,493.69	383.00	0.15	-42	0.00	32	N	Y
7312	Wire cables of steel	2,911.13	2,581.90	383.00	0.60	-28	-	-17	Y	Y
7403	Refined copper	10,296.17	15,893.43	2,339.00	0.12	4	0.00	-18	N	N
840731	Petrol engine, 50 cc	-	860.56	100.00	0.80	-18	0.00	-47	N	Y
841821	Refrigerators, domestic	1,592.72	1,623.76	300.00	0.20	-23	0.00	7	N	Y
845011	Automatic washing machine	514.44	454.48	150.00	1.00	-74	0.00	48	N	Y
847120	Personal computer (PC-XT)	-	14,239.99	1,000.00	0.20	103	0.00	-144	N	Y
852031	Cassette recorder	410.88	455.87	60.00	1.00	-35	0.00	-30	N	Y
852110	VCRs	3,000.00	3,000.00	200.00	1.00	28	0.00	-157	N	Y
852810	Color TV	2,000.87	1,903.62	197.38	1.00	-18	0.00	-65	N	Y
852820	Black and White TV	277.86	348.51	80.00	1.00	-63	0.00	25	Y	Y
854012	Cathode-ray TV	83.83	88.70	15.00	0.30	-22	0.00	-1	N	Y
870324	Petrol automobile	101,314.00	101,314.78	12,000.00	1.20	-34	0.00	-44	N	Y

Note: Price comparisons in this table were based on prices in China supplied by the Development Research Center of the State Council. International prices were obtained from a variety of sources, including World Bank commodity price estimates and unit values of exports or imports from China as reported to the UN COMTRADE system. The average secondary market exchange rate utilized was 5.845 and the export weighted exchange rate was 5.74 for all commodities except machinery (HS 8) for which full foreign exchange retention applies and the secondary market rate of 5.845 was therefore applied.

Table A4.1: CHINA: LIST OF PRODUCTS FOR WHICH IMPORT LICENSES AND/OR CONTROLS ARE TO BE MAINTAINED
AT THE END OF ANNOUNCED LIBERALIZATION PROGRAM
(Arranged According to Harmonized Commodity Description and Coding System)

Serial number	HS Code number	Description	Category
1	391810	Floor, wall and ceiling coverings, etc., of polymers of vinyl chloride	C
2	700529	Float glass, etc., in sheets, nonwired nes	C
3	701990	Glass fibers (including glass wool) and articles thereof nes	C
4	731100	Containers for compressed or liquefied gas of iron or steel	C
5	761010	Doors, windows and their frames and thresholds for doors of aluminium	C
6	840120	Machinery and apparatus for isotopic separation and parts thereof	C
7	841451	Fans: table, roof etc w a self-cont elec mtr of an output at exodg 125W	C
8	842230	Mach f fil/clos/seal/etc. btl/can/box/bag/ctr nes, mach f aeratg bev	C
9	842520	Pit-head winding gear winches specially designed for use underground	C
10	842710	Self-propelled works trucks powered by an electric motor	C
11	842790	Trucks fitted with lifting or handling equipment, non-powered	C
12	842820	Pneumatic elevators and conveyors	C
13	842930	Scrapers, self-propelled	C
14	842940	Tamping machines and road rollers, selfpropelled	C
15	843910	Machinery for making pulp of fibrous cellulosic material	C
16	844350	Printing machinery nes	C
17	845819	Horizontal lathes nes for removing metal	C
18	846410	Sawg mach f wrkg ston/ceram/concr/sab/cementetc/for cold wrkg glass	C
19	846420	Grindg/polish mach f wrkg ston/ceram/concr/sab/cem etc/f cold wrkg gls	C
20	847751	Mach f moulding/retreadg pneu tires/for moulding/forming inner tubes nes	C
21	847930	Press f the mfr of part/fib board/f treat wood etc nes hvg indiv func	C
22	850423	Liq dielectric transf havg a power handlg capacity exceedg 10,000 KVA	C
23	851720	Teleprinters	C
24	851840	Audio-frequency electric amplifiers	C
25	852910	Aerials&aerial reflectors of all kinds; parts suitable f use therewith	C
26	854420	Co-axial cable and other co-axial electric conductors	C
27	870410	Dump trucks designed for off-highway use	C
28	900711	Cinema cameras f film of less than 16 mm width/for double-8 mm film	C
29	901540	Photogrammetrical surveying instruments and appliances	C
30	901580	Surveyg, hydrographic, oceanographic, meteorologic/geophysicalst nes	C
31	901832	Tubular metal needles and needles for sutures	C
32	901849	Instruments and appliances, used in dental sciences, nes	C
33	902680	Instruments&apparatus for measurg o check variables of liq o gases, nes	C
34	903040	Instruments & apparatus, specially designed for telecommunications nes	C
35	903140	Optical instruments and appliances, nes	C
36	170111	Raw sugar, cane	L
37	170112	Raw sugar, beet	L
38	170199	Refined sugar, in solid form, nes	L
39	210690	Food preparations nes	L
40	400110	Natural rubber latex, whether or not prevulcanised	L
41	400121	Natural rubber in smoked sheets	L
42	400122	Technically specified natural rubber (TSNR)	L
43	400129	Natural rubber in other forms nes	L
44	401110	Pneumatic tire new of rubber f motor car incl station wagons&trac cars	L
45	401120	Pneumatic tires new of rubber for buses or lorries	L
46	401191	Pneumatic tires new of rubber nes, having a 'herring-bone' or sim tread	L
47	401210	Retreaded tires	L
48	401220	Pneumatic tires used	L
49	401290	Solid o cushioned tires, interchangeable: tire treads& tire flaps of rbr	L
50	401310	Inner tubes of rubber for motor cars etc buses or lorries	L
51	510111	Greasy shorn wool, not carded or combed	L

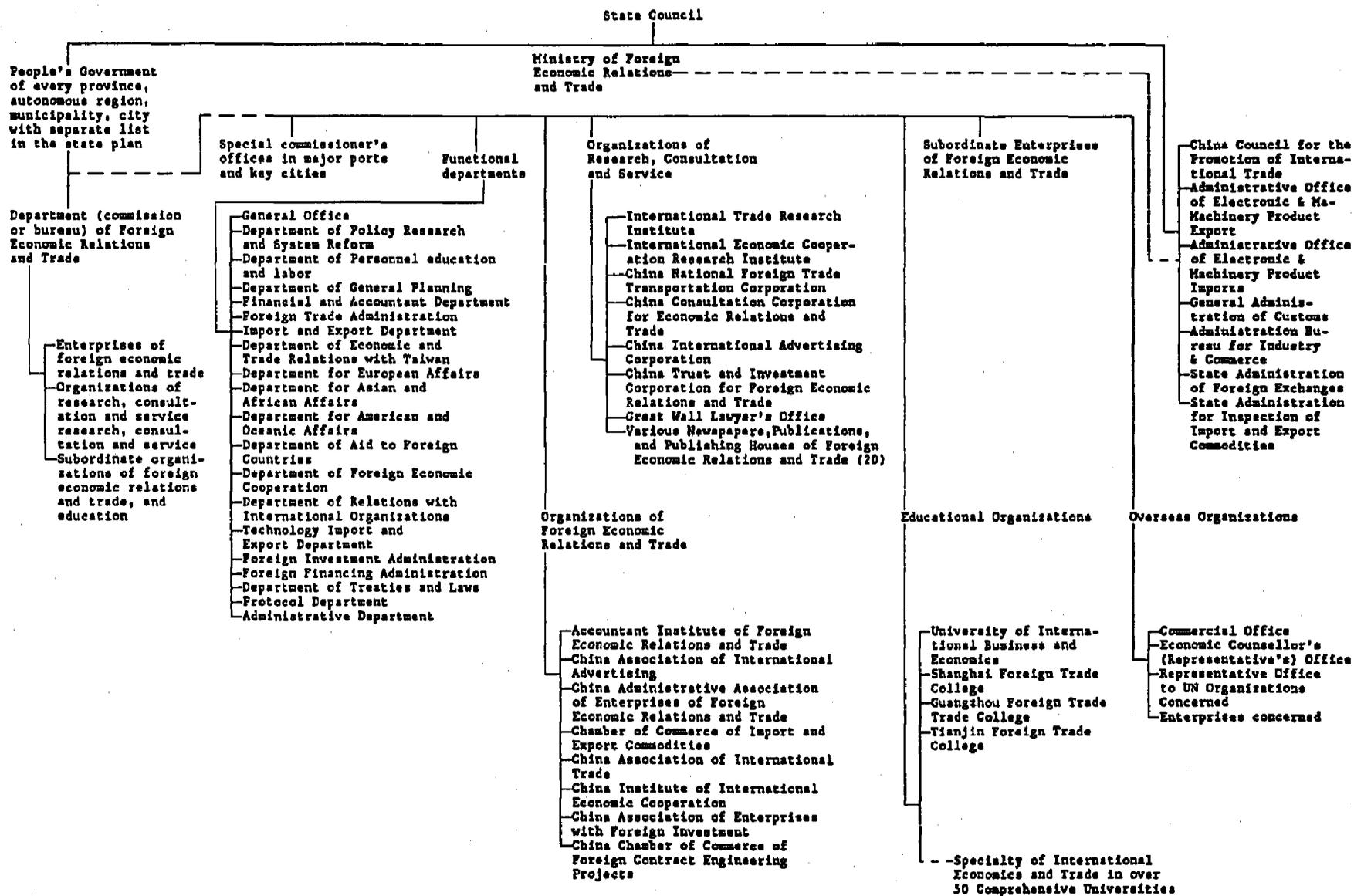
Serial number	HS Code number	Description	Category
52	510119	Greasy wool (other than shorn wool) not carded or combed	L
53	510121	Degreased shorn wool, not carded, combed or carbonised	L
54	510129	Degreased wool (other than shorn wool),not carded,combed or carbonised	L
55	510130	Carbonised wool, not carded or combed	L
56	510310	Noils of wool or of fine animal hair	L
57	510510	Carded wool	L
58	510521	Combed wool in fragments	L
59	510529	Wool tops and other combed wool, other than combed wool in fragments	L
60	540220	High tenacity yarn (a/t sewg thread),of polyester filaments,not put up	L
61	540233	Textured yarn nes,of polyester filaments,not put up for retail sale	L
62	840731	Engines, spark-ignition reciprocating, displacing not more than 50 cc	L
63	840732	Engines,spark-ignition reciprocating,displacg > 50 cc but nt more 250cc	L
64	840733	Engines, spark-ignition reciprocating displacing > 250 cc to 1000 cc	L
65	840790	Engines, spark-ignition type nes	L
66	840820	Engines, diesel, for the vehicles of Chapter 87	L
67	841510	Air conditioning machines window or wall types, self-contained	L
68	841581	Air cond mach nes inc a ref unit&a valve f rev of the cool/heat cycle	L
69	841582	Air cond mach nes, inc a refrigerating unit	L
70	846910	Automatic typewriters and wordprocessing machines	L
71	847010	Electronic calculators capable of oper w/o an external source of power	L
72	847021	Electronic calculating machines, incorporating a printing device, nes	L
73	847029	Electronic calculating machines, nes	L
74	847110	Analogue or hybrid automatic data processing machines	L
75	852110	Video recording or reproducing apparatus magnetic tape-type	L
76	852290	Parts and accessories of apparatus of heading Nos 85.19 to 85.21, nes	L
77	852530	Television cameras	L
78	852810	Television receivers includg video monitors & video projectors,colour	L
79	854011	Cathode-ray television picture tubes,inc video monitor tubes,colour	L
80	870120	Road tractors for semi-trailers (truck tractors)	L
81	870210	Diesel powered buses with a seating capacity of > nine persons	L
82	870290	Buses with a seating capacity of more than nine persons nes	L
83	870310	Snowmobiles, golf cars and similar vehicles	L
84	870321	Automobiles w reciprocating piston engine displacg not more than 1000 cc	L
85	870322	Automobiles w reciprocating piston engine displacg > 1000 cc to 1500 cc	L
86	870323	Automobiles w reciprocating piston engine displacg > 1500 cc to 3000 cc	L
87	870324	Automobiles with reciprocating piston engine displacing > 3000 cc	L
88	870331	Automobiles with diesel engine displacing not more than 1500 cc	L
89	870332	Automobiles with diesel engine displacing more than 1500 cc to 2500 cc	L
90	870333	Automobiles with diesel engine displacing more than 2500 cc	L
91	870390	Automobiles nes including gas turbine powered	L
92	870421	Diesel powered trucks with a GVW not exceeding five tonnes	L
93	870422	Diesel powered trucks w a GVW exc five tonnes but not exc twenty tonnes	L
94	870423	Diesel powered trucks with a GVW exceeding twenty tonnes	L
95	870431	Gas powered trucks with a GVW not exceeding five tonnes	L
96	870432	Gas powered trucks with a GVW exceeding five tonnes	L
97	870490	Trucks nes	L
98	870510	Mobile cranes	L
99	870520	Mobile drilling derricks	L
100	870530	Fire fighting vehicles	L
101	870540	Mobile concrete mixers	L
102	870590	Special purpose motor vehicles nes	L
103	870710	Bodies for passenger carrying vehicles	L
104	871110	Motorcycles with reciprocating piston engine displacing 50 cc or less	L

Serial number	HS Code number	Description	Category
105	871120	Motorcycles with reciprocating piston engine displacg > 50 cc to 250 cc	L
106	871130	Motorcycles with reciprocating piston engine displacg > 250 cc to 500 cc	L
107	871140	Motorcycles with reciprocating piston engine displacg > 500 cc to 800 cc	L
108	871150	Motorcycles with reciprocating piston engine displacg more than 800 cc	L
109	871419	Motorcycle parts nes	L
110	900651	Cameras, single lens reflex, for roll film of a width not exceeding 35 mm	L
111	900652	Cameras for roll film of a width less than 35 mm	L
112	900653	Cameras for roll film of a width of 35 mm, nes	L
113	900659	Photographic, other than cinematographic cameras nes	L
114	901819	Electro-diagnostic apparatus, nes	L
115	910111	Wrist-watches w mech display, battery powered & with case of precious metal	L
116	910121	Wrist-watches, with automatic winding & with case of precious metal, nes	L
117	910129	Wrist-watches, with a case of precious metal, nes	L
118	910211	Wrist-watches, battery/accumulator powered w mechanical display only nes	L
119	910221	Wrist-watches with automatic winding nes	L
120	910229	Wrist-watches, nes	L
121	910811	Watch movements, assembled, battery powered with mechanical display	L
122	910820	Watch movements, complete and assembled, with automatic winding, nes	L
123	910891	Watch movements, complete and assembled, measuring 33.8 mm or less, nes	L
124	911011	Complete movements of watches, unassembled or partly assembled	L
125	911012	Incomplete movements of watches, assembled	L
126	911019	Rough movements of watches	L

Note: C = Import Control; L = Import License.

Source: Office of the United States Trade Representative (1992).

Table A6.1: ORGANIZATIONAL STRUCTURE OF MINISTRY OF FOREIGN ECONOMIC RELATIONS AND TRADE (1992) /1



/1 This structure is being changed following recent initiatives to restructure the government. The Ministry of Foreign Economic Relations and Trade is now called the Ministry of Foreign Trade and Economic Cooperation.

Table A6.2: CHINA: SELECTED INDICATORS OF THE SEZs AND 14 OPEN CITIES

	1984 /a	1990	1990	1990	1990	1990	1984-90	1990
	Indus- trial output (Y bln)	Popu- lation (ton)	Indus- trial output (Y bln)	Exports (\$ mln)	Foreign capital (\$ mln)	F.C./ GDP (%)	Annual indus- trial rate (%)	Exports/ GDP (%)
Dalian	7.05	2,396	24.14	6.54	393.63	13.57	15.83	2.30
Qinhuangdao	0.80	501	2.64	1.18	19.39	2.60	15.16	2.17
Tianjin	24.54	5,771	59.69	4.25	332.96	56.37	9.43	0.36
Qingdao	6.87	2,058	16.30	1.73	52.29	9.43	8.98	0.88
Yantai	1.68	805	5.98	0.33	5.56	1.65	16.62	0.96
Lianyungang	1.09	521	3.14	0.33	73.58	2.01	12.55	0.78
Nantong	2.86	457	7.69	0.22	27.74	2.96	11.26	0.36
Shanghai	56.05	7,835	117.18	8.66	779.70	51.17	6.70	0.81
Ningbo	3.13	1,085	10.71	0.63	66.13	5.40	15.86	0.56
Wenzhou	1.16	562	3.71	0.06	1.39	2.14	14.51	0.13
Fuzhou	2.84	1,292	9.96	0.63	65.25	4.99	16.28	0.60
Guangzhou	11.89	3,579	35.59	7.07	189.67	25.86	13.28	1.31
Zhanjian	0.60	1,060	3.65	0.62	17.63	3.23	27.39	0.92
Beihai	0.16	370	1.41	0.09	10.52	0.69	36.03	0.62
14 cities	120.73	28,292	301.79	32.34	2,035.44	182.07	9.93	0.85
Percent of all China	16.11	2.47	12.61	52.08	19.78	5.77	68.48	0.29
Shenzhen	1.47	395	16.39	5.05	476.54	10.76	40.96	2.24
Zhuhai	0.34	366	4.67	1.67	96.05	3.52	46.33	2.27
Shantou	1.00	856	5.91	1.16	110.80	2.92	26.96	1.90
Xiamen	1.42	603	8.11	0.96	72.73	4.59	26.16	1.00
4 SEZs	4.23	2,220	35.08	8.84	756.12	21.79	34.27	1.94
All China	749.34	1,143,330	2,392.40	62.09	10,290.00	1,768.60	14.50	0.17

Note: F.C. = Foreign Capital utilization, which includes foreign loans, actual FDI and other foreign investments.

/a Both industrial output values of 1984 and of 1990 are at current prices. To calculate growth rates over 1984-90, an industrial output deflator of 1.4166 is used to adjust 1990 industrial output value into 1984 prices.

Source: Ma Jun, *China's Regional Policy and its Macroeconomic Implications*, IMF, mimeo, August 1992.

Table A6.3: CHINA: FOREIGN DIRECT INVESTMENT BY PROVINCES, 1983-91
(\$ million)

	Pledged		Actual		
	1983	1984	1985	1988	1991
All China	3,430.2	1,956.2	1,956.2	3,193.7	4,366.3
Beijing	34.8	118.7	88.8	502.8	244.8
Tianjin	3.2	105.7	55.9	31.9	132.2
Hebei	2.6	11.2	8.2	16.7	44.4
Shanxi	-	1.1	0.5	6.5	3.8
Inner Mongolia	3.0	3.0	2.6	3.4	1.1
Liaoning	24.7	45.7	24.58	115.3	348.9
Jilin	0.8	1.4	4.9	6.2	18.0
Heilongjiang	-	5.2	4.0	40.1	9.4
Shanghai	46.0	430.8	107.5	233.2	145.2
Jiangsu	4.6	56.5	33.5	103.0	212.3
Zhejiang	7.4	31.5	26.6	29.6	91.6
Anhui	-	3.6	3.0	11.5	9.5
Fujian	59.5	236.2	118.6	130.2	466.3
Jiangxi	-	6.9	10.5	5.2	19.5
Shandong	22.0	116.9	35.6	43.1	179.5
Henan	0.1	6.0	8.3	64.2	37.9
Hubei	-	49.9	8.0	22.3	46.4
Hunan	-	34.6	27.3	7.7	22.8
Guangdong	582.0	1,411.1	651.3	957.9	1,822.9
Guangxi	16.2	26.7	30.7	20.7	25.3
Sichuan	4.6	28.9	28.7	23.6	24.4
Guizhou	-	2.9	9.8	4.4	7.3
Yunnan	-	1.5	1.6	3.1	3.0
Tibet	-	-	-	-	-
Shaanxi	10.3	1.6	15.6	111.7	31.6
Gansu	-	0.3	0.6	2.0	0.9
Qinghai	-	23.5	-	2.7	-
Ningxia	-	3.0	-	0.3	0.2
Xinjiang	-	3.3	-	5.0	0.2
Hainan	-	-	-	114.2	176.2

Source: *China's Statistical Yearbook*, various issues.

Table A6.4: REGIONAL DISTRIBUTION OF CHINA'S EXPORTS (1989)

Guangdong	20.12
Shanghai	12.41
Liaoning	10.91
Shandong	7.49
Jiangsu	5.99
Zhejiang	4.60
Tianjin	4.17
Hebei	4.07
Fujian	4.07
Others	26.17

Source: Central Intelligence Agency, July 1992, "The Chinese Economy in 1991 and 1992: Pressure to Revisit Reforms Mounts." As reported in Yusuf's "The Rise of China's Nonstate Sector," World Bank, mimeo, October 1992.

Table A7.1: THE FIFTEEN LARGEST THREE-DIGIT EXPORT PRODUCTS OF CHINA, REPUBLIC OF KOREA, TAIWAN (CHINA), HONG KONG AND SINGAPORE

SITC	Description	Share of the 15 Largest Three-Digit Manufacturing Items in Total Exports (%)				
		China	Rep. of Korea	Taiwan (China)	Hong Kong ^{/b}	Singapore
512	Inorganic chemicals	-	-	-	-	2.0
581	Plastic materials	-	1.6	2.2	2.0	1.7
599	Chemical materials, nes	-	-	-	-	1.0
651	Textile yarns	1.4	-	2.2	-	-
652	Cotton fabrics	2.1	-	-	3.1	-
653	Woven textile articles	3.0	5.9	4.2	2.5	1.2
656	Made-up textile articles	1.6	-	-	-	-
674	Iron and steel universals	-	2.5	-	-	0.9
711	Power machinery	-	-	-	-	0.9
714	Office machinery	-	4.1	9.9	6.4	17.4
718	Machines for special industries	-	-	-	-	1.0
719	Machinery, not elsewhere specified	-	1.9	3.4	1.5	3.7
722	Electrical power machinery	1.5	-	3.1	3.2	2.8
724	Telecommunications equipment	5.9	7.1	6.3	6.3	9.4
725	Domestic electrical equipment	2.1	-	-	-	8.4
729	Other electrical equipment	-	9.4	5.7	3.3	-
731	Railway vehicle	-	1.6	-	-	-
732	Road motor vehicles	-	3.4	-	-	0.8
733	Nonmotor road vehicles	-	-	2.6	-	-
735	Ships and boats	-	4.3	-	-	-
821	Furniture	-	-	2.2	-	-
831	Travel goods	3.7	1.7	-	-	-
841	Clothing	19.6	12.1	5.9	31.0	3.0
851	Footwear	4.5	6.4	3.7	-	-
861	Scientific apparatus	-	-	1.6	2.7	1.5
864	Watches and clocks	1.6	-	-	8.1	-
891	Sound recording equipment	1.8	4.3	-	2.1	3.2
893	Articles of plastic	1.7	-	3.6	2.3	-
894	Toys and sporting goods	7.5	1.8	1.3	2.4	-
897	Jewelry	-	-	-	3.0	-
899	Other miscellaneous manufactures	2.6	-	-	-	-
<i>Memo Item</i>						
	Share of the largest item	19.6	12.1	9.9	31.0	17.4
	Share of 5 largest items	41.2	40.9	32.0	55.1	41.7

^{/a} Shares are shown only for the 15 largest items. The country may export a product for which no trade shares are given in this table.

^{/b} Based on partner country data.

^{/c} Excludes reexports.

Source: UN COMTRADE Database.

Table A7.2: CHINA'S SHARE OF WORLD EXPORTS BY SECTOR

Commodity	1985	1986	1987	1988	1989	1990
00 Live animals	6.1	4.8	4.7	4.4	4.2	4.6
01 Meat and preparations	1.7	1.6	1.3	1.2	1.3	1.2
02 Dairy products and eggs	0.6	0.6	0.6	0.4	0.4	0.4
03 Fish and preparations	2.2	3.0	3.4	4.6	4.5	4.7
04 Cereals and preparations	2.6	2.3	1.4	1.3	1.6	1.0
05 Fruit and vegetables	3.2	3.7	3.7	4.3	4.3	3.6
06 Sugar and preps honey	1.5	1.7	2.1	1.4	1.5	2.4
07 Coffee tea cocoa spices	2.1	2.0	1.9	2.2	2.3	2.4
08 Animal feeding stuff	2.5	4.3	4.1	5.2	4.0	3.5
09 Misc food preparations	1.9	1.7	1.7	1.1	1.2	1.4
10 Unspecial code	-	-	-	-	-	-
11 Beverages	0.8	0.8	1.0	1.0	1.1	1.0
12 Tobacco and mfrs	0.4	0.5	0.5	0.8	1.2	1.3
20 Unspecial code	28.4	54.1	0.0	1.2	0.0	0.0
21 Hides,skins,furs undrstd	3.0	2.4	2.4	3.0	2.3	2.5
22 Oil seeds,nuts,kernels	4.5	5.8	5.5	5.1	4.7	5.3
23 Rubber crude,synthetic	0.0	0.0	0.0	0.1	0.1	0.1
24 Wood lumber and cork	0.1	0.2	0.2	0.4	0.4	0.4
25 Pulp and waste paper	0.0	0.0	0.0	0.0	0.0	0.0
26 Textile fibers	7.5	7.5	7.8	6.9	6.4	4.6
27 Crude fertilzr, minrls nes	2.8	3.0	3.3	3.6	4.4	4.0
28 Metalliferous ores,scrap	0.7	0.8	1.1	1.2	1.2	0.8
29 Crude animal,veg mat nes	6.0	5.8	6.2	6.3	7.3	6.1
30 Unspecial code	-	-	-	-	-	-
32 Coal, coke, briquettes	1.4	1.6	2.1	2.3	2.7	2.6
33 Petroleum and products	2.4	2.1	1.9	1.9	1.5	1.7
34 Gas natural and manufctd	0.0	0.0	0.0	0.0	0.0	0.0
35 Electric energy	0.0	0.0	0.0	0.0	0.1	0.2
40 Unspecial code	0.0	0.0	0.0	-	-	-
41 Animal oils and fats	0.0	0.0	0.0	0.0	0.0	0.1
42 Fixed vegetable oil,fat	1.2	1.5	1.4	1.0	0.8	1.2
43 Processd anml veg oil, etc.	0.1	0.2	0.3	0.2	0.3	0.8
50 Unspecial code	0.2	0.6	0.2	0.0	0.0	0.0
51 Chem elements,compounds	1.1	1.3	1.4	1.5	1.7	1.6
52 Coal,petroleum, etc., chems	2.0	1.1	1.6	2.4	2.3	3.5
53 Dyes, tanning, color prod	0.9	1.1	1.1	1.2	1.5	1.4
54 Medicinal, etc., products	1.6	1.5	1.5	1.6	1.8	1.6
55 Perfume, cleaning, etc., prd	1.4	1.2	1.2	1.4	1.4	1.2
56 Fertilizers manufactured	0.0	0.1	0.1	0.1	0.2	0.2
57 Explosives,pyrotech prod	18.7	17.1	16.9	17.6	21.4	20.0
58 Plastic materials, etc.	0.2	0.2	0.2	0.3	0.3	0.4
59 Chemicals nes	0.8	0.9	0.9	0.9	0.9	0.8
60 Unspecial code	-	-	-	-	-	-
61 Leather,dressed fur, etc.	1.2	1.1	1.3	1.9	2.1	2.8
62 Rubber manufactures nes	0.3	0.4	0.3	0.4	0.5	0.4
63 Wood,cork manufactrs nes	0.7	0.7	0.8	1.1	1.6	1.9
64 Paper,paperboard and mfr	0.6	0.6	0.6	0.6	0.7	0.7
65 Textile yarn,fabric, etc.	7.7	8.1	8.6	8.6	8.9	7.7
66 Nonmetal mineral mfs nes	0.8	0.9	1.0	1.1	1.4	1.6
67 Iron and steel	0.2	0.3	0.5	1.0	0.9	1.2
68 Nonferrous metals	0.8	0.5	1.1	1.4	0.8	0.8

Commodity	1985	1986	1987	1988	1989	1990
69 Metal manufactures nes	1.5	1.7	1.9	2.3	2.6	2.8
70 Unspecial code	-	-	-	0.0	0.0	0.0
71 Machinery, nonelectric	0.1	0.2	0.2	0.3	0.4	0.5
72 Electrical machinery	0.4	0.6	1.1	1.7	2.5	3.0
73 Transport equipment	0.0	0.1	0.1	0.1	0.1	0.2
80 Unspecial code	-	-	-	0.0	0.0	0.0
81 Plumbg, heatng, lghtng equ	1.2	1.3	1.4	2.2	3.4	4.8
82 Furniture	1.3	1.1	1.4	1.8	2.0	2.1
83 Travel goods,handbags	12.3	14.4	18.7	23.4	26.9	30.6
84 Clothing	7.9	9.5	9.9	11.1	13.8	14.4
85 Footwear	2.4	2.7	3.5	5.5	9.2	13.3
86 Instrmnts,watches,clocks	0.7	0.9	1.1	1.5	1.8	2.1
89 Misc manufctrd goods nes	2.4	2.8	4.0	5.2	6.9	7.6
90 U.N. Special Code	-	-	-	0.0	0.0	-
91 Mail not classed by kind	0.1	0.1	0.1	0.1	0.1	0.1
93 Special transactions	1.2	1.2	1.3	1.1	1.0	0.9
94 Zoo animals,pets	3.2	4.2	3.9	2.6	2.5	2.4
95 War firearms,ammunition	0.1	0.1	0.3	0.2	0.3	0.4
96 Coin nongold,noncurrent	0.8	0.6	1.0	2.9	2.6	4.3
Total exports by China (\$ mil)	27,751	31,903	42,593	55,228	68,402	82,104
Total world exports (\$ mil)	1,744,612	1,921,583	2,266,577	2,603,785	2,816,779	3,197,968
Percentage share into world exports (%)	1.6	1.7	1.9	2.1	2.4	2.6

Source: UN COMTRADE Database with Reporter: World; Partner: China; Flow of Trade: Imports.

Table A7.3: CHINA AND OTHER EAST ASIAN COUNTRIES SHARE IN THE
WORLD EXPORTS OF SELECTED PRODUCTS (%)

SITC code	Commodity title	China		Advanced East Asian exporters		Other East Asian exporters		World (\$ billion)	
		1985	1990	1985	1990	1985	1990	1985	1990
China's Top 15 Exports									
651	Textile yarn and thread	6.2	5.0	9.9	12.0	1.1	1.7	12,300	22,321
652	Cotton fabrics, woven	13.6	10.7	13.7	26.3	2.9	2.5	7,171	15,735
653	Woven textiles noncotton	6.4	8.0	16.5	22.2	2.0	2.4	14,374	31,095
656	Textile, etc., products nes	15.7	18.9	13.5	9.8	1.9	2.3	3,730	6,894
722	Electric power machine, switchgear	0.4	2.1	7.6	9.6	0.8	1.7	25,205	59,505
724	Telecommunications equipment	0.8	5.9	18.0	17.3	1.5	4.9	32,825	80,167
725	Domestic Electric Equipment	0.8	8.8	15.0	11.6	0.2	1.6	9,156	19,711
831	Travel goods, handbags	12.3	30.6	46.2	26.0	0.7	2.5	3,720	9,771
841	Clothing not of fur	8.0	14.4	31.9	20.7	2.9	4.7	45,448	110,151
851	Footwear	2.4	13.3	32.1	25.7	0.7	4.7	13,633	27,857
864	Watches and clocks	3.0	9.2	21.4	21.3	0.9	2.5	6,197	13,913
891	Sound recorders, producers	0.3	4.0	8.0	13.6	0.2	3.6	19,778	37,167
893	Articles of plastic nes	0.9	4.9	14.2	11.6	0.7	1.8	9,355	27,642
894	Toys, sporting goods, etc.	6.5	22.3	39.6	25.2	0.9	3.0	9,983	27,232
899	Other manufactured goods	10.2	16.5	21.4	16.5	1.0	2.4	5,228	12,597
Possibilities for Future Diversification									
821	Furniture	1.3	2.1	11.0	7.7	0.7	2.7	12,119	29,548
7192	Pumps, centrifuges	0.1	0.4	5.4	2.9	0.1	0.5	13,457	29,087
7151	Machine tools for metal	0.4	1.2	4.6	5.6	0.0	0.1	6,763	17,267
8616	Photographic equipment nes	0.1	0.2	0.9	2.9	0.0	0.0	5,566	12,669
71992	Clocks, valves, etc., nes	0.1	0.4	3.0	3.9	0.1	0.2	5,738	12,345
695	Tools	1.8	3.4	7.9	8.3	0.1	0.2	5,921	11,711
7195	Powered-tools nes	0.1	0.3	3.7	5.4	0.1	0.1	4,718	11,581
8617	Medical instruments nes	0.1	0.6	2.1	2.9	0.7	1.2	3,932	9,368
7171	Textile machinery	0.3	0.8	1.8	4.3	0.0	0.0	5,669	15,805
6989	Other base metal manufactures	0.8	1.5	9.2	8.4	0.3	0.9	4,579	9,254
7294	Automotive electric equipment	0.1	0.4	3.1	4.2	0.2	0.4	3,223	7,241
694	Steel, copper nails, nuts, etc.	2.9	3.2	10.9	13.7	0.2	0.8	3,621	7,037
6981	Locksmiths wares	2.2	3.6	11.2	10.6	0.1	0.3	2,806	6,399

Note: (1) Advanced East Asian Countries—Korea, Taiwan, Singapore and Hong Kong.
(2) Other East Asian Countries—Indonesia, Thailand and Malaysia.

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