REFORM OF TRADE POLICY
Recent Evidence from Theory and Practice

Vinod Thomas
John Nash

In the 1980s many developing countries began to recognize that restrictive trade policies can constrain growth. To facilitate trade and integration into the world economy, many countries have embarked on reform programs. This survey synthesizes the conclusions of the literature on trade policy reform with those of a recent study by the World Bank analyzing reforms in developing countries, particularly those supported by adjustment lending programs. Its objective is to shed light on some of the questions about these programs to guide policymakers in the future. The article reviews conditions in these countries before trade policy reforms were implemented and examines how much reform actually took place. It also examines the effects of the reforms on economic performance and reviews the factors that constrained the reform process. The survey considers the most important issues in designing and implementing trade policy reforms and concludes that although past reforms have had a positive impact, future programs should emphasize three elements: reducing the level of protection, maintaining macroeconomic stability, and accounting for the conflicts and complementarities with other policies.

Trade policy reform as discussed here covers measures that move the trade regime toward a more neutral incentive framework and a more liberal foreign trade regime. A neutral framework is one that does not discriminate between exportables and importables, between sales to domestic and export markets, or between tradables and nontradables. Liberal trade
policies are those that reduce government controls and replace direct interventions (such as quantitative controls) with price mechanisms (such as tariffs).

Expected Gains from Trade Policy Reform

In the traditional literature on trade, the direct cost of distortions in resource flows caused by the misalignment of domestic and international prices is estimated to be a few percentage points or less of gross domestic product (GDP) a year. The costs are much larger, however, when the effects of trade restrictions on the structure of the market are also considered (Condon and de Melo 1986). Protection has the effect of encouraging firms to enter protected domestic markets. Most of these firms will operate on an inefficiently small scale. The insulation of domestic producers from international competition has also been linked to oligopoly behavior in the domestic market. Caves (1980) and Jacquemin (1982) conclude that greater openness restricts oligopoly power. Bergsman (1974) estimates losses of 5 to 7 percent of GDP from oligopoly rents and inefficiencies associated with noncompetitive behavior in Pakistan and Brazil.

Indirect costs include the waste of resources in income-generating but unproductive rent-seeking activities associated with protection—such as smuggling, lobbying, and investing solely for the purpose of obtaining import licenses. The indirect costs of foreign exchange controls and nontariff barriers tend to be large because allocations are based on discretion rather than efficiency. These rent-seeking costs are estimated to amount to large fractions of GDP in such countries as India and Turkey (Grais, de Melo, and Urata 1986; Krueger 1974; and Mohammad and Whalley 1984).

Reducing protection should raise GDP, but what explains the significant and sustained differences in rates of growth between restrictive, inward-oriented and liberal, outward-oriented economies? Chenery, Robinson, and Syrquin (1986) provide evidence of a link between outward orientation and gains in productivity. Country studies have found productivity growth is significantly higher in periods of liberal trade policy—for example, Kim (1987) on Korea, Krueger and Tuncer (1982) on Turkey, and Nishimizu and Page (1982) and Havrylyshyn (1990) on Yugoslavia.

Traditional growth theories are inadequate for explaining the relation between trade regimes and growth rates, but some recent approaches are more promising (for a discussion, see Edwards 1989a). Some new growth models have replaced the traditional assumption of constant returns to scale with one of increasing returns to scale. In other words, the unit cost of production declines as production rises. If the return to capital does not decline over time—it is assumed to decline in traditional models—the incentive to invest is retained. If trade policy reforms have this effect, they can generate a higher equilibrium growth rate.

Other models have focused on the role of technological change: the more open the economy, the greater its ability to innovate and increase its long-term
rate of growth (Romer 1989). Other research has shown how greater trade openness increases incentives for research and development by widening the potential market and increasing the returns to such expenditures (Grossman and Helpman 1989). Pack (1988), however, argues that the higher growth of export-oriented economies is not a reflection of an increase in factor productivity; in fact, the growth of factor productivity has not been conclusively linked to the trade regime. Rather, he concludes that growth is correlated with the ability of export-oriented economies to absorb the transfer of factors (such as labor) from sectors of low productivity to sectors of high productivity, without reducing the terms of trade in highly productive sectors (as would be the case if production were intended for limited domestic markets).

Studies have also documented the effects of trade policy on income distribution. In a sample of thirty-seven developing countries, Bourgignon and Morrisson (1989) conclude that protection was associated with an increase in inequality amounting to a drop of four to five percentage points in the share of income of the poorest 60 percent of the population and a 20 percent fall in the mean income of the poor. They point out that this result is consistent with predictions of the Stolper-Samuelson theorem: freer trade benefits the relatively abundant factor of production, which in developing countries is labor.

Trade and domestic restrictions also have macroeconomic implications that are exposed when a country faces a severe external shock. Thus, for example, economies that maintained protectionist restrictions were largely divorced from the international price structure and failed to adjust to higher oil prices. Furthermore, these countries isolated their industries from technological progress abroad, undermining their competitiveness and restricting export opportunities. When the terms of trade shifted against them, many countries with restrictive and inflexible trade regimes were unable to increase exports rapidly and had little further scope for efficient import substitution. The results were large trade deficits and macroeconomic imbalances.

Concerns about Reform

Although earlier studies describe the benefits of trade policy reform (Krueger 1978; Michaely, Papageorgiou, and Choksi forthcoming), not everyone agrees that protection ought to be removed. Advocates of protection for infant industries argue that costs diminish over time as industries become more efficient and competitive (see Grossman 1989 for a review). Research on the subject is weak, principally because firm conclusions would require simulating what would have happened in the absence of infant industry policies. But experience suggests that infant industry arguments are generally used as a rationale by politically powerful interests seeking protection, without serious consideration of whether and under what conditions the economic benefits of protection will exceed the costs. Actual policies seldom recognize that if the initial economic costs are to be offset, the benefits must appear in a reasonably short period of time.
World Bank studies have found that inefficient industries and firms received high protection for relatively long periods, while efficient—notably exporting—industries received relatively low protection. Moreover, in some cases, industrial performance steadily deteriorated over prolonged periods of insulation from world markets as a result of protection policies. The problem seems to be that protected infant industries often fail to grow up.

Some literature has developed theoretical support for protecting key industries under certain conditions, based on the excess profits they are likely to earn in oligopolistic global markets (Spencer and Brander 1983; Krugman 1987a) or the external economies they create for other firms (Kemp and Negishi 1970; Panagariya 1980). But these interventions are hard to target successfully, and even these authors acknowledge that the conditions under which strategic trade policy can raise a country's welfare are unlikely to be met in practice, especially in developing countries (Krugman 1987b). (For a detailed account of an unsuccessful attempt to target protection for Brazil's aircraft industry, see Baldwin forthcoming.)

Observers have also raised other concerns (for discussions, see Rodrik 1988; Sachs 1987; and Taylor 1988). Some assert that trade liberalization may aggravate the balance of payments and fiscal problems that afflict many developing countries. Others dispute the benefits of liberalization and greater openness, arguing that global trade restrictions, such as voluntary export restraints and the Multifibre Arrangement, will not allow reforming countries to increase exports. Some opponents of trade policy reform fear that liberalization will produce transitional unemployment and that devaluation will increase inflation. Others, who are not opposed to trade policy reform itself, question whether adjustment lending is an appropriate vehicle for promoting trade policy reform programs.

Conflicts do arise between trade and other reforms, but the evidence suggests that proper sequencing of reforms can help minimize these conflicts. Trade policy reforms generally improve economic performance when they are credibly implemented and accompanied by complementary actions. Although short-term transitional costs can be expected, the evidence from previous research (Michaely, Papageorgiou, and Choksi forthcoming) shows no clear relationship between trade liberalization and unemployment. Although in some cases unemployment rose in the period immediately following reform episodes, the study concluded that this increase usually resulted from other causes, such as the stabilization measures that were put in place to resolve macroeconomic crises.

Implications of Reform

Developing countries in general have very restrictive trade regimes. Erzan and others (1988) estimate that nontariff barriers cover 40 percent (unweighted) of all products in the Tariff Code, compared with about 15 percent in industrial
countries (Finger and Laird 1987). Average tariffs in developing countries were 34 percent, in industrial countries about 5 percent. The forty countries that received trade policy-related loans from the World Bank during 1980–87 fall into three broad categories of antiexport bias (low, medium, or high). Sixty percent of the countries had a high level of restrictions, 35 percent had a medium level, and only Chile and Korea had a relatively low level.

Table 1 shows that reforms of export policies, exchange rates, and quantitative restrictions were generally stronger than those related to the level and dispersion of tariffs (Halevi 1989). Although data were available for only 24 recipients, evidence suggests that implementation of the reform proposals varied considerably. Some countries, such as Guyana, Yugoslavia, Zambia, and Zimbabwe, made little progress—or even backtracked—while others (Chile, Mexico, and Turkey) undertook substantial reforms.

Progress has been made in correcting misaligned exchange rates (figure 1) and in reducing impediments to exports, including permitting imports needed by exporters. Several countries have substituted tariffs for quantitative restrictions. Joint reductions of redundant protective policies, such as quantitative restrictions and tariffs, have been more modest. The growth of imports as a share of GDP is larger for the recipients of trade adjustment loans than for

<table>
<thead>
<tr>
<th>Area of reform</th>
<th>Included</th>
<th>Not included</th>
<th>Strong</th>
<th>Medium</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange rate flexibility(a)</td>
<td>38</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export promotion(b)</td>
<td>33</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studies(c)</td>
<td>28</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutrality of export policy</td>
<td></td>
<td></td>
<td>15</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Imports for exports</td>
<td></td>
<td></td>
<td>17</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Overall import policy</td>
<td></td>
<td></td>
<td>14</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Nonprotective quantitative</td>
<td></td>
<td></td>
<td>14</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>restrictions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective quantitative</td>
<td></td>
<td></td>
<td>14</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>restrictions(d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tariff level(d)</td>
<td></td>
<td></td>
<td>7</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td>Tariff dispersion</td>
<td></td>
<td></td>
<td>7</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td>Schedule of future action</td>
<td></td>
<td></td>
<td>6</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>Overall reduction in antiexport</td>
<td></td>
<td></td>
<td>17</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>

\(a\) Often these were not written conditions, but understandings, usually as part of a standby agreement.

\(b\) This includes removal of restrictions, provision of export credits, insurance, guarantees, institutional development, and the like.

\(c\) Studies on trade policy reforms.

\(d\) Where reforms replaced quantitative restrictions by tariffs, they are counted in both lines. Sometimes the changes reduced protection and sometimes not. Restrictions applied to products that compete with domestic production are protective; others are nonprotective.

Source: World Bank data.
Figure 1. Real Exchange Rate Indices: Extent of Devaluation for Selected Country Groups, 1978-88
(unweighted averages; 1980 = 100)

Note: Data are based on a multilateral index of the real exchange rate measured against a basket of currencies of trading partners. An increase in the index indicates a real appreciation. Source: International Monetary Fund data.

nonrecipients, which suggests the positive effects of increased financing and import liberalization.

A number of domestic factors constrained reform efforts. In Kenya, Peru, Yugoslavia, and Zimbabwe, vested interests against reform and weak convictions about its benefits combined to undermine the commitment to reform (Bhagwati 1978; Krueger 1978; and Little, Scitovsky, and Scott 1970). Administrative and institutional bottlenecks contributed to setbacks in implementation in Bangladesh, Côte d'Ivoire, and Malawi, where reforms to strengthen public sector institutions received inadequate attention. Weak macroeconomic performance and conflicts between the goals of policy reform and stabilization slowed trade liberalization in Morocco and the Philippines and led to its reversal in Argentina and Zambia. And finally, the slow supply response, which has reduced the apparent benefits of reform, has undermined the enthusiasm of the low-income countries of Sub-Saharan Africa.

Researchers have often found a positive association between exports and economic growth (Balassa 1982, 1986; World Bank 1987b), although the corre-
lation is less clear in low-income countries (Kavoussi 1984; Ram 1985). Figure 2 shows the correlation between an increase in exports and GDP growth. Admittedly, exports are part of GDP, but this does not necessarily mean the correlation is a statistical artifact and a similar picture emerges if exports are excluded. This does not, however, prove causality. Tracing export growth to the influence of specific policies is complex because there are many potential causes for improvement (Findlay 1984 and Jung and Marshall 1985 discuss some of the issues). Thomas and Nash (1991) report a correlation between trade adjustment lending and a mild improvement in GDP, exports, and other economic variables. They find that results are stronger and statistically more significant when the comparison is between trade policy reformers and nonreformers rather than between trade loan recipients and nonrecipients.

The positive effects on exports and output are likely to be more immediate from a real devaluation and improved export policies than from a real devaluation and import liberalization (Lopez 1989). Harberger (1989) points to a close short-term link between devaluation and a rapid response in the balance of

---

**Figure 2. Growth in GDP and Exports for Selected Developing Countries, 1965-88 (percent)**

Note: LL is a fitted line based on least squares regression. Both solid and open dots represent individual countries. Because of overlap, only selected countries are labeled.

a. Average growth rate of exports of goods and nonfactor services over the period.

b. Average over the period.

Source: World Bank data.

---

Vinod Thomas and John Nash 225
trade. Longer-term increases in exports and output also depend on import liberalization. A 10 percent tariff is equivalent to a tax on exports of 4.3 to 9.5 percent (Clements and Sjaastad 1984; Greenaway and Milner 1987). Other empirical work also finds that import and export policy reforms had the same positive effect on growth of output. Heitger (1987) found that both the level and dispersion of effective protection rates had a negative effect on growth, while exports were positively correlated with growth rates.

But the output gains from policy changes have not been as great as expected. Studies identify several factors that may have constrained the supply response. First, developing countries may not give enough attention to the institutional and infrastructural needs of exporters, such as port, transport, and telecommunications facilities, access to imported inputs, and information and marketing services. In addition, when entrepreneurial and managerial skills are relatively underdeveloped, the supply response is slow. Shortages of trained labor and poorly developed input supply lines are serious problems in many cases.

Second, domestic regulatory and public sector policies influence the supply response by determining whether incentives actually change (in the case of price controls) and by affecting the mobility of factors of production in response to changes in incentives (labor regulations, regulations for entry to and exit from the market, controls on foreign investment). Some public sector policies have impeded rapid adjustment to a changed incentive structure and inhibited the supply response. These include allocation mechanisms in centrally planned economies and state monopolies of agricultural markets.

Third, a rise in protection in international markets has depressed world prices and blocked access to markets, particularly for agricultural products. Industrial countries may be more promising markets for manufactured goods because of low tariffs, but nontariff barriers in some important product categories, including textiles, clothing, and steel, have hurt exports from developing countries.

Finally, the response is influenced by the perception that the reforms will last. Expectations of failure and reversal become self-fulfilling prophecies. The government's credibility depends on its previous track record, the effectiveness of its first steps toward reform, the maintenance of economic stability, and the extent to which the program is consistent with other reforms (in the financial sector, for example).

Trade Policy Measures

Some economies have achieved a neutral incentive regime through a relatively hands-off strategy, but others have opted for selective government assistance. Thus relatively liberal, noninterventionist regimes in Chile and Hong Kong successfully promoted trade and growth, as did regimes based on market intervention and government assistance, such as those in the Republic of Korea and Taiwan. In general, noninterventionist and neutral policies avoid the problems
of misjudgment and abuse that plague targeted investment policies (Agarwala 1983; Balassa 1988; Easterly and Wetzel 1989; Edwards 1989a; Landau 1983; Marsden 1983; and Scully 1988). Even in Korea, targeted assistance to specific industries between 1973 and 1979 contributed to an economic crisis (World Bank 1987a). The failure of this strategy influenced the government’s decision to liberalize the trade regime in the 1980s (Kim 1987). On average, less interventionist policies have also been more effective in promoting exports and growth. They also help avoid the imposition of countervailing duties under the General Agreement on Tariffs and Trade (GATT).

**Exchange Rate Policy**

The real exchange rate should help ensure equilibrium in the balance of payments and in domestic markets and should be compatible with growth in tradables and output. Edwards (1989b) considers some of the empirical issues associated with estimating an appropriate exchange rate. An overvalued currency indirectly taxes exportables and importables that are lightly protected while favoring nontradables and importables that are protected by binding nontariff restrictions. Fluctuations in the real exchange rate have an adverse effect on exports because they create considerable uncertainty (Caballero and Corbo 1989).

A real devaluation, accompanied by exchange rate unification where relevant, improves incentives for export industries and production of import substitutes. Macroeconomic stability, with low fiscal deficits, low inflation, and stable exchange rates, has been the hallmark of East Asia’s economic success. From 1970 to 1986, for example, Korea’s real exchange rate deviated significantly (more than 14 percent) from its 1980 value during only two years (Bhattacharya and Linn 1988). In contrast, in Côte d’Ivoire, whose currency is pegged at a fixed rate to the French franc, a reform program faltered in part because a manipulation of import tariffs and export subsidies, which was not fully implemented, proved to be a poor substitute for devaluation after the real exchange rate moved far out of line (O’Connell 1989).

**Export Policy**

As noted, Korea and Taiwan have been successful exporters despite protective import policies (in the 1960s and 1970s) by avoiding an overvalued exchange rate and by using export subsidies and other measures to offset import restrictions. This approach would be difficult to replicate, however, since it included vigorous government suppression of rent-seeking activities that were considered incompatible with export growth, implemented by methods that many governments would be unwilling or unable to use.

In general, export subsidies—including income tax rebates, which have long been used in Latin America—have not had the desired effect. Not only are they
subject to countervailing duties, but subsidies have resulted in cheating, fictitious claims of export production, and wasteful rent-seeking (World Bank 1986). Furthermore, subsidies may generate macroeconomic disequilibrium and an external debt problem, as Havrylyshyn (1990) found in Yugoslavia, or burden efficient export sectors, as Noguès (1989) found in Argentina.

Policies that give special treatment to exporters have also been a problem in socialist countries. China's dramatic export growth may be less than meets the eye because a significant but unknown proportion of exports may reflect excessive incentives and a highly distorted price system (World Bank 1988a). Fitzgerald and Monson (1989), who investigated the export credit and insurance subsidy programs of seven developing countries, found no evidence that they were cost-effective.

Far more effective were policies in East Asian countries that gave exporters and their suppliers access to inputs at duty- and tax-free international prices. Such measures eliminate wide variations in incentives among products that use inputs subject to different import controls and tariffs. Moreover, such measures are not subject to countervailing duties. Duty-free schemes impose costs, however. They draw resources from often unprotected or taxed activities; they temporarily reduce government revenues; and they increase opportunities for rent-seeking. These costs need to be balanced against the likely economic gains.

Efficient infrastructure, export credit, and schemes for quality control allow exporters of manufactures to be more competitive. Some countries have tried setting up export development (or free trade) zones to insulate exporters from inherent infrastructural or policy-based inadequacies. A comparison of successful East Asian exporters with other countries shows that such zones tend to be successful only where they are part of an overall favorable environment, as in Korea, rather than a substitute for such an environment, as in Malaysia, the Philippines, and Thailand (Linn and Wetzel 1990). Experience also suggests the value of adjusting restrictive regulations that affect strikes, layoffs, fringe benefits, and minimum wages. Technical assistance from consultants and foreign firms chosen by the exporters has been more effective than that provided by official export promotion organizations (Keesing and Singer 1989). Encouraging foreign investors by maintaining a stable economy, private property rights, a transparent regulatory environment, and liberal access to foreign exchange and imported inputs and services is also valuable (internal World Bank memorandum). Since foreign investment is a source of technology, capital, and connections to world markets, such policies are likely to be superior to special incentives, such as tax holidays, which may attract footloose industries that leave when the holiday is over.

Other policies are needed to counteract the bias against primary exports. Trade in these products is frequently discouraged by overvaluation, taxes, and controlled prices. Often marketing is in the hands of inefficient government monopolies. In Argentina, for example, where agriculture provides about 75 percent of exports, antiexport policies keep exports at half their potential
level (Sturzenegger forthcoming). In the 1960s and 1970s, Malaysia and Chile improved the policy environment for primary exports, with good results. Reforms in Chile, based to a large extent on foreign private investment, reinvigorated the export-oriented mining sector. These reforms also stimulated a spectacular increase in exports of agricultural and wood products, which climbed from US$44 million in 1972 to US$1.1 billion in 1986 (World Bank 1986; internal World Bank report).¹

But reforms aimed at primary exports have been modest. Bolivia and Guinea opened mining to foreign investment. Bangladesh, Côte d'Ivoire, Ghana, Malawi, the Philippines, and Turkey improved producer prices for exports of primary products by eliminating direct or implicit taxes. Argentina and Uruguay reduced export taxes, although the tax was quickly reinstated in Argentina for revenue reasons. In Colombia, Mexico, Morocco, and Tanzania, a reduction of regulatory controls on exports helped primary products. Malaysia and Thailand achieved sustained growth in exports of primary commodities by avoiding major currency overvaluation, heavy taxation, and high protection of manufacturing industries. Ghana, Madagascar, Mali, Morocco, Nigeria, Senegal, and Tanzania have eliminated public sector marketing boards or stripped them of their monopoly procurement powers. These boards, especially in Africa, have almost always depressed producer prices and have rarely been effective in stabilizing prices (Knudsen and Nash 1990).

Although governments have often kept producer prices of exports low in the belief that production and exports are not responsive to price, a number of studies refute this contention. Balassa (1986, 1988) found an exchange rate response for primary commodities almost as large as that for all merchandise (including primary) exports—and even larger for a sample of Sub-Saharan African countries. Similarly, Jaeger (1989) found a significant positive supply elasticity of export crops (and total value added in agriculture) to the producer price in a sample of Sub-Saharan African countries. This evidence, together with the presence of severe distortions that depress producer prices, confirms Binswanger's (1989) conclusion that policy reform can quickly increase exports of primary commodities from individual countries.

Other obstacles, however, may not be in the control of developing countries. Exports of some key agricultural products that compete with products from temperate zones have been constrained by protection in industrial countries, while growth in the demand for and the prices of tropical products has also been low. Consequently, a significant growth in exports will also require export diversification (Koester, Schafer, and Valdes 1989).

**Import Policy**

Nontariff import barriers (import licensing, voluntary export restraints, exemptions, quotas, official reference prices, and foreign exchange allocations) make the structure of protection less transparent and the import system more...
uncertain. They sever the link between domestic and international prices, and they encourage lobbying, rent-seeking, and corruption. For these reasons, a reduction in nontariff barriers, even if the level of protection remains roughly the same, can have important beneficial effects on the economy. One simple reform is to switch from a positive list of permitted imports, which creates high levels of uncertainty and strong lobbying pressures, to a negative list of prohibited imports that allows unrestricted entry of all unlisted items.

Other barriers, such as quotas or licensing requirements, can also be reduced or phased out. Quotas can be auctioned, and the size of the quota increased until the auction bids (and their protective value) fall to zero, at which time imports can be freely allowed. Or a tariff could be imposed on imports above the quota ceiling. The level of the tariff could then be reduced over time. With the exception of Colombia, such schemes have been tried only in industrial countries, which tend to rely more on specific numerical quotas than on the discretionary licenses used in developing countries. A more common measure in developing countries is to impose tariffs providing approximately equivalent protection on product categories as nontariff controls are eliminated. This change reestablishes the link between domestic and international prices, ensuring that they move in the same direction and diverge by no more than the amount of the tariff.

Tariffs are a more transparent form of protection and frequently have a revenue-raising function as well. But tariffs on finished products are usually higher than on intermediates and raw materials, and exemptions are common, causing effective protection to vary greatly across industries. One of the goals of reform is to reduce this dispersion to spur efficiency in the allocation of resources.

A relatively low and uniform tariff structure is preferred on grounds of efficiency and political economy, even though it is impossible to predict with certainty that resource allocation will become more efficient (Bhagwati and Srinivasan 1973). Studies of optimal tariff structure (see, for example, Chambers 1989 and Panagariya 1989) are sensitive to the underlying assumptions of the model and to the presumed objectives of the tariffs. But still, the general conclusion favors uniformity. Uniform protection also has the practical advantage of being less subject to lobbying and political influence. One qualification is that governments may need to supplement uniform tariffs with taxes on final consumer goods to minimize distortions in consumption. Another is that raising low tariff rates as a step toward unification encourages domestic production of these goods and might draw resources from exports and any "underprotected" import substitutes. For this reason, exporters would have to be insulated from paying prices above world levels for these protected inputs. Some of the more successful reformers (such as Bolivia, Chile, and Mexico) have converged their tariff structures toward 15 percent, nearly eliminating quantitative restrictions, while others have reduced tariffs to less than 30 percent.
In most countries, increasing production efficiency requires reducing effective protection and rationalizing the protection provided to imports, taking into account the protective effect of the domestic tax system (Rajaram 1989). For example, domestic tax rates in Ghana varied so much across sectors that a uniform 30 percent tariff would result in effective protection rates ranging from zero to 50 percent (Shalizi and Squire 1986). In countries in which tariffs have an important revenue-raising role, coordinating tariff and tax reforms makes deep cuts in tariffs possible. The goal would be a low, equal tax on imports and domestic production, possibly administered as a tax on consumption.

Reforming tariffs industry by industry is difficult, since changes in one industry may have repercussions in others. A concertina strategy, in which the top rates are gradually collapsed to the next highest level, is preferable. A radial reduction, in which all rates at each step are cut to an equal fraction of their previous level, is even better (Harberger 1974). But a radial tariff reduction, while promising more rapid gains in production efficiency, is more likely to reduce revenues in the first stages than the concertina method. This latter scheme concentrates initial reductions on very high rates, at least some of which may be so high that reducing them will increase import volume enough to raise tariff revenues. Greater uniformity could best be achieved by a combination of strategies: a collapse of very high rates and a radial reduction of all other rates. In countries where tariffs on inputs are much lower than those on final products (as is commonly the case), an increase in tariffs on inputs increases revenue and allows high rates to be reduced, while making effective protection more uniform (Harberger 1988).

**Designing and Sequencing Trade Policy Reforms and Complementary Policies**

In designing and sequencing reforms, it is important to consider whether trade liberalization and stabilization are incompatible and whether the fiscal deficit and inflation should be reduced before trade policy reform is introduced. To the extent that tariff reduction leads to revenue losses, liberalization can exacerbate the deficit and lead to inflation (see Fischer 1989; World Bank 1988b). Devaluation raises the price of tradables and can (in the short run, at least) increase inflation, while import liberalization can aggravate balance of payments problems.

Another issue is whether trade policy reforms are effective under macroeconomic instability. Where inflation has been very high and variable, Fischer (1984) points out that leads and lags in the movement of individual prices have made resulting prices a poor guide for economic decisions. Furthermore, the exchange rate is often used instead of adequate macroeconomic policies as an anti-inflationary tool in such situations, thereby reducing the effectiveness of trade policy reform (Corbo and de Melo 1987; Kiguel and Liviatan 1988).
Under these conditions, trade policy reform measures whose effectiveness depends on relative price changes are unlikely to be successful and should be delayed until inflation can be reduced.

In other cases, however, experience corroborates Krueger's (1981) conclusion that trade policy reform and stabilization can proceed successfully in tandem. Whatever the potential conflicts, strong trade policy reformers have been more adept at reducing the fiscal deficit, bringing inflation down, and cutting the balance of payments deficit than weaker reformers (table 2). One reason for this is that some reforms increase revenues and, as noted below, other fiscal instruments can be used to offset any decline in tariff revenues. Once the fiscal deficit is reduced, the current account deficit also tends to decline, and inflation falls even with a devaluation.

Many trade policy reforms are not inconsistent with fiscal adjustment. Eliminating nontariff barriers—especially converting them to tariffs—and eliminating tariff exemptions can increase revenue. So can reducing very high tariffs, if evasion rates fall or if imports rise.

But governments cannot count on such increases. Matin (1989) notes that for a sample of countries that rationalized nontariff barriers, tariff revenue increased from 2.7 percent of GDP to 3.4 percent. But for a sample of tariff

<table>
<thead>
<tr>
<th>Indicator</th>
<th>3 years before</th>
<th>2 years before</th>
<th>1 year before</th>
<th>Year of program</th>
<th>1 year after</th>
<th>2 years after</th>
<th>3 years after</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inflation rate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong reform</td>
<td>31.5</td>
<td>34.3</td>
<td>30.6</td>
<td>55.5</td>
<td>25.9</td>
<td>22.9</td>
<td>22.6</td>
</tr>
<tr>
<td>Medium reform</td>
<td>12.4</td>
<td>11.8</td>
<td>12.3</td>
<td>9.3</td>
<td>8.9</td>
<td>8.1</td>
<td>7.6</td>
</tr>
<tr>
<td>Weak reform</td>
<td>15.5</td>
<td>15.7</td>
<td>15.3</td>
<td>17.4</td>
<td>14.8</td>
<td>16.9</td>
<td>19.3</td>
</tr>
<tr>
<td><strong>Fiscal balance—GDP ratio</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong reform</td>
<td>-4.8</td>
<td>-6.4</td>
<td>-7.8</td>
<td>-7.2</td>
<td>-6.1</td>
<td>-4.4</td>
<td>-4.6</td>
</tr>
<tr>
<td>Medium reform</td>
<td>-7.2</td>
<td>-7.8</td>
<td>-6.0</td>
<td>-5.8</td>
<td>-5.4</td>
<td>-5.1</td>
<td>-4.7</td>
</tr>
<tr>
<td>Weak reform</td>
<td>-8.0</td>
<td>-6.8</td>
<td>-8.6</td>
<td>-8.9</td>
<td>-8.4</td>
<td>-8.0</td>
<td>-13.8</td>
</tr>
<tr>
<td><strong>Resource balance—GDP ratio</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong reform</td>
<td>-5.2</td>
<td>-3.4</td>
<td>-2.5</td>
<td>-1.5</td>
<td>0.4</td>
<td>-0.7</td>
<td>-1.1</td>
</tr>
<tr>
<td>Medium reform</td>
<td>-8.8</td>
<td>-8.6</td>
<td>-7.1</td>
<td>-6.4</td>
<td>-7.1</td>
<td>-6.0</td>
<td>-4.4</td>
</tr>
<tr>
<td>Weak reform</td>
<td>-6.2</td>
<td>-9.9</td>
<td>-7.5</td>
<td>-7.8</td>
<td>-6.4</td>
<td>-6.4</td>
<td>-3.2</td>
</tr>
</tbody>
</table>

*Note: Data are for twenty-four countries for which data on implementation are available. The extent of reform for 1980-87 is based on a combination of changes in policies (strong, medium, or weak) with respect to devaluation of the exchange rate and commercial policy. Countries are grouped as follows: strong (strong in both categories or strong in one and medium in the other): Chile, Colombia, Ghana, Jamaica, Korea, Mauritius, Mexico, and Turkey; medium (medium and medium, or strong and weak): Bangladesh, Madagascar, Morocco, Pakistan, Panama, the Philippines, and Thailand; and weak (others): Côte d'Ivoire, Guyana, Kenya, Malawi, Senegal, Togo, Yugoslavia, Zambia, and Zimbabwe. (Weak includes countries that reversed trade reforms.)

*Source: World Bank data.*
reformers—among them Mexico, Morocco, the Philippines, and Thailand—revenue fell on average from 2.8 percent of GDP to 2.3 percent. How important this decline is depends on the share of trade taxes in the government’s revenue base. As a percentage of total revenue, explicit trade taxes ranged from 4 percent in Brazil to 58 percent in the Gambia, averaging 36 percent in low-income and 19 percent in middle-income countries (World Bank 1988b). Implicit taxes—the difference between what state marketing boards pay producers for an exportable and the price at which they sell it—are sometimes more important than explicit taxes, as Schiller (1988) found in Côte d’Ivoire. Furthermore, the fiscal effects of devaluation depend on whether the government is a net buyer of foreign exchange or a net seller. Governments can combine a devaluation with tariff reform to prevent any decline in foreign currency revenue from being reflected in revenue denominated in domestic currency.

Efforts to evaluate the likely revenue effects of specific trade policy reforms deserve more attention. Governments may need to reduce expenditures or increase revenues from other sources to avoid exacerbating the budget deficit. For example, Mexico generated additional revenue through tax reform when import liberalization lowered trade taxes. In contrast, Morocco did nothing to offset the revenue loss and subsequently reversed some policies. Shalizi and Squire (1986) point out that fiscal policy can also complement trade policy reform by making tax rates on domestically produced final goods equal to tariff rates on their imports, thereby reducing protection, raising revenue, and allowing tariff rates to be reduced further, as in Malawi, Nigeria, and Togo. Fiscal policy can support trade policy reform by ensuring that public investment helps the reforms succeed. Public investment budgets have borne the brunt of expenditure cuts in many countries, but investments in infrastructure, research and development, and extension services are important if exporters are to benefit from increased trade incentives. Infrastructural inadequacies create serious constraints in low-income economies. For example, a World Bank (1989) study found that virtually all firms in Nigeria are hooked to (and pay for) the public power grid, yet every business with more than twenty employees relies on its own generator. In some African countries, fewer than 20 percent of all telephone calls and 10 percent of all international calls are completed.

**Trade Policy and Domestic Reforms**

External and domestic reforms are best carried out simultaneously because of their complementary effects (Pursell 1989). Hachette (1988) concluded that measures to eliminate labor regulations and allow firms to restructure or close down were important for the success of Chile’s trade policy reforms. In Poland, Turkey, and Yugoslavia, however, regulations that make it costly for firms to restructure or shut down have been a factor in failed attempts at liberalization. An internal study by the World Bank supports the view that regulations governing the entry of new firms and the expansion of established firms slowed
the pace of adjustment in Mexico. Price or wage controls are incompatible with trade policy reforms whose purpose is to alter relative prices. In the face of rigid controls on labor, firms may have to fire employees or close down, even though the workers could have been employed at lower wages. Similarly, industries trying to expand may be unable to bid labor away from sectors with high minimum wages. Financial sector regulations that encourage banks to continue to lend to bankrupt enterprises may dry up the supply of new credit to firms that should be expanding. Regulatory reform in these areas, combined with support for restructuring in the financial and industrial sectors, could magnify the benefits of trade policy reforms.

But successful trade policy reformers have not waited until all complementary domestic reforms and infrastructural investments were in place. In fact, trade policy reforms often expose the need to support new export industries whose development was difficult to foresee, so it makes sense to wait before making new investments in infrastructure. In some circumstances it is better to introduce external and domestic reforms in sequence. Otherwise economic agents might get the wrong signals. If investment or price controls are removed in highly protected sectors, for example, resources might be encouraged to flow to the wrong sectors. Conversely, removing export controls on products that are still heavily subsidized could cause the subsidy budget to balloon and prompt a run on domestic supplies as goods are sold into higher-priced world markets.

Protection of state-owned manufacturing enterprises, or state-owned marketing channels for primary products, has interfered with liberalization programs in some countries (Nogués 1987). In socialist countries trade liberalization needs to be accompanied by the elimination of central planning and allocation mechanisms to allow market signals to be effective (Havrylyshyn 1989).

A corrupt or inefficient customs service can also reduce the response of the trade sector. The Indonesian government transferred the entire staff of the customs administration to other positions and contracted with a foreign firm for customs services (Barichello 1988). In many cases, administrative deficiencies have led to delays in introducing tariff reforms, export tax rebates, duty relief systems for exporters, and bonded warehouses.

**Sequencing and Pacing Reforms**

In countries with a substantially overvalued exchange rate, the first priority should go to a devaluation of the real exchange rate; countries with multiple exchange rates for tradables should unify them at this time. A large real devaluation, which in effect increases the price of imports, can make quantitative import restrictions redundant and facilitate their rapid removal. This shift from outright protection to exchange rate protection is a major step toward a neutral trade regime.
Corden (1987) and Michaely (1986) note that introducing export policy reforms before—or at the same time as—import reforms promotes a faster export supply response by allowing the unification of the tariff structure to proceed without burdening exporters (as low tariffs on inputs are raised). One option is to replace nontariff barriers with tariffs providing roughly the same protection, while eliminating tariff exemptions. These measures ought to be followed by rationalizing and lowering tariff rates. If revenue is not a serious concern, however, nontariff barriers could be phased out without introducing equivalent tariffs.

An expeditious reform program is preferable to a prolonged one because the benefits are greater and emerge sooner. And long, drawn-out adjustments give domestic firms time to organize, establish ties with officials carrying out the reforms, and lobby for reversal (Nelson 1989). Weak and indecisive reforms are especially prone to reversal (Colombia in the mid-1970s, Peru in the late 1970s). Two factors, however, argue against rapid reforms. First, in theory, unemployment might be larger than when changes are phased in over time (although the evidence shows that labor has in fact been absorbed quite rapidly into expanding industries; see Michaely, Papageorgiou, and Choksi forthcoming). Moreover, if a country's import regime is dominated by quantitative restrictions, a gradual liberalization of imports could worsen temporary unemployment because firms that might be able to expand would continue to face the delays and procurement problems typical of such regimes.

A second argument concerns the credibility of the reforms and the likelihood that they will be sustained. Gradual reforms may be preferable if they are more likely to be accepted. In some countries a gradual approach may be politically more tractable.

In practice, the optimal pace and intensity of import reform varies from country to country. Some successful reforms have been fast and comprehensive, as in Bolivia, where nontariff barriers were eliminated and a strong tariff reform was advanced virtually overnight. In Korea, however, trade policy reforms were phased in over twenty years. Announcing trade policy reforms in advance helps the government's credibility and gives affected activities time to adjust. Whatever the individual circumstances, however, the experience of many strong reformers in the mid- to late 1980s is consistent with conclusions based on earlier periods: five to seven years from the initiation of reforms is sufficient for a substantial liberalization. This should allow time for quantitative restrictions to be phased out and for tariffs to be reduced to about 15 to 25 percent. Further tariff reductions could come in later stages of reform.

Conclusion

Three broad conclusions can be drawn from this review of theoretical and empirical research on trade policies. First, although developing countries have
more open and efficient trade regimes today than a decade ago, the progress of 
trade policy reform has been slower than anticipated under the reform pro-
grams. Some developing countries have reduced quantitative restrictions, but 
much remains to be done in reducing nominal and effective protection levels. 
Second, where significant reforms have been credibly implemented along with 
other complementary reforms, the results in the external sector and in the econ-
omy have been positive and sometimes spectacular. And third, the results have 
often fallen short of expectations. Macroeconomic instability and the absence 
of complementary policies and conditions have sometimes weakened the supply 
response.

Three issues need particular attention. First, it is important to reduce nom-
inal and effective levels of protection, including lowering tariffs, to improve 
competitiveness. Second, for increased effectiveness, trade policy reforms 
should be supported by measures to maintain macroeconomic stability. Policy-
makers may need to give more weight to the consequences of policy reforms 
on the fiscal deficit. And when the inflation rate is very high and variable, sta-
bilization efforts should precede other reforms. Third, programs that pay 
attention to complementary policies, investments, and institutions are far more 
effective. Sometimes, internal distortions are so severe that they block the ben-
efits from trade policy reform. These recommendations should improve the eco-
nomic response to trade policy reforms and in so doing enhance their 
acceptability.

Note

Vinod Thomas is chief of the Trade Policy Division of the World Bank, and John Nash is 
senior economist in the same division. This paper is based on the authors’ study, Best Practices 
butions by Sebastian Edwards, Nadav Halevi, Thomas Hutcheson, Andras Inotai, Donald 
Keesing, Ramon Lopez, Kazi Matin, Garry Pursell, Alexander Yeats, and many others, under 
the overall guidance of Stanley Fischer and John A. Holsen.

1. One billion is 1,000 million.

References

The word “processed” describes informally reproduced works that may not be commonly 
available through libraries.

Agarwala, Ramgopal. 1983. Price Distortions and Growth in Developing Countries. World Bank 


———. 1986. “Economic Incentives and Agricultural Exports in Developing Countries.” Paper 

Working Paper 77. World Bank, Vice Presidency for Development Economics, Washington, 
D.C. Processed.

236 The World Bank Research Observer, vol. 6, no. 2 (July 1991)


Vinod Thomas and John Nash 239


