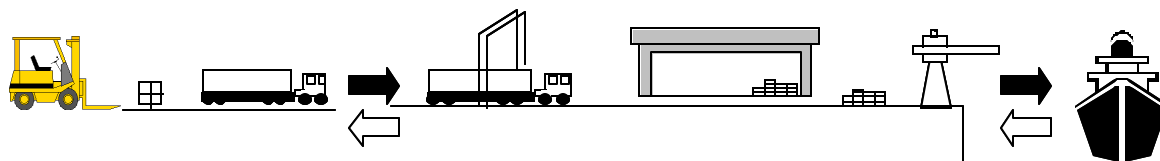


Vietnam Logistics Development, Trade Facilitation & the Impact on Poverty Reduction

*Prepared for
Ministry of Transport, Vietnam
&
The World Bank*



With Assistance from
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CURRENCY

Currency Unit = Dong (VND)
US\$1 = 15,150 VND (March 2002)

ABBREVIATIONS

ADB	Asian Development Bank
APEC	Asia Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
AFTA	ASEAN Free Trade Area
BCC	Business Cooperation Contract
BTA	Bilateral Trade Agreement
B2B	Business-to-business
CAAV	Civil Aviation Administration of Vietnam
CEPT	Common Effective Preferential Tariff
CIF	Cost, Insurance & Freight
CFR	Cost & Freight
CFS	Container Freight Station
CMT	Cutting, Manufacturing & Tailoring
C&Q	Custom and Quarantine
CY	Container Yard
dwt	Deadweight ton
EDI	Electronic Data Interchange
EMS	Express Mail Service
EPZ	Export Process Zone
FAL	Convention on Facilitation of International Maritime Traffic
FCL	Full container load
FEU	Forty-foot equivalent unit
FOB	Free on Board
GDC	General Department of Customs
GIS	Geographic Information System
GPC	Government Pricing Committee
GPS	Global Positioning System
GSM	Global System for Mobile Communications
grt	Gross registered ton
GSO	General Statistics Office
HCMC	Ho Chi Minh City
IADA	Intra-Asia Discussion Agreement
ICD	Inland Clearance/Container Depot
IMO	International Maritime Organization
Incoterms	International Commercial Terms (International Rules for the Interpretation of Trade Term)
IPO	International Procurement Organization
ISO	International Organization for Standardization

IT	Information Technology
JBIC	Japan Bank for International Cooperation
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
JIT	Just in time
JV	Joint Venture
LCL	Less than container load
LEAPRODEXIM	Vietnam National Leather & Footwear Corporation
GEMADEPT	General Forwarding & Agency Co., Ltd.
MIS	Management Information System
MoT	Ministry of Trade
MoTR	Ministry of Transport
MPI	Ministry of Planning & Investment
ODA	Official Development Assistance
PMU	Project Management Unit
PSI	Pre-shipment inspection
SAIGONSHIP	Saigon Shipping Company
SCM	Supply Chain Management
SMC	Saigon Maritime Company
SOE	State Owned Enterprise
SOWATCO	Southern Waterway Transport Corporation
TEU	Twenty-foot equivalent unit
3PL	Third Party Logistics
TRANSIMEX	Transforwarding Warehousing Joint Stock Corporation
TRANSVINA	Vietnam Hi-tech Transport Co., Ltd.
UNCTAD	United Nations Conference on Trade & Development
UNDP	United Nations Development Program
UNESCAP	UN Economic & Social Commission for Asia & the Pacific
USDA	United States Department of Agriculture
VEIC	Vietnam Electronics & Informatics Corporation
VICONSHIP	North Vietnam Container Shipping Company
VICT	Vietnam International Container Terminals
VIETRADE	Vietnam Trade Promotion Agency
VIFFAS	Vietnam Freight Forwarders Association
VINAFOOD	Vietnam Food General Corporation
VIMADECO	Vietnam Maritime Development Corporation
VINAFCO	Vietnam Freight Forwarding Joint Stock Corporation
VINALINES	Vietnam National Shipping Lines
VINAMARINE	Vietnam National Maritime Bureau
VINATEX	Vietnam National Textile & Garment Corporation
VISABA	Vietnam Ship Agents & Brokers Association
VITRANSS	Vietnam Transport Development Strategy Study
VIWA	Vietnam Inland Waterway Administration
VMS	Vietnam Maritime Safety
VNR	Vietnam Railways
VOSCO	Vietnam Ocean Shipping Company

VRA	Vietnam Road Administration
VSA	Vietnam Shipowners Association
VSPA	Vietnam Sea Ports Association
WCO	World Customs Organization
WTO	World Trade Organization

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FOREWORD

This report is one of a series of nine, prepared for and by the East Asia Transport Unit of the World Bank (EASTR) as part of its assessment of the role of logistics in the region's current and possible future trade pattern. EASTR is evolving a strategy, based on the analyses and recommendations made in these reports, to assist the region's transport and logistics development. The analyses provided in the reports have also contributed to the World Bank's broader regional study, *East Asia Integrates, A Trade Policy Agenda for Shared Growth*.

The first of the nine reports – 'Trade and Logistics: An East Asia Perspective' - a general introductory report, was published in July 2002. This was followed by reports providing specific trade and logistics analyses for the following areas: China's Lagging Provinces, Philippines, Laos, Mongolia, and the present report on Vietnam. A special report addressing the issues of port development in relation to urban growth (East Asia Ports in their Urban Context) was also published. These reports are presented as unedited Working Papers, with the aim of providing useful information on their respective subject matter.

The Vietnam report is in **five** parts. The first two offer a perspective of the macro-economic conditions that are likely to influence Vietnam's trade growth over the next five to ten years. The third part studies a sample of products that are either presently significant in Vietnam's export trade or have a high potential to become so. The fourth part is an attempt to examine logistics related demands and issues that might hinder the growth of Vietnam's most traded products.

1. OVERVIEW AND EXTERNAL INDICATORS

Major changes in economic policy brought about a rapid growth in Vietnam's economy, as did proximity to the rest of East Asia during the last decade. The economy's average growth rate at 5.5 percent during 1990-1999 was the second highest in the region, next only to that of China (Table 1.1). The country's growth rate has also been resilient. Although the growth rate for the period 1995-1999 following the regional financial crisis with its strong characteristics of contagion 1995-1999 shows a decline, the GDP decline was much less in Vietnam as compared to that of Thailand, Indonesia, China, Korea and Malaysia. Despite this sustained economic growth, Vietnam's GDP per capita at about US\$400 is one the lowest in the region.

Vietnam's GDP composition reveal the changes in the economy since the last decade. Although the share of GDP by State-Owned Enterprises (SOEs) has not declined much, the composition of GDP reveals two trends: One, the industrial gross output generated by SOEs has declined from 50 percent in 1996 to 40 percent in 2000. Two, the share of industrial output generated by foreign-managed enterprises has gone up from 26 percent in 1995 to 39 percent in 2000.

Table 1.1 GDP and Trade for Countries in the Region

	Population GDP/capita		Total Trade	Trade balance	GDP Growth		Trade	Trade balance
	million	US\$	US\$ million	US\$ million	1990-99	1995-99	as % of GDP	as % of GDP
Developing countries	4839.3	1,342	3758.3	87.1	2.6	2.2	57.9%	1.3%
Cambodia	11.3	283	3.8	-0.6	1.6	1.8	118.8%	-18.8%
China	1252.9	862	509.8	22.6	9.2	7.3	47.2%	2.1%
HK	6.9	23,565	391.7	-11.9	1.4	-0.9	240.9%	-7.3%
Indonesia	212.1	723	92.9	18.9	1.6	-2.6	60.6%	12.3%
Korea	46.7	9,790	291.4	9.4	4.0	1.9	63.7%	2.1%
Lao	5.3	321	0.9	-0.3	3.5	3.4	52.9%	-17.6%
Malaysia	22.2	4,041	162.7	14.9	3.4	0.7	181.4%	16.6%
Mongolia	2.5	400	1.0	-0.2	-0.2	2.1	100.0%	-20.0%
Myanmar	2.7	370	5.0	-0.6	n.a	n.a.	500.0%	-60.0%
Philippines	75.7	987	63.5	0.7	0.4	1.0	85.0%	0.9%
Singapore	4	23,050	237.8	5.8	5.5	3.6	257.9%	6.3%
Taiwan	22.2	13,937	229.8	15.2	5.3	4.8	74.3%	4.9%
Thailand	62.8	1,946	127.1	3.1	2.2	-2.8	104.0%	2.5%
Vietnam	78.1	401	30.6	0.8	5.5	5.0	97.8%	2.6%

Source UNCTAD Handbook of Statistics, 2002

Vietnam's external indicators reveal increasing global integration. The average export growth rate for Vietnam was the highest in the region during the last decade. Although imports have been rising significantly as well- more than five fold between 1992 and 2000 (from \$ 2.8 to \$10.9 billion), growth in exports is faster leading to a surplus trade balance. The value of trade (imports plus exports) to GDP ratio is indicator of the openness of an economy. This ratio is

much higher for Vietnam than for most other regional countries at comparable levels of per capita GDP, and on par with that of Malaysia (Table 1.1). The ratio is however much lower than that of Singapore, Hong Kong and Malaysia. Figure 1.1 shows trends in Foreign Direct Investment- another indicator of global integration.



FDI flows into Vietnam reached a peak of \$2.8 billion in 1997. The following two years shows a decline (with FDI falling to \$2 billion). This decline has however been noted for all the regional countries in the wake of the financial crisis. Preliminary data for 2000 indicate that this decline has been halted and FDI flows are again on the upward trend. However, FDI flows to Vietnam is low in absolute terms, and the flows are lower than in most of the other regional countries (particularly China) with similar factor endowments and comparative cost advantage.

Although FDI flows from outside the region is increasing, in absolute terms it is low unlike in China. Vietnam benefits from FDI from mainly the emerging economies in the region. The main sources of FDI during 1988-2000 were in order of importance: Taiwan, Singapore, Japan, Hong Kong, UK, South Korea, and France- and to a limited extent- from India, Malaysia and Thailand. FDI coming from outside the region is however expected to expand in view of the recent signing of the free trade agreement between US and Vietnam.

The FDI flowing into Vietnam is concentrated in selected sectors: One, in production of crude oil. Two, as in many other developing countries in export-oriented enterprises. This is mainly in assembling of television sets and motorbikes, glass production, soap manufacturing, and steel.

Foreign managed enterprises accounted for over 23 percent of exports in 2000 as compared to 18 percent in 1995.

A large proportion of the Official Development Finance, assigned to the region during the Economic Crisis, was concentrated in a few countries, notably China, Indonesia, and Thailand. The proportion allocated to Vietnam increased substantially in 2000.

Overview of Foreign Trade

During 1990s, Vietnam experienced very high annual export growth rates of over 20 per cent- largely due to the reforms instituted under the under the “doi moi” policy¹. Important components of the policy included liberalization of exchange rates and initiation of a legal framework to support private investment- domestic and foreign. In the early 1990s, emphasis was on exporting mainly natural resource-based products. Since the second half of the decade, there is a distinct towards diversification of exports into labor-intensive manufactured goods. Exports of mineral fuels are also increasing in importance.

Table 1.2: Trade Value by Main Commodity

Unit: US\$ million

		Year					Increase p.a. 1997-2001
		1995	1997	1999	2000	2001	
Export	Total	5,449	9,185	11,540	14,455	15,100	13.2%
Main Exp. Commodity	Crude Oil	1,024	1,413	2,092	3,503	3,175	22.4%
	Garment & Textile	850	1,503	1,747	1,892	2,000	7.4%
	Seafood	621	782	917	1,478	1,800	23.2%
	Footwear		965	1,392	1,465	1,520	12.0%
	Electronics	8	440	585	782	605	8.3%
	Rice	547	871	1,025	668	588	-9.4%
	Coffee	596	498	585	501	385	-6.2%
	Vegetable & Fruit	56	71	105	213	305	43.9%
	Handicrafts	19	43	168	236	237	53.2%
	Rubber	194	191	147	166	161	-4.2%
	Pepper	39	68	137	145	90	7.4%
	Tea	27	48	45	69	66	8.3%
Import	Total	8,155	11,529	11,622	15,639	16,000	8.5%
Main Imp. Commodity	Petroleum	830	1,123	1,054	2,057	1,871	13.6%
	Steel	365	510	419	812	934	16.3%
	Electronic parts	114	466	518	748	667	9.4%
	Motorcycle	460	233	399	787	576	25.4%
	Chemical	233	216	258	307	343	12.3%
	Urea	339	276	189	200	213	-6.2%
	Cotton	77	110	90	101	133	4.9%
	Automobile	231	136	89	134		
	Cement	76	52	1	0		

Note: 1995-2000 data is from Vietrade and 2001 from GSO, so there may be a little inconsistency.

Data: VIETRADE (1995-2000), GSO (2001)

¹ The “doi moi” reform policies were introduced following the economic collapse in 1986 when the country experienced hyperinflation and became dependent on foreign aid

Vietnam comparative production advantage is mainly due to its labor cost advantage as compared to the other emerging economies of East Asia. However, the country has production disadvantages as well- due to the relatively high price of utility and fuel costs and problems regarding the predictability of the supply of services by its telecommunication and electricity sectors. Local manufacturing units face high duties on imported goods (although some portion of the import duties can be recovered through the duty drawback scheme). Growth in cross-border trade is also constrained by the as yet limited size of the nascent private sector, inefficient transport systems and logistics problems due to opaque and unclear government procedures pertaining to cross-border trade flows. Although these problems are reducing, pervasive state controls still remain a characteristic feature of the economy.

**Table 1.3 Vietnam Trade Origins and Destinations
2001 (% by value)**

Table 1.3 shows the country's export composition and principal export destinations.² Crude oil is the dominant commodity with about a third of total export earnings. The net contribution of this sector in terms of foreign exchange earnings is limited, given the substantial imports of petroleum. Besides this, the country exports both manufactured goods and primary products- mainly food items.

Export Destinations	Import Origins	
Japan	17.1	Singapore 13.6
China	7.5	China 11.9
Australia	7.6	Japan 11.6
United States	7.2	South Korea 11.2
Germany	6.9	Thailand 5.1
Singapore	5.4	Hong Kong 3.5
France	4.1	Malaysia 3.1

IMF, Directory of Trade Statistics, 2002

The principal manufactured exports in value terms are that of ready-made garments, footwear - and although low in absolute terms but growing- electronics exports. Manufacturing operations in the garment industry mainly involve domestic assembling operations using imported components. Other manufactured exports include furniture, clothing accessories and leather products.

The growth in exports during the last decade was relatively steady across all major commodity groups (Table 1.2). However, the export growth in some cases appears to be leveling off- as in the case of oil and gas. The seafood industry- especially shrimp and catfish- faced political difficulties that slowed its growth (\$1.8 billion in 2001) but is now expected to grow. Garment exports is expected to expand faster in view of the preferential trade agreements with the US and EU and capital investments in upstream production, and dyeing and spinning facilities.

² The official information available on Vietnam foreign trade is not entirely reliable both because of data collection and reporting problems and because of the large amount of informal trade. The alternative source is the Comtrade data, which is based on data from 173 trading partners. Here the difficulty is that limited information and reliability of Vietnams trade with its neighbors.

Vietnam's exports is concentrated in terms of final destinations (Table 1.3). Of the \$17 billion total exports in 2001, more than half (57%) went to seven destinations: Japan is the leading export destination followed by China, Australia, United States, Germany, Singapore and France. Crude oil accounts for the bulk of exports to Australia (85%), China (79%), Singapore (67%), and Malaysia (52%). The importance of Singapore, Taiwan and South Korea as final destinations is probably overstated, as many of the goods shipped to these countries are re-exported to the EU and North America. Trade with the US is more recent following the ratification of the bilateral trade between the two countries.

Vietnam's exports to ASEAN countries remains limited for two main reasons. First, the labor-intensive manufactured goods produced in Vietnam are similar to that produced in the other East Asian countries (e.g. mineral fuels, garments, footwear and food products); and second, the transport and logistics constrain bilateral trade between Vietnam and other regional countries.

Five of Vietnam's major exports account for over 4% of the world trade in those goods as shown in Table 1.4. Of these, all except rice, have shown rapid increases in value over the period 1996-2000. Leather footwear accounts for nearly 5% of world trade. New exports that show rapid growth include pottery and prepared fish.

Table 1.4 Vietnam's share of world markets

Commodity	Vietnam exports (U\$m, CIF 2000)	Share of world market (2000)	Change in market share (1996 to 2000)
Rice	360.2	5.9%	-30%
Footwear	2,245.0	4.9%	+141%
Spices	130.4	4.8%	+88%
Coffee	585.4	4.8%	+38%
Shellfish	820.8	4.3%	+80%
Natural rubber	140.0	2.9%	+94%
Pottery	131.0	2.2%	+218%
Fish (preserved)	172.8	1.8%	+183%
Menswear (non-knitted)	581.0	1.7%	+40%
Pulpwood	39.7	1.5%	+38%
Zoo animals	6.7	1.4%	+137%
Travel goods	253.5	1.3%	+34%
Undergarments	173.6	1.3%	+34%
Tea and mate	30.7	1.2%	+67%
Crude petroleum	3,506.0	0.9%	+158%
Women's outerwear	451.8	0.9%	+47%
Tin	13.6	0.9%	-42%

Source: Comtrade

Vietnam has however been successful in penetrating external markets in a growing number of products (Table 1.5). In 1996, the country had barely 13 products with more than \$100 million in exports. By 2000 the number of products had increased to 22. However, the export diversification achieved much less than that of China (170 products), Thailand (104), Malaysia (85), Indonesia (82) and Philippines (32). The products from these six countries had combined market share of over 25%.

Table 1.5 Comparison of Vietnam's Exports with those of neighboring Countries, 2000

No. of products of given value	Vietnam	China	Indonesia	Malaysia	Philippines	Thailand
Over U\$1 billion	2	62	17	16	5	16
Over U\$100 million	22	170	82	85	32	104
Over U\$50 million	34	184	121	121	56	132
Over U\$10 million	87	212	168	172	113	177
Total exports	13.8	249.2	62.1	98.2	38.1	68.8
Exports per capita	174	200	297	4,500	511	1,130
Exports as % of GDP	48%	25%	44%	132%	515	56%

Source : Comtrade

Given the large number of regional competitors, export growth will depend on the relative exchange rates with its primary trading partners. Vietnam is also increasingly dependent on Foreign Direct Investment for capital and technology. The major competitor to Vietnam's exports is China following its accession to WTO. Trade with the ASEAN countries will be contingent upon the AFTA agreement due to be implemented over the next five years.

There has been relatively little change in import composition. The primary imports are: refined petroleum products, inputs for the footwear and garment industry, machinery, construction materials and transport equipment. The growth in petroleum imports, which reached 9.1 million tons in 2001 is constrained not only by domestic demand growth, but also by local refining capacity. At present there is only functional refinery and plans for a new refinery do not appear to be financially viable. Imports of construction materials, cement and hardened steel, and transport equipment (primarily motorbike kits) is expected to grow alongside development of the industrial sector.

The total imports in 2000 amounted to \$13.0 billion. 87% of the imports came from 10 countries. Singapore (\$2.1 bill.), Japan (\$2.0 b.), Korea (\$1.7 b.), Taiwan (\$1.7b.), China (\$1.5 b.), Thailand (\$0.84 b.), Malaysia (\$0.48 b.), Indonesia (\$0.36 b.), U.S. (\$0.33 b.), and France (\$0.27 b.). The 8 leading sources of imports are all in East Asia, and provide 82% of all imports (Table 1.3).

AFTA Trade

Although Vietnam became an ASEAN member country in 1995, it started complying with its accession requirements only from 1996. As a member, it is committed to reduce tariff rates on all items listed by Common External Preferential Tariff (CEPT) to 0 or 5 percent. The leading AFTA imports from Vietnam include 15 products with an annual value of over US \$10 million. The products include: crude oil, rice, switchgear assemblies, electronic valves, and spices.

AFTA's imports from Vietnam (US\$2.1 billion) as yet comprises only 15% of Vietnam's exports and 2.75% of all AFTA's intra-trade. AFTA's exports to Vietnam (\$3.8 billion) were 29% of Vietnam's total imports and 4% of all its intra-trade in 1999. Since Vietnam's exports to and imports from the rest of the AFTA countries are expected to grow significantly with AFTA's

Table1.6: Leading AFTA Exports to and Imports from Vietnam

	Total Vietnam Imports (mn. US\$ fob)	Imports for AFTA (mn US\$ fob)	Market Share
Total	13,218	3,846	29.1%
Petroleum products,refined	1,398	1,023	73.2%
Polymerization and copolymerization	494	207	41.8%
Tobacco manufactured	244	168	69.0%
Motorcycles,motor scooters,	746	162	21.7%
Telecommunications equipment	278	112	40.4%
Fertilizers,manufactured	378	101	26.8%
Textile yarn	241	88	36.5%
Automatic data processing machines	114	85	74.4%
Elect.app.such as switches,relays	219	58	26.5%
Medicinal and pharmaceutical products	315	58	18.4%
Thermionic,cold & photo-cathode val	232	55	23.7%
Paper and paperboard	160	55	34.3%
Electrical machinery and apparatus,	129	55	42.2%
	Total Vietnam Exports	Exports to AFTA	Market Share
Total	13,860	2,085	15.0%
Petrol.oils,crude	3,506	997	28.4%
Rice	386	236	61.0%
Elect.app.such as switches,relays	253	205	80.9%
Thermionic,cold & photo-cathode	76	58	76.6%
Spices	137	58	42.0%
Coal, lignite and peat	142	36	25.5%
Crustaceans and molluscs,fresh,chilled	821	29	3.6%
Footwear	2,267	25	1.1%
Oil seeds and oleaginous fruit	29	25	86.6%
Coffee and coffee substitutes	591	22	3.7%
Outer garments,men's,of textile fab	583	18	3.0%
Fish,crustaceans and molluscs,prepared	173	17	9.7%
Natural rubber latex; nat.rubber &	144	16	11.2%
Furniture and parts thereof	422	16	3.8%
Fish,fresh (live or dead),chilled or frozen	163	15	9.3%

Source:

implementation of CEPT, the existing transport infrastructure and logistics services have necessarily to adapt potential changes in trade patterns.

Cross-Border Trade

There is potential for cross border trade with regional countries. The land border between China and Vietnam extends approximately 2363 kilometers along the two Chinese provinces of Yunnan and Guangxi. Vietnam's border with both provinces are bounded by mountains. The two Chinese provinces have a combined population roughly equivalent to that of Vietnam, and a much higher GDP. The six Vietnamese provinces along the Chinese border account for only 5 percent of Vietnam's total population and a smaller proportion of its GDP. These provinces have however experienced rapid growth due to the cross-border trade.

Table 1.7 National Port Pairs

Cross-border trade between China and Vietnam which had declined significantly following the Vietnam conflict, restarted in early 1989, when thousands of small traders started trading across the border with Guangxi Province. Currently, formal border crossings include 15 pairs of national and provincial river ports. There are also two rail links, the most important being the Nanning-Hanoi railway, which opened in 1995, and crosses between Lang Son and Pingxiang. The other is the Kunming – Hanoi railway, which is gaining in importance. Of the roads leading up to the border, the two most important cross the Beilum River at Pingxiang and Dongxing.

China	Vietnam
Dongxing, Quangxi	Mong Cai
Pingxing, Quangxi	Dong Dang
Youyigan, Quangxi	Huu Nghi Quan
Shuikou, Quangxi	Tuo Long
Hekou, Yunnan	Lao Cai

The opening of the economy since 1990 led to huge imports of Chinese goods that threatened the domestic producers and prompted the government to shield domestic producers through protective tariffs. The volume of trade more than doubled each year through 1995 (with the exception of 1994 when growth was only 50%). Although there was a brief period of decline in trade, trade volume doubled since 1997.

The balance of trade continues to favor China, eg. the province of Zhejiang exports about US \$500 million relative to U\$150 million of imports. Vietnam's exports to China include tea, footwear, fruits and vegetables, seafood, clothing, petroleum, and furniture as well as small amounts of equipment and small machinery. Imports from China include construction materials, appliances, heavy machinery, textiles, fertilizers, cigarettes and beverages.

Vietnam has established special economic zones for encouraging cross border trade. The first zone was set up at Mong Cai in 1996. Two additional zones were subsequently established in 1998 at Lang Son and Lao Cal. (Although similar facilities have been created near major border crossings with Laos PDR and Cambodia, they have had limited success).

The Chinese and Vietnamese governments have invested in infrastructure to support cross border trade. The Provincial government of the Chinese province of Guangxi is developing facilities on

the Chinese side of the border for improving telecommunications, transport and power supply in the major enclaves along the border.

Although border towns are growing due to the border trade, there is no long-range plan for coordinating laws and simplifying trade-related logistics procedures for facilitating cross border trade. The economic benefits of the growth in trade are moreover distributed unevenly within the provinces- with well-connected areas near the border benefiting the most. As a result, income disparities are increasing between the border areas and the hinterland.

The government of Vietnam is also promoting trade with Cambodia by developing industrial parks and bonded warehouses on the border of its An Giang Province with that of Cambodia's Takeo Province. Vietnam's trade with Laos is less formal. The primary exchange is petroleum products for logs. The value of formal exports to Cambodia and Laos accounts for a relatively small proportion of total exports as shown in Table 1.8.

Table 1.8: Formal Exports from Vietnam to Laos and Cambodia

	1995	1997	1998	1999	2000 (prelim.)
Total	5,449	9,185	9,360	11,540	14,308
Cambodia	95	109	75	91	133
Laos	21	30	73	164	66

Source: Vietnam Trade Statistics

It is estimated, by many officials, that informal trade exceeds formal trade in both cases. The rapid growth in informal trade is indicated by the increase in number of cases of tariff evasion and smuggling reported by the government. A large portion of the illegal trade involves small-scale transactions between residents living on opposite sides of the border. Small boats ply the Red River carrying illegal goods across the border with China. Citizens of both countries are able to cross the border at selected points without passports or special permits. Official statistics indicate that 4 million Chinese, mostly businessmen and traders, cross the border into Vietnam every year. Several hundred thousand Vietnamese laborers cross over to work in China. Most return with smuggled goods.

Organized smuggling has increased with improvements in cross border transport. There is considerable smuggling of cigarettes, cars and other luxury goods all along the border. Gold is still a common contraband material but its importance is declining as a more reliable store of value than other goods and currency.

Informal trade is a result of high tariffs and multiple and strict non-tariff barriers. Vietnam's import tariffs are extremely complex, with more than 6,000 tariff lines. The level of import tariffs has declined over the years and the non-weighted average is now only 16%. However, the maximum tariff, which applies to alcoholic beverages, is 120% and the average rate applied to meat, fish, fruits and vegetables is 50%. The tariff regime is part of the import-substitution program. High tariffs are imposed on seafood and food products and competing finished goods, while there are low or zero tariffs on produced goods. The import duties also affect the export

trade by applying high duties on inputs for the garment and footwear industry. These can be partially recovered through a duty drawback scheme but the procedures are cumbersome.

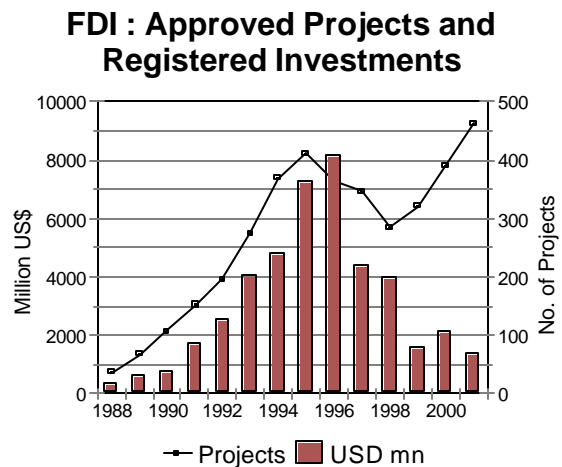
Foreign Direct Investment

The transition from natural resource based industries to capital intensive industrial production for Vietnam as for many other developing countries at comparable levels of development requires FDI and Joint Ventures. These provide not only technology and equipment but also management and marketing expertise. The transition is supported by the development of vertically integrated industries that are able to divide up their value chain into processes that are skill, capital, and technology intensive, and by allocating the processes to the most efficient locations and interconnecting them through efficient logistics. This allows these industries to shift the labor-intensive activities, especially those associated with assembly, to low-wage locations. Of particular interest are assembly activities where constant change in design prevents automation.

The FDI, as shown in Figure 1.2, rose rapidly during the first half of the last decade but has declined since the Asian Crisis. Much of the recent FDI has focused on existing foreign-owned firms.

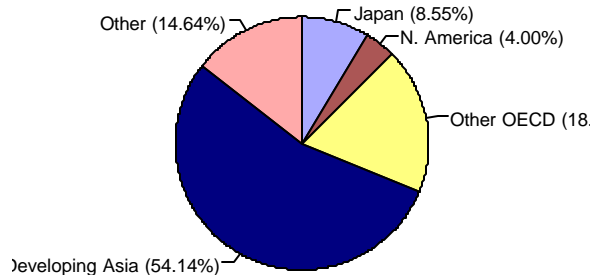
The trend in FDI flows to Vietnam has been influenced more by changes in the domestic investment climate, in particular macroeconomic stability and market liberalization, than by global economic factors. In the period 1988 to 1994, most of the FDI involved joint ventures, primarily with state-owned enterprises, producing for the domestic economy. The emphasis then shifted to export-oriented industries involving 100% foreign-owned firms. This was in response to more flexible ownership criteria adopted by the government for export-oriented FDI. Most of the investment was in industries based in the South. The sharp decline following the Asian financial crisis was due largely to Vietnam's failure to institute market-oriented reforms, as were introduced in Thailand, Philippines and South Korea.

Fig. 1.2



Vietnam has been more dependent on FDI from regional countries than from Europe or North America (Figure 1.3). This is due in part to the U.S. economic embargo that lasted until 1994 but may also be explained by the reluctance of developed countries to become involved in the uncertain investment climate in Vietnam. The Republic of Korea has been a major source of FDI, while Japanese investments have been relatively low.

Figure 1.3
**FDI Value by Source Country
 1988-2000**



Successful export houses in East Asia's newly industrialized economies have played an important role, since the mid 1980s, as direct investors in labor-intensive export industries in Southeast Asia. This was due to the loss of competitive advantage in labor-intensive exports in their home country (due to rising real wages and exchange rates) and the quantitative restrictions on exports to industrial countries, in particular under the Multifiber Arrangement. These firms now have the advantages of considerable experience with small-scale labor-intensive activities and familiarity with the difficult business conditions in Southeast Asia.

The complex and highly restrictive trade regime in Vietnam is characterized by high tariffs, and complex non-tariff barriers that include licensing mechanisms and multiple restrictions on entry by private firms. The recent reduction in the level of FDI is largely confined to import substitution activities and non-traded sectors. Export oriented industries including garments, food processing and assembly activities, have continued to receive increasing levels of FDI.

In order to increase the level of FDI, the government is decentralizing the licensing authorization procedure. It is proposed to grant city and provincial level People's Committees the authority to license FDI projects up to a value of US\$50 million. It has developed a number of EPZs to stimulate FDI-funded, trade-related activities but the results have been mixed largely because of problems with design and implementation.

The total amount of FDI committed in 2001 amounted to \$3 billion. In the first half of 2002, a total of 263 Foreign Direct Investment (FDI) projects with a combined capital of US\$473.5 million were licensed, an increase of 12.8% in number of projects but a reduction of 55.6% in value compared with the same period the previous year. Figures from the Ministry of Planning and Investment (MPI) show that nearly 80% of the projects licensed and 83% of the value of capital was put in the industrial sector. Agriculture, forestry and fisheries received only 14 projects worth US\$28.7 million, and the services sector only 39 projects worth US \$51.8 million.

Most of the FDI supported projects are located in the South. Dong Nai received the maximum capital with 34 projects worth US\$108.3 million, followed by Binh Duong with 54 projects worth US\$90 million, Ho Chi Minh City (HCMC) with 87 projects worth US\$72 million, Hanoi with 11 projects worth US\$37 million, and Ha Tay province with five projects worth US\$10 million.

Investment from Europe, America and Japan was below expectation. The top foreign investor was the Republic of Korea with US\$127.5 million, followed by Taiwan (US\$98.3 million), Malaysia (US\$44.9 million) and Japan (US\$39.8 million), while investment from the United States was only US\$13million.

Logistics and Infrastructure

With the decline in tariffs, trade transactions costs are even more important in determining the competitive advantage of trading nations. These costs consist of transport and logistics costs associated with the processing of trade documentation involved in cross-border trade. A major constraint to the growth of industrial production and exports in Vietnam is the condition of the transport infrastructure and logistics services.

The country has some of the highest utility costs in the region. The availability of electricity and telecommunications- both state monopolies- is limited. Electricity is generated from hydroelectric plants that have a limited capacity during the dry season. The National Utility has plans to buy about 1000 megawatts of power from power plants now under construction in Laos' Savannakhet and Huaphan provinces. These will supply the central area, Ha Tinh province and Pleiku city. However, the seasonal shortages are likely to persist along with problems of physical distribution. Consequently, manufacturers face problems of frequent power shortages.

Telecommunications services are provided by VNPT, which is regulated by its parent organization DGPT. The availability and cost of telephone service represents a constraint for businesses. Despite the development of a fiber-optic backbone, the level of access is relatively limited for landlines, mobile phones and Internet services. The rates for international calls, in spite of recent reductions in tariffs, remain high relative to the rest of the South East Asia region. Government controls on commercial use of internet services are such that Internet usage is about 10% of China and only 2% that of Malaysia.

Transport services are constrained by two major factors, the condition of the road network and the cost and reliability of ocean shipping services. Road transport carries about two-thirds of total domestic freight, with inland waterways taking most of the remainder. Trucking services are almost completely privately operated and 91% of the inland waterways vessels are privately owned. In contrast, coastal shipping, air cargo and rail are state monopolies. While trucking costs are competitive, the condition and coverage of the national road network is limited. There is a single North-south corridor that has recently been improved and tolled. New roads are being built to provide bypasses for areas that are flood prone. The domestic road network is made up of single and two lane roads of varying standards with fair to poor maintenance. As a result, travel speeds are slow and there are delays due both to traffic and official roadside checks. Inland waterway transport is limited by the available craft and the travel speeds.

The major transport problem is associated with the ports and ocean transport. All ports, with the exception of two, are state-owned. The two ports operating on foreign investments handle containers and bulk cargo. The tariffs are set in US \$ by the Government Pricing Committee. Most of the ports have low productivity and are expensive by regional standards. The shipping

services are controlled by the government and are relatively expensive. This is due largely to the low volumes and the location of the ports away from the major hubs. The costs for container shipments of exports are high relative to those of other ASEAN countries, because all container cargo must be fed into these hub ports in relatively small vessels.

2. TRADE IN SPECIFIC COMMODITIES

2.1 Rice

Vietnam's agricultural sector accounts for about 25 percent of the GDP and 66 percent of the total employment. Half of the agricultural output consists of rice. The other half includes livestock, fisheries, forestry and industrial crops. The liberalization following the "doi moi" policy transformed Vietnam from a rice-importing nation to the world's second largest rice exporter. Increased irrigation and use of fertilizers increased rice yields by 22% over the last decade to 3.5 tons per hectare.

Rice mills are both private and state-owned with a wide range of capacity. The majority have a capacity of less than 1 ton per day and process paddy for farmers' home consumption. The medium and large mills have a capacity of 1-10 tons per day and more than 10 tons, respectively. They also polish rice for export. The larger mills, found mostly in the Mekong River Delta and the Southeast, sell the rice to wholesalers and SOE's. The wholesalers in turn sell to retailers in both the local market and deficit regions. They typically use rented trucks or their own boats. The largest wholesalers, found in the urban areas of the southeast, handle several thousand tons per year using large warehouses.

Rice production involves small irrigated farms with labor-intensive cultivation and extensive use of fertilizer. Because of the topography, only about 25 percent of the country is amenable for rice cultivation. Most of the surplus is produced in the Red River and Mekong Delta, which together account for 66 percent of the total production. Double cropping of rice, one rainfed and one irrigated is practiced in the deltas and along the central coast.

The other five regions of the country are deficit areas. The Northern Uplands, bordering China and Laos, is one of the poorest regions with a disproportionately large proportion of ethnic minorities. The North Central Coast produces rice on the narrow coastal plain but not on the rugged mountains in the interior. The Central Highlands are sparsely populated and have little commercial rice cultivation. Although the Southeast has a more favorable terrain, most of the agriculture in this region is dedicated to cash crops for sale in the urban centers and for export.

However, the agricultural sector suffers due to the following factors: One, dominance of SOEs in this sector due to the government's policy of supplying domestically at low prices. Although SOE's no longer have a legal monopoly on rice exports, they continue to have a near-monopoly on both exports and long-distance domestic trades. In contrast, the private sector services the local domestic markets through a diverse network of traders, millers, wholesalers and retailers. Two, limited access to extension services such access to credit for the small farmers. Three, low FDI in this sector due to the restrictions on the access to land, raw materials, and restrictions on rice exports. Four, high post-harvest losses due to a combination of factors including low-tech processing and storage practices. Five, limited transport access which forces the small farmers to sell to the local markets, rather than final markets- domestic and/or foreign. foreign.

Vietnam shipped 3.5 million tons in 2001 but is expected to export only about 2.7 million tons in 2002. Government statistics show that Vietnam shipped 1.59 million tons of rice in the first half

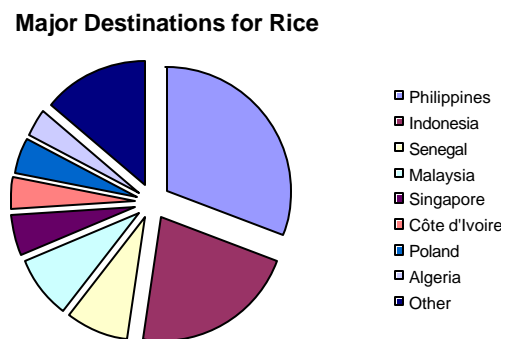
of the year, earning US \$345 million, down 26.6% in volume and also 3% lower in value from the same period last year. It had been the number two rice exporter after Thailand but this year it is likely to be replaced by India which is able to offer the rice at US \$20- \$30/ton less than the exporters in Vietnam. The higher price of Vietnamese rice is due in part to the government's involvement in rice trading which sustains higher prices than the world market. Vietnamese exporters have blamed high prices on farmers withholding stock and the fact that some local traders are focused on longstanding government contracts.

The increase in rice production has been accomplished through an increase in yield and cropping intensity, the former accounting for about 60% of the growth in production. Very little of the increase in production is due to an increases in area planted. Given that yields are already higher than those of neighboring countries and double cropping is widespread, the opportunities for an increase in the production of rice in the future are more limited. This fact combined with the growth in cultivation of cash crops for export suggests that rice production will grow relatively slowly and substantial increase in exports are less likely in future.

The SOEs dominate rice trading in both export and long distance internal trade. A large portion of the export rice is sold through government contracts. Rice export destinations vary. In 2001, the government exported large amounts to Philippines and Indonesia (Figure 2.1).

Based on a 1996 survey, the margin between farm and wholesale paddy price appeared to be only about 5% and that between wholesale and retail rice price about 10%. The cost of milling and local transport produced a 75% differential in wholesale prices for paddy and milled rice. The costs of long-distance transport explained part of the 30% difference in prices between the deficit areas in the north and the surplus areas in the south.

Figure 2.1



Source : Comtrade

2.2 Textile and Garment Industry in Vietnam

The textile and garment industry in Vietnam has existed for a long time. The industry grew quickly after World War II, as state enterprises in the North acquired machinery from China and the Soviet Union, and the South obtained modern European machinery. After reunification, government took over the factories in the South and established import/export companies. Most of the exports were shipped to Comecon (Council for Mutual Economic Cooperation) with most of the material and designs provided by the buyer.

During the 1990s, production of garments and textile grew at about the same rate as overall industrial growth. Most of this growth came from increased garment production. The production of fiber was static and fabric production grew slowly. Although production has continued to grow - reaching US\$2.0 billion in 2001- there has been a downward trend in the rate of growth since 1995 (Figure 2.2). Textile and garment exports earned about \$1 million in the first half of 2002 and remained the second largest foreign exchange earner after crude petroleum. Future growth is expected to come from expansion into the US market. The industry employs about 1.2 million workers.

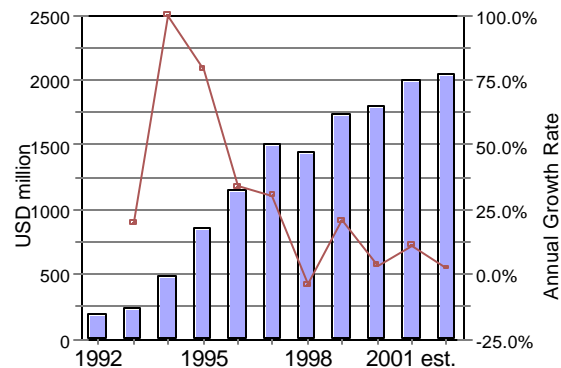
Table 2.1

Production	1995	1996	1997	1998	1999
Yarn *	59.2	65.4	67.5	69.1	78.2
Fabric +	263	285	298.6	315	317
Towels +	276	278	316	337	351
Knits +	30.2	25.3	38.6	29.1	29.6
Ready made garments +	171.9	206.9	302.2	289.9	304.9

* 000 tons, + mn pieces

The garment industry is limited to CMT (cut, make, and trim) and operates under subcontracting agreements with foreign partners who provide the designs, marketing and fabrics. A large portion of the subcontracting is done through middlemen located in Taiwan, Korea, Hong Kong and Japan. The direct contracts are primarily with former Comecon clients. The lack of international marketing knowledge is a significant constraint on the growth of the industry.

Figure 2.2
Textile and Garments Exports



Domestic production of fibers is limited to silk and cotton. Domestic cotton meets only about 5% of the domestic requirements and is perceived to be of inferior lower quality than imported fibers. There is no local production of synthetic fibers. The imported content of exported garments is between 75% and 80%. The domestic production of textiles and garments meets only 40% of local demand. The remainder is imported, both formally and informally because of the high tariffs. As a result, the value added in the production of textiles and garments is relatively low (Table 2.2). Also, the country's net export of garments barely exceeds the value of its net import of textiles. Vietnam suffers from relatively low productivity and low skill levels, which limit its competitive advantage to lower-value products (Table 2.3).

Table 2.2
Value Added per Worker:
Textile & Garment
Industry US\$, 1998

Vietnam	\$1,770
China	\$1,760
Indonesia	\$1,100
Malaysia	\$7,980
Korea	\$20,510
Taiwan	\$21,100
Singapore	\$15,560

Source UNIDO

Most of the production capacity for fiber and textiles is concentrated in SOEs. They lack modern technology and are relatively inefficient. Less than 1/3 of its fabric production meets international standards. Because of the lack of production capacity of fiber and textile, the local

industry has relatively weak linkages between fiber production, fabric production, dyeing and garment manufacturing. The lack of integrated production leaves the garment factories vulnerable to changes in price and availability of inputs. On the other hand, the foreign owned garment producers and joint ventures generally have close linkages with producers of textiles.

Table 2.3
Value Added in Textile and Garment Industry

	Value Added		% Gross Value	
	Textile	Garments	Textile	Garments
1991	703	144	25%	25%
1992	927	262	24%	37%
1993	1,288	505	24%	37%
1994	1,672	877	24%	37%
1995	2,275	1272	24%	37%
1996	2,556	1693	24%	40%
1997	2,765	1912	24%	37%

The dominant position of SOEs in the industry is now declining. In 1996 SOEs accounted for 60% of total textile production while local private firms produced 24% and joint ventures 16%. In the garment sector, they accounted for only 36% of production while local private firms accounted for 49%. The largest of the SOEs is Vinatex which controls over 50 enterprises and in 1996 produced 80% of total fiber, 65% of fabric, 45% of garment products, and 40% of total export value. In 2001, it accounted for only 33 percent of the export value. Currently there are 70 state-owned textile mills and 117 state-owned garment factories. There has been a rapid growth of the local private small and medium firms. The private sector continues to have difficulties in acquiring industrial sites, financing production, and obtaining quota allocations. The system of quota allocation based on demonstrated export performance clearly favors SOEs.

The build-up of the textile and garment industry in Vietnam had similar stimuli as the growth in China- although it started much later. Manufacturers from other rising labor cost regional countries - notably South Korea, Taiwan and Hong Kong- seeking to move offshore in order to reduce production costs and to circumvent export quotas of major trading partners. The investors supplied the technology and marketing and mobilized and trained local labor.

As of 2001, Vietnam's textile and garment industry had absorbed about US\$2.4 billion of FDI. Approximately 2/3 was utilized for projects in textile and fibers, and the remaining one-third for projects in garments and accessories. The investment appears to have peaked in 1995 as shown in Table 2.4. The major sources of FDI for the textile industry are South Korea, Malaysia, Taiwan and Hong Kong. The same sources, together with Germany and Russia are involved in the garment industry as well. Most of FDI is centered in Ho Chi Minh City and Dong Nai.

Table 2.4
FDI in Textile and Garment Sector

	Textiles		Garments	
	Amount	Ave. per Project	Amount	Ave. per Project
1990	\$15.35	\$7.67	\$3.15	\$1.05
1991	\$9.41	\$4.70	\$17.93	\$4.48
1992	\$27.39	\$3.42	\$44.26	\$4.91
1993	\$534.90	\$66.80	\$25.33	\$1.80
1994	\$108.30	\$10.80	\$19.35	\$1.48
1995	\$377.00	\$31.41	\$26.50	\$1.89
1996	\$185.00	\$16.70	\$32.43	\$2.31
1997	\$213.60	\$23.73	\$26.25	\$2.38

The government's future plans focus on increasing domestic production of fibers and textiles. Two FDI projects now underway envisage a substantial increase in production capacity for fibers and dyeing textiles. The current plan also envisages substantial increase in production of polyester fiber and woven cloth. The construction is underway on three factories, one of which will have a capacity for producing 15 million meters of material and the facility to dye 25 million meters.

The principal trading partners for Vietnam's garments and textiles are Western Europe and, Japan as shown in Figure 2.3. Shipments to Japan grew rapidly in the 1990s but now appear to be declining (Table 2.5). Vietnam competes with China for the Japanese market and with Indonesia and Thailand for the European market. It's involvement in the US market is limited at present. Vietnam also ships to East Asia, Taiwan, Korea and Hong Kong. However, about 2/3 of Vietnam's garment exports to these countries are estimated to be re-exported to the EU.

The world trade in textiles and garments is subject to the Agreement on Textile and Clothing that replaced the MFA. This agreement is to expire at the end of 2004. Under the WTO agreement any other textile and apparel restrictions must be phased out by 2005. Trade with the EU has been through government quotas since 1997. Canada textile quotas are relatively liberal. Trade with the US is expected to improve with the signing of the bilateral trade agreement (2000), which gives Vietnam GSP status.

The impact of these changes in trading rules will create challenges for Vietnam. Quotas that have limited production in Taiwan, Malaysia and South Korea will be removed. At present, Vietnam competes in a different market niche producing lower quality garments using labor-intensive techniques. However, quotas will also be removed from its main competitor China which like Vietnam, has low labor costs. It is imperative for Vietnam to increase its labor productivity and textile production capacity, and

Figure 2.3
Principal Export Markets for Asian Garment Exporters

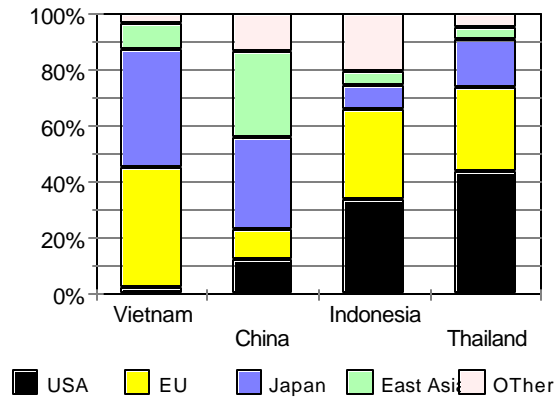
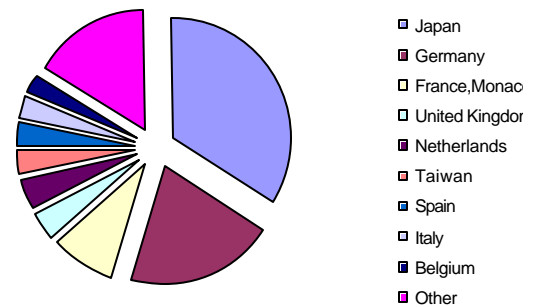


Table 2.5
Textile Exports to Japan, and US (USD mn)

	Japan	US
1992	92	
1993	135	
1994	262	
1995	352	17
1996	442	24
1997	502	26
1998	486	26
1999	422	37

Figure 2.4

Major Destinations of Non-knit Outerwear Exports



Source : Comtrade

move to a higher value segment of the market. In order to be successful in this endeavor, the industry must become more active in the marketing of its products, with enhanced understanding of international markets, development of new designs and seeking out of new buyers.

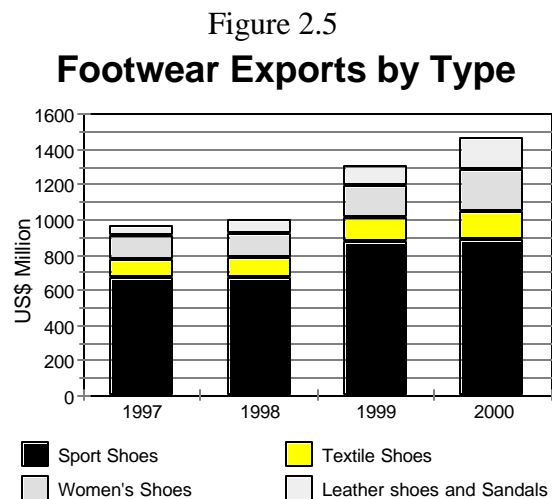
2.3 The Footwear Industry

Europe is the largest exporter of footwear relative to other regions of the world with a 46% market share, of which Italy contributes 23%. South America and East Asia are also major exporters, with China the largest contributor accounting for 28% of the world market. The export market is differentiated by quality, with Italy and Spain producing high-priced fashion footwear, Brazil producing middle-priced and China producing low priced footwear.

Vietnam has a relatively small share, but this industry has become an important since most of the production of this sector is oriented towards the export sector. The country has a relatively high tariff, of 43%, on imported footwear. Shoe manufacturers are highly dependent on imported materials, most of which are supplied by joint venture partners. About half the manufacturers have more than 500 employees and another 25% employ between 100 and 500. The country has relatively outdated technology and cannot produce inputs of high quality. Thus, the industry is primarily involved in assembly. The Asian footwear producers are now attempting to extend their participation to the entire product cycle including design, input production and distribution.

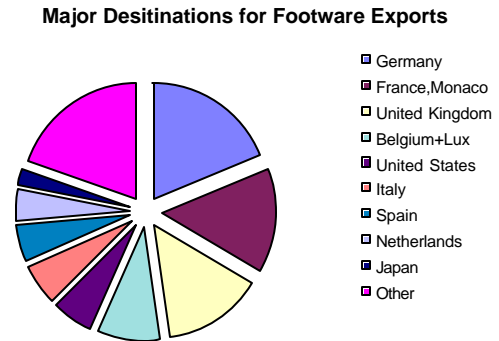
The footwear industry evolved from sewing upper parts for exports to the Comecon countries to assembly of the complete shoe for exports to Europe. About 80% of the footwear industry operates as joint ventures under contractual production with foreign partners. Many factories were relocated from countries like Taiwan. The industry grew rapidly throughout the 1990s becoming the second-largest export in 1998.

In 2000, Vietnam exported US\$1.52 billion worth of footwear - about 50% more than in 1997 (Figure 2.5). The world's major importer of footwear is the US with a 34% market but so far it sources only a small portion of the footwear imports from Vietnam. The major market for Vietnam's exports is the EU, which has provided Vietnam with GSP status and withdrawn this status from other major producers, such as China, Indonesia, Thailand, and Brazil. About 2/3 of Vietnam's exports are to EU where it provides about 1/6 of total imports, only slightly less than China. Exports to Japan and the U.S. are limited as shown in Figure 3.6. Exports to the former are expected to expand dramatically with the reduction of import duties from 40% to 3% as part of the recently signed bilateral agreement. Korea and Taiwan had been significant markets in the past but have declined in importance as the manufacturers have started shipping directly to Europe rather than re-exporting.



The major constraints the industry faces are its dependence on imported inputs, its difficulty in establishing direct relationship with buyers, taxes and the restrictions placed on foreign owned companies. The leather used in footwear production is obtained primarily from Thailand and Korea while China provides many of the miscellaneous inputs. The tannery industry in Vietnam is very small and most of the raw material is not of sufficient quality to meet international standards. The equipment used in the manufacture is most often obtained from joint venture partners, but is usually not technologically advanced. The high duty on import of footwear and semi-manufactured inputs, combined with the duty drawback scheme available for export footwear, discourages vertical integration of the industry and instead encourages assembly operations.

Figure 2.6



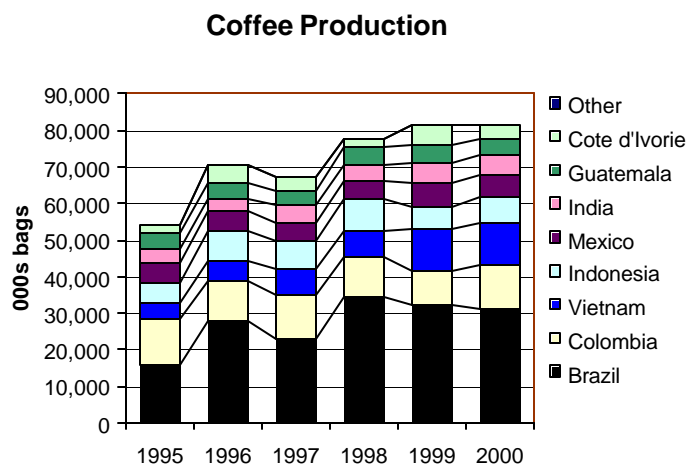
Source : Comtrade

Vietnam's competitive advantage derives from its low labor costs. China is Vietnam's major competitor, competing on both price and quality. Thailand has the potential to offer competition if Vietnam moves to a higher quality product. The future growth of the industry will depend on its ability to take control of more of the value chain and to reduce ocean freight charges. This requires better equipment, more active marketing and development of a capacity for manufacturing inputs. It will also depend on better integration of non-Vietnamese owned companies that can provide marketing expertise.

2.4 Coffee

Although coffee was first introduced in the middle 1800s, commercial cultivation did not begin until the early 1900s and it is only since 1975 that the coffee industry has become an important economic activity. Since then the amount of land planted for coffee has risen from 20,000 hectares to a half-million. In parallel, production of green coffee has grown from about 7,000 tons of to 700,000 tons. The high prices in 1995 encouraged farmers to nearly double their output, thereby exceeding both Indonesia and Columbia (Figure 2.7). Brazil remains the largest producer with almost twice the production of Vietnam.

Figure 2.7



Source : ICO

Coffee is grown primarily in the Western Highland provinces at elevations ranging from 500 to 700 meters. About 60% is grown in the province of Dak Lak. The growing areas have now expanded towards the southeastern provinces and central coastal areas. These areas are best suited to growing Robusta coffee. Farmers prefer Robusta to Arabica because it requires fewer seedlings, is more resistant to disease and requires less complicated processing. However, the market price for Robusta is about 20% below that of Arabica and has been so for the last 15 years since it is used primarily for instant coffee. Table 2.6 summarizes the total world production of Arabica, Robusta and a combination of the two. This table indicates a trend towards increased production of Robusta worldwide. The government is now encouraging coffee growing in the North where the colder winter is better suited to growing Arabica coffee. It plans to add 100,000 hectares within the next few years, which will yield about 20% of the total production.

Table 2.6
Production by Type of Coffee Bean

	1995	1996	1997	1998	1999	2000
Arabica	43.2%	32.7%	36.3%	30.8%	31.5%	33.2%
Robusta	9.7%	12.2%	13.1%	10.1%	16.7%	15.6%
Arab/Rob	32.4%	38.9%	36.4%	44.6%	41.1%	38.6%
Rob/Arab	14.6%	16.2%	14.2%	14.5%	10.8%	12.6%

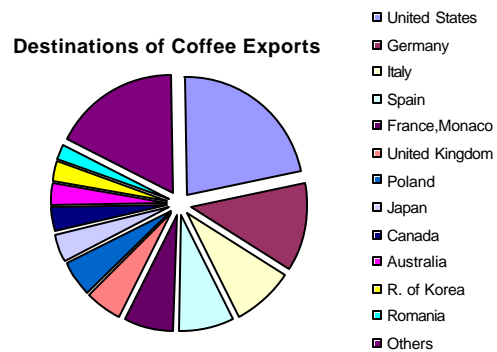
Source : ICO

Most of the coffee is grown on small farms. The farmers harvest the coffee and remove the beans from their hulls. They sell the green coffee beans under individual contracts to assemblers who are licensed by the state. The contracts allow for adjustment the price to the export price. The assembler sells the green beans to processors who clean, sort and grade the beans. The large processors are primarily state-owned enterprises. Until 1999, only state-owned enterprises were allowed to export coffee. Since 1999, the private sector has been handling an increasing share of the exports, now approaching 40%. Currently, three big trading groups handle most exports.

Although most of the Vietnamese coffee is exported (over 90% of the total production), it is generally regarded as being of low quality. This is attributed to a number of causes including:

- The practice of strip harvesting which mixes ripe and unripe coffee buds
- Poor sorting techniques
- Excessive use of fertilizers which increases yields but reduce quality
- Inferior technology for drying, processing and storage
- Past failures of SOE exporters failing to meet their contracts
- National coffee standards not being in accordance with international standards

Figure 2.8



Source : Comtrade

The historically low prices for coffee on the world market over the last few years (Figure 2.9) have created serious economic problems for growers in Vietnam. The government attempted to mitigate this problem by establishing a buffer stock of 150,000 tons, using financing from the state-owned Bank for Agriculture and Rural Development, but lost a substantial amount of money, though it did not affect the price paid to the farmers. These low prices are believed to have reduced output from about 900,000 tons in 2001 to 550,000 in 2002. The worldwide increase in production will not cause the prices to rise in the immediate future.

2.5 Trade Reform

The trade between Vietnam and other ASEAN countries is subject to commitments made under the AFTA and its CEPT. Under the terms of agreement, Vietnam has to reduce tariffs on most goods to no less than 5 percent by 2006 and dismantle non tariff barriers by 2013. Some items are however temporarily exempt from these commitments under two categories: Temporary exclusion list and sensitive list. Goods included in these category are fuels, switchboards, vehicles, and used consumer goods. These goods account for 40 percent of Vietnam's imports from ASEAN countries.

The tariff reforms required under the AFTA agreement may prove to be difficult to implement for Vietnam. Although it was able to meet its initial obligation by reducing 1/4 of its tariff lines to 0%-5%, this reduction was on goods which already had low tariffs.

Four factors which may impede tariff reforms are: a relatively complex existing tariff structure, excessive prohibitive tariff rate structure for luxury goods, protection of local industries and its import substitution program.

The most protected goods include minerals, soaps and detergents, tobacco, beverages, ceramics and paper. About 2/5 of its tariff lines have been placed in the temporary exclusion list (compared with about 1/6 for the other ASEAN countries). Tariffs affecting about 40 percent of Vietnam's imports from ASEAN are also placed on its general exception list. It also placed on its general exception list tariffs affecting about 40% of its imports from ASEAN.

Figure 2.9

ICO Coffee Price Index



Source : ICO

Such restrictive trade reforms will have a limited impact on the Vietnamese economy for the following reasons in the short to medium run for the following reasons: One, as of now, only about a quarter of Vietnam's trade is with ASEAN countries; Two, about half of its tariff line items are on the exclusion list where Vietnam is not bound to phase out its tariffs to the specified level. Three, there is a further five year grace period for removing the non tariff barriers on products in the exclusion list.

Vietnam currently has observer status in WTO having applied for membership in 1995. The accession of Vietnam to the WTO will have an impact on its agricultural policy including:

- Conversion of rice export quotas to an export tax
- Lowering barriers to imports of agricultural inputs
- Reforms in the import licensing of agricultural inputs to achieve greater transparency
- Privatization and de-monopolization of state trading enterprises including those involved in marketing food and agricultural inputs

It will also have an impact on the industrial sector by reforming and reducing the role of the SOEs as well as a reduction in trade barriers on inputs for production.

Reduction in import duties and export quotas will not only induce economic growth but will also encourage exports in areas where Vietnam's labor costs give it a natural competitive advantage. It will also reduce activity in the heavy industry sector in which Vietnam does not have an advantage but which absorbs a considerable amount of government subsidies. At the same time, it would increase farm gate prices, which are now limited by government policies.

2.6 Conclusions

Vietnam has demonstrated sustained export performance since the last decade. The major export products in which the country has succeeded in gaining external market access however face increasing global competition- given global trade reforms, competition from countries with similar factor endowments and hence comparative cost advantage in producing commodities and changes in production technologies. The increased involvement of the private sector and corresponding reduction in the role of SOEs is expected to improve Vietnam's trade prospects through inducing better allocation of resources. As industrial production becomes more capital-intensive, there will be increasing demand for investment and hence financial resources. The decline trend in FDI suggests that this shortfall will have to be offset through local investment. The reduction in subsidies/credits for unprofitable SOEs will make more credit available but financial sector reform may be necessary for ensuring efficient credit allocation.

Although Vietnam has been successful in penetrating external markets, their exports are concentrated both in terms of commodity composition and market destinations. It would be in the interests of the country to diversify its exports. Further, the low quality of the exports limits Vietnam's ability to compete only in the low to average price range products. Although exports of rice have been significant, Vietnam's ability to increase rice production would be constrained by the shortage of arable land and natural limits to intensive cultivation- although there is scope for increasing land under irrigation and replacing more existing paddy growing areas with high yielding varieties.

The garment and footwear industries benefit from preferential quota access with EU and the special trade status with the US, but these are likely to change over the medium term. At present the value added by the garment industry is limited because of the high import content. In order to improve efficiency and increase domestic value-added, it will be necessary to integrate production, both upstream and downstream. Upstream integration will involve increasing domestic production of fabrics and clothing accessories. Downstream integration will include increased involvement in design, marketing and sale of exports.

Vietnam's garment exports will also be exposed to greater competition from China and other developing countries with labor cost advantage in a Textile and Clothing quota-free system. If Vietnam is to increase its output (measured in value if not in volume), it must move into higher-value product lines, where quality and adherence to delivery schedules are probably more important than labor cost advantage in enhancing competitive advantage.

Production of coffee is constrained not by domestic factors but by international demand. The growth in production worldwide, unmatched by a corresponding increase in demand, has resulted in a sharp decline in prices. The government's plan to move into a higher value market by substituting Arabica for Robusta is unlikely to succeed given the medium-term market conditions.

Expanding the export of all these products is contingent upon improving transport and logistics efficiency- which are presently limited by both local road conditions and expensive ocean shipping. Upstream and downstream logistics are dependent on foreign investors and middlemen. If the country is to increase the value added from these exports, it needs to substantially improve both the inbound and outbound supply chains. Better market information and involvement in sales and delivery is needed to improve the outbound logistics. This will require better communications with the wholesalers and retailers in destination countries and greater focus on order cycle times. Increased emphasis on production of inputs and greater attention to quality control are necessary to improve inbound logistics. The ensuing section focuses on the transport and logistics challenges confronting Vietnam.

3. LOGISTICS INDUSTRY

Trade-related transactions efficiency is a crucial determinant of a country's competitive advantage in an global economy. This is particularly so given the worldwide decline in tariffs. Trade-related transactions costs refer to both the transport – what ever be the mode, oceans, rails or roadways- and the logistics associated with cross-border trade flows. Furthermore, costs include not only monetary costs but the imputed time cost associated with the movement of goods, *door-to-door*.

3.1. Ports and Shipping

(1) Overview of Port Sub-sector

Cargo Throughputs

Vietnam's major seaports- HCMC and Haiphong- serve as gateways to the south and the north. HCMC handles approximately 50 to 60 percent of the country's total throughputs in tonnage and the balance by Haiphong. Their respective share of container cargo is 80 and 20 percent.

Containerization

The volume of container cargo has been increasing rapidly commensurate with its trade growth. The number of containers handled doubled between 1995 and 2000. Although the country has been investing in modernization and expansion of port facilities for increasing port efficiency and providing reliable container handling operations, few berths are equipped as yet with modern container handling facilities- with the Vietnam International Container Terminals (VICT) being the sole operator using a computerized container operation system along with EDI.

Physical Constraints

HCMC and Haiphong ports are constrained due to their due to their inland locations on Saigon and Cam Rivers. Their physical location exposes them to other constraints as well: One, long navigation times between the ports and the ocean and Two: shallow berths and channel depth limit the vessel size and this in turn necessitates dredging of the river channel. Due to these limitations, the ports do not have direct sailings to major destinations and hence are served only by feeder lines linking them with hub ports such as Singapore and Hong Kong.

Port Development

JBIC is financing the construction of the Cai Lan deep-sea port for large vessels. In October 1999, the Prime Minister approved "Port Development Master Plan up to 2020", categorizing the nationwide seaports into eight regional groups besides identifying ten priority projects to be completed by 2003. Feasibility of deep-sea ports in and around HCMC is under consideration with technical assistance from JICA.

Port Authority

VINAMARINE

VINAMARINE – the country’s single port authority- was established in 1992 (Decree No. 239/HDBT). The organizational structure of VINAMARINE consists of headquarters, three regional representative offices, twenty regional port authorities and other various affiliates such as VMS, pilot companies and port operators. The main functions of VINAMARINE include the development and maintenance of channels and navigational buoys through VMS, the pilotage through pilot companies, and the port master through regional port authorities.

Tariffs for navigational services provided by VINAMARINE for oceangoing vessels, including tonnage dues, maritime safety maintenance dues, pilotage dues, tug assistance charges, and mooring and unmooring dues, are promulgated by decrees (Decisions No. 85 and 86/2000/QD-BVGCP November 2000, Decision No. 127/VGCP-CTND DV 1997 and Decision No. 128/VGCP DV 1997). Tariffs do not differentiate by region – although there is the provision for lower tariffs for cabotage services. Although VINAMARINE is designated as a Port Authority, it also operates the ports of Cai Lan, Nghe Tinh, Quy Nhon and Nha Trang.

Port Operators

VINALINES

Separated from VINAMARINE in 1994, VINALINES is a conglomerate, which includes five port operators, seven shipping companies, and many joint ventures (JVs), share holding and servicing companies. These member companies have independent accounts. The only in-house service of VINALINES is the container liner service between Haiphong and HCMC - its largest revenue generator. The five port operators that own, develop and operate their own port are Haiphong Port, Quang Ninh Port, Danang Port, Saigon Port and Can Tho Port.

Although a clearly recognized demarcation of business fields among VINALINES member companies did exist in the past, the situation has changed. Today member companies compete in many cases. For example, Saigon Port is an investor in a new terminal at Can Tho close to Can Tho Port’s existing facility, and one of the JVs, TRANSVINA, is competing with Haiphong Port by developing a new container terminal. Shipping companies have also commenced freight forwarding and agency operations. In line with the governmental policy, VINALINES encourages its member companies to raise resources through issuing equity. Many of them do so now- although these shares are not listed on the exchange.

Port Operators in HCMC

The complex business structure of Vietnam’s ports can be typically found in HCMC, which has nine general ports. Among them, the four largest in terms of container throughput, are Saigon Port, Tan Cang (New Port), Ben Nghe Port and VICT. All are developed and operated by different operators. Saigon Port is managed by a VINALINES member company “Saigon Port,” Tan Cang by the Army Corporation., Ben Nghe Port by HCMC Peoples’ Committee, and VICT

by a JV between SOWATCO and Singaporean capital. These four ports, together with ICD Phuoc Lom, compete with each other. The same decision-making bodies that set the navigational charges and dues of VINAMARINE also sets berth and wharf dues and cargo handling service charges. However, port operators have the independence to offer competitive discounts on dues and charges – anywhere from 10 to 20 percent.

Inland Clearance Depot (ICD)

The ICD at Phuoc Long, operated since 1996 by VINALINES member companies VIMADECO and GEMADEPT, is not a member of VSPA, but can be regarded as another container port in HCMC, by virtue of its midstream operation on Saigon river. Container vessels can unload and load at the mooring buoy of GEMADEPT. The containers are then directly transferred to and from ICD Phuoc Lom by barges, without calling at any other port in HCMC. TRANSIMEX, one of a few listed companies of the country, opened ICD Transimex in 2000, which is linked to VICT under a Business Cooperation Contract, by shuttle barges. Two other ICDs (Gia Lam in Hanoi and Doong Nai) do not have access to water channel.

Shipping Lines

Vietnamese and JV Carriers

There are more than 300 oceangoing vessels registered in Vietnam by members of the Vietnam Shipowners Association (VSA). Member companies of VINALINES have 75 vessels while VINALINES has 11 container vessels. VINALINES has not entered the international container market yet, but liners of GEMATrans, a JV with the French company Companie General Maritime CGM, link HCMC and Haiphong with the regional hubs of Hong Kong and Kaoshiung. SAIGONSHIP, under a pillar of HCMC Peoples' Committee, holds a minor share of another JV with Danish APM, now renamed as APM Maersk Saigonship, which links HCMC with Singapore and Malaysia (Tanjung Pelepas). Vessel sizes used by these JVs are small, ranging from approximately 250 to 600 TEUs. A domestic container trunk line, between HCMC, Danang and Haiphong, is operated by VINALINES and VINAFCO, and the one between HCMC and Can Tho is operated by SMC.

Foreign Carriers

Ports in HCMC and Haiphong are served by more than ten foreign carriers, excluding JVs, most having their headquarters in Hong Kong, Taiwan, South Korea and Japan. All of them operate feeder lines to link destinations in southeast and northeast Asia such as Hong Kong, Singapore and Kaoshiung. The sizes of almost all the vessels calling at ports in HCMC are less than 1,200 TEU, and ones in Haiphong are even smaller. In late 2001, members of the Intra-Asia Discussion Agreement (IADA) proposed the introduction of terminal handling charges for container, which was sent back by the Vietnam government for further consideration. Since there are no direct services to and from EU and US, export goods to these markets have to be transshipped through the hub ports in the region.

(2) Inland Waterways

The majority of inland waterways are developed and maintained by Vietnam Inland Waterway Association (VIWA). These are used for transporting bulk goods such as imported fertilizers and exports of rice and seafood in the Mekong Delta. Large un-powered barges, typically of 250dwt to 700 dwt- called *Salan* in the south- are mostly owned and operated by SOEs and private companies. Middle size diesel powered barges, typically of 60dwt to 250 dwt, and small size barges in the south, are mostly owned and operated by individual, family-run enterprises- usually members of a cooperative.

3.2. Freight Forwarding Businesses

SOE's In-house Transport

Many of traditional SOEs in Vietnam have long been engaged in the delivery of materials and products through their internal transport divisions, have their own trucks and drivers. According to a JBIC survey in 2000, 19 out of 28 export-oriented SOEs had in-house transport activities. They resorted to this relatively expensive and inefficient solution as local transport companies failed to achieve the required quality of service in terms of reliability and punctuality. Another concern to SOEs is the possibility of leakage to competitors of confidential information like sales volume and pricing. However some export-oriented SOEs- especially in the south- now contract their freight transport requirements to freight forwarders or independent truckers, who are increasingly using containers to transport most of the freight.

Foreign and JV Freight Forwarders

Several international freight forwarders have, since mid 1990s, operated in Vietnam's logistics market. They have formed JVs with Vietnamese freight forwarders and provide international standard services to foreign manufacturers producing goods both for export and domestic consumption. The increasing presence of Japanese and other foreign freight forwarders reflects the foreign dominance of export manufacturing enterprises. The international freight forwarders represent mainly other foreign manufacturers, e.g. Taiwanese or Korean.

The practice of appointing a small number of qualified JV freight forwarders as long-term service provider is common among foreign manufacturers. While some JV freight forwarders are equipped with facilities like warehouses and container freight stations and trucks and trailer fleets, others hire facilities and trucks from local freight forwarders. While several European logistics companies operate in HCMC, US logistics service providers, though operating in China, have not yet entered the Vietnamese market.

Local Freight Forwarders

Until early 1990s, a few SOEs such as VIETRANS and VINATRANS had exclusive freight forwarding licenses. Now the market has opened to other SOEs and JVs. The Vietnam Freight

Forwarding Association (VIFFAS) has 46 ordinary members and 25 affiliate members-including local and JV freight forwarders. While some members are independent and in the nature of private ventures, most are registered under either a particular ministry or under a provincial or city peoples' committee. The latter are large scale and usually own terminals up to a hundred vehicles or more, the former tend to be small scale and relatively less well equipped. Both, however can hire trucks and trailers from individuals or family-run establishments.

The south has more efficient and organized freight forwarders that provide services of international standards, such as JIT and EDI, to foreign clients based in and around HCMC. There are also well-established domestic distribution channels between HCMC and the Mekong delta run by local freight forwarders. Local freight forwarders are seldom used by foreign manufacturers for reasons of untimely delivery and unreliability.

Individual Truck Owners and Cooperatives

There are a number of individual and family-run vehicle owners in Vietnam – usually members of cooperatives. The large cooperatives in HCMC have over 1,000 members. Their vehicles varying in type include trucks, reefer trucks, dump car, to construction vehicles etc. According to the figures of cooperatives, the number of vehicles per member averages around two to three, but in reality most members have more than the figure disclosed. All vehicles are not usually registered with the cooperatives in order to avoid a vehicle tonnage fee levied by some provinces or cities. In HCMC alone, there are approximately 730 cooperatives with 27,0000 registered vehicles. The individual vehicle owners provide a substantial service for cargo transport. All the JV and local freight forwarders interviewed hired vehicles from individual vehicle owners either on a regular or periodic basis.

Their customers are not only freight forwarders but also buyers and traders, including cross-border traders with China, Cambodia and Laos. Members of some cooperatives in HCMC carry cargo profitably between the south and Dong Dang- near the border with China. In the south, overland carriage to and from the Cambodian border is a lucrative business.

3.3. Other Cargo Transport Services

Rail Freight

The network of Vietnam National Railway (VNR) runs from Saigon Station via Hanoi, to domestic terminals such as Haiphong and Ha Long and the two Chinese border towns at Dong Dang and Lao Cai. The network totals about 2,600 km, of which 2,200 km is meter gauge, 400 km is standard gauge, and 200 km is dual gauge (this is double counted in the total). Freight traffic density is low, the highest being about 2.5 million gross tons per km to the south of Hanoi. Traffic on each of the lines leading to the Chinese border is under 300,000 tons per year.

VNR has traditionally transported bulk commodities. There are three marshaling yards at Song Than (northeastern perimeter of HCMC), Giap Bat (southern Hanoi) and Yen Vien (northern Hanoi). Tracks lead directly to container yards of Haiphong Port, but not to any ports or berths in HCMC. There is no scheduled freight train that crosses into the Chinese border or connects with

Chinese services. VNR has recently started transporting containers between Song Than and Giap Bat. However, since there are no facilities for cargo tracking between the different regions as yet, very few containers are transported by rail, either between Hanoi and Haiphong, or between Vietnam and China.

Airfreight

The volume of international and domestic airfreight in terms of tonnage peaked at the time of the Asian economic crisis in 1997, and has fluctuated thereafter. It is anticipated that the demand for international airfreight will recover with growing exports of high value commodities to and from ASEAN, and tuna and flowers to Japan. Despite these expectations, airfreight and handling facilities at the Tan Son Nhat airport of HCMC and the Noi Bai airport of Hanoi are not perceived to be adequate by foreign manufacturers and JV freight forwarders.

The warehouse of the Tan Son Nhat airport has cold storage facilities only for imported products but not for time-sensitive perishable exports such as fresh vegetables and flowers, and frozen seafood. Small and outdated X-ray machines for security checks of cargoes delay the process even further, and make the lead-time in the non-chilled storage longer. Noi Bai airport also has no cold or chilled storage facilities.

Bus Cargo Transport

Intercity public buses are commonly used for transportation of small and express cargo. Freight can be dropped off and picked up at intercity bus terminals- although door-to-door deliveries (called *Tranh*) can be obtained at additional cost. This service- widely used in the medium-distance stretches of Hanoi – Haiphong, and HCMC – Can Tho- is utilized by manufacturers as a domestic distribution channel for transporting small consignments to provincial cities.

Motorbike Cargo Transport

Motorbikes in Vietnam carry almost any product for distribution. Motorbikes with trailers (named *Xe Lo*), are often used in Mekong Delta, whereas, nationwide, the rear cargo space of motorbikes is a conventional means of freight transport for short distances.

4. LOGISTICS PATTERN AND COST OF TRADE COMMODITIES

4.1 Logistics Pattern and Cost by Commodity

Six commodity groups, namely – rice, vegetables, flowers, garments, footwear and electronics – were chosen for the study of logistics pattern and logistics cost analysis, based upon export values and their growing trends.

(1) Rice

Logistics Pattern

The Mekong Delta in the south and the Red River Delta in the north are the country's main rice producing areas. The major export markets are Indonesia, the Philippines, Middle East and Africa. Can Tho Province is one of the main rice cropping areas in the Mekong Delta, and Can Tho city serves as a rice collection center from the province. Rice exporting companies have processing factories that also serve as local warehouses. These factory-warehouses are owned by their subsidiaries, and are usually located along the Hau River with private wharfs. They employ four typical logistics patterns from warehouses to ports as shown in Table 4.1.

In 2001, the factory warehouses exported about three times as much rice via HCMC than via Can Tho. Since their trade contracts are on FOB terms, the responsibility of the transporter is terminated as soon as the rice is loaded on-board of oceangoing vessels at the port of embarkation. Their in-house transport units were transporting rice in their own barges and trucks in the past, but of late transport is being contracted-out to local freight forwarders.

Table 4.1: Typical Logistics Pattern for Rice Export from Can Tho in 2001

Pattern	Transport mode from warehouse to port	Port	Buyer	Share
1	Barge	HCMC	Overseas importer	40%
2	Barge	HCMC	Vinafood 1, 2 or domestic exporter	30%
3	Barge and truck	Can Tho	Overseas importer	25%
4	Barge and truck	n.a.	Other rice exporting company	5%

Source: Interviews with rice export companies in Can Tho

Logistics Cost

Typically companies export five percent broken rice at the cost of US \$191/t from their warehouses and transport it to ports in HCMC at an additional cost of about US\$10/t (Table 4.2). Total cost including transport cost totals to about US \$201/t in HCMC. Logistics accounts for about 5 percent of the cost. But with the downward trend of international rice prices- at times below the FOB HCMC price- these companies can costs by US \$3/t by exporting from ports in Can Tho (Table 4.3).

At the start of the logistics flow, paddy is collected from farmers or cooperatives and stored in villages. The paddy is then transported to nearby warehouses, which purchase it either directly or through registered brokers. This movement entails implicit logistics cost that is absorbed by the farmers or their cooperatives. This is because it is either the farmers or the cooperatives who undertake the responsibility for transporting either through their own small barges or trucks and this component of transport cost is not separately reflected in the total cost.

Table 4.2: Breakdown of Logistics Cost for Rice Export

		Cost in US\$ per ton	Share of total domestic cost
Production in Can Tho	Milled rice	\$165.0	82.1%
	VAT	\$3.30	1.6%
	Buying	\$1.98	1.0%
	Polishing etc	\$20.35	10.1%
	Sub total	\$190.65	94.9%
Logistics from Can Tho to HCMC	Bagging	\$2.64	1.3%
	Loading at warehouse	\$0.46	0.2%
	Transport from warehouse to port	\$2.77	1.4%
	Stevedoring	\$2.11	1.1%
	Interest during transport	\$0.99	0.5%
	Export administration	\$1.32	0.7%
	Sub total	\$10.30	5.1%
Total cost		\$200.95	100.0%

Note: Paddy rice prices are about U\$100/ton but each ton only produces about 0.7 ton of milled rice and polishing reduces this even further. So the cost of a ton of milled rice is estimated at U\$165.

Table 4.3: Savings by Using Ports in Can Tho

Unit: US\$/t

Variable logistics cost item	Port of embarkation	
	HCM	Can Tho
Transport from warehouse to port	\$2.77	\$0.66
Interest during transport	\$0.99	negligible
Total	\$3.76	\$0.66
Saving	\$3.10	

Note: Cost to port varies by the location of warehouse.

Data: Interviews with rice exporting companies in Can Tho

Data: Rice export companies in Can Tho

(2) Vegetables

Logistics Pattern

Vegetables and fruit exports from Vietnam have had the highest growth rate in value terms in recent times. The major markets for vegetables from Vietnam are China, Taiwan, Japan and the U.S. Quality vegetables are harvested in the Central Highland, where the temperature is

relatively cool and stable through the year. Export companies procure vegetables from three sources - their own farmlands, contracted farmers' cooperatives, and local markets. Products are washed, blanched, frozen, then packaged and stored in warehouses in their respective province.

Refrigerated container trailers from HCMC pick the packaged vegetables before noon every day. This reaches HCMC in the evening. The container trailers are required to leave HCMC by 4 a.m. to avoid the inner city truck ban and for maintaining coolness in case of accidental suspension of on-truck refrigeration generators. Containers are unloaded at the container yard (CY) of the port or sometimes at the container freight station (CFS) of the freight forwarder, and then loaded onto a containership at the port. The packaging companies were transporting the products in their non-refrigerated trucks, but since 1999 the packing companies follow the practice of contracting the transport operations to JV and local freight forwarders due to the requirement of quality conscious buyers- mostly Japanese companies based in HCMC- to employ the services of specific JV freight forwarder. Their trade contracts are on FOB basis.

Logistics Cost

For those vegetable export companies that produce and export multiple products, FOB prices in HCMC per TEU or FEU vary by product. However, based on their annual sales and the number of reefer containers used, the FOB price in HCMC seems to average about US\$12,000/FEU. Local freight forwarders charge around US\$363/FEU, whereas JV freight forwarders charge around US\$396/FEU to move a reefer container from the warehouse to the CY, inclusive of customs and other clearance charges. To ship a reefer container to the port of disembarkation, buyers typically pay at CY-CY basis US\$1,500 to US\$1,600/FEU for Singapore and Kaoshiung and US\$2,700/FEU for Tokyo or Yokohama.

Table 4.4: Logistics Cost for Vegetable Export (Broccoli)

Unit: US\$/FEU

		Freight forwarder	
		Local	JV
FOB HCMC		\$12,000	\$12,000
Logistics cost from warehouse to CY	Cost	\$363	\$396
	Cost/FOB HCMC	3.0%	3.3%

Note: Logistics cost includes C&Q clearance

Data: Vegetable export companies in Da Lat

(3) Flowers

Logistics Pattern

Flowers are an emerging export commodity. Quality flowers are produced in the Central Highland for climatic conditions. The export markets are Japan, Australia and Singapore. Maximizing the value of flower exports- a time sensitive commodity- depends on reliable logistics. Since they must be kept fresh until they reach their final customers, so the quality management of the whole logistics chain from pre- and post-harvest stock control, storage, processing, packaging, labeling, to delivery becomes vital.

Upon receipt of orders, the growers process and wrap flowers, pack them in corrugated cardboard boxes and labeled with barcode. Label information includes besides the wholesaler's

particulars in the port of destination- the particulars of the wholesaler's final customers, typically specific flower shops in the destination country. Responding to the different needs of each type of flowers and wholesalers in different countries is a demanding task. The fact that Vietnam has competed successfully on these terms with other countries is indicative of the progress the country has made in providing logistics services.

The entire delivery process depends on outside service providers. Flower boxes are chilled in the cold storage of the processing factory, while waiting for the arrival of cooled trucks that come from HCMC every evening. The cooled trucks, with temperature recorders, load the flower boxes, and leave for HCMC between 6 to 8 p.m., to arrive at the wholesale center in HCMC by 3 a.m., early next morning. Flower boxes are stored and kept chilled until they can be moved to Tan Son Nhat airport. Owner-operated trucks of five to eight tons gvw operate on long-term, comprehensive contracts with JV freight forwarders, the contracts containing severe penalty and generous bonus clauses based on performance-indicators. If a truck fails to reach the wholesale center in HCMC by 3 a.m., or if the temperature recorder doesn't prove the coolness during the transportation, the freight forwarder is penalized by reduction in the payment due. The export trade contracts are on Cost and Freight (CFR) basis, which enable the forwarders to negotiate and arrange the airfreight with airlines.

Logistics Cost

The proportion of overland transport cost to annual turnover was 3.25 percent in 2001. This includes distribution cost to the domestic market. Airfreight costs to Singapore are 24 percent of the value, and higher for Tokyo or Sydney. The number of flights between HCMC and Tokyo, their largest market, has increased since the summer of 2002.

(4) Garments

Logistics Pattern

Garments and textiles are Vietnam's second largest export by value- with the major export markets being the EU, other European countries, Japan and the U.S. Textile export companies are generally located in and around Hanoi, Da Nang and HCMC. Since the garment export business works under the CMT scheme- under which imported inputs are assembled domestically- and final garment exports sold on a CFR or FOB basis. This scheme generates a continuous need for roundtrip cargo movement between the port and the factory.

Although the interviewed garment export companies interviewed have several factories in the north (many of them catering to domestic consumption), export-oriented garment enterprises are mainly concentrated in and around Hanoi. The companies arrange to pick the imported inputs- containerized cargo of cotton fabrics, polyester fiber, zippers and buttons- in Haiphong. These are transported to the factories. The finished products are re-stuffed into containers for transport to the port container yard (CY). As far as the land transport is concerned, the pattern is merely a roundtrip between two points, (the port and the factory).

While the manufacturers usually do not outsource the customs and quarantine (C&Q) clearance- as members of VINATEX, they do use its member freight forwarding company for the land

transport shuttle. VINATEX has two freight forwarding companies primarily commissioned to meet the transport needs of its member companies. The general corporation identifies the following advantages of using in-house freight forwarding : cost effectiveness, achieving speedy and timely transport and ensuring safe delivery.

Logistics Cost

Although the value of container's contents varies depending on the nature of the goods, the transport cost per container is largely independent of the contents. The logistics cost from the factory to overseas ports usually ranges from 1 to 10 percent. Transporting input materials imported under CIF terms from Haiphong to factories costs nearly the same as the overland transport of the exported product, each being in the range of 1 to 10 percent of the product value. Aggregating data from its member companies, VINATEX sees the split of cost between material, manufacturing and logistics as 55-60, 25-30 and 5 percent, respectively, while the remaining percentage is for miscellaneous expenses and investment.

Table 4.5: Logistics Cost for Garment Export (Select Commodities)

Unit : US\$/TEU

			Commodity			
			Towels	T shirts	Pol o shirts	Sportswears
CFR Overseas			\$19,000	\$37,500	\$41,250	\$80,000
Overland cost from warehouse to Hiphong CY	(A)	Cost	\$112	\$112	\$112	\$112
		Cost/CFR Overseas	0.6%	0.3%	0.3%	0.1%
	(B)	Cost	\$96	\$96	\$96	\$96
		Cost/CFR Overseas	0.5%	0.3%	0.2%	0.1%
Shipping cost from Hiphong CY to overseas CY	Japan	Cost	\$600	\$600	\$600	\$600
		Cost/CFR Overseas	3.2%	1.6%	1.5%	0.8%
	EU	Cost	\$1,700	\$1,700	\$1,700	\$1,700
		Cost/CFR Overseas	8.9%	4.5%	4.1%	2.1%
Logistics cost from warehouse to overseas CY (A + shipping)	Japan	Cost	\$712	\$712	\$712	\$712
		Cost/CFR Overseas	3.7%	1.9%	1.7%	0.9%
	EU	Cost	\$1,812	\$1,812	\$1,812	\$1,812
		Cost/CFR Overseas	9.5%	4.8%	4.4%	2.3%

Note: Overland transport cost (A) includes C&Q clearance while (B) excludes it

Data: Garment export companies in Hanoi

(5) Footwear

Logistics Pattern

Footwear industry has also benefited from rapid export growth mainly due to FDI from American and European footwear manufacturers. The main export market for Vietnamese footwear is the EU with nearly 90 percent of the country's footwear- followed by the U.S. and Japan.

The logistics pattern for the footwear industry as in the case of the garment industry, involves import of materials and parts through CIF ports from overseas and exporting finished products to overseas markets on a FOB basis. LEAPRODEXIM, a corporation, has more than 10 factories managed by its member companies. Many of the factories are located in HCMC and Hanoi. The footwear export companies interviewed for this study were located in Hanoi.

Containers carrying half finished materials such as tanned leather and fabric, buttons, and accessories etc- from Taiwan, Korea, Hong Kong and China- under CIF terms arrive at Haiphong CY, from where they are moved to the factories. The finished products are sent back to Haiphong CY for export. Overland movement of goods is contracted to local freight forwarders.

Logistics Cost

The logistics cost incurred by overland transport cost of procuring imported materials is lower than the overland transport cost of exporting the bulkier finished product. The total overland transport cost may be less than 1 percent of the logistics cost, while the proportion of the grand total logistics cost (Overseas CY – Haiphong CY – factory – Haiphong CY – Overseas CY) may aggregate around 10 percent of the whole production cost.

Table 4.6: Logistics Cost for Footwear Export (Leather Shoes)

Unit : US\$/FEU

			Leather shoes	
			Low quality	High quality
FOB Haiphong			\$35,000	\$75,000
Overland cost from warehouse to Haiphong CY	(A)	Cost	\$170	\$170
		Cost/FOB Haiphong	0.5%	0.2%
	(B)	Cost	\$150	\$150
		Cost/FOB Haiphong	0.4%	0.2%

Note: Overland cost (A) includes C&Q clearance while (B) excludes it
Data: Footwear export companies in Hanoi

(6) Electronics

Logistics Pattern

Electronics export in Vietnam received a stimulus in 1997 by FDI from Japan and Korea. Major export goods are electronic components and televisions. Electronic components are produced by foreign and local manufacturers are exported to other ASEAN countries for further assembly operations. Televisions are produced mostly by foreign manufacturers and some are exported to the Middle East and Africa.

Electronics export companies interviewed for the study are located in HCMC. Containers filled with primary parts imported from other ASEAN countries, arrive in HCMC from where they are transported to the factories. The primary parts are assembled into secondary finished products at factories, and sent to the CY or ICD by container trailers in case of FCL or to the CFS by trucks in case of LCL. The container trailers are generally contracted out, but LCL cargo is moved to the CFS or to the domestic sales channel by a transport division equipped with several trucks. Imports are under CIF terms while exports are on FOB terms. Majority of electronic products are exported, while majority of televisions are sold in the domestic market.

Import licenses impose heavy logistics burden on non-EPZ status electronics makers, which assemble components into finished products. The licenses allow for a certain number of kits,

which then specify the components in each kit. This system does not allow manufacturers to import certain types and number of parts directly from several ASEAN countries, because of the difficulty in documenting, for GDS, the type and number of components imported at different times for the manufacture of any single product. Instead, they get the necessary parts from factories in ASEAN at their IPO in Singapore, and then sort and pack them into a box called kit, which contains the exact type and number of components required for assembling a product.

Logistics Cost

Electronics companies interviewed are located in HCMC, hence the overland transport cost from the factory to the port, costs around US\$20/TEU per single trip, as shown in Table 4.7. Import of 'kits', on the other hand, causes unnecessary logistics such as longer shipping route via Singapore, unloading and loading in Singapore Port, transporting between Singapore Port and IPO, and packing operation in IPO etc. The "by-kit system" increases the logistics cost by 20 to 30 percent more than the direct import from ASEAN countries, and eventually pushes up the cost of imported components i.e. CIF HCMC, 50 to 60 percent higher as shown in Table 4.8.

Table 4.7: Logistics Cost for Electronics Export (14 inch TV Product)

Unit: US\$/TEU

		Freight forwarder	
		Non overnight	Overnight
FOB HCMC		\$60,000	\$60,000
Logistics cost	Cost	\$20	\$27
from warehouse to CY	Cost/FOB HCMC	0.03%	0.05%

Note: Logistics cost includes C&Q clearance
Data: Electronics companies in HCMC

Table 4.8: Incremental Cost of By-Kit System for Parts Import (14 inch TV Kit)

Unit: US\$/TEU

Cost item	Route from parts factory in ASEAN	
	HCMC direct	Via Singapore IPO
CIF HCMC	\$22,500	\$32,500
Import tariff (30%)	\$6,750	\$9,750
Total	\$29,250	\$42,250
Cost of by-kit system	\$13,000	
Cost of by-kit system/CIF HCMC direct	57.8%	

Data: Electronics companies in HCMC

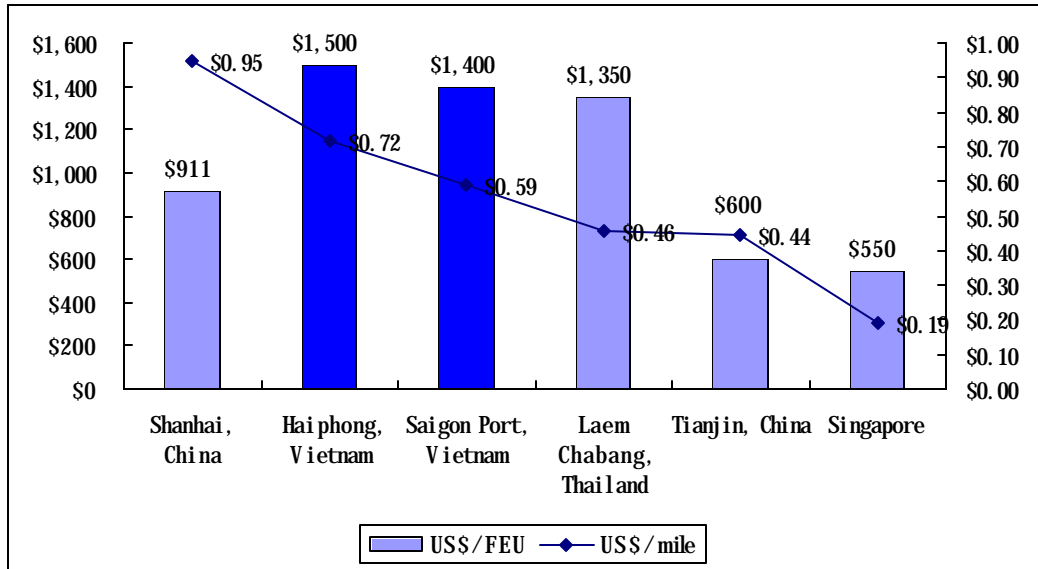
4.3 International Logistics Cost Comparison

(1) Port Tariff

The international comparison of tariffs, conducted by UNESCAP reveals that tariffs at the Saigon Port are moderate in comparison with other feeder ports in ASEAN countries including China (Figure 4.1). Port tariff include the charges and dues (including navigation, berthage,

wharfage and stevedoring) payable by a 1,100 TEU containership. The same tariff structure applies to all Vietnamese ports.

Figure 4.1: Comparison of Port Tariffs in Southeast and Northeast Asia



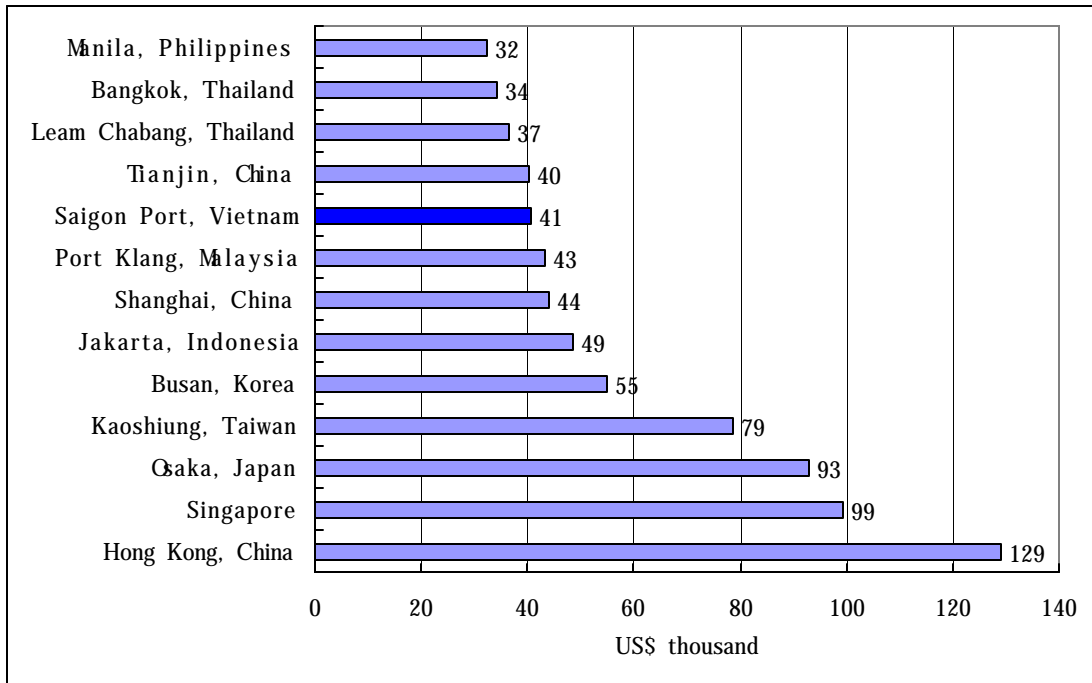
Note: Data collected in December 2000. Only Shanghai's rate includes C&Q clearance.
 Data: JETRO, "Comparison of Investment Costs in Asian Major Cities," 2001

(1) Ocean Shipping Cost

Outbound Container Rate for Export

Ocean shipping costs of containers from Vietnam are more expensive when compared to other major ports in Asia. Outbound container rates from Haiphong and HCMC to Yokohama Port, Japan, fall into the highest category compared with other Asian ports in terms of the rates per FEU and per nautical mile, as shown in Figure 4.2. Export companies in Vietnam, therefore, pay extra costs for want of scale economies.

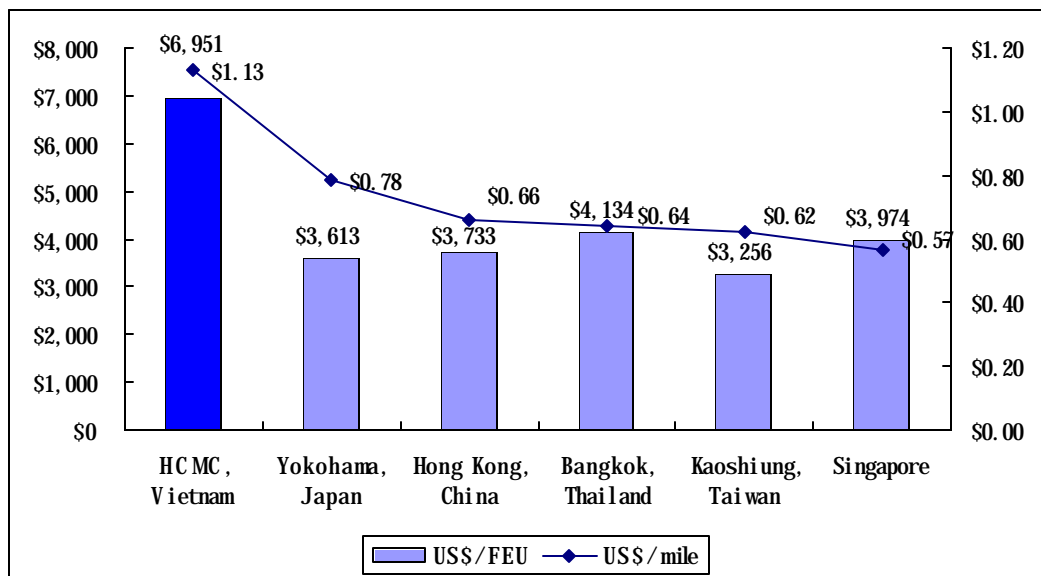
Figure 4.2: Comparison of Container Rates from Asian Ports to Yokohama, Japan



Inbound Container Rates for Imports

Inbound container rates from Oakland, California, U.S., to HCMC which are much higher than from other Asian ports adds extra cost to the transoceanic shipment (Figure 4.3).

Figure 4.3: Comparison of Container Rates from Oakland, Calif., to Asian Ports



Note: Data collected in October 2001. Rates of reefer container for grapes. Data: USDA "Ocean Rate Bulletin" 2001.

(4) Road Freight Cost

Almost all the export-oriented manufacturers interviewed claimed that Vietnam's road freight costs were reasonable and lower the road freight cost from many other regional countries. This is largely due to the competition within the freight forwarding industry. This view was also endorsed by VITRANSS. Table 4.9 provides the comparison of Vietnam's road freight rates with that of Thailand.³

Table 4.9: Comparison of Road Freight Rates

Unit : US\$/FEU					
Country	From	To (CY)	Distance	Rate	US\$/km
Vietnam	Hanoi	Hai phong	109km	\$150	\$1.38
	Dai Loc	Da Nang	30km	\$100	\$3.33
	HCMC	HCMC	5km	\$36	\$7.14
Thailand	Amata Nakhon	Laem Chabang	46km	\$103	\$2.24

Note1: Rate quoted by local freight forwarders. C&Q clearance excluded.

Note2: Intra-HCMC is too short to compare, but listed just for reference.

Data: Vietnam from Interviews, Thailand from JETRO report

(5) Railway Freight Cost

VNR's pricing of railway freight is reasonable compared to railway operators in China and Thailand, who offer rates of around US\$0.35/km for 20ft. container freight.

Table 4.10: Comparison of Railway Container Rates

Unit : US\$/TEU					
Country	From	To	Distance	Rate	US\$/km
Vietnam	Hanoi	Hai Phong Port	96km	\$37	\$0.39
	HCMC	Hanoi	1721km	\$383	\$0.22
Thailand	Bangkok	Eastern Seaboard	202km	\$73	\$0.36
	Chiang Mai	Bangkok	744km	\$226	\$0.30
China	Kunming	Huangpu, Canton	1500km	\$465	\$0.31
	Chengdu	Shanghai	1375km	\$540	\$0.39
	Wuhan	Shenzhen, Canton	890km	\$350	\$0.39
	Harbin	Dalian	720km	\$225	\$0.31

Note1: Hanoi; Giap Bat or Yen Vien, HCMC; Song Than

Note2: Thai rate is for class three cargoes (electronics, timber etc.)

Data: VNR, State Railway of Thailand, China Railway Container Transport Center

³ Intra-HCMC transport seems to be relatively expensive per km. First, road freight rate usually tends to be expensive per km in very short distance, as it anyways requires vaning or devanning operation at least either at origin or destination. Second, HCMC truck ban may make occupancy time of container per hire longer and push up the cost.

5. LOGISTICS ISSUES

5.1. Freight Forwarding Issues

Low-cost/ Unreliable Service

Low-cost but unreliable services provided by the majority of local freight forwarders are generally utilized by SOES, while the foreign manufacturers ship with JV companies. The freight forwarding businesses in Vietnam has to focus on offering competition and improving the quality of services. Competition by further deregulation and promotion of IT usage, recommended in the next chapter, will facilitate the transformation of the logistics business.

Inner-city Truck Ban

Some large cities like Hanoi, HCMC and Vung Tau prohibit trucks to enter the inner city during daytime for alleviating traffic congestions and preventing accidents (In HCMC, for example, trucks in excess of 2 tons are not allowed to run in peak hours between 6 to 8 a.m., 11 a.m. to 1 p.m., and 4 to 7 p.m). However, major ports in HCMC are located inside or adjacent to the restricted zone and many of the manufacturers are also located inside the zone. The inner-city traffic restriction results in longer lead and travel time as trucks have to wait outside the zone boundary for entering the inner city. It also leads to lower turnaround of vehicles as trucks can only complete one to three roundtrips per day, though consignors often need a higher frequency. In order to avoid inner-city restriction, goods have to be shipped in containers by barges to ICDs located outside the zone, and then moved by smaller trucks. Inner city restriction, therefore, increases logistics costs through longer lead and travel time, greater travel distance, lower turnaround of vehicles, and less economies of scale. This cost is reflected in relatively high intra-HCMC transport rate. Long-term solutions to these problems require relocation of port facilities and manufacturing units.

In Hanoi, which faces similar inner city traffic constraints, trucks in excess of 2 tons are not allowed to access the inner city from 6 a.m. to 6 p.m. A container off-loaded at Haiphong Port in the morning can enter inner Hanoi only after 6 p.m., after factory hours. Consequently, the empty container must wait until 6 p.m. the following day to depart for Haiphong. This constraint lowers the turnaround of the container and hence increases cost. Hanoi's ICD Gia Lam, located outside the restriction zone, is underused unlike ICDs in HCMC, mainly because it does not provide a solution to avoid the ban for many manufacturers located within the inner city. However, containers to manufacturers outside the zone can be delivered directly. This situation will change, once the volume of LCL cargo increases, and the local freight forwarders begin to provide a consolidated service.

Overweight and Oversize Permission

Circular No. 4211/2001QD-BGTVT dated 10th December 2001, followed by its relevant guidance Circular No. 4597/2001/QD-BGTVT dated 28th December 2001, has renewed limitations of vehicle size, gross weight and axle weight. Maximum gross weight is set as 30 ton

on national highways managed by VRA, with some sectional exceptions of 20 or 25 ton, and maximum clearance is set as 4.0 meter. These limitations of gross weight and axle weight are relatively low compared with international limits. A 40ft. container, for example, can weigh up to 44 ton, and its clearance, on trailer, can reach up to 4.2 meter. Circular No. 21/2001/TT-BGTVT dated 10th December 2001 requires truckers, who operate oversized and/or heavier vehicles on national highways, to seek permission from VRA on a route-by-route and origin-destination basis, and to renew it every three months. The Circular also stipulates that provincial and city peoples' committees may set out local limitations for accessing the road network managed by them, and may request such truck operators to apply for local permissions as well. Consequently freight forwarders need to acquire permissions from VRA and from virtually every province and city on each possible route they may want to operate on. Moreover, limitations and validation periods of permission differ by province and city, and some cities issue permission per entry only. As a result, freight forwarders need to go through several administrative procedures to comply with these regulations. A solution to resolve this issue is to allow 40ft. container trailers to operate in some key logistics corridor without permissions, provided the road safety is not endangered. Another solution may be to promote rail transport through enhanced multimodal arrangements as recommended in the next chapter.

5.2. Non Tariff Barriers in Logistics Context

Vietnamese Majority Requirements

Market entry to logistics industry in Vietnam was relatively liberal. Foreign companies could get licenses to set up logistics businesses and foreign investors who have complied with the law on foreign investment could conduct full logistics service. The ease of market entry for foreign investors narrowed since 2001 (Decree No. 10/2001/ND-CP, March 2001). This decree stipulated that only enterprises with 100 percent domestic investment capital can run a sea-ship agency service (shipping agent) and sea towage service. Businesses with more than 51 percent Vietnamese investment can enter other sectors such as sea-transport service agency (forwarding agent), stevedoring (landing agent) and maritime brokerage. JVs established before the decree became effective were however unaffected.

Furthermore, Circular No. 1011/2001/CP-QHQT, dated 6th November 2001, stipulated that airfreight service agencies (forwarding agents) must have more than 51 percent Vietnamese capital. These regulations will not strengthen the competitiveness of logistics industry in the long run, and need to be reexamined to make it pro-competitive.

Import License

The import license requirement- designed to encourage manufacturers to use local components- imposes heavy logistics cost burden on manufactures requiring assembling operations. On the other hand, tariff on finished products imported from ASEAN is decreasing in accordance with the AFTA agreement. Tariff on parts imported by ASEAN is higher than the tariff on finished products. The high cost of importing components by the "kit system", stringent requirements for import license, and inconsistent tariff are disincentives to expand operations in Vietnam, which may in fact encourage import of finished products directly from their factories in other ASEAN

countries, considering that foreign manufacturers usually have larger scale operations in ASEAN. The BTA with U.S. provides for elimination of all discretionary import licensing in accordance with the WTO agreement, but no deadline has been set as yet.

Custom Clearance

Most businesspersons interviewed agree that custom operations have improved considerably over the years- due to the new Custom Law of October 2001. Custom clearance which required more than a day in the past, can now be completed within a few hours. Current efforts by GDC to modify custom valuation to transaction values in compliance with the WCO rule will also simplify the procedure and reduce lead-times. As both the volume of cargo throughput and the variety of commodities increase, sophistication of custom administration with IT will expedite the process and benefit the logistics industry. Some claim that corruption still poses a problem, while others argue that corruption is much less if procedures have been complied with. By December 2003, Vietnam is expected to comply with WTO rules of using transaction values as the basis for determining the value of imported goods and duty assessment purposes.

5.3. Infrastructure Issues in Logistics Context

(1) Port

Insufficient Container Handling Capacity

Although the container cargo throughput is rapidly increasing and will continue to grow, many of the major ports remain under equipped with modern container handling facilities such as quayside gantry crane. Even if such facilities were installed, container handling does not involve performance-oriented operational plans such as storage and bay plans. International norm for port operators is to lift approximately 30 containers per hour, but in Vietnam this norm is maintained only by VICT - a business with Singaporean investment and Taiwanese management. Improvements in both container handling facilities and operations are required to cope with the fast growing container needs.

(2) Road

Insufficient Road Development and Maintenance

VITRASNSS has pointed out the insufficient road capacity, poor road maintenance, lack of road surface monitoring, weak enforcement of driving and vehicle regulations, less prioritized traffic safety etc. In addition, from the viewpoint of logistics industry, the physical standard of road design and construction needs to be modified to accommodate large vehicles carrying 40ft. container, so as to gain economies of scale and to help facilitate inter-modal cargo transfer between the containership, railway and the road transport.

(3) Railway

Underused Railways Capacity

VNR⁴ seems to have a market potential to mitigate container transport from road to rail in such sections as Haiphong/HCMC – Hanoi – China, judging by similar cases in Thailand and Malaysia. This is evidenced by rapidly increasing container carriage volume between HCMC and Hanoi. Cargo terminals in Vietnam, however, are not equipped with modern handling arms such as yard cranes and so forth, and cargo tracking is as yet unavailable. Container cargo from Vietnam to Kunming, inland China, is unavailable due to the size of tunnels in China.

(4) Inland Waterway

Insufficient Management

Insufficient dredging, lack of safety enforcement etc. make it difficult for container-ship operators on inland waterways to keep and shorten the scheduled service, critical to transshipping to and from oceangoing containerships.

(5) Airport

Insufficient Airfreight Facility

Airports in Hanoi and HCMC are not fully equipped with modern facilities like airfreight pallet rack, cold storage and high capacity X-ray machines. The lack of such facilities risks the deterioration and at times destruction of high value export commodities.

⁴ Subject to discussion with VNR in late April. Paragraph complemented thereafter.

6. POVERTY

6.1 Impacts of Past Reforms

The incidence of absolute poverty has declined in recent times due to the sustained growth noticed since the last decade. The initial policies for poverty reduction focused on provision of credit, health care, education, sports, and infrastructure development. The achievements of the early reforms under the “doi moi” policies were:

- A new land law granting peasants 20-year rights over the land distributed to them
- Dismantling of cooperatives
- Abolishing price controls for goods and services
- Elimination of production and consumption subsidies from the budget
- Simplification of the exchange rate together with revaluation
- Reduction in the fiscal deficit
- Reduction in subsidies to state owned enterprises

As a result of these reforms the GDP grew at an annual rate of 8.4% from 1992 to 1998. The agricultural sector grew at 4.5% whereas the industrial sector grew by 13%. The growth in employment came primarily from industry and services. Although the growth rate of employment was higher in rural areas than in the urban areas, the level of underemployment in the rural areas remained relatively high at 26%. Formal unemployment remained relatively low and in fact decreased from 3.7% to 2.2% but this decline refers primarily to urban wage jobs. During this period household incomes in rural area grew by 28% in constant value, with the most substantial growth occurring in the agriculture sector. The farmers benefited from a substantial increase in grain yields and also from diversification into livestock, commercial crops and fish farming.

Non-farm activities did not increase significantly (Table 6.1). Non-farm employment is important in rural areas not only because it diversifies sources of income and allows for faster income growth, but also because it creates a source of local credit, which allows additional investment and growth.

Poverty is measured in terms of food poverty line (2100 Kcal per capita daily intake) and total poverty line, which includes nonfood costs. Based on these two measures, the incidence of poverty declined by about 40% from 1993 to 1998 and by a further 13% through 2000. 17% of the households still live below the poverty line.

Table 6.1
Household Incomes in Rural Vietnam
Thousand 1998 Dong

	1993	1998	Increase
Agriculture	2867	4606	61%
Non-farm Enterprises	1443	1884	31%
Wage Income	1687	1685	0%
Other Income	1710	1663	-3%
Total	7707	9838	28%

Source : General Dept of Statistics

Both China and Vietnam have achieved impressive economic growth over the last 15 years. However, differences between the two provide some indication as to the areas in which Vietnam

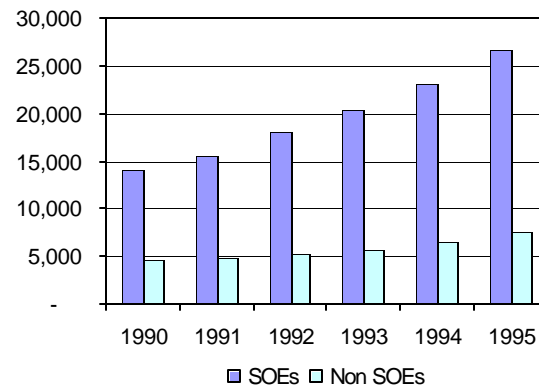
needs to focus its development efforts. Part of the difference is explained by the more difficult situation faced by Vietnam, which at the time of its reforms had negligible agricultural surpluses, low savings rates and a high reliance on foreign aid. China benefited from the pre-reform efforts by disbursing industrial production from urban to rural areas. This created an organizational capacity for what became the “Township and village enterprises”. In contrast, Vietnam had state trading monopolies on most goods, prior to “doi moi”.

The reforms in China led to a sharp reduction in the role of SOEs and a rapid growth in rural non-farm economic activity. Vietnam’s post-reform policies favored state-owned enterprises and the development of urban over rural areas. The SOE’s maintained their monopolies and preferential access to formal credit. State monopolies continued to supply agricultural imports and sell to certain export markets, thus denying the farmers a substantial portion of the gains from improvements in agricultural productivity. Farm households achieved greater autonomy over the agricultural cooperatives but the activities of the cooperatives continued to be subject to state control. Vietnam failed to achieve rapid growth in rural industrial activity due to lack of funds for investment. The state did not provide these funds, consequently the agricultural sector produced relatively small surpluses and the savings rate was low.

While the reforms diminished the role of state in agricultural activities, they had a major impact on the industrial sector. Although there has been a substantial increase in the number of private industrial enterprises, these tend to be small industries and household enterprises. The private sector accounts for about 80% of industrial employment. However, the SOEs are larger in scale and more capital-intensive. They have a higher output in terms of value. This is partly due to the petroleum industry. (Figure 6.1). More recently, SOEs have been declining in importance as FDI is directed more towards the private sector (Table 6.2)

Figure 6.1

Industrial Output of State and Non-State Sectors (1989 VND Dong)



Both China and Vietnam place restrictions on rural-to-urban migration. This policy aggravates the income disparity between the rural and urban areas. In Vietnam too, the rural-urban disparity has worsened as a result of declining rural industry. However, the predominance of small farms indicates that the intra-regional income disparity in rural areas is less than the inter-regional disparity. Since Vietnam remains far more dependent on agricultural than China, the rural-urban income disparity is consequently not as high.

Table 6.2

Industrial Output (billion VND)

	1992	1996	2001
State sector	77%	54%	41%
Non-State Sector	23%	30%	24%
Foreign Invested		17%	35%

The development of non-farm enterprises in the rural area depends on the availability of surplus investment funds and rural credit institutions that can allocate household savings to investments that bring higher returns - whether in agriculture or non-farm enterprises. Vietnam has not been very successful in developing formal rural credit markets with the result that there are credit shortages even for investments in agriculture. This is due not only to the low savings rate but also due to the slow growth in farm incomes, because the prices for agricultural goods have not risen significantly. The informal credit market, based on personal contacts and individual liability, is not conducive to the development of small and medium-scale enterprises. Since Vietnam remains a labor-abundant and capital-scarce economy, the continuing diversion of funds to the capital-intensive SOEs hinders economic growth.

Beginning in 1992, Vietnam instituted Target Programs for Hunger Eradication and Poverty Reduction beginning with Ho Chi Minh City and extending to other provinces. In 1998 the government established a national program for the period 1998 – 2000, which included the following components:

- Allocation of agricultural and forest land to farmers
- Provision of credit to the poor
- Construction of rural infrastructure including roads, schools, health care centers, and water supply
- Agricultural services including supply of inputs and technology transfer
- Promotion of employment through training and provision of subsidized credits
- Rehabilitation and resettlement of nomadic ethnic people
- Re-greening of barren hills
- Education - both informal (outside of schools) and vocational to meet market requirements
- Health care to target specific diseases and local initiatives
- Social Security measures

However, the program has been criticized for the following reasons:

- Health services are too expensive and of poor quality,
- Educational services do not reach the poorest and the cost of school fees and books remains unaffordable for some students who eventually drop out from schools
- Outreach extension services to rural areas for agriculture, aquaculture and veterinary are limited due to resource constraints, and
- Funds for rural credit are limited and availability is highly restricted

The poorer farmers have little access to information, limited possibilities for shifting to non-farm employment, and limited skills. Nearly two-thirds of the poor live in the northeastern mountainous region, North Central Region, Central Highlands and Central Coastal Region. These regions are characterized by limited access to productive resources and services, underdeveloped infrastructure and difficult living conditions. Ethnic minority groups are 14% of the total population, but account for 29% of the poor.

The critical constraints on the growth of non-farm enterprises are cumbersome administrative procedures and shortages of capital. The important factors that will induce growth in the agricultural sector include full implementation of the land laws, improvements in rural credit, elimination of restrictions on access to inputs and the taxes on export of outputs, improvements in rural infrastructure (transport, supply of drinking water and sanitation, classrooms and health centers, and electrification), improved water management and better agricultural extension services.

There is increasing concern over Vietnam's financial and labor markets. The banking sector is dominated by a few poorly managed banks and much of the outstanding credit is to state-owned enterprises. As a result, a large amount of credit is blocked in non-performing loans.

The government has prepared a Comprehensive Poverty Reduction in Growth Strategy (CPRGS), which builds on the government's socio-economic development strategies and plans as well as specific sectoral development plans. It is an extremely broad-based effort, but lacks focus. The major elements address the overall economic development of the country and aim to achieve the following:

- Reorganize, renovate, and improve the efficiency of state-owned enterprises
- Reform the commercial banking system
- Reorganize and strengthen credit organizations
- Prepare for the AFTA and WTO trade liberalization requirements
- Expand social protection safety nets
- Reform the administrative apparatus and public finance

Despite improvements over the last decade, poverty remains widespread in the rural, mountainous and isolated areas where poor health, poor education, lack of water and sanitation and environmental problems make it difficult to escape poverty. Infrastructure to address poverty includes better distribution of electricity, small irrigation works, clean water, sanitation facilities, transport systems, and the development of grass-roots health-care systems. Among the specific goals are the provision, by 2005, of essential infrastructure to 80 % of the poor communes and access to the national transmission grid to 90% of the communes.

6.2 Distribution of Poverty

There are significant economic differences between the different regions of the country (Figure 6.3). The wealthiest area in terms of per capita income is the industrial center in the North East South, which includes Ho Chi Minh City. The Red and Mekong River Deltas are average in terms of wealth. The Red River Delta includes Hanoi and Haiphong and is more industrial than the Mekong River Delta, which includes Can Tho. The poorest areas are the North West and North Central Coast which have a per capita output equal to ¼ and ½ of the national average, respectively. Only 3 of the provinces are over 50% urbanized, while 37 of the provinces are less than 20% urban, with 10 of them less than 10% urbanized.

Table 6.3: Economic Performance of Regions within Vietnam

			\$ per Capital Gross Output		For.Inv.Sec. as % Industrial Output	Freight Transport Road or IWT Tons/Capita
	Population (million)	% Urban	Agriculture (94 prices)	Industry (94 prices)		
	2000	2000	1999	2000		
All Vietnam	77.7	24%	133	257	36%	1.32
North East South (NES)	12.1	52%	95	830	50%	2.13
Mekong River Delta (MRD)	16.4	18%	237	117	10%	1.13
Red River Delta (RRD)	17.0	20%	115	236	37%	1.62
Central Highlands (CH)	4.2	27%	201	46	9%	0.53
South Central Coast (SCC)	6.6	27%	90	148	13%	0.99
North East (NE)	9.0	18%	88	118	17%	0.90
North Central Coast (NCC)	10.1	13%	88	73	20%	1.25
North West (NW)	2.3	12%	84	24	5%	0.75

Eleven of the provinces had a total (agriculture + industry) output per capita over \$400, with 3 of them over \$1,000. Ho Chi Minh City and 3 of its suburbs and satellites make up the 4 highest provinces in output per capita, followed by Hanoi and Haiphong. It is also noteworthy that the foreign investment sector is especially concentrated in these 6 leading provinces. At the other end of the scale, there are 26 provinces with less than \$200 in output per capita, of which 12 are less than \$150. All these provinces are in three regions: North East, North Central Coast, and North West.

The agricultural output of 19 provinces exceeded \$150, ranging up to \$288 (Vin Long); these include all the 12 Mekong River Delta provinces, 2 from Central Highlands, 3 from North East South, and 2 from Red River Delta. There were 21 provinces with less than \$100 in agriculture output per capita, 8 of them within major urban areas – the weakest areas being North East, North Central Coast and North West.

Export output by region and province is not readily available but estimates of Gross Agriculture Output and of Industrial Gross Output are available by province, as is the amount of Industrial

Gross Output managed by the Foreign Investment Sector.* The data, converted to US \$ per capita provide a picture of the relative poverty of the various regions and provinces, and highlight areas of agricultural and industrial concentration – including production for export.

Exports amounted to almost half of the total agricultural and industrial gross output, increasing from an estimated 43% in 1999 to 47% in 2000. Agricultural exports amounted to about 30% of total agricultural gross output in 1999 and 2000, while industrial exports rose from 47% of total industrial gross output in 1999 to 56% in 2000. However, the share of total agriculture output in all industry dropped from 34% in 1999 to 30% in 2000. About 35% of total industrial output is managed by the foreign investment sector, half of this being export outputs.

A very rough measure of differences among the provinces in existing freight transport intensity, is the density of freight transport by road or inland waterway measured in tons per capita. Figures for 1999, indicate that the heaviest use of freight transport is in the NES and RRD industrial areas. The provinces with the highest freight densities are Ho Chi Minh City, Hanoi, and Danang. Because this measure excludes cargo managed or regulated by the central authorities – railroads and maritime transport and ports - Haiphong appears a relatively low freight density area..

In the agriculture sector, the Mekong River Delta provinces remained the largest producing region, with 38% of total output in both 1995 and 2000; the Central Highlands increased in importance, partly by increasing the volume of coffee produced. The North East South (the Ho Chi Minh City region) retained its lead in the industrial gross output with 49.4% of the total in 1995, which rose to 50.2% in 2000; however, the Red River Delta (Hanoi, Haiphong) was able to increase its share from 17.7% to 20.2%. In terms of industrial gross output managed by the foreign investment sector, its share of total industrial investment increased dramatically from 25.1% in 1995 to 35.5% in 2000; this was accompanied by an important shift: while the NES region more than doubled its foreign managed output in that period, the RRD region more than quadrupled its own foreign managed output – as a result the NES share of total foreign managed output fell from 80.8% in 1995 to 70.0% in 2000, while the RRD region's rose from 11.4% to 20.8%. Thus the main areas of agricultural and industrial concentration continue to grow with some growth dispersing into adjacent suburbs and satellites. Improvements in transport and logistics may be a key to widening the impact of future growth in exports

6.3 Poverty Reduction and Logistics

Poverty reduction can be addressed by stimulating economic growth and by improving services in the rural areas through improved logistics. Economic growth will come about not from an increase in volume of the existing trades but rather from a diversification of trades and a movement to higher value added. Logistics is defined broadly to include transport, storage,

* The data available by province is in constant 1994 prices and therefore changes from year to year reflect differences in the volume of output and not the effect of price changes; this may bias the agriculture data somewhat upward because of some recent price declines. The latest available year for Agriculture was 1999 and for Industry 2000, and these two have been combined in the hybrid total shown. These data were converted from dong to dollars at the 1994 exchange rate and then augmented by the US GDP deflator to 1999 and 2000 values. Source of the data is the Statistical Yearbook, 2000, published by the Vietnam General Statistical Office.

packaging, trade financing, trade facilitation, sales and after sales service, all areas that require great improvements.

The delivery of services to rural areas is almost entirely an exercise in logistics. Improvements in the delivery of health care, education and agricultural extension require not only upgrading of local skills and capacity but also mobilization of outside skills and resources. The latter require better access to telecommunications, including the Internet, and better transport infrastructure to extend the hinterland for mobile services

Even where these services require the development of physical infrastructure such as irrigation, water supply and sanitation, the efficient use and maintenance of this infrastructure requires information and, mobilization of external supporting resources. Effective after sales service is important for machinery and equipment introduced into the rural area and also for basic infrastructure. It is these logistic services that very often determine the sustainability of rural development.

There is an overlap between industrial and rural development, which is critical for effective economic development. The development of rural industries from medium to large scale can benefit by being located near the source of inputs. Hence, it is necessary to mobilize local sources of capital and to provide better access, not only to transport but also to telecommunications and electricity. The logistics currently available in rural areas are very basic and can only support household and small-scale enterprises.

7. GENERAL CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

Vietnam's considerable success in reducing poverty over the last decade and a half is attributed to three factors - a low starting point, government efforts to liberalize the economy and promote trade, and the distribution of wealth and public services which allowed all segments of society to benefit from economic growth. The next phase of development will be more difficult because of the growing disparities between a rural agricultural-based society and an urban industrial society and because of government resistance to completing the reforms begun in the late 1980's. Four areas need to be addressed:

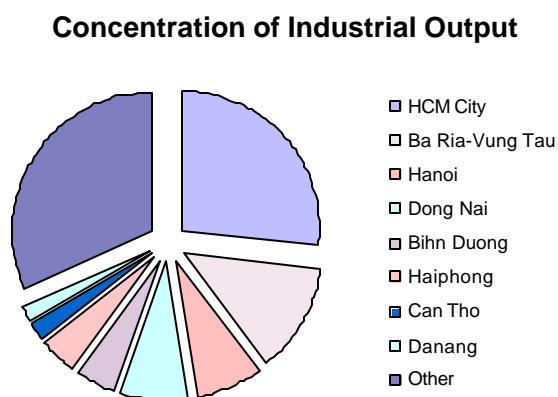
- 1) Concentration of industry in large urban enclaves (Figure 7.1), while rural enterprises have been limited in size and market;
- 2) The low level of production technology;
- 3) Increasing competition from China and other developing countries within the region;
- 4) The entwined problems of inefficient SOEs and a financially weak banking system constrain development. Although the government has developed plans for economic growth addressing these various issues, real improvements will require more focused and dramatic efforts than the government appears willing to take.

Two critical areas for sustainable economic growth are:

- To allow trade to grow through diversification, a shift towards higher value goods and increasing value added and
- To increase non-farm income by promoting industrial production in the rural area.

If the country is to move into new, higher value markets, it needs to tighten its supply chains. Imported inputs must move faster and at lower cost to the points of production. This implies reforms in customs tariffs and administrative procedures. Where possible, local production of inputs should be encouraged not through government protection or subsidy but through mobilization of private capital and foreign technology and development of inbound supply chains for local semi-manufactures. Outbound supply chains must be improved to allow for significant reduction in order cycle times and more reliable delivery times. Transport costs need to be reduced but the advantage of higher value goods is that they are less sensitive to the transport costs. There would need to be a dramatic improvement in the airfreight capacity and connectivity and in the speed

Figure 7.1



Source: General Dept of Statistics

and cost of shipment of ocean containers. The increase in volumes of these shipments will allow for economies of scale, which will bring down line-haul costs, but most of the savings can be realized through more efficient port and airport operations and facilities.

The development of small-to-medium scale enterprises that serve markets outside the rural area is an important component of any effort to improve the economic situation in the rural areas. Although there is considerable non-farm activity in the rural areas, these tend to be very small, labor-intensive activities, primarily household enterprises that provide relatively little returns to labor or capital and serve local demands. To be successful these industries require logistics that will allow them to compete in urban and international markets. It is not sufficient to rely on the comparative advantages associated with low-cost rural labor and proximity to agricultural and natural resource inputs. Access to markets is an essential component.

Access to the urban and foreign markets requires good transport infrastructure and sufficient traffic to allow for frequent transport services using larger vehicles. The existing road system acts as a constraint to efforts to develop rural industries of any size. In order to meet the demands of external markets, the managers of these industries need good communications, not just telephone service (POTS) but low-cost data communications. Since many of these industries are linked to agricultural production, efficient intermediate processing, storage, packaging, and inventory control are critical to insure that the production facilities are well utilized and that the markets can be supplied on a regular basis.⁵

The following recommendations address the improvements required to improve the formal logistics industry in Vietnam including transport and forwarding. In parallel with this, there is a need to improve the supply chain management practices of enterprises ranging from small to large and to extend the provision of logistics services to the rural area.

7.2. Further Deregulation and Standardization of Logistics Industry

(1) Free Market Entry in Logistics Business

Free Market Entry for Shipping Lines

Market entry to international shipping market in Vietnam has been regulated by the requirement of licenses such as investment license. This basically goes against the internationally accepted “principle of liberty of maritime transport” clause, under which a shipping line need only to register and report its business activity, and does not require a license for approval. Decree No. 57/2001/ND-CP, allowing only Vietnamese ships, even on overseas routes, has further narrowed the market entry. It may be aimed at achieving the IMO benchmark, which stipulates a 40% share for the domestic carrier. Presently, Vietnam has less than half of that. But there is a concern that such a protective policy will reduce competition in the shipping market and result in higher international shipping costs to and from Vietnam. It will eventually curtail the competitiveness of export-oriented manufactures based in Vietnam, especially considering the

⁵ Where the production is seasonal and the crops cannot be stored for a long time, it is possible to create a rotating production in which the factory produces different products during the year but uses the same production facilities for all products.

foreseeable drastic cut in costs by post-panamax large vessels, from which China, for example, is prepared to benefit. International experiences with the promotion of service industry indicate that a pro-competitive policy, not a protective one, contributes to strengthen the competitiveness of such an industry. Vietnam needs to avoid a downturn in its economic spiral. Market entry restrictions leads to fewer entries, lesser competition, fewer ship calls, higher rates etc. As VINAMARINE proposes, all foreign shipping lines should be able to operate to and from Vietnamese seaports only with registration, as long as they meet technical codes.

Free Market Entry for Freight Forwarders

Decree No. 10/2001/ND-CP and Circular No. 1011/2001/CP-QHQT do not allow JV with foreign majority to operate ocean freight and airfreight forwarding businesses. The former has further prohibited the market entry of foreign capital to shipping agent services as well. These restrictive regulations may benefit the existing foreign, JV and local freight forwarders and shipping agents, but will deprive Vietnam of the competitive freight forwarding market and will slow down the transformation of the logistics industry to a service-oriented one. The regulations will not provide any incentives to potential foreign investors to establish JVs and to deploy the latest logistics know-how such as 3PL.

The shipping and the freight forwarding businesses with foreign alliances are now providing seamless service solutions to consignors worldwide among sea, air and overland transports. Vietnam needs to lift such restrictions immediately or at least gradually, so as to further facilitate its integration into the global economy. Also, strengthening managerial skills in marketing, accounting and financing etc. and improving operational skills in vehicle maintenance, vehicle dispatching, turnaround control etc. make the local freight forwarders more competitive and hence develop them further.

Box 7.1: China's Commitment to Liberalization of Freight Forwarding Business

China had been noted for its protective regulations over freight forwarding business. For example, foreign logistics companies needed to form the JV with majority stake owned by Chinese partner to get a nationwide license; otherwise their business license was valid only for small area. But bilateral discussions with the EU, Japan and US towards WTO accession have lead to the policy shift to liberalization of the business. Among regulatory reforms committed by China upon WTO accession are:

- upon accession, allow to establish JVs for foreign forwarders with business experiences of more than three years in China,
- within a year, allow to establish freight forwarding company with foreign majority share even for nationwide license,
- within four years, allow to establish freight forwarding company owned 100 percent by foreign capitals for nationwide license, etc.

Source: Nittsu Research Center, Inc.

(2) Greater Participation of Private Sector in Infrastructure Service

The anticipated rapid growth of container cargo throughput in Vietnam will require efficient container handling operations at port, railway and truck terminals. The greater involvement of

private sector will bring in modern facilities, advance technology, and high managerial skills. The 1992 and 1996 Laws on Foreign Investment allow all BOT, BT, and BTO contracts by foreign investors, with no restriction on their participation in port businesses. The VICT in HCMC and the new berth by TRANSVINA in Haiphong are developed and operated by JVs. With the planned construction of deep-sea ports, a greater involvement of the private sector in development and/or operation of such ports must be facilitated. Existing port operators can increase their operational capacity by contracting out the container handling to outside service vendors.

(3) Modification to International Standard

Ratification of IMO's FAL Convention

The ratification and modification of the FAL Convention of IMO is recommended in order to streamline and simplify the documentation process. The eight documentation forms standardized by IMO are general declaration, cargo declaration, ship's store declaration, crew's effect declaration, crew list, passenger list, and documents required under Universal Postal Convention for Mail and Maritime Declaration of Health. Since the FAL Convention is already ratified by China, Singapore, Thailand etc., its ratification by Vietnam will make it easier for the authorities to compare and improve the legislative and administrative procedures. The modification to international standards will ensure open and easy access to businesses and hence stimulate the logistics industry of Vietnam.

Modification to Containerization of Overland Transport

Road and railway infrastructure in Vietnam, is not designed, built or maintained for container traffic, especially 40ft. containers, in terms of width, clearance, and gross and axle weight. According to the ISO code, a 40ft. container on trailer can reach 4.2 meter in clearance and 44 tons in weight. In Vietnam the maximum clearance is 4.0 meter and the gross weight limitation is 30 tons. But these limitations can be waived, through special permissions. MoTransport and/or VRA could identify and clarify portions of national highways suitable for 40ft. container trailers, and could then allow truckers to run those designated sections without permissions. This process can begin with rechecking of road inventory on some strategic logistics corridors such as Hanoi – Haiphong and HCMC – Vung Tau. As a long-term solution, it is also suggested to review the design and construction standards to accommodate 40ft. container transport needs, which at the same time will clear airfreight pallet as well. (Rail inventory is to be confirmed with VNR.)

7.3 Promotion of IT Usage in Logistics Chain

(1) EDI

The necessity of computerization as a management tool has been stressed by the JICA study on Port EDI and by the UNDP study on Customs EDI etc. VICT is the only port operator using the EDI system, on standalone basis, which processes automated container billing, automated inventory management (container yard operation), automated gate operation (truck arrival and departure check), automated vessel operation (container loading and unloading management), and CFS stock management. The EDI system, however, becomes more meaningful, if it is electronically linked with all the users engaged in logistics administration and business, e.g., port authority, port operators, customs authority, immigration, quarantine, shipping lines, shipping agents, freight forwarders, consignors etc. A number of ASEAN countries have made substantial efforts to build up an inter-ministry, public-private EDI network to share the logistics information and to improve the industry's operations.

As shown in Table 7.1, Vietnam is lagging behind in the use of Information technology. It needs to implement a system of 'single-window' or 'one-stop' facility for various documentation requirements. The private sector must take a leading role in developing and operating the EDI system, while the government has to play an important role as a coordinating facilitator. In Thailand, for example, the government has established the EDI council involving all the public and private stakeholders, as shown in Box 7.2.

Table 7.1: EDI and e-Commerce Applications in Southeast and Northeast Asia

	Port		Customs		All parties electronically linked	Electronic trade in transport services
	Port Operators MS	Traders can input data electronically (EDI)	Customs Department MS	Traders can input data electronically (EDI)		
Cambodia	×	×	×	×	×	×
Indonesia	?	?	?	?	×	×
Japan	?	?	?	?	×	×
Laos	-	-	×	×	×	×
Philippines	?	?	?	?	×	×
Korea	?	?	?	?	?	?
Singapore	?	?	?	?	?	?
Thailand	?	?	?	?	?	?
Vietnam	×	×	×	×	×	×

Note: ? Yes ? Being implemented × No

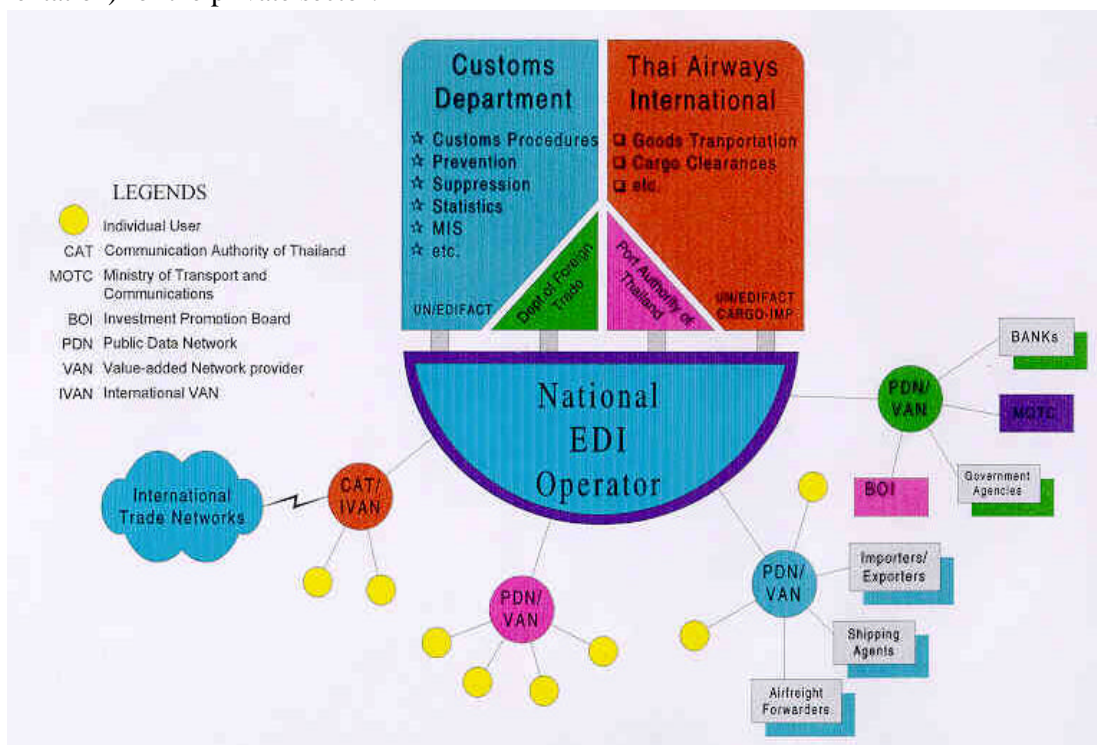
Source: UNESCAP, "Review of Transport in the ESCAP Region 1996-2001," 2002

(2) Intermodal Cargo Tracking

Cargo tracking is required by consignors to determine the time of arrival of their goods at any given destination, so that they can be fully prepared to assemble, process, distribute or sell it immediately after its arrival. As shown in Figure 7.2, like EDI, cargo tracking also necessitates a common platform to share the information among manufacturers, freight forwarders, port operators, shipping lines, shipping agents, wholesalers, retailers etc. Dissemination of Internet, availability of less expensive GPS, and deployment of GIS make it easier to establish intermodal cargo tracking. Enhancing virtual visibility of cargo around the world is the logistics industry's emerging agenda, and Vietnam must be integrated into this information chain.

Box 7.2: Thailand EDI Council

Thailand EDI Council, TEDIC, was established in 1993 as a subcommittee of National Information Technology Committee under MOSTE. TEDIC is mandated to act as an umbrella organization coordinating and facilitating the necessary steps towards deploying the nation's EDI system. TEDIC composes of: ministries/departments of transport, commerce, foreign trade, export promotion, customs etc.; operators of airways, ports and telecom; business associations of industry, commerce, banking etc. In line with TEDIC's effort, the customs department has adopted UN/EDIFACT, and Thailand International Freight Forwarders Association has established the EDI service company acting as the nation's leading EDI network hub for the government and as the one-stop agency (single window to the various documentation) for the private sector.



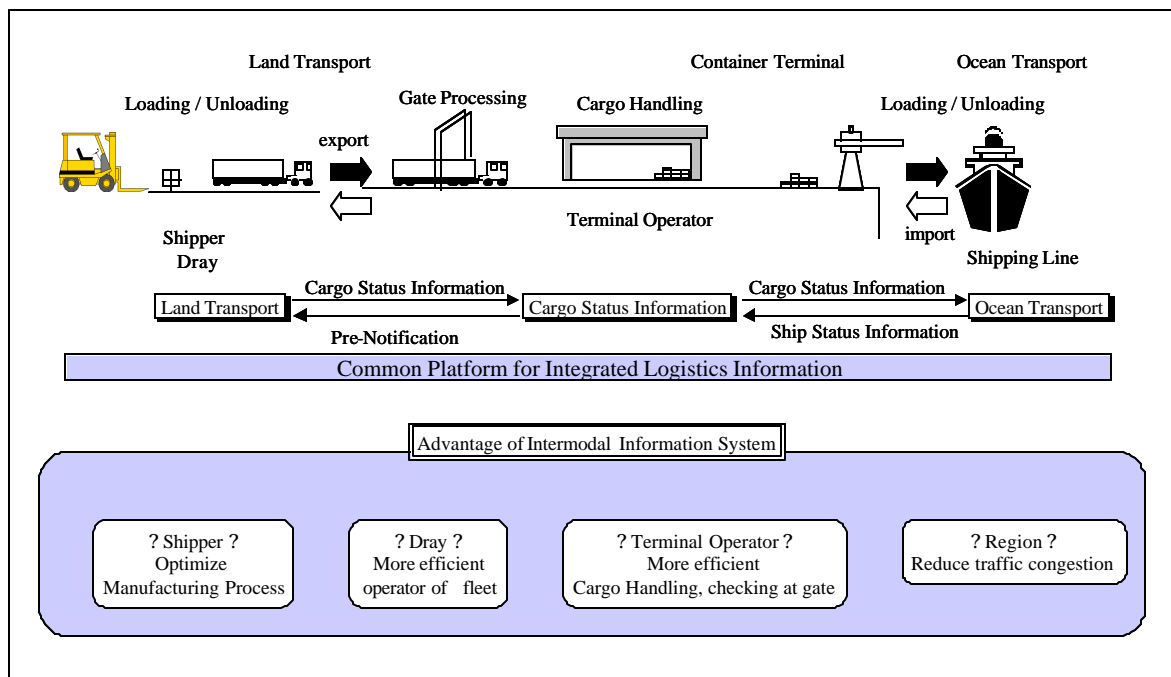
Source: Thailand EDI Council

Box 7.3: Logistics Information System in China

Cargo tracking has been available in China since early 2002. The system integrates a number of advanced technologies such as GPS, GIS, GSM, Internet etc., and is designed to locate the truck cargoes anywhere and anytime. Truck drivers, freight forwarders, consignors can share the information on a common platform. In future, collected data will be used to analyze traffic accident, traffic jam, travel time, drivers' and forwarders' performance and to provide solutions to the industry. The system is developed and operated by a JV system integrator, and is supported by the government's emphasis in 2001 that "the country should upgrade the logistics industry by using IT solutions."

Source: ChinaNet

Figure 7.2: Concept of Intermodal Cargo Tracking



Source: Nomura Research Institute, Ltd.

7.4. Facilitation of Logistics Infrastructure for Smoother Logistics Flow

(1) Relocation of Port and Industrial Functions

The country's two economic centers, Hanoi and HCMC, have implemented the inner-city truck ban during daytime, making turnaround of truck and containers slower and logistics cost higher. The rapid urbanization of these cities will worsen the traffic problems. A realistic policy option would be to relocate major port functions and industrial facilities. It would necessitate comprehensive, multi-sector planning and investment, ranging from port, road, railway, water, sewage, electricity to industrial parks. Vietnamese deep-sea ports are already under construction in the north and are under consideration in the south. The best areas to relocate to, especially for

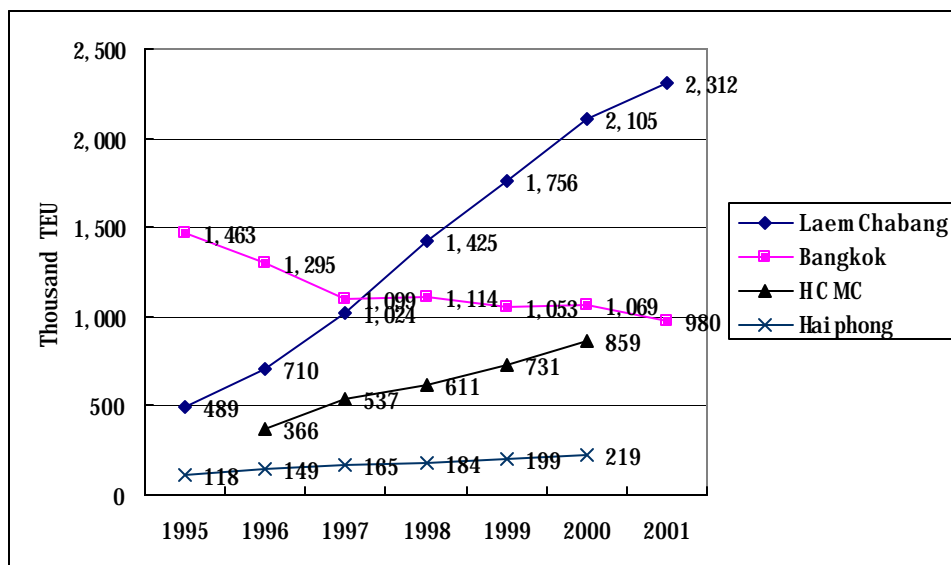
manufacturers with high transport demand, would be alongside highways, and railways that connect to the port. Better infrastructure facilities and unlimited access to large size vehicles like 40ft. container trailer, encourage manufacturers to relocate to the key logistics corridors. The role of government is to identify promising logistics corridors, and to gather information and integrate planning and investment of each sub-sector into a logistics corridor development strategy. In this respect, there are lessons to be learnt from the experience of neighboring countries. The two major seaports of Bangkok and Shanghai, have suffered from narrow yard, shallow draft and long navigation to and from the ocean as in Haiphong and HCMC. Bangkok's experiences with relocation of main port function to the new deep-sea container port 110km outside the city in parallel with developments of expressways, railways and industrial facilities must have valuable implications for Vietnam, as briefly explained in Box 7.4. Chinese MoTransport was authorized to develop the new deep-sea container port 120km outside Shanghai in its 15-year port development policy published in 2001, which will be operational by 2005.

Box 7.4: Thai Experiences with Removing Port and Industrial Functions

Since mid 1980s Thailand has developed Eastern Seaboard area for promoting industrialization and for relieving congested Bangkok metropolitan. Laem Chabang, located approximately 110km southwest of Bangkok, has been developed as the new container port, whose container throughputs in 2001 (2.3 million TEU) reached more than double that of Bangkok. The Thai government has also developed expressways and railways to link Bangkok with the Laem Chabang port and beyond, and has facilitated several industrial parks alongside the port, expressways and railways. Thai government has been very flexible in examining and revising the development plan in response to voices of the private investors and donors. ODA financings from Japan were used to develop the basic infrastructures such as port site reclamation and railway, while the private sector was invited to invest and operate the container terminals and the ICD linked with port and Bangkok by rail. Thai government's strong ownership and the public-private partnership have facilitated the projects overall.

Source: Port Authority of Thailand; and JBIC, "Post Evaluation Report," 2000

Figure 7.3: Comparison of Container Throughput in Thailand and Vietnam



Source: Port Authority of Thailand, VINAMARINE

(2) Logistics Center

The underdeveloped status of logistics business and logistics infrastructure in Vietnam has generated ad hoc, unplanned, unshared, and unnecessary movement of trucks, often with nearly empty cargo space. Logistics optimization would require logistics centers at the perimeter of large cities, serving as nodes between inter-city and inner-city transport. The public truck terminal at HCMC is operating at overcapacity, reflecting the immensity of potential needs. Hanoi does not have any such facility, except for a few terminals owned by JVs. Roadsides are commonly used in both cities as free spaces for parking and loading/unloading, offsetting the smooth flow of urban traffic and endangering the safety of two-wheeled vehicles and pedestrians. As shown in Box 7.5, logistics centers equipped not only with parking space but also with shared CFS, storage, modern loading and unloading facilities, and, ideally, multimodal access, etc. would help in the restructuring of the movement of trucks to and from the inner city and in assisting the businesses of freight forwarders and small and medium sized local truckers. The government needs to examine the cost and benefit of such logistics centers and the way to best structure the public-private partnerships, so as to ensure the logistics center are user-friendly and meaningful solutions to alleviate the urban transport problems of the country.

Figure 7.4: Eastern Seaboard Map



Source: Amata Corporation Public Co., Ltd

Box 7.5: Bangkok’s Experiences with Truck Terminal Policies

Thailand’s Land Transport Department opened three truck terminals on the periphery of Bangkok at a total cost of around US\$300 million by 1999. A range of shared services is offered at each site, e.g. truck bays, fork lifts, warehouse space, office space, petrol station, vehicle wash, weighing equipment, food court and drivers’ rest house. There are road administration offices of the government, processing the relevant documents and fees, and serving as one-stop window for truckers. The rationale for these terminals was to improve the efficiency of transport in Bangkok by avoiding the inner-city trucking; reduce transit time by making better usage of line-haul vehicles; save time and cost by using shared fork lift and parking capacity; develop a break bulk points for consumer products in LCL cargo; avail cargo transfer between large trucks and smaller vehicles; and reduce accidents. A simulation by researchers of Asian Institute of Technology showed that these truck terminals could help decrease serious vehicle emissions like oxides of nitrogen (NOx) and suspended particle matter (SPM) by more than 800 percent.

Source: DFID, “HCMC Transport Study,” 1998; and UNESCAP, “Logistics for the Efficient Transportation of Domestic Goods,” 2001

(3) Multimodal Transport

Characteristics and cost structure of sea, road, railway, inland waterway and air transport differ considerably. Hence, freight forwarders strive for an optimum combination of several possible transport modes from origin to destination, depending on cost, frequency, punctuality, reliability and other factors. Insufficient linkage among different transport modes, in terms not only of infrastructure but also of information, makes it difficult for them to tap the potential capacity of infrastructure and its service and to optimize the logistics cost and flow. Efficient linkage between sea and overland transport, particularly, is essential to achieve the best result. The overland cargo transport modes are composed of trucks, including trailers, and railways. In terms of cost and usefulness, the trucks are generally preferable for flexible and frequent transport needs, while the railways are more cost effective for high volume and/or longer distance transport needs. Therefore it makes sense to link railways with major ports that have huge volume of container cargoes going to and coming from inland. At the same time, the seamless, smooth and reliable transfer of both cargo and information among the port operators, shipping lines and agents, freight forwarders, railway operators, consignors is also essential to use the physical linkage of infrastructure efficiently and effectively.

The most promising market for multimodal transport in Vietnam would be the Haiphong – Hanoi route, with possible extension to Canxi, China, as shown in Boxes 7.6 and 7.7. The government, in cooperation with VNR and the logistics industry, needs to assess the feasibility of such routes from the viewpoint of marketability, technical conditions, managerial skills, operational efficiency, and cost effectiveness etc. and to examine the solutions to possible physical, operational, institutional and financial impediments. If it proves to be feasible, and financially viable, the solutions will include the usage of the private sector's management and financing capabilities, by contracting out the concession of rail container to the private partners, in order to best use the existing facilities and to improve the infrastructure, rocking stocks, container yards and its operation. This assessment of multimodal transport can be integrated into the recommended studies to develop and map out the logistics corridors of the nation. Other routes may include Cai Lan – Hanoi, and an extension, in the future, to the new deep-sea port in the south.

7.5 Possible Impact of Recommendations on Poverty Reduction

Further deregulation and standardization will help promote the logistics industry in Vietnam by greater investment from domestic and international investors and will provide more job opportunities. While VITRANSS estimates the oversupply rate of labor in ports is around fifty percent, relocation and expansion of ports will reduce such rate and will require new workers. Promotion of IT usage in logistics chain will bring in new and value added job opportunity into the logistics industry. Relocation of port and industrial functions and development of logistics centers outside the inner-city will also create employment in some rural and suburban areas which were formerly more disadvantaged than the inner city in terms of job opportunities.

The pro-competition and pro-quality recommendations will help reduce logistics cost and improve the quality of service of the logistics industry in Vietnam. It will eventually contribute to strengthen the cost and quality competitiveness of Vietnamese export products. In turn this

will provide producers of exporting raw materials, e.g. farmers and fishers, with better and inexpensive access to the market, especially to the overseas market, which can return a higher margin to the producers, and will contribute to alleviate the poverty especially in rural areas, which have formerly been disadvantaged by poor logistics service.

Box 7.6: Thailand's Experience with Multimodal ICD at Lat Krabang

Under the regime of Eastern Seaboard development, Thai government authorized State Railway of Thailand to facilitate a new, major ICD at Lat Krabang, 30km east from Bangkok and 70km north of the new deep-sea port at Laem Chabang. The railway authority developed the 120ha landsite alongside the rail track, but it was subdivided into six container terminal areas, which are leased to and operated by private companies to ensure the competition. One out of six areas is leased to Thai International Freight Forwarders Association for non-exclusive usage, to secure the accessibility of smaller shipping lines, agents and freight forwarders. Lat Krabang ICD is heavily used because using railway to and from Laem Chabang port can save cost, and consequently it handled nearly 1 million TEU in 2001, which means that about 40 percent of throughput at Laem Chabang is handled there. It has also contributed to the reduction in heavy road traffic pressure between Bangkok perimeter and Laem Chabang port. Lat Krabang ICD has a good access to the expressway to Bangkok and its surrounding area. It took only six years after its opening in 1995 that the volume of cargo exceeded the designed capacity. The railway authority is proposing an expansion with cost of around US\$ 100 million to meet the increasing demand.

Source: State Railway of Thailand

Box 7.7: Chinese Efforts to Facilitate Multimodal Transport

The Ministry of Rail (MOR), the Chinese national railway operator, has established China Railway Container Transport Center (CRCTC) to accommodate the foreseeable demand of container transport between domestics and between ports at coastal zones and the inland areas. CRCTC transported containers of 2.2 million TEU in total but only of 330 thousand TEU for ex/import in 2001. It accounted for only 3 percent of the international cargo throughput at seaports, while this intermodal transport market is growing by 15 percent per annum recently. By 2010 the volume of rail container transport would have tripled and reefer container is also seen to be promising. To tap this increasing market, CRCTC is preparing to install Container Information System (CIS) to track and locate the containers anywhere in the country. To increase transparency, CRCTC at first introduced standardized invoicing system based upon a unified pricing tariff, and then started to offer volume discount to selected clients since 2000. It now runs the international scheduled container train via Mongolia to and from Moscow, Russia. In a bid to strengthen the marketing skill and to expand the customer base, CRCTC have formed a JV named TMT

Multimodal Transportation Company Ltd. (TMT), with a foreign shipping lines' logistics service company in 1998. TMT is a rail-based freight forwarder and acts as a one-stop agency for consignors such as manufacturers and ex/importers based in inland China to provide seamless land and sea logistics arrangement. TMT has three key corridors between the inland and ports, i.e. Kunming – Huangpu and Yantian ports, Canton; Chengdu – Shanghai port; and Harbin – Dalian port. Because 95 percent of export business from China is on CIF terms, the cost is ultimately the decision-making factor to manufacturers based in inland China. One of the impediments to CRCTC is that container train is still less prioritized in scheduling and operation.

Source: Containerisation International, November & December 2001

7.6 Extension of Logistics Services

Improvements in the provision of logistics service to the rural areas and upgrading the supply chain management practices of industrial enterprises in Vietnam are difficult to address. The government's development and poverty reduction policies need to be restructured to incorporate logistics as a critical element and to define the development process in a more holistic way. Because improvements in communications, land transport and, trade facilitation and credit require an enormous investment in both capital and human resources, it is necessary to prioritize these investments. A more detailed analysis of the logistics of the major production activities can provide insights into the critical bottlenecks for existing activities and also look at the major constraints on development of new activities.

ANNEX – TRADE DATA⁶

Table A.1 - Comparison of Macro-economic Parameters for Countries in the region

		Developed countries	Developing countries	Cambodia	China	Lao People's Dem. Rep.	Philippines	Thailand	Viet Nam
Population (millions)	1999	889	4,770	10.9	1,244	5.3	74.5	60.9	78.7
GDP (million)	1999	\$23,741,531	\$6,324,355	\$3,117	\$991,203	\$1,373	\$75,350	\$123,887	\$28,567
Per Capita	1999	\$26,692	\$1,326	\$285	\$796	\$259	\$1,012	\$2,036	\$363
Exports (million)	2000	\$4,041,970	\$2,032,086	\$780	\$249,297	\$315	\$39,783	\$69,057	\$14,448
Per Capita	2000	\$4,544	\$426	\$71	\$200	\$59	\$534	\$1,135	\$184
Imports (million)	2000	\$4,379,185	\$1,893,967	\$1,200	\$206,132	\$521	\$33,808	\$61,924	\$15,878
Per Capita	2000	\$4,923	\$397	\$110	\$166	\$98	\$454	\$1,018	\$202
GDP Growth Rate(%)	1995-1999	2.6%	3.8%	2.9%	8.3%	6.1%	3.2%	-1.9%	6.7%
	1990-1995	1.8%	4.9%	5.7%	12.4%	6.5%	2.2%	8.6%	8.3%
Per capita GDP	1995-1999	2.1%	2.2%	0.5%	7.3%	3.4%	1.0%	-2.8%	5.0%
	1990-1995	1.1%	3.1%	2.7%	11.2%	3.6%	-0.2%	7.5%	6.1%
Export Growth Rate	1995-2000	2.4%	5.7%	-0.2%	10.0%	-0.1%	18.8%	3.2%	19.7%
	1990-1995	6.4%	11.0%	49.4%	18.7%	36.4%	16.1%	18.7%	19.5%
Import Growth Rate	1995-2000	4.2%	3.0%	0.9%	8.5%	-4.7%	1.5%	-5.9%	11.6%
	1990-1995	5.1%	12.6%	46.2%	20.2%	32.5%	17.9%	15.5%	27.9%
Stock of Inward FDI (million)	2000	\$4,210,294	\$1,979,262	\$758	\$346,694	\$659	\$12,688	\$24,165	\$17,956
Per Capita	2000	\$4,715	\$410	\$68	\$276	\$121	\$167	\$394	\$225
Flow of Inward DFI (million)	2000	\$1,005,178	\$240,167	\$153	\$40,772	\$72	\$1,489	\$2,448	\$2,081
Per Capita	2000	\$1,126	\$50	\$14	\$33	\$13	\$20	\$40	\$26
Official Finance Flows (millio)	1999		\$79,166	\$279	\$2,873	\$304	\$1,428	\$5,382	\$1,448
Per Capita	1999		\$17	\$25	\$2	\$57	\$19	\$88	\$18

Source: UNCTAD Handbook of Statistics, 2001

⁶ The trade data in this section is taken from Comtrade data on flows (imports c.i.f. and exports f.o.b.) from 173 reporting countries, other sources as noted

Table A.2 : Major Exports by Commodity

	Average 1994-95		Average 1998-99			
	\$(mn)	Percent	\$(mn)	Percent	% of Developing countries	World %
Total	3670		8,137		1.3	0.4
Footwear	297	8.1	1,463	18.0	9.1	4.2
Crude Petroleum	759	20.7	1,211	14.9	0.8	0.6
Rice	300	8.2	587	7.2	9.9	7.1
Coffee and substitutes	367	10.0	580	7.1	5.3	4.1
Shell fish fresh, frozen	356	9.7	494	6.1	4.8	3.3
Men's outwear non-knit	180	4.9	368	4.5	2.0	1.2
Women's outwear non-knit	155	4.2	318	3.9	1.4	0.8
Switchgear etc, parts nes	(est)10	0.3	279	3.4	1.4	0.4
Furniture and parts thereof	(est)75	2.1	207	2.6	1.7	0.4
Travel goods, handbags, etc	88	2.4	191	2.3	3.2	1.8
Remainder	n.a.		2,438	30.0		

Source: UNCTAD Handbook of Statistics, 200

Table A.3 : Exports by Commodity Group

	1996		2000	
Crude and POL	1,363,356	18.8%	3,518,488	25.6%
Footwear and Leather Products	1,148,944	15.8%	2,544,775	18.5%
Yarns, Textiles, Garments	1,307,609	18.0%	1,956,041	14.2%
Seafood	623,403	8.6%	1,167,594	8.5%
Machinery and Electrical Equipment	254,102	3.5%	823,267	6.0%
Paper, Furniture and Wood Products	333,486	4.6%	589,867	4.3%
Coffee and substitutes	423,130	5.8%	585,405	4.3%
Rice, Maize, Cereals	576,302	7.9%	402,692	2.9%
Fruits and Vegetables	157,515	2.2%	253,058	1.8%
Coal, lignite and peat	144,264	2.0%	141,990	1.0%
Other	917,719	12.7%	1,771,130	12.9%

Table A.4 : Growth of Exports By Commodity Category

Million \$	1992	1993	1994	1995	1996	1997	1998	1999	2000	Annual Growth	
										1992-1996	1996-2000
Mineral fuels etc	824	977	996	1,153	1,508	1,671	1,359	2,013	3,664	16.3	24.8
Food and live animals	799	896	1,542	1,951	1,894	2,261	2,564	2,720	2,635	24.1	8.6
Footwear	46	171	346	573	932	1,447	1,568	1,951	2,245	112.7	24.6
Miscellaneous	195	281	404	573	669	835	868	998	1,135	36.1	14.1
Outerwear non knit	310	384	428	538	724	825	812	855	1,033	23.7	9.3
Machinery etc	243	220	254	380	218	610	753	693	932	-2.7	43.8
Manufactured goods	676	706	681	894	469	576	581	699	865	-8.7	16.6
Furniture and Parts	20	41	80	125	186	251	244	331	420	74.2	22.5
Crude Materials etc	284	323	333	388	329	301	248	307	383	3.7	3.8
Travel Goods	30	66	104	152	190	233	215	242	253	58.8	7.5
Chemicals	21	27	23	83	75	110	113	126	150	36.7	19.0
Animal, vegetable oil, fat	10	5	9	51	51	26	26	25	25	51.1	-16.5
Beverages and tobacco	1	2	4	4	9	12	18	10	18	65.5	18.3
All Commodities	3,460	4,098	5,204	6,865	7,255	9,156	9,369	10,971	13,758	20.3	17.4
All Commodity Imports	2,814	4,648	6,254	9,050	10,900	10,861	10,330	10,486	13,039	40.3	4.6

Table A.5: Major Destinations for Exports

YEAR	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Value (mn)	\$3,460	\$4,098	\$5,204	\$6,865	\$7,255	\$9,156	\$9,369	\$10,971	\$13,758
Japan	25.1%	26.0%	25.9%	25.1%	27.8%	23.9%	18.7%	17.9%	19.2%
Australia	4.3%	4.2%	4.1%	3.1%	4.2%	4.7%	5.1%	7.8%	9.6%
Germany	6.9%	7.1%	8.0%	8.3%	8.6%	8.8%	9.5%	9.2%	7.9%
China	2.1%	3.0%	3.7%	4.8%	4.3%	3.9%	2.3%	3.2%	6.8%
United States			1.0%	3.1%	4.7%	4.5%	6.4%	6.0%	6.4%
Singapore	3.7%	8.6%	8.7%	6.5%	6.0%	5.9%	4.5%	4.8%	6.0%
France, Monaco	2.6%	4.3%	4.4%	4.5%	5.2%	5.3%	6.0%	5.7%	5.3%
United Kingdom	0.6%	0.9%	2.0%	2.5%	3.4%	3.5%	4.3%	4.5%	4.2%
Taiwan	3.6%	3.8%	4.2%	3.9%	4.4%	4.3%	3.7%	3.5%	3.4%
Malaysia	3.7%	2.3%	2.1%	1.8%	2.1%	1.8%	1.5%	2.3%	3.3%
Belgium								3.6%	2.9%
Thailand	2.3%	2.1%	0.8%	0.6%	0.9%	2.0%	2.5%	2.1%	2.4%
Korea, Republic of	1.7%	2.2%	2.2%	2.8%	3.2%	2.6%	1.9%	2.4%	2.3%
Netherlands	0.5%	1.5%	1.7%	1.7%	2.0%	2.1%	2.6%	2.4%	2.3%
Italy	0.4%	0.7%	1.1%	1.6%	2.1%	2.6%	2.9%	2.5%	2.3%
Indonesia	1.0%	1.0%	1.5%	2.3%	2.8%	1.3%	4.5%	5.5%	2.2%
Spain	0.3%	0.5%	1.0%	1.1%	1.4%	2.0%	2.5%	2.4%	1.9%
China, Hong Kong	4.3%	3.4%	2.8%	2.5%	2.7%	2.9%	2.5%	1.8%	1.7%

Table A.6: Destinations of Major Exports

	Japan	Australia	Germany	China	US	Singapore	France, Monaco	United Kingdom
Total	19%	10%	8%	7%	6%	6%	5%	4%
Crude petroleum	15.6%	32.0%	-	20.8%	2.7%	15.9%	-	-
Footwear	2.5%	=	19.0%	=	5.9%	=	14.7%	14.2%
Coffee and substitutes	3.8%	3.0%	12.2%	=	21.9%	=	7.1%	5.2%
Men's outerwear non-knit	30.5%	=	19.7%	=	1.0%	=	8.9%	3.9%
Women's outerwear non-knit	39.2%	1.5%	20.8%	=	1.2%	=	8.5%	4.5%
Under garments knitted	45.0%	3.8%	5.5%	=	2.7%	1.7%	6.5%	4.8%
Outer garments knit nonelastic	34.9%	2.9%	10.5%	=	7.2%	2.7%	5.5%	5.7%
Under garments non-knit	19.4%	1.3%	25.6%	=	8.9%	=	7.9%	2.3%
Textile articles nes	53.5%	=	7.4%	=	=	=	5.8%	3.4%
Furniture and parts thereof	25.6%	3.3%	6.9%	=	2.5%	1.3%	8.8%	9.7%
Rice	1.0%	=	=	-	=	5.1%	=	=
Travel goods, handbags, etc	22.3%	1.7%	17.2%	=	=	1.4%	14.1%	5.3%
Switchgear etc, parts nes	17.0%	=	=	=	=	=	=	=
Shell fish fresh, frozen	47.7%	1.8%	1.2%	=	24.2%	1.1%	=	1.0%
Fish etc prepd, prsrvd nes	34.4%	=	=	=	34.4%	1.1%	2.0%	=
Fish, fresh, chilled, frozen	21.5%	4.1%	2.3%	=	35.5%	7.2%	2.4%	=
Coal, lignite and peat	35.4%	=	4.0%	1.4%	-	-	4.2%	5.5%
Fruit, nuts, fresh, dried	1.8%	14.9%	2.3%	8.6%	36.8%	=	=	3.5%
Natural rubber, gums	3.4%	=	9.6%	31.7%	4.3%	6.6%	2.1%	=
Electricity distributing equip	87.6%	=	=	=	=	=	=	=
Pottery	2.0%	3.2%	24.3%	=	5.3%	6.0%	7.8%	14.9%
Spices	1.4%	1.1%	5.5%	=	14.9%	40.8%	3.8%	=

	Taiwan	Malaysia	Belgium	Thailand	R.o.Korea	Netherlands	Italy	Indonesia
Total	3%	3%	3%	2%	2%	2%	2%	2%
Crude petroleum	=	6.8%	-	=	-	-	-	5.0%
Footwear	1.0%	=	8.8%	=	=	4.5%	5.7%	=
Coffee and substitutes	=	1.5%	1.8%	-	2.9%	1.6%	8.2%	=
Men's outerwear non-knit	3.6%	2.5%	3.3%	=	3.3%	4.3%	3.8%	-
Women's outerwear non-knit	2.9%	=	2.0%	=	1.5%	3.8%	2.0%	-
Under garments knitted	16.7%	=	=	=	1.1%	=	1.4%	=
Outer garments knit, nonel	5.5%	=	2.0%	=	1.7%	4.4%	2.9%	=
Under garments non-knit	4.7%	=	1.6%	-	2.1%	2.4%	4.4%	-
Textile articles nes	7.3%	=	3.0%	=	=	1.6%	4.1%	=
Furniture and parts thereof	9.3%	2.0%	3.7%	=	3.1%	5.8%	2.2%	=
Rice	=	8.1%	-	-	-	-	-	21.4%
Travel goods, handbags, etc	=	=	6.5%	1.1%	2.1%	2.7%	3.8%	=
Switchgear etc, parts nes	=	1.5%	-	78.9%	=	=	=	=
Shell fish fresh, frozen	=	=	2.1%	1.5%	5.0%	=	1.7%	=
Fish etc prepd, prsrvd nes	=	1.6%	=	7.0%	8.5%	4.5%	=	-
Fish, fresh, chilled, frozen	=	1.0%	1.7%	=	8.9%	1.3%	=	=
Coal, lignite and peat	2.9%	=	6.4%	16.0%	2.0%	5.8%	=	=
Fruit, nuts, fresh, dried	4.5%	=	=	=	=	10.4%	=	=
Natural rubber, gums	7.9%	4.8%	=	-	7.2%	=	2.6%	=
Electricity distributing equip	=	2.3%	-	=	5.9%	=	=	=
Pottery	=	=	3.7%	=	=	12.5%	1.9%	=
Spices	1.0%	1.9%	=	=	2.3%	9.4%	1.3%	1.1%

Note: = less than 1% - 0%

Table A.7 Market Share of Major Vietnamese Exports by Commodity Classification

Commodity Classification	Value cif \$1000		% World
	1996	2000	Market Share
772 Switchgear etc, parts nes	40,648	252,916	0.27%
057 Fruit, nuts, fresh, dried	42,905	141,873	0.46%
773 Electricity distributing equip	5,817	131,202	0.32%
666 Pottery	41,239	130,996	2.18%
651 Textile yarn	16,084	72,724	0.21%
716 Rotating electric plant	13,093	61,230	0.19%
785 Cycles, etc, motorized or not	8,961	49,279	0.25%
897 Gold, silver ware, jewelery	12,624	45,878	0.24%
771 Electric power machinery nes	7,520	42,008	0.11%
743 Pumps nes, centrifuges, etc	1,031	38,456	0.10%
287 Base metals ores, conc nes	10,086	34,864	0.16%
749 Non-electr machy parts, acces	2,587	25,619	0.04%
061 Sugar and honey	3,131	23,389	0.21%
699 Base metal manufactures nes	6,423	20,487	0.04%
697 Base metal household equip	4,077	17,426	0.14%
775 Household type equip nes	349	16,045	0.04%
759 Office, adp machy parts, acces	1,584	15,236	0.01%
872 Medical instruments nes	2,135	14,663	0.06%
728 Oth machy for spec industries	1,234	14,509	0.02%
896 Works of art, etc	2,311	14,328	0.13%
881 Photogr apparatus, equip nes	1,064	13,002	0.07%
812 Plumbg, heatg, lightg equip	1,638	12,541	0.06%
334 Petroleum products, refined	2,309	12,510	0.01%
583 Polymerization, etc, prdts	3,163	10,886	0.01%
694 Stell, copper nails, nuts, etc	762	9,765	0.07%
884 Optical goods nes	2,221	9,321	0.09%
664 Glass	1,083	8,714	0.04%
885 Watches and clocks	1,336	8,243	0.04%
696 Cutlery	1,931	7,031	0.13%
233 Rubber, synthetic, reclaimed	2,268	6,904	0.09%

Source: Comtrade

Table A.8 Comparison of Vietnam Exports with Neighboring Countries, 2000

	Market Share of World Trade						
	Total	Vietnam	China	Indonesia	Malaysia	Philippines	Thailand
333 Crude petroleum	4.8%	0.9%	0.7%	1.9%	1.2%	0.0%	0.1%
851 Footwear	40.8%	4.9%	28.3%	4.8%	0.3%	0.2%	2.3%
842 Men's outwear non-knit	30.2%	1.7%	21.8%	3.2%	0.6%	1.2%	1.7%
843 Women's outwear non-knit	27.1%	0.9%	19.0%	3.1%	0.4%	2.2%	1.5%
821 Furniture and parts thereof	15.3%	0.6%	7.4%	2.5%	2.6%	0.6%	1.5%
831 Travel goods, handbags, etc	43.2%	1.3%	33.8%	1.4%	0.2%	2.4%	4.1%
772 Switchgear etc, parts nes	11.2%	0.3%	3.7%	0.5%	2.8%	1.8%	2.1%
846 Under garments knitted	22.0%	0.7%	14.2%	2.5%	0.9%	1.2%	2.5%
845 Outer garments knit nonelastic	28.7%	0.4%	21.3%	2.2%	1.0%	1.2%	2.6%
658 Textile articles nes	25.1%	0.8%	21.1%	1.4%	0.1%	0.6%	1.1%
899 Other manufactured goods	19.7%	0.4%	16.1%	1.1%	0.3%	0.8%	1.1%
894 Toys, sporting goods, etc	33.0%	0.1%	28.9%	1.1%	0.8%	0.5%	1.6%
764 Telecom equip, parts, access.	11.3%	0.0%	6.0%	0.8%	2.9%	0.5%	1.0%
776 Transistors, valves, etc	16.7%	0.0%	1.9%	0.3%	6.6%	5.9%	2.1%
848 Headgear, non-textile clothing	45.8%	0.5%	31.2%	2.0%	7.5%	0.9%	3.7%
653 Woven man-made fib fabric	18.3%	0.2%	10.9%	3.9%	1.2%	0.2%	1.8%
893 Articles of plastic nes	11.1%	0.1%	8.2%	0.5%	1.1%	0.2%	1.0%
771 Electric power machinery nes	17.6%	0.1%	11.4%	0.7%	2.6%	0.3%	2.5%
778 Electrical machinery nes	7.3%	0.0%	4.0%	0.7%	1.4%	0.2%	1.0%
775 Household type equip nes	16.6%	0.0%	13.0%	0.2%	0.7%	0.1%	2.6%
759 Office, adp machy parts, access.	19.6%	0.0%	4.0%	0.7%	8.8%	1.7%	4.3%
652 Cotton fabrics, woven	20.4%	0.1%	15.8%	2.3%	0.6%	0.0%	1.6%

Source: Comtrade

Table A.9: Data on World Trade with Vietnam in Vegetables and Cut Flowers (in \$ 000), 1996-2001

Available World Imports c.i.f. from Vietnam of Vegetables and of Cut Flowers

Product Name	1996	1997	1998	1999	2000	2001
Cut flowers and flower buds of a ki	4	200	734	872	1,459	2,220
Edible vegetables and certain roots	29,959	50,173	36,061	47,028	49,276	42,509
Potatoes, fresh or chilled.	-	14	1	20	8	1
Tomatoes, fresh or chilled.	3	9	39	9	14	5
Onions, shallots, garlic, leeks	2,675	1,470	1,294	4,956	1,725	1,893
Cabbages, cauliflowers, kohlrabi	200	2,518	4,553	1,772	1,999	376
Lettuce (<i>Lactuca sativa</i>) and chicory	6	1	11	45	167	275
Carrots, turnips, salad beetroot	91	105	65	159	214	60
Cucumbers and gherkins, fresh or ch	31	108	13	-	98	0
Leguminous vegetables, shelled or not	31	133	182	121	258	81
Other vegetables, fresh or chilled.	544	1,074	1,547	1,149	1,189	1,131
Vegetables (uncooked or cooked)	366	1,194	1,386	685	2,062	2,188
Vegetables provisionally preserved	7,863	10,814	12,440	8,816	10,118	6,776
Dried vegetables, whole, cut, slice	1,992	3,526	2,285	4,557	4,749	3,727
Dried leguminous vegetables, shelled	2,869	1,856	579	1,975	642	1,172
Manioc, arrowroot, salep, Jerusalem	13,287	27,351	11,666	22,644	26,031	24,824

Available World Exports f.o.b. to Vietnam of Vegetables and of Cut Flowers

Product Name	1996	1997	1998	1999	2000	2001
Cut flowers and flower buds of ki	20	89	99	61	76	-
Edible vegetables and certain roots	5,749	3,496	7,811	10,931	8,662	1,218
Potatoes, fresh or chilled.	1,187	1,584	1,341	2,356	678	14
Tomatoes, fresh or chilled.	101	53	31	148	11	-
Onions, shallots, garlic, leeks	1,192	638	3,431	2,124	2,645	15
Cabbages, cauliflowers, kohlrabi	6	-	8	-	5	0
Lettuce (<i>Lactuca sativa</i>) and chicory	1	7	3	2	-	-
Carrots, turnips, salad beetroot,	-	0	2	31	1	0
Cucumbers and gherkins, fresh or ch	0	-	0	-	-	-
Leguminous vegetables, shelled or u	22	0	5	35	53	-
Other vegetables, fresh or chilled.	80	21	39	114	323	25
Vegetables (uncooked or cooked)	340	35	217	726	191	7
Vegetables provisionally preserved	312	136	19	91	261	0
Dried vegetables, whole, cut, slice	239	273	394	601	821	416
Dried leguminous vegetables, shelled	2,266	724	2,267	4,681	3,645	738
Manioc, arrowroot, salep, Jerusalem	6	24	53	20	28	3

Table A.10 : Major Imports by Commodity Group (Year 2000)

Equipment and Machinery	2,820	21.7%
Yarn and Textiles	1,523	11.7%
Crude and Petroleum Products	1,441	11.1%
Transport Equipment	1,311	10.1%
Iron and Steel	620	4.8%
Polymers and products	482	3.7%
Fertilizers, Pesticides	441	3.4%
Leather and Products	358	2.8%
Paper and Wood Products	326	2.5%
Pharmaceuticals	290	2.2%
Tobacco and Products	259	2.0%
Other Metals	221	1.7%
Others	2,888	22.2%

Table A.11 : Imports by Major Origins

YEAR	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total (million)	\$2,814	\$4,648	\$6,254	\$9,050	\$10,900	\$10,861	\$10,330	\$10,486	\$13,039
Singapore	13.7%	21.1%	21.3%	19.8%	15.7%	15.3%	14.7%	14.3%	16.0%
Japan	16.0%	13.6%	10.3%	10.2%	10.4%	11.8%	12.9%	15.5%	15.1%
R.of Korea	15.5%	15.7%	16.4%	14.9%	14.7%	14.8%	13.2%	13.8%	12.9%
Taiwan	9.9%	10.8%	11.8%	11.2%	10.8%	11.9%	11.7%	12.6%	12.8%
China	3.8%	5.9%	5.5%	8.0%	7.7%	9.9%	10.0%	9.2%	11.8%
Thailand	2.7%	2.5%	4.0%	5.2%	5.3%	5.0%	5.7%	5.5%	6.5%
Malaysia	1.8%	3.0%	2.5%	3.0%	3.0%	3.0%	3.6%	3.7%	3.6%
Indonesia	6.8%	4.4%	3.9%	3.2%	3.3%	3.6%	3.4%	3.2%	2.8%
United States	0.2%	0.1%	2.7%	2.8%	5.6%	2.5%	2.6%	2.6%	2.5%
France, Monaco	7.8%	6.1%	4.5%	3.6%	6.9%	4.0%	3.0%	3.1%	2.1%
Australia	1.3%	1.5%	1.2%	1.5%	1.4%	1.6%	2.3%	1.5%	2.0%
Germany	1.8%	2.6%	2.4%	2.6%	3.1%	2.7%	3.4%	2.4%	2.0%
Russian Federation					1.1%	2.9%	2.5%	1.6%	1.3%
Italy	1.6%	1.4%	1.2%	1.2%	1.5%	1.1%	1.1%	1.1%	1.3%
United Kingdom	1.3%	0.5%	1.5%	1.1%	0.7%	1.4%	1.1%	1.2%	1.0%
Philippines	1.1%	0.8%	1.0%	1.3%	1.2%	0.9%	0.9%	0.6%	0.6%
India	0.7%	0.6%	0.9%	1.4%	1.1%	1.2%	1.2%	1.5%	
Saudi Arabia	8.6%	2.4%	2.4%	3.1%	0.2%		0.2%		

Table A.12 : Market Share of Major Destinations for Coffee Exports

YEAR	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Value (mn)	\$85	\$124	\$406	\$740	\$423	\$552	\$707	\$640	\$585
United States			7.7%	20.5%	27.6%	20.4%	21.5%	16.9%	21.9%
Germany	2.9%	5.0%	11.8%	16.4%	14.1%	15.3%	15.8%	14.7%	12.2%
Italy	1.2%	2.4%	2.4%	2.2%	5.2%	5.3%	7.1%	10.1%	8.2%
Spain	3.0%	4.6%	5.5%	5.0%	4.4%	7.4%	8.2%	8.1%	7.8%
France, Monaco	6.1%	3.3%	4.5%	4.2%	6.1%	7.9%	7.7%	9.3%	7.1%
United Kingdom		0.1%	1.5%	2.4%	5.9%	5.0%	7.8%	6.3%	5.2%
Poland	6.3%	3.5%	5.0%	6.4%	4.6%	3.5%	4.3%	4.0%	4.7%
Japan	4.9%	4.9%	5.5%	6.6%	5.5%	4.3%	4.5%	5.4%	3.8%
Canada		0.3%	0.8%	1.6%	2.9%	2.8%	1.7%	1.5%	3.3%
Australia	5.6%	5.0%	4.9%	4.1%	4.2%	3.9%	2.5%	4.2%	3.0%
R. of Korea	0.3%	0.4%	1.8%	4.5%	2.1%	1.8%	3.4%	2.6%	2.9%
Romania	0.3%	0.6%	0.1%		0.2%	0.2%	0.8%	1.1%	2.3%
Belgium								2.0%	1.8%
Netherlands	0.1%	3.4%	0.7%	0.5%	0.7%	1.5%	1.0%	1.6%	1.6%
Malaysia	0.2%		0.7%	1.0%	1.2%	1.5%	1.1%	0.8%	1.5%
Hungary	0.8%	1.8%	0.6%	0.2%		0.3%	0.2%	0.7%	1.4%
Czech Republic				0.7%	0.5%	1.4%	1.5%	1.2%	1.4%

Comtrade data on flows (imports c.i.f.) to 173 reporting countries from Viet Nam

Table A.13 : Market Share of Major Destinations for Leather Good Exports other than Footwear

YEAR	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Value (mn)	\$30	\$66	\$104	\$152	\$190	\$233	\$215	\$242	\$253
Japan	7.0%	11.0%	18.7%	27.7%	30.4%	25.6%	20.7%	19.3%	22.3%
Germany	27.6%	23.8%	21.4%	17.3%	17.0%	17.2%	17.2%	16.6%	17.2%
France, Monaco	12.2%	24.0%	20.7%	16.8%	14.6%	13.0%	13.5%	13.0%	14.1%
Belgium								10.6%	6.5%
United Kingdom	1.7%	3.5%	3.0%	2.7%	2.8%	3.0%	4.3%	5.3%	5.3%
Spain	4.0%	2.7%	1.5%	2.5%	2.7%	4.3%	4.9%	4.2%	4.5%
Italy	3.7%	4.9%	3.6%	4.0%	3.3%	4.6%	5.8%	3.5%	3.8%
Sweden	3.8%	4.4%	5.2%	2.4%	2.8%	2.4%	2.4%	2.3%	3.1%
Netherlands	3.8%	3.7%	3.2%	2.5%	2.2%	1.8%	3.8%	5.7%	2.7%
Canada	0.4%	0.8%	1.3%	2.2%	2.6%	3.1%	2.6%	2.6%	2.5%
R. of Korea	0.5%	0.8%	3.1%	5.5%	5.3%	3.5%	1.7%	2.0%	2.1%
Australia	1.0%	1.5%	2.3%	2.0%	1.8%	2.2%	1.9%	1.8%	1.7%
Norway, SB, JM	8.9%	6.4%	3.4%	3.0%	2.1%	2.3%	2.3%	1.6%	1.5%
Singapore	0.4%	0.4%	0.6%	0.5%	0.8%	0.6%	0.8%	1.1%	1.4%
Swit., Liech.	2.9%	2.6%	2.2%	2.6%	1.8%	1.7%	1.5%	1.2%	1.4%
Austria	3.2%	3.2%	1.4%	1.0%	1.1%	1.1%	1.1%	1.1%	1.3%
Thailand			0.6%	0.8%	0.4%	1.0%	1.4%	1.2%	1.1%

Table A.14 : Market Share of Major Destinations for Footwear

YEAR	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Value (mn)	\$46	\$171	\$346	\$573	\$932	\$1,447	\$1,568	\$1,951	\$2,245
Germany	24.9%	35.0%	32.5%	26.5%	21.7%	18.8%	18.1%	19.1%	19.0%
France, Monaco	28.2%	26.4%	21.7%	18.8%	14.1%	13.6%	14.6%	12.5%	14.7%
United Kingdom	0.3%	0.1%	12.1%	15.8%	15.2%	11.4%	12.4%	13.5%	14.2%
Belgium+Lux	0.3%	1.6%	2.6%	2.3%	5.1%	7.8%	8.4%	9.6%	8.8%
United States				0.6%	4.6%	7.0%	7.7%	8.0%	5.9%
Italy	1.2%	0.3%	3.1%	8.6%	7.2%	8.2%	7.3%	5.5%	5.7%
Spain	3.3%	2.1%	0.9%	1.7%	4.5%	5.5%	6.5%	6.1%	4.9%
Netherlands	3.4%	11.6%	8.7%	6.6%	4.5%	3.5%	4.0%	4.5%	4.5%
Japan	1.8%	1.3%	1.8%	2.5%	4.7%	5.1%	2.2%	2.0%	2.5%
Canada		0.1%	0.4%	2.1%	2.0%	2.2%	2.5%	2.5%	1.6%
Sweden	0.3%	0.5%	0.6%	0.7%	1.1%	1.2%	1.3%	1.3%	1.5%
Austria	0.4%	1.8%	1.4%	2.2%	1.6%	1.2%	1.1%	1.2%	1.4%
Swit., Liech.	0.3%	0.9%	1.3%	1.4%	1.1%	0.9%	1.3%	1.2%	1.4%

Table A.15 : Market Share of Major Destinations for Switchgear

YEAR	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Value (mn)	\$0.9	\$1.7	\$1.9	\$17.6	\$40.6	\$288.9	\$388.3	\$233.0	\$252.9
Thailand					18.0%	46.3%	44.8%	69.3%	78.9%
Japan		0.2%			4.6%	4.1%	3.4%	8.6%	17.0%
Malaysia	0.9%		13.4%	6.5%	6.9%	2.9%	2.4%	1.4%	1.5%
Philippines					64.3%	45.3%	48.2%	18.5%	
Saudi Arabia	67.7%	70.3%	18.4%	82.8%					

Table A.16 : Market Share of Major Destinations for Seafood

YEAR	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Value (mn)	281.5	344.1	447.9	454.9	457.2	538.8	566.8	604.4	820.8
Japan	52.1%	58.8%	64.4%	66.7%	65.6%	61.0%	53.2%	54.5%	47.7%
United States			1.3%	3.9%	6.7%	7.2%	11.8%	14.2%	24.2%
R. of Korea,	1.4%	1.9%	2.6%	1.6%	1.2%	1.3%	1.3%	3.9%	5.0%
China, Hong Kong	24.8%	18.9%	13.9%	12.4%	12.4%	10.0%	8.1%	6.5%	5.0%
Canada	3.4%	3.3%	2.3%	1.8%	1.5%	1.3%	1.4%	1.1%	2.2%
Belgium	1.1%	1.1%	1.3%	2.2%	1.2%	3.4%	3.2%	3.3%	2.1%
Australia	2.9%	1.9%	1.4%	1.7%	1.6%	1.7%	2.0%	2.2%	1.8%
Italy	0.5%	0.2%	0.3%	0.3%	0.5%	2.0%	2.2%	2.2%	1.7%
Thailand	1.9%	1.1%	0.8%	1.0%	0.4%	1.3%	3.0%	1.6%	1.5%
Germany	0.8%	0.6%	1.1%	0.6%	0.5%	0.9%	1.6%	1.5%	1.2%
Swit.,Liech.	1.1%	0.7%	0.5%	0.6%	0.9%	0.7%	1.1%	1.1%	1.2%
Singapore	4.1%	6.7%	5.6%	3.1%	3.2%	2.7%	1.5%	1.4%	1.1%
United Kingdom	0.9%	0.7%	1.0%	0.7%	0.4%	1.3%	2.0%	1.2%	1.0%

Table A.17 : Market Share of Major Destinations for Non-knit Outerwear

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total (mn)	\$310	\$384	\$428	\$538	\$724	\$825	\$812	\$855	\$1,033
Japan	17.2%	26.6%	33.3%	36.6%	38.6%	32.0%	27.1%	27.7%	34.3%
Germany	57.2%	40.6%	30.3%	26.5%	23.8%	24.3%	25.7%	25.4%	20.2%
France, Monaco	6.3%	7.9%	6.6%	7.0%	7.6%	8.6%	9.8%	9.3%	8.7%
United Kingdom	0.0%	1.1%	1.8%	2.0%	2.4%	3.6%	4.0%	5.0%	4.1%
Netherlands	0.4%	4.3%	5.5%	6.3%	6.5%	6.5%	7.0%	5.4%	4.1%
Taiwan	0.3%	1.4%	3.1%	3.0%	3.7%	3.7%	3.5%	3.0%	3.3%
Spain	0.8%	0.9%	2.2%	2.1%	2.0%	2.7%	2.4%	3.2%	3.2%
Italy	0.1%	1.6%	1.7%	2.4%	2.6%	2.6%	3.1%	1.9%	3.0%
Belgium	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	2.8%
R. of Korea	0.8%	0.8%	1.5%	1.5%	1.6%	2.2%	0.9%	1.0%	2.5%
Canada	0.3%	0.4%	0.4%	0.5%	0.8%	1.4%	1.9%	1.6%	1.6%
Malaysia	0.0%	0.2%	0.1%	0.1%	0.1%	0.2%	0.1%	0.6%	1.5%
United States	0.0%	0.0%	0.0%	0.2%	0.8%	1.1%	1.0%	1.0%	1.1%
Denmark	0.4%	0.4%	0.6%	1.0%	0.9%	1.4%	1.3%	1.1%	1.1%
Austria	1.7%	2.3%	2.2%	1.5%	1.3%	1.4%	1.4%	1.2%	1.0%

Table A.18 : Market Share of Major Destinations for Crude Petroleum

YEAR	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Value (mn)	\$727	\$879	\$902	\$1,040	\$1,361	\$1,516	\$1,217	\$1,871	\$3,506
Australia	16.0%	16.0%	17.0%	12.6%	16.3%	20.7%	29.0%	37.8%	32.0%
China	6.2%	4.9%	8.4%	10.2%	11.6%	16.4%	9.0%	11.7%	20.8%
Singapore	6.2%	18.6%	13.8%	17.1%	13.6%	16.8%	19.0%	13.1%	15.9%
Japan	71.6%	60.5%	60.8%	58.3%	46.7%	39.8%	25.2%	17.6%	15.6%
Malaysia								4.9%	6.8%
Indonesia				1.7%	2.0%	2.3%	5.0%	8.5%	5.0%
United States					6.3%	2.5%	10.0%	5.7%	2.7%
Thailand					0.7%	0.5%	0.3%		0.8%
Taiwan							0.0%		0.5%
R. of Korea					1.8%	1.0%	2.0%	0.8%	
New Zealand							0.5%		
Philippines	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%

Table A.19 : Market Share of Major Destinations for Rice

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total (\$mn)	\$201	\$170	\$328	\$340	\$514	\$575	\$737	\$813	\$360
Philippines				6.4%	24.8%	18.7%	23.4%	19.3%	30.8%
Indonesia	5.6%		8.9%	25.7%	19.6%	7.0%	47.2%	51.9%	21.4%
Senegal	5.6%	9.3%	1.4%	0.4%	3.5%	6.8%	1.7%	4.3%	8.4%
Malaysia	32.2%	24.2%	13.2%	14.1%	4.9%	9.3%	7.0%	4.1%	8.1%
Singapore	1.2%	1.9%	1.4%	0.4%	0.6%	1.0%	0.8%	3.2%	5.1%
Côte d'Ivoire	0.0%		0.0%	4.1%	8.7%	9.6%	1.8%	1.1%	4.4%
Poland		0.2%	1.2%		0.3%	2.8%	1.7%	1.9%	4.3%
Algeria	0.5%	2.8%	5.3%	1.0%	2.8%	2.1%	1.0%	1.2%	3.7%
Uganda				0.0%	0.0%	0.0%	0.1%	0.7%	2.9%
Czech Republic		0.6%	0.5%	0.0%	0.2%	0.9%	0.9%	0.7%	2.6%
Russian Federation					2.4%	1.1%	1.2%	0.8%	1.8%
Kenya	0.5%	0.9%	0.7%	0.0%	0.5%	0.5%		0.1%	1.5%
Guinea				3.4%	1.5%	3.5%			0.6%
Brazil	2.2%	9.0%	13.8%	3.1%	4.3%	1.2%	0.9%	0.7%	0.1%
Iran						6.5%	2.1%	4.0%	0.0%
Sri Lanka	17.2%	9.1%	0.6%					0.3%	
Colombia			12.7%	1.8%	0.0%				
China	0.1%	0.1%	8.1%	30.0%	7.0%				
Peru	9.1%	3.9%	8.8%	0.2%	5.8%	3.8%			
India	9.0%	9.0%							

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