

Vietnam: Selected Issues

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VIETNAM

Selected Issues

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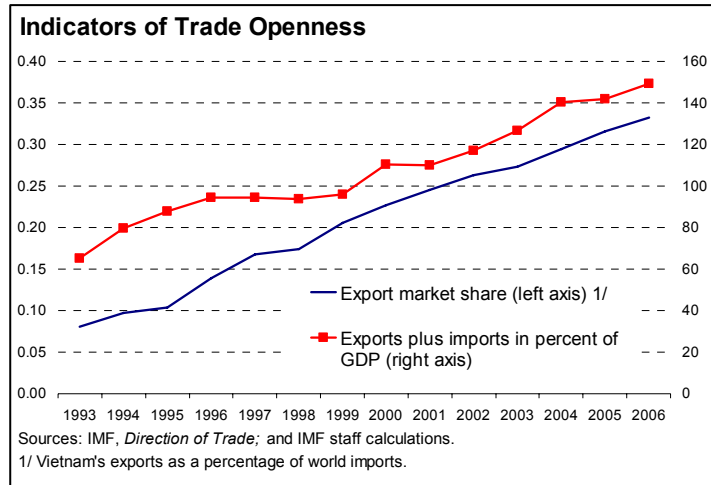
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I. VIETNAM'S WTO ACCESSION: OPPORTUNITIES AND CHALLENGES¹

A. Introduction

1. **Vietnam became the 150th member of the World Trade Organization (WTO) on January 11, 2007.**² Vietnam had made great strides toward integration with the global economy well ahead of its WTO accession. Between 1993 and 2006, Vietnam's trade openness (the sum of exports and imports in relation to GDP) more than doubled, while its export market share more than quadrupled. With exports as the leading engine of growth, real GDP has increased on average by 7½ percent a year during that period and poverty has fallen sharply. Given this impressive record, it is worthwhile to assess how WTO



accession will influence the process of Vietnam's global integration in the future and how this process may, in turn, affect both the regional and world economies.

2. **This chapter offers a preliminary assessment of the impact of Vietnam's WTO accession.** Section B describes the main terms of Vietnam's accession as regards trade in goods and services. Section C uses a partial equilibrium simulation model to estimate the likely impact of WTO accession on revenues and consumer welfare. Section D provides a more general overview of the effects of WTO accession for Vietnam and its main trading partners, and the main conclusions are summarized in Section E. Annex I presents in greater detail the simulation model used in Section C.

B. Vietnam's Principal Commitments under the WTO

Commitments on tariffs

3. **Tariffs on textiles faced the largest cuts upon accession.** The MFN average tariff on textiles—a major source of export receipts (equivalent to 16.3 percent of exports as of August 2007), second only to oil—was reduced upon accession to 13.5 percent from 36.4 percent. Tariffs on footwear were also reduced upon accession, albeit somewhat more

¹ Prepared by Patrizia Tumbarello, Asia and Pacific Department (APD). A condensed version of this paper was published in the April 2007 APD Regional Economic Outlook, (Tumbarello, 2007a).

² On December 29, 2006, Vietnam was also granted Permanent Normal Trade Relations status by the United States.

modestly. At the same time, subsidies to these industries were removed. These sectors should be well placed to meet the challenges of increasing global competition, however, because Vietnam's labor costs continue to be lower than those of major competitor countries (JETRO, 2007b). In addition, a concurrent reduction of import duties on textile raw materials to 10–15 percent from the previously applied MFN rate of 40–50 percent should serve to lower substantially the costs of nonlabor inputs, given that approximately 80 percent of the textile sector's raw materials, such as cotton, are imported.

Vietnam: WTO Commitments on Trade in Goods

	2006 MFN Rates 1/	WTO 2007 Bound Rates	WTO Final Bound Rates 2/	WTO Implementation
Simple average	17.3	17.2	13.4	up to 12 years
Agricultural products 3/	25.7	27.3	21.7	up to 5 years
Nonagricultural products 4/	16.3	15.8	12.2	up to 12 years
Steel	7.7	17.7	13.0	up to 7 years
Textiles and clothing	36.4	13.6	13.5	upon accession
Footwear	43.9	35.8	27.2	upon accession
Cars and other motor vehicles 4/	55.5	84.8	58.7	up to 12 years
Most new cars	90.0	100.0	70.0	up to 7 years
Motorbikes	90.0	100.0	74.3	up to 12 years
Machinery/Electrical	8.2	10.8	8.1	up to 5 years
Minimum tariff	0	0	0	
Maximum tariff				
Agricultural products 5/	100	100–150	85–135	
Nonagricultural products 4/ 6/	90–100	100	75–100	
Number of lines	11,088	10,444	10,444	

Sources: WTO, Vietnamese authorities; and IMF staff calculations.

1/ Most-favored-nation (MFN) rates applicable as of July 2006.

2/ To be applied by 2019.

3/ Includes fisheries.

4/ Excluding used motor vehicles, whose importation was prohibited until May 2006; WTO bound rates on used motor vehicles can be as high as 200 percent.

5/ Maximum tariffs applicable to sugar and tobacco products, some of which were subject to import bans or quotas until 2006.

6/ Maximum tariffs applicable to new motor vehicles and motorcycles, and used clothing; imports of some of these items were previously subject to bans, quotas or licensing requirements.

4. **WTO commitments do not require any immediate changes in tariffs on a range of important items, including automobiles, motorbikes, and electrical equipment.** As is shown in the table above, in these sectors, Vietnam has committed to initial bound tariff rates (or legal ceilings)³ that significantly exceed the actual tariff rates applied until late 2006. In addition, in an effort to curb inflationary pressures, on August 3, 2007, the government decided to further advance implementation of the reduction in import tariffs on a number of these items (Decision 70/2007). Accordingly, tariffs on most new cars, which had already been reduced from 90 percent to 80 percent in December 2006, were recently reduced further to 70 percent, which is the WTO's final bound rate that was to be applied by 2014. Tariffs on

³ The bound tariff rates are the maximum rates permitted under Vietnam's terms of accession to the WTO. In practice, however, the currently applied rates are lower than the initial bound rates in a number of sectors, giving Vietnam the possibility to raise some tariffs while continuing to meet its WTO commitment.

a number of cosmetics products and refrigerators, sewing machines, air conditioners, and fans, were also reduced ahead of schedule, from 40 percent to 30 percent. At the same time, the government decided to temporarily reduce the tariffs on certain food products—such as animal feed, dairy products, pork, beef, and other kinds of red meat—and construction materials well below WTO commitments (Decision 69/2007). The reductions in these tariffs, however, will likely be rescinded once inflationary pressures abate.

5. **Tariffs in most other sectors are expected to decline substantially.** The average bound tariff rates on most product categories other than cars and motorbikes range from zero to 35 percent, although certain sensitive products (such as eggs, tobacco, sugar, and salt) will be subject to tariff quotas, with higher duties for quantities beyond these quotas. While reductions in most bound rates are to be phased in gradually, most of the decreases are to occur by 2012.

Other commitments

6. **Accession to the WTO has also entailed a wide range of commitments on the part of Vietnam to reduce trade-distorting subsidies, establish foreign companies' trading rights, and generally comply with the full range of WTO's rules and regulations on trade in goods.** The highlights of these commitments are presented in Box 1.

7. **Vietnam has also committed to expand significantly foreign companies' access to its service sectors.** In the financial sector, its main commitments are as follows:

- **As of April 2007, foreign credit institutions were allowed to establish fully (100 percent) foreign-owned banks in Vietnam.** This is subject to the stipulation that the parent institution must have total assets of more than US\$10 billion at the end of the year prior to application. Moreover, branches of foreign commercial banks may be established only if the parent bank had total assets of more than US\$20 billion at the end of the year prior to application. However, during five years from the date of accession, Vietnam may limit the right of a foreign bank branch to accept dong deposits from Vietnamese nationals with whom the bank does not have a credit relationship. Such deposits would be limited to a ratio of the branch's legal paid-in capital. This restriction would be lifted in January 2011. As of July 2007, at least two or three reputable foreign banks had reportedly submitted applications to the State Bank of Vietnam for the establishment of fully foreign-owned subsidiaries.
- **Upon accession, foreign securities companies were allowed to set up representative offices and joint ventures with a local partner, with the foreign entity allowed to hold up to 49 percent of total capital.** This capital limit is to be abolished after five years, at which point the scope of the securities companies would also be expanded to include asset management and settlement and clearing services for securities.

Box 1. Other Selected Aspects of Vietnam's WTO Accession

- **Subsidies:** Vietnam is committed to abstain from subsidizing agricultural exports. However, it will be allowed to support its farmers with measures that could have distortionary effects on trade (so-called "Amber Box" measures) of up to about 4 trillion Vietnamese dong (currently about US\$246 million) in addition to the usual allowance for developing countries (known as "de minimis") of up to 10 percent of the value of domestic agricultural production. Like other WTO members, Vietnam may also spend unlimited amounts on support that does not distort trade (so-called "Green Box" support). While all trade-distorting subsidies on nonagricultural goods must be removed, investment preferences granted to export producers before the WTO accession (except on textiles and garments) may be maintained for up to five years after accession.
- **Trading rights:** From the date of accession, foreign firms and individuals have been given the same rights to export or import as Vietnamese firms and individuals, except for items that are subject to state trading (i.e., petroleum, aircraft, newspapers, cigarettes, and videotapes) as well as a few other sensitive items. Importers are free to choose their domestic distributors. There is no minimum capital requirement for firms engaging in trading activity. A transition period lasting up to 2011 will apply to rice.
- **Privatization and equitization:** The reform of state-owned enterprises (SOEs) will be handled transparently. Vietnam will provide WTO members with annual reports on the status of its equitization plan and the reform of equitized enterprises in which the state retains a controlling share.
- **Pricing and price controls:** Vietnam will comply with WTO agreements and notify the WTO of actions it takes to control prices.
- **Excise duties:** Vietnam has agreed to simplify the structure of excise duties on alcoholic beverages within three years by applying a single rate for all forms of beer and a single rate for all spirits containing 20 percent alcohol or more.
- **Quantitative and other restrictions:** Quotas, bans, and other restrictions were to be abolished upon accession, including import bans on cigarettes, cigars, and used vehicles.
- **WTO agreements dealing with rules:** Vietnam will comply with customs valuation, rules of origin, preshipment inspections, antidumping safeguards, subsidies, and trade-related investment measures agreements as of the date of accession, with the exception of a few categories of subsidies, as noted above.
- **Export restrictions:** While export controls will be maintained on some sensitive products, such as rice, certain wood products, and minerals (to prevent illegal exploitation), Vietnam will apply these controls in a way that conforms to WTO agreements. For example, Article XI of the General Agreement on Tariffs and Trade prohibits export quotas unless these are applied temporarily to prevent or relieve critical food shortages.
- **Standards:** Vietnam has agreed to apply international standards relating to technical barriers to trade, and sanitary and phytosanitary measures agreements, immediately upon accession.
- **Intellectual property:** Vietnam has agreed to comply with the Trade-Related Aspects of Intellectual Property Rights (TRIPS) rule from the date of accession.

- **Also upon accession, Vietnam allowed foreign insurance companies to set up 100 percent foreign-invested companies.** In addition, foreign-invested insurance companies are to be allowed to provide compulsory insurance service from January 1, 2008, and to set up branches that, after 5 years, can provide life insurance services.
8. **The distribution sector has been opened up from the date of accession to foreign companies engaged in joint ventures with a Vietnamese partner that are allowed to operate in all but a specified number of activities.**⁴ The currently-applied 49 percent limit on foreign capital contributions is to be reduced by January 1, 2008 and completely abolished in 2009. Upon accession, foreign-invested companies dealing in distribution services are permitted to engage in wholesale and retail businesses of all legally imported and domestically produced products, except for cement and cement clinkers, tires, paper, tractors, motor vehicles, including automobiles and motorcycles, iron and steel, audiovisual devices, wines and spirits, and fertilizers. Restrictions on most of these items will be lifted gradually and completely removed by 2010.
9. **Vietnam has made commitments to liberalize a wide range of other services with differing degrees of foreign participation.** These commitments are summarized in Box 2.

C. The Impact of WTO Accession on Welfare: A Partial Equilibrium Model

10. **This section develops a partial equilibrium model to simulate the welfare impact on Vietnam of the tariff reductions resulting from WTO commitments.** The model uses a disaggregated dataset with commodity level imports and tariff data at the four-digit level of the Harmonized System (HS). The ten-digit tariff rates of the MFN tariffs and WTO commitments were converted into the four-digit rates to allow matching with the latest available import data.
11. **The model is calibrated so that in the base year of 2006 the implicit import tariff revenues derived from the model are equal to actual receipts from import duties.** This is necessary to avoid an overestimation of revenue losses. To this end, the model includes a coefficient called the compliance rate so that the implicit import revenues derived by applying the 2006 MFN tariff rates to actual imports at the four-digit level of the HS are the same as the actual import tariff revenues reported in the budget (actual tariff revenues are in fact much lower than the implicit import revenues, owing to the presence of extensive exemptions, export-processing zones, etc.).

⁴ Cigarettes and cigars, books, newspapers and magazines, video recordings, precious metals and gem stones, pharmaceutical products and drugs, explosives, processed and crude oil, rice, cane and beet sugars are excluded from these commitments.

Box 2. Selected Services Commitments on Commercial Presence¹

- **Architectural and engineering services:** For two years from the date of WTO accession, fully (100 percent) foreign-invested enterprises may provide services only to other foreign-invested enterprises in Vietnam.
- **Advertising and market research:** Upon accession, joint ventures allowed with the share of foreign capitals not to exceed 51 percent; from January 1, 2009, no limitation on foreign capital contributions in joint ventures.
- **Courier services:** Foreign ownership in joint ventures limited to 51 percent within the first five years after accession, but fully foreign-invested enterprises shall be permitted thereafter.
- **Construction and related engineering:** For two years from the date of accession, fully foreign-invested enterprises may provide services only to foreign-invested enterprises and foreign-funded projects in Vietnam.
- **Motion picture production and distribution:** Allowed only in the form of business cooperation contracts or joint ventures with Vietnamese partners authorized to provide these services in Vietnam. Foreign capital contributions may not exceed 51 percent of the legal capital of such a joint venture.
- **Education:** Upon accession, allowed only in the form of joint ventures, but from January 1, 2009, fully foreign-invested education entities are permitted. Foreign teachers wishing to work in foreign-invested schools must have at least five years of teaching experience, and qualifications recognized by competent authorities.
- **Health:** Foreign services suppliers may establish fully foreign-invested hospitals, and joint ventures or business cooperation contracts with Vietnamese partners. The minimum capital investment is at least US\$20 million for a hospital, US\$2 million for a polyclinic unit, and US\$200,000 for a specialty unit.
- **Environment:** Services supplied in connection with the exercise of governmental authority may be subject to public monopolies or exclusive rights may be granted to private operators. Upon accession, and for four years thereafter, joint ventures with a foreign capital contribution not to exceed 51 percent will be allowed. After that, this restriction will be abolished. Foreign-invested enterprises may not collect refuse directly from households, and may only to provide services at the refuse collection points specified by local authorities.
- **Tourism and travel:** For eight years from accession, hotel services provided shall be in parallel with investment in hotel construction, renovation, or acquisition, but no restrictions will apply thereafter. For travel agencies, foreign services suppliers may form joint ventures with Vietnamese partners with no limitation on the foreign capital contribution. Tour guides in foreign-invested enterprises shall be Vietnamese citizens.
- **Road transport:** Upon accession, foreign suppliers may provide passenger and freight transportation services through business cooperation contracts or joint ventures with a capital contribution of up to 49 percent. After three years—subject to the needs of the market—joint ventures with a foreign capital share of up to 51 percent may provide freight transport services, provided that all their drivers are Vietnamese citizens.
- **Marine transport:** Two years from the date of accession, foreign service suppliers will be permitted to establish joint ventures with a foreign capital contribution not to exceed 4 percent of the total legal capital. Foreign seamen may work on ships registered in Vietnam and owned by Vietnamese joint ventures, but are not to exceed one-third of a ship's total employees. Upon accession, joint ventures with up to 51 percent foreign participation were allowed to handle port services and related support services in Vietnam. After five years from accession, foreign shipping companies will be allowed to establish fully foreign-invested enterprises.
- **Maritime auxiliary services:** Container handling: upon accession, joint ventures with a foreign capital contribution not exceeding 50 percent may be established. Customs clearance: upon accession, joint ventures with a foreign capital contribution not exceeding 51 percent; after five years, joint ventures may be established with no foreign ownership limitations. Container station and depot services: upon accession, joint ventures with a foreign capital share up to 51 percent; seven years after accession, no restrictions will apply.
- **Air transport:** Sales and marketing: airlines may provide services through their ticketing offices or agents in Vietnam. Computer reservations: foreign suppliers must use public telecommunications networks managed by the Vietnamese telecommunications authority. Maintenance and repair of aircraft: Upon accession, joint ventures with foreign capital share up to 51 percent; after five years, fully foreign-owned enterprises allowed.

¹ Sources: World Bank (2006) and Report of the Working Party on Accession of Vietnam (WT/ACC/VNM/48).

12. **The welfare effects of WTO accession are calculated year by year during the period 2007–19 using the WTO commitment schedule.** The welfare gains are derived as the sum of the change in the aggregate consumer surplus and the change in total tariff revenues.⁵ Each of these two components can be further broken down into effects deriving from tariff reductions on trade among the Association of Southeast Asian Nations (ASEAN) members and tariff reductions on trade with non-ASEAN partners (i.e., the rest of the world). This is because Vietnam, as a member of ASEAN, was already committed to applying the Common Effective Preferential Tariff (CEPT) scheme under the ASEAN Free Trade Area to its intra-ASEAN trade prior to its accession to the WTO. The model also simulates the induced effect of Vietnam’s WTO accession on imports, based on an estimated import-demand function.⁶ Annex I provides a more detailed discussion of the model’s specification.

Results of the Simulations

13. **Two scenarios are presented with short-run and long-run effects simulated for each.** Scenario 1 assumes that the MFN tariffs apply to all imports, whether they originate from ASEAN members or not. Scenario 2 assumes that ASEAN imports are subject to the CEPT preferential rates, while all other imports are subject to MFN rates. The rationale for having two scenarios is that actual implementation of the preferential rate under the AFTA agreement appears to be limited so far. This could reflect in large part the perceived high costs of administrative compliance and documentation, together with a long list of sensitive products and exceptions that are not subject to preferential rates. Given that the MFN rates are generally much higher than the CEPT rates, Scenario 1—assuming that all imports are subject to the MFN rates—provides an upper bound of welfare gains, whereas Scenario 2 provides a lower bound.

14. **The results of the simulations summarized in Table 1 below show that the increase in consumer surplus exceeds the decline in tariff revenues by a substantial margin, leading to a significant net gain in welfare.**⁷ More specifically:

⁵ The consumer surplus is defined as the difference between the maximum or reservation price that a consumer would be willing to pay for a particular commodity and the actual price at which this commodity can be actually purchased. The change in an economy’s aggregate consumer surplus is a convenient summary measure of the gains in welfare accruing from trade-related decreases in the domestic prices of consumer goods.

⁶ This represents the increase in imports that results solely from the reduction in custom duties in accordance with WTO commitments; the increase in imports induced by WTO-mandated tariff reductions is much smaller than the projected total increase in imports, because the latter is driven also by the projected increases in GDP, domestic investment, FDI, and other macroeconomic variables.

⁷ The partial equilibrium framework used in this section does not take into account the gains that could result from increased productive efficiency following the implementation of WTO-mandated reforms. A full analysis of such effects would require detailed data on the production side, and a general equilibrium framework. Section D below provides a qualitative discussion of possible gains from increasing productive efficiency. See

(continued)

- **Under Scenario 1**, annual consumer gains from the availability of cheaper imports (i.e., the increase in the consumer surplus) are projected at US\$1 billion (1.5 percent of GDP) in 2007, rise to US\$2.2 billion (1.7 percent of GDP) by 2012, and level off at about US\$2.3 billion (0.9 percent of GDP) in 2019. These results are broadly in line with those obtained in a previous study (Dimaranan et al., 2005).
- **Under the same scenario**, annual revenues from import tariffs are projected to fall by about US\$300 million or by about 0.4 percent of GDP in 2007, and by US\$650 million or 0.5 percent of GDP by 2012, before leveling off at around US\$700 million from 2013 onwards. The relatively modest effect during the out-years is due to the fact that most bound rates are to be phased in during the first five years after accession. However, the cumulative revenue losses projected to occur over the next five years are significant, calling for stepped up efforts to bolster other non-oil revenues.
- **As expected, under Scenario 2**, the changes in annual welfare, consumer surplus, and tariff revenues are slightly lower than in Scenario 1. This is consistent with the fact that the CEPT rates that apply to intra ASEAN trade are much lower than MFN rates and, therefore, the benefit from lowering the MFN tariff rates will apply to a smaller share of trade in scenario 2 compared to Scenario 1.

15. **The results above hold under the assumption that no tariff lines are increased beyond the 2006 rates.** In fact, the loss in tariff revenues will always be more than compensated for by the increase in the consumer surplus in an economy in which there is a uniform tariff rate and import demand is inversely related to the price of imports.⁸ However, the picture is more complex when there are multiple import products that are subject to differing tariff rates. In such cases, even if the average MFN tariff is reduced, the sign of the net welfare effects may be ambiguous because some tariff rates may be declining while others are increasing. The net impact on tariff revenues in such a disaggregated framework will depend on a number of factors, including individual demand elasticities, share of imports subject to each tariff rate, etc. Thus, to ensure that WTO accession will have the positive net welfare effects derived above, the authorities would be well-advised to abstain from increasing any tariffs beyond 2006 rates, even if allowed to do so by WTO commitments.

Abbott et al. (2006) for a review of general equilibrium models and sector studies on Vietnam's WTO accession.

⁸ The relationship between revenues and consumer surplus is not linear because revenues increase proportionally with the average tax rate, while the consumer surplus is inversely related to the square of the tax rate. Therefore, a tariff reduction always implies an increase in the consumer surplus that more than compensates for the revenue shortfall. The net welfare gains (losses) resulting from the reduction (increase) in import tariffs refer to the excess of the increase (reduction) in consumer welfare above and beyond that which can be accounted for by income gains (losses) due to the reduced (increased) payment of the tax.

**Table 1. Vietnam's WTO Accession:
Estimated Impact on Annual Revenues, Consumer Surplus, and Imports Under Different Scenarios 1/**
(In millions of U.S. dollars, unless otherwise indicated)

	Scenario 1			Scenario 2		
	2007	2012 2/	2019 2/	2007	2012 2/	2019 2/
Change in welfare	784	1,508	1,614	774	1,292	1,376
ASEAN	...	...	...	6	10	10
Rest of the world	...	...	...	768	1,282	1,366
<i>Of which:</i>						
Change in tariff revenues	-272	-651	-696	-213	-480	-512
ASEAN	...	...	...	2	-1	-2
Rest of the world	...	...	...	-215	-478	-510
Change in consumer surplus	1,056	2,159	2,310	986	1,771	1,888
ASEAN	...	...	...	4	12	12
Rest of the world	...	...	...	983	1,760	1,876
Change in tariff revenues (percentage change)	-14.5	-24.8	-25.4	-12.5	-21.7	-22.3
ASEAN	...	...	...	2.8	0.1	0.0
Rest of the world	...	...	...	-13.2	-22.8	-23.4
Change in imports (percentage change)	2.9	5.1	5.2	2.3	3.9	4.0
ASEAN	...	...	...	0.1	0.1	0.1
Rest of the world	...	...	...	2.8	4.7	5.0
<i>Memorandum items (in percent of GDP) 3/</i>						
Change in tariff revenues	-0.4	-0.5	-0.3	-0.3	-0.4	-0.2
ASEAN	...	...	...	0.0	0.0	0.0
Rest of the world	...	...	...	-0.3	-0.4	-0.2
Change in consumer surplus	1.5	1.7	0.9	1.4	1.4	0.8
ASEAN	...	...	...	0.0	0.0	0.0
Rest of the world	...	...	...	1.4	1.4	0.8
Change in welfare	1.1	1.2	0.7	1.1	1.0	0.6
ASEAN	...	...	...	0.0	0.0	0.0
Rest of the world	...	...	...	1.1	1.0	0.6

Sources: WTO, author's estimates, and UN Comtrade Data.

Note: Scenario 1 and 2 assume that the MFN tariff lines will not be increased to meet higher bound rates, beyond the 2006 MFN tariffs.

1/ Projected change in annual welfare, tariff revenues, and consumer surplus relative to 2006.

2/ For 2012 and 2019 observations, data refer to cumulative changes relative to 2006.

3/ Current year GDP.

D. A More General Overview of the Potential Impact of WTO Accession

16. **Besides the net gains to consumers estimated in the previous section, WTO accession can be expected to result in significant dynamic productivity gains.** In industries in which there are potential economies-of-scale, in particular, improved access to foreign markets can generate large gains as rising production leads to decreasing marginal costs. Such effects could prove highly beneficial for the key textile industry, in which Vietnam will now be able to compete on an equal footing with other WTO member countries whose exports have enjoyed quota-free treatment since the beginning of 2005.

17. **Productivity gains are also likely to arise as a result of increasing competition from imports and foreign-invested enterprises, although there may also be negative effects on the profitability and viability of some import-competing sectors.** On the one hand, Vietnam will face greater competition from foreign producers in its domestic markets as import tariffs and subsidies in protected sectors are substantially reduced. Domestic producers operating in import-competing sectors will thus likely experience a reduction in output prices and a decline in the so-called producer surplus. On the other hand, with improved access to cheaper and more varied imported raw materials and semi processed inputs, these sectors should be able to reap offsetting increases in their producer surplus. Cheaper imported inputs can also raise productivity via learning, variety, or quality effects, as suggested in recent empirical studies on other countries in emerging Asia (Amiti and Konings, 2005; Topalova, 2004). The net result of these opposing effects is difficult to ascertain. The outcome will depend on, among other factors, the sectoral composition of changes in effective rates of protection⁹ and the speed with which domestic producers in import-competing sectors can adapt to cope with the increased competition.

18. **Productivity gains can also arise from nontariff-related market-friendly reforms introduced in the context of WTO accession, which should help increase the efficiency and profitability of investment.** The new Unified Enterprise Law and Common Investment Law, which took effect in July 2006, have been intended to provide a common regulatory framework for domestic and foreign enterprises. Vietnam has also moved to harmonize its rules on trading rights for foreign and domestic traders, and WTO accession could serve as a catalyst to promote the restructuring of inefficient state-owned enterprises (SOEs). Increased competition with foreign banks can also be expected to prod the government to speed up the restructuring of state-owned commercial banks (SOCBs) and the implementation of its roadmap for banking sector reform. Moreover, greater scope for joint ventures with major international producers and distributors could also lead to increases in productivity through technology transfers (Javorcik, 2004). Indeed, WTO accession has already bolstered the investment climate and, with FDI approvals reaching a record US\$10 billion in 2006,

⁹ The effective rate of protection measures the *real* level of protection for producers due to the structure of protection on both inputs and final goods.

Vietnam is well placed to take full advantage of its ongoing global integration and to sustain the rapid pace of its economic growth.

19. **However, some of the benefits from WTO accession could take time to be fully realized.** Although WTO membership gives Vietnam the right to invoke WTO rules against other members when it feels its rights have been infringed upon, the playing field will not be entirely level for some time. Under the terms of its accession, Vietnam will remain on a list of so-called “non-market economies” for up to 12 years, which could make it more difficult for it to guard against the imposition of antidumping measures on certain Vietnamese exports by other WTO members.¹⁰ Moreover, in the important U.S. market, a monitoring system was imposed upon accession on certain Vietnamese apparel imports to guard against possible dumping violations following the removal of quotas. This development seems to have partially clouded the positive outlook for the Vietnamese textile sector. Even if the monitoring system does not lead to the imposition of any punitive measures, Vietnamese exporters could end up being subjected to burdensome administrative procedures that could slow delivery times to end users and hence erode their comparative advantage relative to other global producers.

20. **From a broader perspective, WTO accession should have largely positive macroeconomic effects.** While the reduction in import tariffs will initially depress import duty receipts, this effect should be tempered over time as the removal of trade barriers spurs import growth. With exports continuing to grow rapidly as access to foreign markets improves, and with the continued dynamism of foreign investment, the overall balance of payments should remain strong. Increasing access to cheaper imports should also help contain inflation, which jumped to 8.8 percent (year-on-year) in September 2007 and is still much higher than in the rest of emerging Asia. Indeed, as already noted, in August 2007 the Ministry of Finance moved to lower some import tariffs well ahead of the WTO-mandated schedule, with a view to curbing inflationary pressures. In the period ahead, accelerated implementation of tariff reductions could also help offset the inflationary effects of planned increases in key administered prices.

21. **WTO accession is, of course, not a panacea and presents challenges as well as opportunities.** Heavily protected industries and SOE sectors, notably auto assembly and motorbike plants, will need to undertake significant reforms to remain viable. In this process,

¹⁰ Dumping occurs when an exporter sells a product abroad for less than it charges at home, or for less than it costs to make. In a non-market economy, it can be argued that domestic prices are not set by supply and demand, making it difficult to determine the true costs of producing exports. To obtain a reliable measure of such costs, the trade authorities in importing countries can come up with their own calculations based on costs in other “surrogate” countries (e.g., Brazil, which was used as a surrogate in the case of the EU’s recent antidumping measure against footwear imports from China and Vietnam).

there may well be a compression of profit margins and, possibly, labor shedding or even bankruptcies among nonprofitable SOEs and declining industries. The financial sector and, more generally, the service sectors will likely face some difficult challenges. SOCBs can expect to face much stronger competition as foreign banks expand the scale and scope of their operations in the Vietnamese market (Phan Van Sam and Vo Than Thu, 2005). This increases the urgency of market-oriented reforms in the banking sector. The government's recent initiative to accelerate the equitization process for the main SOCBs is an important step in this direction. Liberalization is also likely to increase competitive pressures on the domestic retail sector—in particular small firms operating as family-owned businesses, which may be particularly vulnerable to competition from large foreign distribution chains.

22. **In the short run, some measures may be necessary to mitigate any adverse effects on the more disadvantaged sectors of the economy.** Although such effects should be manageable as long as more efficient sectors offer growing employment opportunities, it will be important to put in place adequate retraining programs and social safety nets to minimize dislocations. The authorities will also have to resist the temptation to support financially those industries with declining profitability. Such support, which might take the form of fiscal incentives or directed lending by state-owned banks, could turn out to be very costly, especially if, in the end, these industries prove to be nonviable.

Box 3. Vietnam's WTO Accession: Opportunities and Challenges—A Synopsis

Main opportunities and benefits:

- Broadening market access → Increased opportunities for export-oriented sectors
- Efficiency gains in both trade and production
- Positive environment for continued export-led growth
- Promotion of faster disinflation
- Strong impetus to market-oriented domestic reform (political economy argument)
- Increasing investor confidence → Increased FDI

Main Challenges:

- Maintaining competitiveness in sectors previously protected with tariffs and subsidies
- Accelerating banking sector and SOE reforms
- Dealing with possible unemployment and the need for social safety nets

Impact on the Region and the Rest of the World

23. **Vietnam's WTO accession and its emergence on the world stage can have significant implications for other economies in the region.** The relatively more advanced newly industrialized economies (NIEs), which have been major sources of FDI in Vietnam, are likely to gain from Vietnam's accession, because they do not have the same export product mix as Vietnam (Figures 1 and 2).¹¹ However, major exporters of textiles and garments (such as Bangladesh, Cambodia, the Philippines, and Sri Lanka) could face new competitive challenges as Vietnamese products progressively increase their penetration of the key European Union and United States markets. In addition, as Vietnamese producers diversify into a broader range of manufacturing sectors, including low-end electronics, ASEAN-4 countries could face increasing pressure to move toward the production of higher value-added products.

24. **Vietnam is already assuming an increasing role in international production networks within Asia.** Many Japanese firms have recently relocated some of their production operations from China to Vietnam (JETRO (2007a and 2007b)). A similar pattern also appears to be followed by investors from Korea, Hong Kong SAR, and Taiwan POC, as Vietnam is reportedly becoming an important "cushion" for multinational firms seeking to reduce their overdependence on China and to spread their business and risk in the region more evenly.¹² Such relocation has also been attributed to increasing production and labor costs in China's relatively saturated coastal areas. and even some Chinese firms are reported to be relocating some of their business operations to Vietnam.

25. **The reduction of Vietnam's MFN tariffs can help the process of its ongoing integration into the regional supply chain.** As already noted, while most of the intra-ASEAN trade can be carried out under the ASEAN Free Trade Area (AFTA) preferences, which are much lower than the MFN tariffs, de facto, the high administrative costs associated with verifying AFTA's rules of origin have reportedly resulted in only a limited amount of intra-ASEAN trade being carried out under these preferences to date. Vietnam's lower MFN rates following WTO accession could further spur Vietnamese imports and exports within the region,¹³ and increase Vietnam's appeal as a destination for foreign investors, including in the IT sector. Cost reductions resulting from increasing FDI in Vietnam could, in turn, improve the profitability of regional networks. Although an increase in FDI in Vietnam may in principle lead to a diversion of investment from competing destinations, the East Asian

¹¹ Based on trends in the composition of trade over the 1989–2005 period, it appears that Vietnam has developed a comparative advantage in exporting labor-intensive consumer goods, while NIEs have shifted toward exporting capital goods.

¹² Firms adopted the so-called "China plus one" strategy (i.e., investing in China and another country to reduce dependence on China).

¹³ This result is confirmed by econometric analysis (Tumbarello, 2007b).

countries that invest in Vietnam should also reap benefits from its improving investment opportunities.

26. **Industrialized countries outside Asia can also be expected to gain from Vietnam's ongoing global integration.** As Vietnam seeks to upgrade its productive capacity and build up its infrastructure, the prospects for industrial country exports of technology-intensive manufactures should improve. Important benefits could also accrue to advanced countries from the opening up of Vietnam's services sector, in particular financial services. Vietnam's relatively low wages and highly educated population have already made it an appealing destination for investment by some multinational corporations. Early this year, a U.S. technology giant announced its intentions to build its largest chip assembly and testing plant in Vietnam. Although Vietnam is a relative newcomer in this area, the trend toward investment and production in high tech sectors and related services, such as computer hardware, telecommunications equipment, and energy-related machinery is expected to continue in the period ahead.¹⁴ In addition, consumers in the United States, the European Union, and Japan—who are the major net purchasers of textiles, footwear, and other low-cost manufactures from Vietnam—should reap increasing gains in welfare from the continuing integration of Vietnam's productive and low-cost labor force into the global economy.

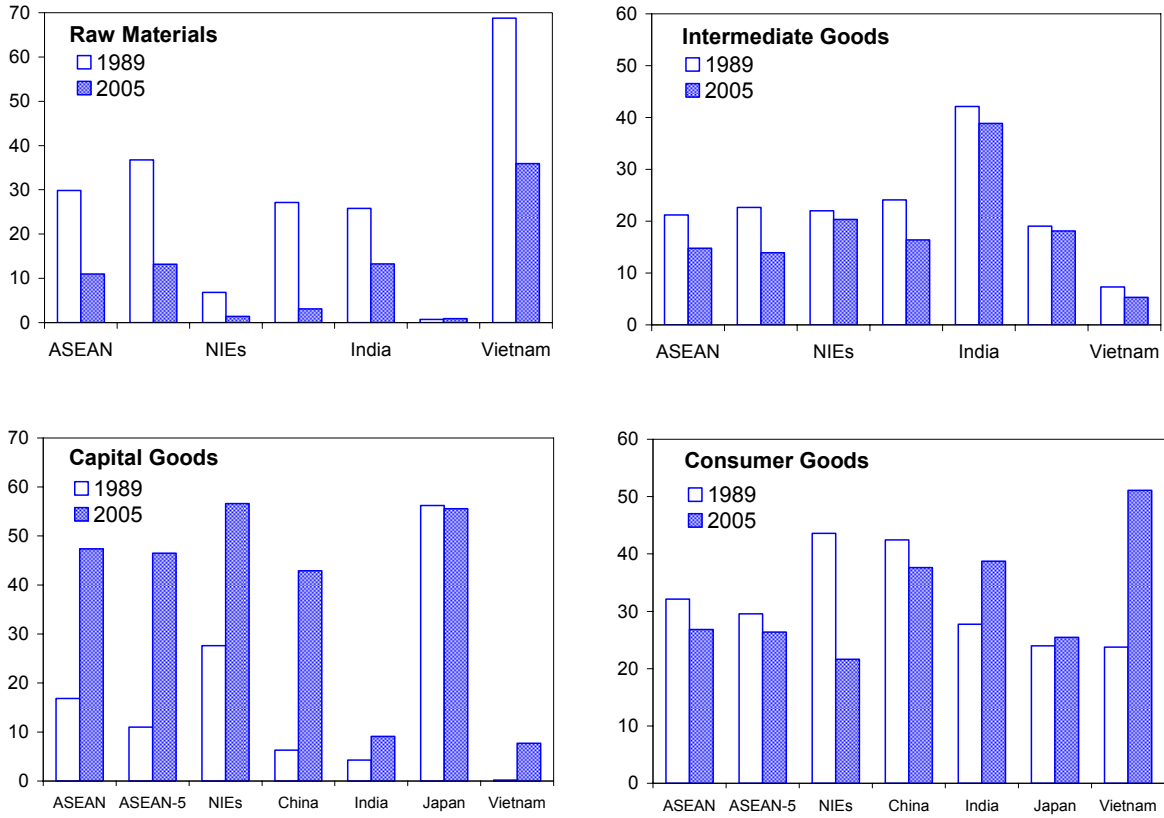
E. Conclusion

27. **Membership in the WTO should confer significant benefits on the Vietnamese economy through multiple channels:** welfare gains for consumers that will have access to more affordable and better quality products, increasing access to foreign markets for exporters, and efficiency gains resulting from faster implementation of domestic reforms. While important welfare gains from WTO-and AFTA-related tariff reductions are expected to accrue in the short run and over the medium term, over the long run, significant dynamic gains arising from higher productivity and larger FDI are also likely to materialize.

28. **Of course, WTO accession is not a panacea.** The revenue losses following WTO accession call for stepped up efforts to bolster non-oil revenues, especially in the first few years after the accession. Some domestic industries may suffer initially from the removal of protection. To enable the economy to meet the challenge of global competition while limiting any serious dislocations, Vietnam will need to expedite reforms in state-dominated sectors, and institute appropriate safety nets. The country may also face challenges that go beyond the trade liberalization agenda, such as the ability to maintain macroeconomic stability in the presence of increasing financial integration. However, the net benefits that Vietnam may reap by continuing to deepen its integration with the global economy are likely to be substantial.

¹⁴ U.S. and Foreign Commercial Services and U.S. State Department, *Doing Business in Vietnam: A Country Commercial Guide for U.S. Companies*, 2005.

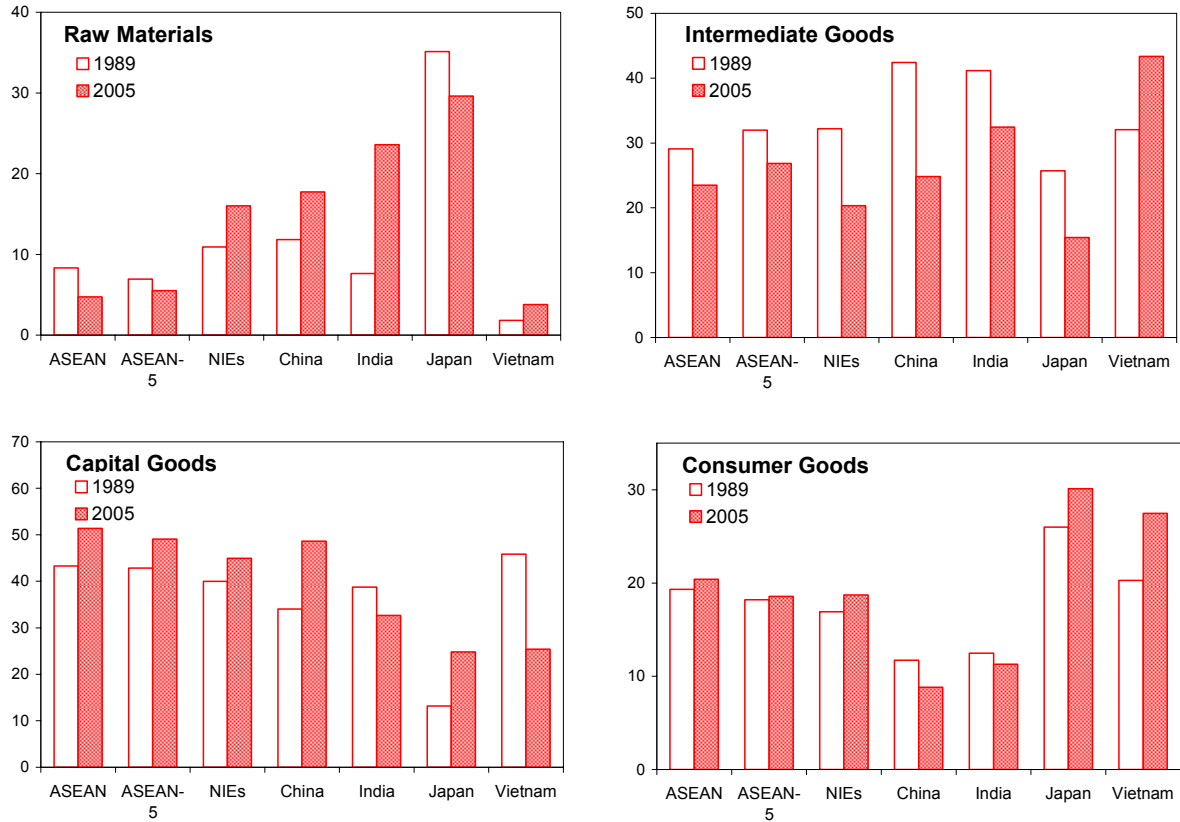
Figure 1. Vietnam: Exports by Stage of Production: Regional Comparison, 1989 and 2005 1/
(In percent of total exports)



Sources: World Integrated Trade Solution; and IMF staff calculations.

1/ ASEAN-5 includes: Indonesia, Malaysia, Philippines, Thailand, and Vietnam. NIEs include: Hong Kong SAR, Korea, Singapore, and Taiwan POC.

Figure 2. Vietnam: Imports by Stage of Production: Regional Comparison, 1989 and 2005 1/
(In percent of total imports)



Sources: World Integrated Trade Solution; and IMF staff calculations.

1/ ASEAN-5 includes: Indonesia, Malaysia, Philippines, Thailand, and Vietnam. NIEs include: Hong Kong SAR, Korea, Singapore, and Taiwan POC.

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ANNEX I

The Impact of WTO Accession on Vietnam's Welfare: A Partial Equilibrium Model

This model follows the methodology in Tumbarello (2005). The implementation of WTO commitments results in a change in welfare because of two factors: a change in revenue and a change in consumer surplus.¹⁵ In addition, given Vietnam's commitments under AFTA, Vietnam is also committed to decrease its intra-ASEAN tariff rates according to the AFTA schedule. Thus, in the years ahead, MFN tariff rates are to be reduced independently of AFTA rates. In this respect, the change in welfare (ΔW) for Vietnam following full implementation of WTO and AFTA commitments can be expressed as the sum of two welfare changes: that resulting from adoption of the new MFN tariffs applied by Vietnam to imports vis-à-vis non-ASEAN members and that resulting from the adoption of the preferential tariffs to be applied by Vietnam to ASEAN imports:

$$\Delta W = \Delta W_{WTO} + \Delta W_{ASEAN} \quad (1)$$

$$= \Delta TR_{WTO} + \Delta CS_{WTO} + \Delta TR_{ASEAN} + \Delta CS_{ASEAN}, \quad (1')$$

where ΔW_{WTO} is Vietnam's welfare change resulting from the tariff revenue changes (ΔTR_{WTO}) and consumer surplus (ΔCS_{WTO}), due to the new MFN/WTO-mandated tariffs to be applied to non-ASEAN members, and ΔW_{ASEAN} is the welfare change owing to changes in tariff revenues (ΔTR_{ASEAN}) and consumer surplus (ΔCS_{ASEAN}) due to the implementation of AFTA commitments.

Other specific assumptions of the model are: that products imported from ASEAN members are imperfect substitutes for products traded with the rest of the world; that world markets are perfectly competitive; and that within each group (i.e., ASEAN members and the rest of the world) the products traded are perfectly homogeneous.

Vietnam's total import demand M is calculated as the sum of each import demand M_i for each commodity i , which is given by

$$M_i = \frac{A_i}{[P_{w,i}(1+t_i)]^\eta}, \quad (2)$$

where A_i is a demand parameter; P_w is the world price normalized at 1; t is the MFN tariff; and η is the price elasticity of import demand, which can vary across products.

¹⁵ A shortcoming of the model is that it does not take into account the producer surplus. It assumes imperfect substitution across goods as in the Dixit-Stiglitz model (1977).

The demand parameter, which is equal to $A_i = M_i [P_{w,i} (1 + t_i)]^\eta$, is unknown. In the model, A is calibrated based on the estimated values for the elasticity of import demand, η , from Hoekman, Ng, and Olarreaga (2002) and Kee, Nicita, and Olarreaga (2004); actual imports from UN trade data at the four-digit level of the Harmonized System; and the schedules of MFN tariffs and WTO commitments provided by the Vietnamese authorities.

The Change in Imports

After joining the WTO, Vietnam's initial MFN tariff, t_i^I , changes to t_i^F , which is equal to the initial MFN tariff multiplied by the parameter α .¹⁶ The tariff rate for imports traded within the ASEAN will be lower than the MFN rate if the CEPT rate is actually applied. The change in Vietnam's imports from the rest of the world after adopting the WTO commitments, ΔM_{WTO} , can be expressed by:

$$\Delta M_{WTO} = M_{WTO}^F - M_{WTO}^I = \frac{A_{WTO}}{[P_w (1 + t^I \alpha)]^\eta} - \frac{A_{WTO}}{[P_w (1 + t^I)]^\eta}, \quad (3)$$

with M_{WTO}^I representing the initial pre-WTO imports from the rest of the world and M_{WTO}^F the final imports from the rest of the world after adoption of the WTO commitments.

The impact on imports from ASEAN countries is obtained symmetrically:

$$\Delta M_{ASEAN} = M_{ASEAN}^F - M_{ASEAN}^I = \frac{A_{ASEAN}}{[P_w (1 + t^I \alpha)]^\eta} - \frac{A_{ASEAN}}{[P_w (1 + t^I)]^\eta}. \quad (3')$$

The Impact on Tariff Revenues

Using the following definitions:

$$TR_{WTO}^I = t^I P_w M_{WTO}^I \quad \text{and} \quad TR_{WTO}^F = t^I \alpha P_w M_{WTO}^F$$

and substituting from above the change in tariff revenues with the rest of the world, ΔTR_{WTO} in Vietnam is equal to:

$$\Delta TR_{WTO} = TR_{WTO}^F - TR_{WTO}^I = t^I \alpha P_w \frac{A_{WTO}}{[P_w (1 + (t^I \alpha))]^\eta} - t^I P_w \frac{A_{WTO}}{[P_w (1 + t^I)]^\eta}$$

¹⁶ The parameter α varies across products.

$$= t^I P_w^{I-\eta} A_{WTO} \left[\frac{\alpha}{(I+t^I \alpha)^\eta} - \frac{I}{(I+t^I)^\eta} \right], \quad (4)$$

where ΔTR_{WTO}^I is the initial tariff revenues from the rest of the world before adoption of the WTO commitments, and ΔTR_{WTO}^F is the tariff revenues after full implementation of the WTO commitments.

The impact on tariff revenues generated by ASEAN imports is derived symmetrically. The change in the consumer surplus due to the change of the MFN tariff is defined as:

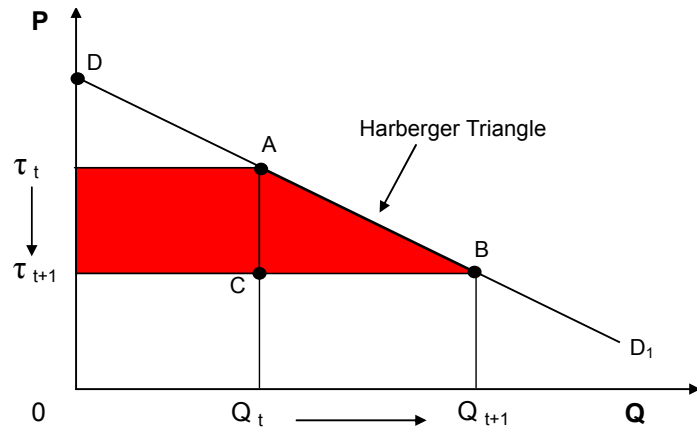
$$\begin{aligned} \Delta CS_{WTO} &= \int_{P_w(I=t^I)}^{P_w(I=t^F)} \frac{A}{P^\eta} dP = \frac{A_{WTO}}{\eta-1} \left[\frac{I}{[P_w(I+t^F)]^{\eta-1}} - \frac{I}{[P_w(I+t^I)]^{\eta-1}} \right] \\ &= \frac{I}{\eta-1} A_{WTO} P_w^{I-\eta} \left[\frac{I}{[I+t^I \alpha]^{\eta-1}} - \frac{I}{[I+t^I]^{\eta-1}} \right]. \end{aligned} \quad (5)$$

Symmetrically, the change in the consumer surplus resulting from Vietnam's trade with ASEAN is:

$$\Delta CS_{ASEAN} = \frac{I}{\eta-1} A_{ASEAN} P_w^{I-\eta} \left[\frac{I}{[I+t^I \alpha]^{\eta-1}} - \frac{I}{[I+t^I]^{\eta-1}} \right]. \quad (5')$$

Equations 5 and 5' calculate the change in consumer surplus as the integral of the import demand function over the price range between the new domestic price of imports (taking into account the lower tariffs after WTO accession) and the old price (under the higher, old tariffs before WTO accession). This equation, which calculates the change in the consumer surplus following the decrease in tariffs, can be shown graphically below as in the shaded area.

The Harberger triangle (i.e., area ABC)—which represents the net welfare effect—is obtained by subtracting from equation 5 the revenue losses (i.e., rectangle $ACT^F T^I$).



II. THE 2006–2007 STOCK MARKET BOOM IN VIETNAM: POLICY RESPONSE AND CHALLENGES AHEAD¹⁷

A. Introduction

29. **Vietnam’s stock market experienced an extended boom during 2006 and early 2007, before entering a period of consolidation in March.** The Ho Chi Minh City Stock Market Price (VN) Index rose by 281 percent between end-2005 and end-February 2007, after which it declined by around 20 percent in subsequent months. Even after the recent correction, as of September 10, 2007, the VN index was about triple its end-2005 level. Concerns about the risks posed by an overheating stock market have led the authorities to adopt a number of prudential measures to discourage credit-financed speculative investment in shares and improve securities market regulation.

30. **This chapter reviews the main causes of the recent stock market developments and policy measures taken thus far and discusses challenges ahead.** The chapter is organized as follows. Section B provides an overview of recent trends in the Vietnamese stock market. Section C reviews the main factors that have influenced demand for Vietnamese shares and the extent to which these may have led to overvaluation. Section D discusses the main risks associated with a possible stock market bubble. Section E examines the authorities’ policy response to date. Section F summarizes the policy advice provided by IMF staff, and Section G concludes with a discussion of remaining challenges and a summary of recommendations for the period ahead.

B. Recent Developments in Vietnam’s Stock Market

31. **The Vietnamese stock market experienced an unprecedented boom over the last year, which reached its climax in February–March 2007.** The VN Index rose by 144½ percent in 2006, and by another 56 percent in the first two months of 2007 (i.e., a total increase of 281 percent since the end of 2005).¹⁸ The surge in stock prices was accompanied by a rapid expansion of the number of listed companies, from 41 at end-2005 to 110 as of July 2007 (or from 50 to 200 for both the HCMC and Hanoi markets combined). Most of the new listings took place during the last two months of 2006 as companies tried to benefit from tax incentives that were to expire by year end. Total stock market capitalization went up from

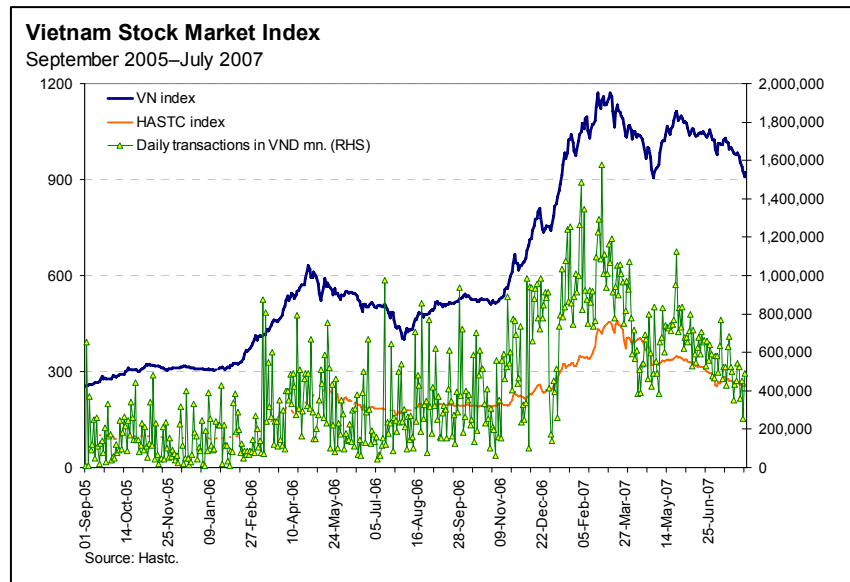
¹⁷ Prepared by Il Hounq Lee, Asia and Pacific Department (APD) and Noel J. Sacasa, Monetary and Capital Markets Department (MCM) with inputs from other staff in APD, MCM, and the IMF resident representative office in Vietnam. This chapter consolidates some of the earlier policy advice provided to the authorities.

¹⁸ The HCMC stock market price (VN) index is a more reliable indicator of long-term trends in Vietnam’s financial market than the Hanoi stock exchange price (HASTC) index. While the Hanoi stock exchange now accounts for about one-third of Vietnam’s total stock market capitalization, it was very small until December 2006 when a large number of new listings increased its importance. The HASTC index surged by 377 percent between end-2005 and March 19, 2007, and it has since declined by about 45 percent.

US\$0.6 billion (1 percent of GDP) at end-2005 to a peak of some US\$23 billion (34 percent of GDP) by end-February 2007. Daily stock trading volumes increased from an average of US\$10 million in January 2006 to about US\$70 million in late February and early March 2007.

32. Market participants and government officials initially welcomed the opportunities created by a growing stock market, but they began to be concerned as share prices continued to reach new highs in early 2007. A number of observers openly suggested that the equity market was overvalued, noting that PE ratios in many of the largest listed companies were out of line with any reasonable assessments of these firms' projected earnings and growth potentials.

One obvious risk stemmed from the lack of



transparency and weak regulatory controls on the still nascent stock market, together with evidence of herd behavior on the part of both some large foreign investors as well as a number of smaller, and less well-informed, local individual investors. The authorities were particularly concerned that a rapid reversal of recent portfolio inflows could lead to severe losses for domestic investors and threaten financial and social stability.¹⁹ These concerns led to the already-mentioned introduction of a number of prudential measures. While the possibility of introducing some sort of controls on capital inflows was also considered, the authorities eventually decided to abstain from such controls.

33. Despite the recent cooling off, some analysts argue that Vietnam's stock prices remain somewhat overvalued. The new prudential controls on stock market-related credit, together with a global equity market adjustment and repricing of risk, contributed to a gradual correction. As of September 10, 2007, the VN index was down by about 20 percent from its late-February peak, although it was still up by about 23 percent from its end-2006 level. The daily value of stock transactions decreased from averages of US\$60–70 million in

¹⁹ Recent studies have found support for the widely held perception that foreign investors are sometimes inclined to herd into individual markets, in some cases switching from one country to another within a specific region, thereby contributing to volatility in affected stock markets. For further discussion on the potentially destabilizing impact of foreign investment inflows into emerging markets, see IMF, *Global Financial Stability Report*, October 2007, Chapter 1.

February–March to around US\$30 million in July–August. The average PE ratio (based on current earnings) for the largest companies representing more than 80 percent of total market capitalization came down from an average of 53 in January–March to around 32 as of late-August.²⁰ While this has been a large reduction, Vietnam’s average PE ratio has remained significantly above the levels recorded in most other Asian markets that have recently experienced stock market booms, and it is still close to the highest PE ratios reached in a few countries during the stock market surges that preceded the Asian crisis of the late 1990s.²¹

34. Aside from the already-mentioned concerns that arise in connection with potentially destabilizing foreign capital inflows and outflows, domestic market imperfections can be important causes for concern. One particular risk stems from possible large exposures of some commercial banks to stock market-related credit, which could amplify the costs associated with a sudden reversal of capital inflows. A related risk could arise in connection with inside trading or other inappropriate practices among banks and their securities company affiliates, which could undermine confidence and the long-run prospects for the development of the capital market. The following section attempts to cast some light on the relative roles of external and domestic factors in influencing recent stock market developments in Vietnam.

Price - Earnings Ratios in Selected Emerging Markets 1/

	2006 Period Average	2007 End-June	2001–06 Period Average	Pre-1997 High 2/
India	21.9	22.8	16.1	31.9
Sri Lanka	19.2	15.5	12.5	14.0
Taiwan POC	17.6	19.5	29.5	33.0
Singapore	16.6	19.0	17.9	21.4
Philippine	16.0	17.3	19.6	28.0
Hong Kong SAR	16.1	19.5	17.1	17.1
Malaysia	16.1	18.6	17.8	30.9
China	15.8	22.5	15.1	20.2
Indonesia	15.5	18.0	12.8	24.7
Korea	11.7	14.8	11.9	31.4
Thailand	10.1	11.9	24.1	21.9
Vietnam	53.6 3/	32.4 4/		
World	16.8	16.9	20.9	31.7 5/
Emerging Latin America	13.5	15.7	13.1	17.9 5/
Emerging Europe and Middle East	15.8	14.7	14.7	25.7 5/

Sources: Datastream; and IMF staff calculations.

1/ Based on Morgan Stanley Capital International country index.

2/ Highest annual average between 1990–97. Each economy can have different date starting point.

3/ Largest 30 listed companies in HCMC and Hanoi stock exchanges, average for Jan.–Feb. 2007.

4/ Based on data as of August 9, 2007.

5/ Historical high since 1995.

²⁰ To the extent that this PE ratio represents prices of the largest listed companies whose shares are most actively traded, it may tend to overstate stock market valuations in Vietnam relative to those in other countries, where valuations are assessed based on more broadly-based PE ratios. However, for the same reason, the average PE ratio of the largest companies may be a more relevant measure for investors in Vietnam where the volume of transactions is relatively more skewed toward these larger companies than in other countries.

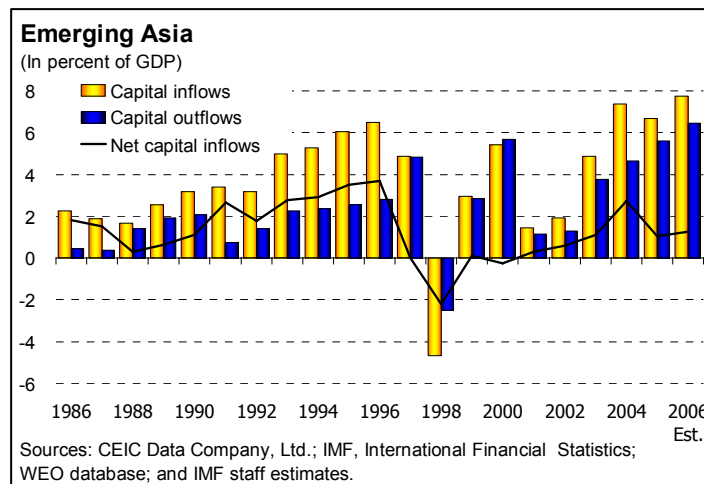
²¹ A more comprehensive review of evidence on possible overheating in other Asian stock markets is provided in Purfield, Oura, Kramer, and Jobst, “Asian Equity Markets: Growth, Opportunities and Challenges,” IMF Working Paper, December 2006 (WP/06/266).

C. Factors Accounting for Vietnam's Stock Market Boom

External factors

35. Increasing foreign portfolio investment has clearly contributed to Vietnam's stock market boom.

Officially recorded portfolio investment inflows into Vietnam, which have so far been directed primarily to equities, are estimated to have doubled from US\$0.9 billion in 2005 to US\$1.9 billion in 2006 (3.1 percent of GDP).²² To some extent, this reflects regional and global developments. Ample global liquidity, a search for yield, and an increasing appetite among foreign investors for risky assets appear to



have contributed to asset market booms in a number of emerging markets over the last year. However, foreign investors' particular interest in Vietnam has also been spurred by the country's continuing strong macroeconomic performance, the positive signal associated with its WTO accession, and its perceived role as a good vehicle for portfolio diversification. The share of foreign investors in daily stock trading went up from an average of 10 percent in mid 2006 to above 20 percent during the first 7 months of 2007. Portfolio inflows are projected to increase sharply in the remainder of the year as the supply of new shares increases in the context of planned equitizations of large SOEs and SOCBs.²³

36. Moreover, as is further elaborated below, with the exception of a brief period in February-March 2007, foreign investors have consistently maintained a "net-buy" position on an aggregate basis. As a result, foreign investment is likely to have helped mitigate the downward pressures on stock prices over the last few months. Thus, foreign holdings have continued to inch up, reaching 33 percent of market capitalization in HCMC and 13 percent in Hanoi by end-July.

²² These amounts do not include foreign inflows that may be directed to the stock market, but are recorded under other foreign exchange transactions such as workers remittances, which could be significant by some estimates.

²³ International vehicles for portfolio investment in Vietnam reportedly hold some US\$ 5-6 billion, of which US\$3-4 billion is still waiting to be invested (see Dragon Capital, *Vietnam: Monthly Update*, July 10, 2007). Thus, despite some analysts' views that the market is overvalued, there is reportedly a pent-up demand for Vietnamese investment instruments among foreign investors. In the end, the magnitude of actual inflows to the stock market will likely depend on the attractiveness of the terms established for SOEs' and SOCBs' upcoming equitizations and IPOs as well as new data on company earnings and changes in global investors' risk appetites.

Domestic factors

37. **Local investors, including domestic banks and listed nonfinancial companies, have also contributed to the stock market boom.** Local market participants have reportedly undertaken sizable shifts in the composition of their assets from foreign currency holdings and domestic bank deposits to stocks. In addition, there has been increased leveraged investment in stocks as well as investment on behalf of relatives living abroad. The banking system has played an important role in these developments, through both direct investment in shares and lending for stock purchases. The latter is reported to have increased sharply since late 2006, with a large amount of bank lending collateralized with shares.

38. **Large exposures to the stock market appear to have been concentrated so far in smaller joint-stock banks.** With SOCBs pursuing a cautious lending policy to meet the SBV's tightened capital adequacy and other prudential requirements, about half of share-related lending appears to have been extended by non-SOCBs (i.e., joint stock banks and foreign bank branches). While non-SOCBs accounted for less than 30 percent of total banking system credit as of end-2005, their lending expanded in 2006 at an annual rate of around 50 percent, or more than three times as fast as lending by SOCBs. Some small joint-stock banks have been reported to have exposures in stock market-related lending in the range of 30-40 percent of their total loans. However, some SOCBs may have also become indirectly exposed to stock market risk, as they have provided a large amount of interbank credit to joint stock banks. Cross-holdings of shares among banks and lending to securities company affiliates are other sources of potential risk.

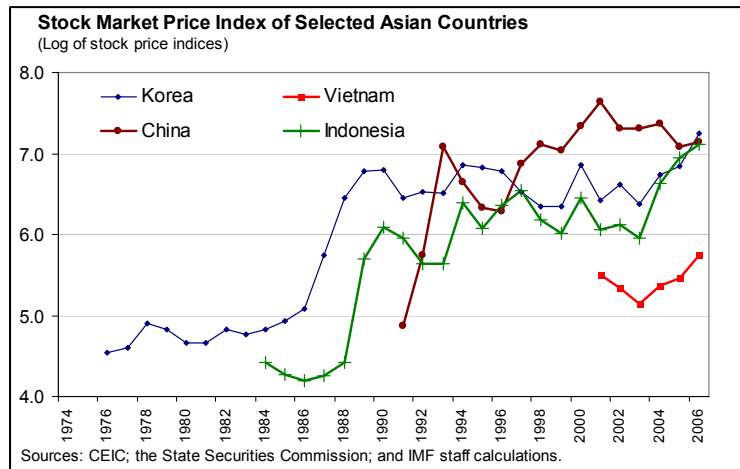
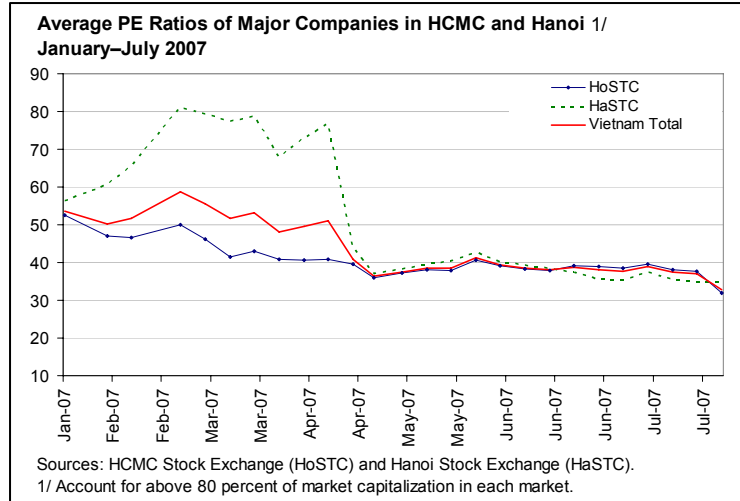
Implications for stock valuations

39. **Improving fundamentals may account for a significant part of the recent increase in foreign and local investor interest in Vietnam's stock market, and the consequent increase in valuations.** Continued pursuit of market-oriented reforms has in recent years led to a deepening of Vietnam's integration into the world economy; efficiency gains resulting from trade and investment liberalization in the context of WTO accession; sustained high growth of exports, GDP, and corporate profits; and improved transparency associated with the move towards international accounting standards and the beginning of reporting of earnings by many companies.

40. **However, the available data on the earnings of many Vietnamese companies are still sketchy, and with accounting and transparency practices remaining highly uneven, it is difficult to assess the extent to which strong demand for stocks in the context of a limited supply may have led to overvaluation.**²⁴ In the absence of reliable data, some

²⁴ Market valuations of company stocks are notoriously volatile, including in large, well-developed, well-regulated, and presumably efficient markets. Relatively small changes in future discount rates, expected profit and dividend growth rates, and expected correlations with the returns on other company stocks, could account for substantial swings in prices.

investors have attempted to value the worth of Vietnamese companies using extrapolations based on what might constitute fair pricing in other emerging markets. Another group of investors have apparently used some variation of a standard two-stage growth model, assuming a rapidly growing income stream during a first phase of the projection period as the economy takes off, followed by a more normal dividend stream during the post-takeoff period. Both approaches may have been liable to overvaluation of the fair market price of Vietnamese firms. As mentioned above, the average PE ratio for the largest companies representing more than 80 percent of total market capitalization has remained above 30, a high number by most standards. Although it is not unusual to see spells of rapid increases in stock prices in rapidly growing emerging markets, and a number of Asian countries have gone through periods of similar (or even larger) increases as illustrated in the table below, these spells were followed by a rapid (partial) rewind. As a result, none of these countries has maintained a high average PE ratio over an extended period of time.



Comparison with Selected Asian Stock Markets

(Periods of rapid increase in stock price indices)^{1/}

	Period (12 months)	Price Index Change (%)	Period Average PE Ratio (%)	Market Capitalization/GDP
Korea	Feb 1986–Jan 1987	76.4	...	...
	Feb 1987–Jan 1988	89.1	...	47.1 (1988)
Indonesia	Jan–Dec 1988	265.3	...	...
	Feb 1989–Jan 1990	43.7	18.7 (1992)	21.4 (1993)
China (Shanghai Stock Exchange)	Feb 1991–Jan 1992	135.5	47.7	...
	Mar 1992–Feb 1993	251.5	39.2	18.5 (1995)
Vietnam (HCMC stock exchange)	Mar 2006–Feb 2007	191.7	50.0 2/	22.7 (2006)

Sources: CEIC; the State Securities Commission; and IMF staff calculations.

1/ Semi-annual data; levels are in log to better show percent changes of the level at each observation period.

2/ As of February 28, 2007. Largest 20 companies representing 82 percent of market capitalization.

Evolution of foreign and local investors' contributions to demand for stocks

41. **The stock market underwent four distinct phases since the boom started in late 2006.** As is illustrated in the charts below, in the first phase (November 2006–late-February 2007), stock prices rose more or less steadily at a sharply accelerated pace. Stock prices fell through most of the second phase (late-February–April), before recording a brief recovery in the third phase (late-April–May), and resuming their decline in the fourth phase (late-May–late-July).

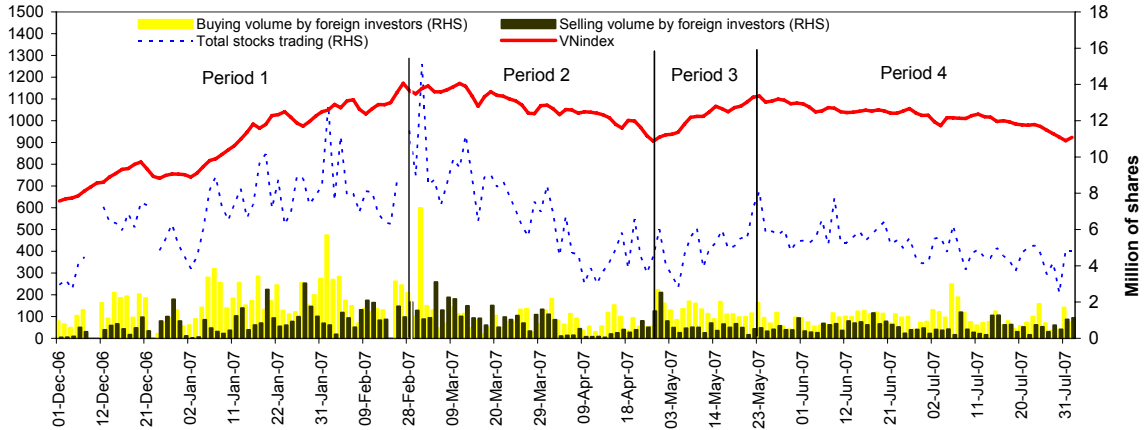
42. **Foreign investors have maintained a net-buy position through most of these phases, except during a period in the second phase, which coincided with a global market adjustment (March 2007).** Foreign investors took predominantly a net-buy position in the first phase, but switched to net-sell in the second phase, thus contributing to the turning point towards the first period of declining stock prices. During the second phase, local investors experienced a sustained fall in stock prices for the first time since the onset of the boom. This helped them to realize that the period of safe gains was over, prodding them to become more prudent. The recovery in the third phase appears to have been fully driven by foreign investors, with local investors remaining on the sidelines. Even during the recent protracted decline in stock prices under phase 4, foreign investors have maintained their net-buy position, in part reflecting the pent-up demand for Vietnamese investment instruments.

43. **The lower profile of local investors in recent months may be due in part to the new prudential controls on banks' securities-related lending, which are discussed in further detail below.** Tightening credit and liquidity constraints may have spurred net sales by highly-leveraged local investors. In addition, some local investors may have diverted resources from purchases of stocks on the market to acquisitions of new shares issued at face value to existing local shareholders only. Companies traded both on the official exchanges and the OTC market have raised capital by issuing such shares in recent months (the number of such shares issued by listed companies rose by more than 10 percent in the last 5 months). Because such issues are not captured in the official data on stock market trading, local investors' recent purchases of shares may have been underestimated.

D. Risks Associated with the Stock Market Boom

44. **Continued bank lending for the purchase of stocks, together with surging portfolio capital inflows, could lead to a revival of Vietnam's stock market boom in the coming months.** This could simultaneously increase the banking system's exposure to stock market risk and the likelihood of a major stock market correction down the road. Such a correction could threaten the solvency of weakly-capitalized banks that may have accumulated large exposures to stock market risk. Moreover, efforts by banks to curb their exposures could lead to a sharp contraction of credit to the stock market, exacerbating the sell-off.

Figure 1. Vietnam Stock Market
December 2006–July 2007

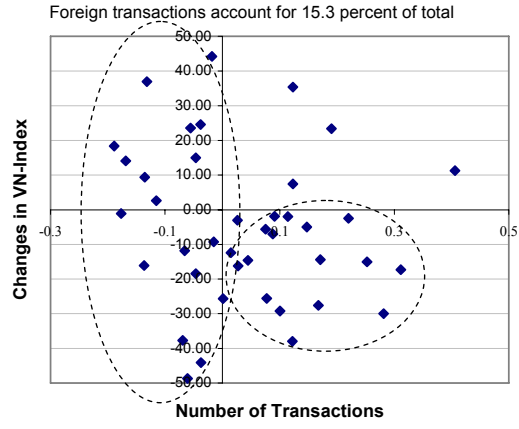
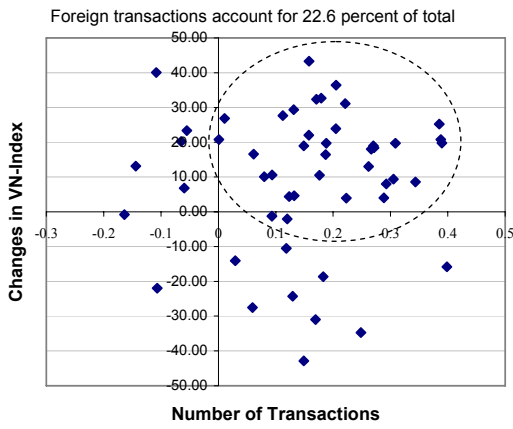


Source: Hostc.

Net Foreign Buy (VND mn)/Total Transaction 1/

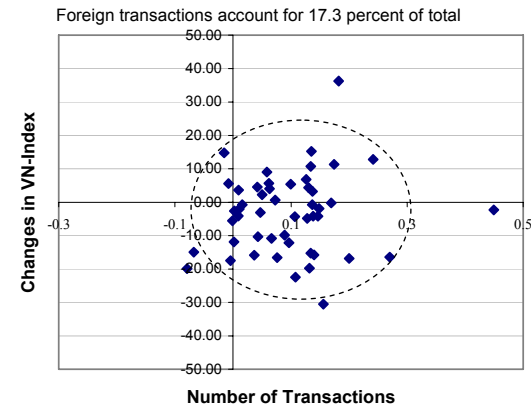
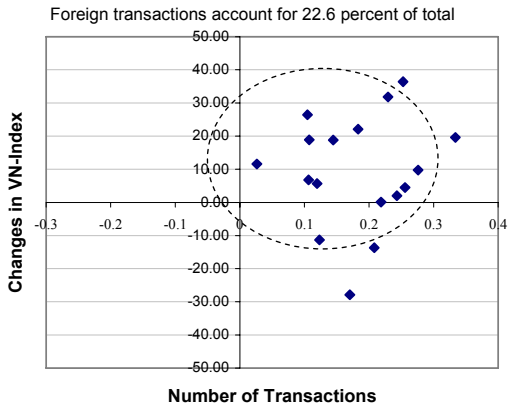
Period 1: Dec 1, 2006–Feb 27, 2007 Net foreign buy dominantly contributed to rapid price increase

Period 2: Feb 28–Apr 24, 2007 Local investors became more dominant; foreign investors switch to net sell position



Period 3: Apr 25–May 23, 2007 Net foreign buy fully dominating price increase

Period 4: May 24–July 31, 2007 Foreign investors maintain persistent net buy position even during price decline



45. **A related concern is that the combined effects of recent market-cooling measures, together with investor fears of a market bust, may undermine prospects for the planned IPOs for SOEs and SOCBs.** The boom in stock prices earlier in 2007 provided a strong motive for the government to accelerate IPOs to take advantage of the favorable market conditions and also help alleviate the excess demand for stocks. However, more recently, the authorities have been reconsidering their IPO timetable on a case-by-case basis to avoid a slump in prices that could ensue from an overly large increase in the supply of new issues.

46. **While Vietnam's external position is now basically sound, a stock market bubble could have significant fallout on the external finances down the road.** With the current account recording in 2006 the smallest deficit in many years (less than 0.4 percent of GDP), capital inflows contributed to a comfortable balance of payments surplus. Gross official reserves also increased sharply in the early months of 2007, reaching a level of some US\$19 billion (3½ months of next year's imports of goods and services) as of May 2007. This level of reserves seems broadly adequate in relation to relevant vulnerability indicators (e.g., around 28 percent of M2 and 145 percent of foreign exchange deposits in the domestic banking system).²⁵ However, the external current account is projected to revert to larger deficits in the years ahead, as import demand picks up in tandem with the sustained rapid increases in income and investment. A significantly wider current account deficit could, in turn, compound foreign exchange market pressures in the event of a sudden stop and/or reversal of capital inflows, especially if it takes place in the context of a stock market crash.

47. **Even if stock prices remain on an upward trend for a considerable period of time, large portfolio inflows could complicate the conduct of monetary and exchange rate policies.** Given the relatively small size of Vietnam's economy, a marginal shift of major institutional investors into Vietnam could give rise to difficult policy dilemmas. A massive increase in the scale of intervention could be more difficult to sterilize, thus fueling a continuing increase in credit growth and rising inflation. Alternatively, the adoption of a more flexible exchange rate policy could result in considerable upward pressure on the dong. Given that the real effective exchange rate currently seems to be in line with fundamentals, a large appreciation of the dong in the context of a widening current account deficit could make it difficult for vulnerable sectors to maintain their competitiveness, and could eventually threaten external stability. Moreover, expectations of currency appreciation could encourage inflows of short-term speculative capital, while discouraging some inflows by longer-term investors, thus making the balance of payments more vulnerable to changes in market sentiment.

²⁵ Due to restrictions in place on capital outflows by residents, such capital flight would likely take the form of massive deposit withdrawals from the banking system, and conversion into hard currency and precious metals, rather than direct remittance of foreign currency deposits.

E. Policy Response to Date

Prudential measures

48. **To tighten stock market regulation and supervision, and limit the fall-out on the banking system from a possible stock market crash, the authorities took the following early measures:**

- The SBV's Decision 03/2007 issued on January 19 contained new regulations on bank capital adequacy, liquidity ratios, and lending and investment limits, which have restricted the scope for new bank lending for the purchase of stocks. In particular: (i) credit institutions are not allowed to extend credit to their securities company affiliates nor grant unsecured loans financing investment or trade in securities; and (ii) the risk weight of securities-related loans was raised from 100 to 150 percent. Credit institutions were given one year to fully conform with the new restrictions.
- On the same date, various implementing regulations of the securities law were issued to strengthen supervision of stock market-related activities. These regulations related to disclosure requirements, stiffer penalties for violations, and requirements for improved corporate governance, including with respect to the organizational structure for securities companies and fund management companies.
- Also on January 19, the State Securities Commission (SSC) issued a number of official letters to securities companies and investment fund managers requesting information on their recent operations in the stock market and requiring representative offices of foreign investment funds to re-register with the SSC as provided for in the securities law. In addition, the SSC tightened the enforcement of regulations regarding market transparency and asked listed companies to improve their provision of accurate and timely information to the public.
- In a letter issued on January 29, the Prime Minister instructed the Ministry of Finance, the SSC and the SBV to improve their monitoring of stock market-related activities of foreign investors and commercial banks, tighten the enforcement of existing market regulations, and improve the dissemination of information to the public regarding the risks of investing in the stock market. In addition, the SBV was instructed to consider possible amendments to the forthcoming implementing regulations of the foreign exchange control ordinance for purposes of tightening controls on capital inflows and/or the repatriation of capital by foreign investors.

49. **A cap on securities-related credit was introduced later in the year.** On May 28, 2007, the SBV issued Directive 03, which, among other provisions, limits banks' total securities-related credit exposures to less than 3 percent of their total loan portfolio. More specific guidelines for the application of this directive were issued in June, including the following:

- The deadline for compliance by banks currently exceeding the 3 percent cap will be December 31, 2007.
- The definition of securities-related credit exposures subject to the cap includes: (i) all loans to and discounts of securities from securities companies; and (ii) all loans and discounts (collateralized or not) financing the purchase of securities.
- Banks were required to submit reports to the SBV by July 10 indicating their total outstanding securities-related credit exposures as of end-June, 2007, as well as the measures taken or planned to comply with the 3 percent cap by end-2007. From then on, they must continue reporting on a monthly basis. The SBV's banking supervision department will exercise strict monitoring over any banks with total securities-related exposures exceeding 10 percent of total loans.

50. **As already noted, some joint-stock banks' exposures to stock market-related credit were reportedly well above the 3 percent cap as of June 2007, while SOCBs were reported to be well below the cap.** However, if the SOCBs were to fully utilize their available space within the limit in the period ahead, the resulting increase in aggregate credit to the stock market could potentially be larger than lending to date by the hitherto more highly-exposed joint-stock banks. Also, the 3 percent cap does not seem to cover off-balance sheet exposures (e.g., guarantees) and other indirect ways of financing the purchase of securities.

Monetary and exchange rate policies

51. **The authorities pursued extensive intervention in the foreign exchange market accompanied by sterilization, which were however insufficient to prevent a pickup in liquidity and credit growth.** Gross official reserves increased by US\$7.5 billion or more than 10 percent of GDP between end-2006 and mid-2007. Although the SBV stepped up open market operations (OMOs) through the sale of SBV bills in the first few months of 2007, reserve money growth picked up to around 34 percent (y/y) as of May 2007. Partly as a result, total annual credit growth has remained on an upward trend, rising to 35 percent (y/y) by end-May 2007. For non-SOCBs, annual credit growth went up from 51 percent (y/y) as of end-2006 to close to 70 percent (y/y) as of end-May 2007. Meanwhile, inflation increased from 6.6 percent (y/y) as of end-2006 to 8.6 percent (y/y) as of August 2007, as supply-side shocks contributed to a sustained pick-up in food price inflation. In an effort to arrest these trends, the SBV virtually doubled its reserve requirements on bank deposits in June (to a range of 4 to 10 percent). However, interbank rates have remained low so far, indicating that further measures may be necessary to slow the growth of bank liquidity.

52. **Some steps were taken towards a more flexible exchange rate regime in early 2007.** On January 2, 2007, the SBV widened the trading band of the dong versus the U.S. dollar from ± 0.25 percent to ± 0.5 percent around its daily reference rate, with a view to

increasing exchange rate flexibility. The dong was allowed to appreciate by 0.3 percent vis-à-vis the U.S. dollar during the first six weeks of 2007, in marked contrast to the policy of small, steady depreciation pursued over the last few years. However, this appreciation was subsequently more than reversed.

F. Policy Recommendations for Period Ahead

53. **The above measures have been steps in the right direction.** Since the stock price boom was fueled in large part by bank-financed retail and institutional domestic investors, well-targeted prudential measures were appropriate as a first policy response. The SVB's recent steps to tighten monetary conditions have also been appropriate, although their effectiveness seems to have been limited so far. While other countries have at times resorted to capital controls to stem capital inflows, the effectiveness and benefits of such measures need to be weighed carefully against their likely costs. In this regard, the Vietnamese authorities' decision to use less intrusive prudential measures as a first line of defense has been sound.

54. **In order to safeguard financial stability, especially if the risks posed by potential stock market instability and volatile capital inflows were to resurface in the period ahead, the following additional policy measures should be considered:**

Regulatory and prudential framework

55. **The following specific measures could be taken to further tighten prudential controls:**

- Only banks with strong credit and market risk management procedures, and with well-trained officers and technical staff, should be allowed to extend credit for share purchases or take other risks related to the stock market. A bank that carries out operations in the stock market without taking adequate steps to identify, measure, monitor, and control (limit or hedge) all material risks involved in such operations, is engaging in unsafe and unsound practices and should therefore be subject to appropriate prompt corrective action and penalties.
- If the SBV considers that it does not yet have the expertise to assess bank policies and procedures for controlling risks related to stock market operations, it may be appropriate for it to further limit exposures on, or even prohibit, such operations, for example, by placing or tightening regulatory caps on: (i) loan-to-value ratios and maturities in share-secured loans and repurchase agreements; (ii) exposure to a single customer (although such limits can often be circumvented); and/or (iii) aggregate exposure as a percentage of total loans (such as the cap introduced in May 2007) or equity. The higher the uncertainty (including about the assessed risk management capacity at the individual bank level or of banks as a group) or the market volatility, the more stringent the warranted regulatory limits. If a boom in stock prices were to re-emerge, a combination of tighter aggregate

exposure limits, together with provisions and/or capital charges on uncovered exposures, may be required.

- To deal with potentially volatile capital flows, the SBV should institute and enforce minimum standards and procedures for managing foreign exchange risk, interest rate risk, and liquidity risk. Prudential rules regulating the exposure of banks and their loan customers to foreign-currency risks (e.g., open position limits) should be revisited and upgraded. Although the recent lifting of the interest rate ceiling on foreign-currency deposits held by resident and nonresident enterprises and institutions is a positive step, oversight of foreign-currency lending by banks to borrowers without foreign-currency income will need to be strengthened. Regulations on measuring and controlling liquidity and maturity mismatches should also be reviewed.
- In the longer term, bank regulation and supervision should gradually move towards a focus on risk management, rather than on risk exposure limits. This implies that both the SBV regulators and the supervised banks need to significantly upgrade their respective capacities in the areas of identifying, measuring, monitoring, and controlling risks.
- Stock market regulations should be reviewed to make sure that stock exchanges have in place adequate built-in controls on price movements, such as circuit-breakers and requirements for settlement without roll-over.

56. **In addition, bank exposures to stock market risk should be reassessed on an ongoing basis, and adequate plans prepared for supervisory action, if needed.** More specifically, the SBV will need to:

- Measure all exposures of each bank to stock market risk and identify those whose aggregate exposures represent a significant percentage of assessed effective equity (i.e., based on the SBV's best estimate of asset impairment), and estimate capital at risk and/or profit at risk, as well as "liquidity at risk".²⁶
- Conduct stress tests on such banks' accounts using realistic scenarios linked to possible stock market correction, and identify any banks vulnerable to insolvency and/or illiquidity, or where insolvency is likely due to any other reasons.
- Do thorough on-site examinations of banks that show high exposure in the above estimations; design and enforce appropriate corrective measures (e.g., require additional capital and/or liquidity, reduction of exposures, reduction of related lending,

²⁶ In this context, it would be useful to identify shares traded in smaller volumes and/or less frequently, which are more likely to face illiquid markets and be vulnerable to significant price correction in case of a market downturn.

improvement of risk management, etc.); and apply special supervisory procedures according to the level of risk in each case.

- Prepare contingency plans, including (depending on the severity of the resulting scenario): (i) a review of the existing legal and institutional framework for dealing with bank insolvencies (including deposit insurance) and identification of any needed amendments; (ii) measures for facilitating the merger or absorption of weak banks by stronger banks in a timely and orderly way; and (iii) the potential need for, and availability of, public resources in this context.

Monetary and exchange rate policies

57. **Monetary policy needs to be further tightened to rein in credit growth, and contain demand pressures.** As long as the current account deficit remains restrained, and continues to be more than financed by private capital inflows, the policy of accumulating sufficient reserves to comfortably meet balance of payments needs in the event of a potential future reversal of the recent portfolio inflows should continue. However, a stronger effort is required to tighten monetary conditions and further curb the growth of bank lending. To these ends, it is important to ensure that the SBV will continue to issue sufficient amounts of its own bills to absorb excess bank liquidity. Although OMO rates increased somewhat following the doubling of reserve requirements in June, they have since declined again, and interbank rates still remain very low.

58. **Greater two-way flexibility in the dong would help the market better price the risk.** Given the sustained strength of export performance, a moderate appreciation of the exchange rate should not pose any serious threat to competitiveness, and it would serve to increase the downside risks for foreign investors. In the event of a reversal of portfolio inflows, the exchange rate could then be allowed to depreciate somewhat faster than it has over the last few years, thus helping to ease pressure on reserves.

Fiscal and debt management policies

59. **Fiscal policy will need to play an important supportive role in containing the external current account deficit and protecting medium-term debt sustainability.** The securities and debt issues of the public sector are likely to absorb a significant share of the ongoing capital inflows in the period ahead. In this context, it will be essential that the apparent easing of financing constraints associated with the booming securities market not be allowed to lead to an erosion of fiscal discipline. The adoption of measures towards the introduction of a consolidated system of control over new external borrowing by the government, SOEs, and SOCBs (Decree 134) is an important step whose implementation needs to be accelerated.

60. **The government should take advantage of the new opportunities offered by the securities market to expedite the equitization of SOEs and SOCBs, and help meet the**

large investment requirements of the Socio-Economic Development Program (SEDP) for 2006–10 in a cost effective manner. To the extent that the extraordinary increase in Vietnam’s stock prices over the last year reflects increased investor demand for Vietnamese securities, it provides an opportune environment for the government to proceed without further delay with its equitization programs for SOEs and SOCBs. Moreover, given that foreign investors are also interested in holding dong-denominated fixed-rate Vietnamese bonds, the government and SOEs should be able to raise capital at a reduced cost while limiting exposure to interest rate and exchange rate risk. The successful placement of dong-denominated SOE bond in foreign markets in late-2006 and early-2007 attests to the significant potential of the bond market for Vietnamese enterprises.

61. **Stepped up efforts to improve market transparency and strengthen the enforcement of regulations on stock market transactions are also called for to protect the integrity and credibility of the market as an important source of finance over the medium term.** Particular care should be taken to maintain strict listing requirements, ensure that all listed companies meet disclosure requirements consistent with international practices, and strengthen safeguards and penalties against insider trading.

Possible role of capital controls

62. **The effectiveness and expected benefits of capital controls will need to be weighed carefully against their likely costs.** In general, the broader the range of capital transactions to which a capital control is applied, the greater their expected effectiveness. By contrast, controls that are narrowly-targeted to a limited range of transactions may be more difficult to administer, and can be expected to be evaded over time, as movements of foreign exchange are highly fungible in economies that remain widely open to trade and other types of capital flows. On the other hand, the adverse side-effects of broadly-based capital controls could be severe, especially in the short run, as they may hamper activities and transactions that the authorities wish to encourage (e.g., trade financing and FDI). Given also the difficulties associated with predicting the impact on market confidence, and the sensitivity of international capital movements to small changes in expected returns and risk perceptions, the imposition of capital controls could inadvertently feed into the sharp downturn that they were intended to forestall. Finally, in the current Vietnamese context, a re-introduction of controls so soon after the much-awaited WTO accession and the accompanying liberalization of the exchange system, could tarnish Vietnam’s hitherto consistent track record as a country committed to deeper international integration.

63. **If capital controls were to become unavoidable, the authorities would be well-advised to implement them in the most cost effective way.** Preference should be given to measures that promise to be most effective for the task at hand, are easy to administer, and have the least damaging side-effects. A brief description of the pros and cons of various types of controls that have been commonly applied in other countries is provided in Annex II below.

G. Conclusion

64. **The Vietnamese stock market has gone through a phase of consolidation since early 2007, but there is still prima facie evidence of overvaluation of some stocks.** The authorities' policy response to date has been broadly appropriate. Nevertheless, there is still a risk that stock market volatility could have spill-over effects on the rest of the financial system. Therefore, additional measures may be required to further tighten prudential controls on banks' stock-market related and foreign exchange rate risks, proactively deal with banks whose soundness may be threatened by exposure to such risks, and further strengthen enforcement of securities market regulations.

65. **Additional efforts should be made to ensure prudent macroeconomic management.** First, the recent efforts to tighten monetary conditions and increase exchange rate flexibility should be intensified. Second, fiscal and external debt management policies will need to be geared to containing demand pressures and protecting medium-term debt sustainability. The government should take advantage of the favorable market conditions to step up implementation of its SOE and SOCB equitization programs, and improve the maturity and currency composition of its debt while not eroding fiscal discipline. While other countries have at times resorted to capital controls to stem capital inflows, the benefits of such measures need to be weighed carefully against their likely costs.

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ANNEX II

Considerations on the Possible Use of Capital Controls²⁷

The following discussion highlights some key aspects of other countries' recent experiences with the use of capital controls.

General observations

Most capital controls aim at increasing the independence of monetary policy, alleviating pressures on exchange rates, and/or averting a crisis by putting a wedge between rates of return on domestic and foreign assets. In some cases, they might succeed temporarily in this endeavor, but they are never the first-best option. The Fund therefore does not generally favor or advocate the use of capital controls. Experience has shown that such controls are unlikely to be effective for any extended period of time and are likely to be distortionary. Nevertheless, in countries that have the capability to enforce controls on capital flows and lack sophisticated markets, controls might add to the cost of doing certain cross-border transactions.

Although this is seldom the case, such a premium could in principle be sufficient incentive for market participants to decrease or temporarily stop unwanted cross-border flows. Even in such a case, however, capital controls tend to lose their effectiveness over time, and they usually introduce costly distortions. Consequently they should be applied only to provide some breathing space to allow for other policy adjustment, and should not be introduced unless other such policy measures have already been identified.

It is difficult to gauge the potential effectiveness of controls before implementation as the reaction of foreign markets and investors could vary, depending on factors outside the control of the authorities. The reaction could be more positive if markets perceive the measures to be well-thought out, believe that they are temporary, and see that they are accompanied by other steps. The additional enforcement costs of controls on authorized agents, the central bank, and market participants, should also be considered as a factor.

Capital controls more often than not send the wrong signal about the health of the economy. All controls pose problems for implementation and circumvention, including governance problems/rent seeking. The degree of circumvention might depend on the sophistication of the market and its participants. Nevertheless, even in the most rudimentary economies, if the incentives are large enough, even trade transactions could be used for circumvention (e.g., through over-invoicing and under-invoicing).

²⁷ Prepared by staff of the MCM.

Possible specific measures

There are two main types of measures that countries have typically introduced to control excessively large inflows:

- (i) Market-based controls
- (ii) Administrative controls

(i) Market-based controls

a) **Unremunerated reserve requirements (URRs):** URRs constitute an indirect taxation of cross-border flows under which residents and/or nonresidents have to deposit a non-interest bearing deposit with the central bank as a given percentage of the inflow. Even if all residents and/or nonresidents are required to hold these reserves, the measure is usually enforced through the domestic banks, which place the reserves at the central bank.

Advantages:

- Liquidity is immediately squeezed (although potentially this is also true for selectively introduced and effectively enforced administrative capital controls).
- The distortion of cross-border foreign exchange flows is across the board.
- If short-term capital inflows exert upward pressure on the exchange rate, URRs on these flows could temporarily alleviate some pressure on the exchange rate. If the upward pressure on the exchange rate persists, however, the authorities may have to intensify the controls or accept an exchange rate adjustment.

Disadvantages:

- URRs are usually effective only for a short period of time, especially where circumvention with derivative transactions is relatively easy. Throughout the period of application of URRs, the Chilean authorities, for example, had to tighten the rules over and over again to maintain some effectiveness (Box 1).
- To make circumvention more difficult, complicated rules might be necessary whose cost of enforcement can be large. Russia, for example, resorted to a complex system of accounts for residents and nonresidents between 2004 and 2006, differentiated according to transactions and the various types of accounts. However, the balances of these accounts were never high and, as loopholes were found, they decreased.
- Because URRs usually affect a wide range of capital account transactions, countries need to ensure that legitimate flows are protected and allowed to take place on a timely basis (e.g., by exempting bona fide current account and FDI transactions).

Box 1. Chile's Experience with an Unremunerated Reserve Requirement on Capital Flows

In the 1990s, policy makers in Chile were faced with a classical monetary policy dilemma: policy goals were greater than the number of independent instruments. While internal balance required an increase in interest rates, the latter encouraged more capital inflows and subsequently, an appreciation of the domestic currency, which was inconsistent with the achievement of external balance. In response to massive capital inflows, Chile introduced a 20 percent URR on foreign borrowing in 1991. The URR was to be held for up to 90 days for 90-day credits; to maturity for 90-day to one-year credits; and for 1 year for credits of more than 1 year. The URR was in the same currency as the foreign borrowing, not remunerated, and applicable to all foreign loans to banks or others, except trade credits. Over time, the URR's coverage was expanded to include nondebt flows such as foreign currency deposits (1992) and potentially speculative foreign direct investment (1996). The rate was also raised to 30 percent in 1992. These adjustments, among others, were necessary to plug the loopholes as market players found avenues for circumvention.

The URR was accompanied by prudent fiscal policy, measures to enhance the financial system's prudential framework, and a restrictive regulatory framework for international transactions. The authorities also took advantage of the strong balance of payments position to liberalize capital outflows. To strengthen the prudential framework, Chile revised the General Banking Law and the Organic Law of Superintendency of Banks and Financial Institutions in 1986. Changes introduced in these laws include: a) measures to address the prevalence of connected lending; b) required publication of information on banks' asset quality; c) tightened capital requirements; and d) imposition of strong liquidity management rules. In 1997, a new Banking Law was passed which increased banks' capital requirements in line with recommendations of the Basel Committee. In addition, Chile introduced minimum rating requirements for domestic corporations borrowing in the international capital market. Chile's regulatory framework was more restrictive compared to other developing countries. Apart from the URR, Chile had other measures in place, such as repatriation and surrender requirements, prudential measures, and minimum stay requirement for foreign direct investments and portfolio investments. Reporting requirements on individual capital account transactions were also very extensive. For example, all capital inflows and outflows must be channeled through the formal foreign exchange market and were subject to reporting to the central bank.

Most empirical studies conclude that the effectiveness of Chile's URR was quite limited. In particular, in a review of six empirical papers, Simone and Sorsa (1999) conclude that there is: a) some evidence that the URR had been successful in increasing domestic interest rates; b) weaker evidence that the URR had altered the composition of capital flows in favor of medium- and long-term inflows; c) mixed and weak evidence that the URR had reduced the magnitude of capital inflows; and d) no evidence that the URR affected the level of the real exchange rate. Valdes-Prieto and Soto (1998) conclude that Chile's URR failed to reduce short-term inflows and to improve monetary autonomy in the period 1991-1996. Laurens and Cardoso (1998) found that the URR had no long-term effect on total capital flows and the exchange rate, and its effectiveness on the composition of capital inflows was short-lived. De Gregorio, Edwards, and Valdes (2000) demonstrated that the URR had no effects on the behavior of the country's real exchange rate and did not help slow the real appreciation process that began in 1990. However, Laurens and Cardoso (1998) pointed out that empirical studies which analyze the impact of the effectiveness of Chile's URR could face several constraints that should be taken into account: a) balance of payments statements do not provide appropriate classifications and aggregations of capital flows; b) capital controls are interlinked with other policy measures, which makes isolating the impact of each instrument difficult; and c) the objectives of the URR may have changed through the years, proving it difficult to assess its impact relative to the expected benefits.

Sources: Ariyoshi, A., K. Habermeier, B. Laurens, I. Otker-Robe, J. Canales-Kriljenko, A. Kirilenko (2000), "Capital Controls: Country Experiences with Their Use and Liberalization," Occasional Paper 190, International Monetary Fund, 2000; Edwards, S. (2002), "Capital Mobility, Capital Controls, and Globalization in the Twenty-First Century," *The Annals of the American Academy, AAPSS*, 579, January 2002; Guitián, M., J. Boorman, and M. Mussa (1997), "Review of Experience with Capital Account Liberalization and Strengthened Procedures Adopted by the Fund," International Monetary Fund, February 1997; Laurens, B. and J. Cardoso, "Managing Capital Flows: Lessons from the Experience of Chile," IMF Working Paper No. 98/168, International Monetary Fund, December 1998; Simone, F. and P. Sorsa (1999), "A Review of Capital Account Restrictions in Chile in the 1990s," IMF Working Paper No. 99/52, International Monetary Fund, April 1999; and Valdes-Prieto, S. and M. Soto (1998), "The Effectiveness of Capital Controls: Theory and Evidence from Chile," *Empirica* 25:133-164, Kluwer Academic Publishers, Netherlands, 1998.

While it is too early to assess the effects of the measures recently taken by Thailand to control inflows, market participants have commented that the controls were awkwardly implemented and ineffective in reducing appreciation pressure on the currency. The Thai baht has been among the strongest so far in 2007, rising by 3.6 percent against the U.S. dollar. In addition, the sharp drop in stock prices after the measures were put into effect seems to have been transitory.

While central and eastern European EU member countries are grappling with the problem of excessive credit growth, facilitated in many cases by capital inflows, their experience is different in one respect: their obligation vis-à-vis the European Union is not to implement any capital controls, except in crisis circumstances. Thus, while their experience does not illustrate the types of capital controls that could be introduced, they do demonstrate some measures that have been aimed at curtailing capital inflows so as to limit credit growth.²⁸ In general these methods have not been effective.

b) Other market-based controls

- *Minimum maintenance period for nonresident capital.* This type of measure usually requires nonresidents to keep the proceeds from their investment within the country for a set time period. Its advantages include selectivity, as this measure theoretically affects mainly the most volatile, short-term flows. Nevertheless, the effective administration of the measure could impose significant burdens on financial institutions and the regulatory authorities as the size and variety of capital inflows expand, and circumvention may become relatively easy if the intended use of certain types of inflows cannot be established with certainty. Although the primary aim of this type of control is to contain capital outflows, it is sometimes aimed at stemming short-term, speculative inflows by diminishing liquidity (especially if the interest rates that can be earned are inappropriately low). In Vietnam's case such a control might not do much to stem the inflows, especially if the longer-term outlook for the economy—as perceived by the markets—remains positive.
- *Differential rates of taxation on capital inflows.* The authorities could discourage some or all forms of capital inflows by levying a tax. Advantages and disadvantages are mostly as with other market-based capital control measures. In addition, this being a tax measure, it has to be harmonized with other forms of taxes (such as capital gains or profit taxes).

(ii) Administrative controls

²⁸ Their experience is described in Hilbers, Paul; Louis Ciel; Ötker, Inci; Pazarbasioglu, Ceyla; Johnsen, Gudrun: *Assessing and Managing Rapid Credit Growth and the Role of Supervisory and Prudential Policies*, <http://www.imf.org/external/pubs/cat/longres.cfm?sk=18401.0>.

- a) **Administrative controls on short-term inflows:** As with all administrative controls, to be effective, these controls should be comprehensive, and cover all short-term transactions, except trade credits, normal short-term banking facilities as defined in Article XXX of the IMF's Articles of Agreement, and inter-enterprise loans. However, the Vietnamese authorities have already eliminated restrictions on short-term external borrowing by banks, and such borrowing does not appear to have been a concern so far, as banks have accumulated large amounts of net foreign assets over the last two years. Nevertheless, if in the period ahead there is evidence of a surge in short-term inflows (e.g., to take advantage of favorable interest rate differentials), a reinstatement of temporary controls on short-term inflows through banks—coupled with proper prudential rules, including a strengthening of rules on collateral and on exposures to foreign exchange rate risk—could give some relief. However, the domestic banking system might become less competitive as long as the controls remain in place, and some of their business might shift off-shore.
- b) **One area in which a tightening of administrative controls might be considered seriously is on borrowing from abroad by state-owned enterprises (SOEs) and state-owned commercial banks (SOCBs), which may lack creditworthiness but may nevertheless benefit from government guarantees.** While such a step should be considered primarily on the basis of fiscal and debt sustainability considerations, it could also serve the purpose of moderating capital inflows.

In theory, measures that differentiate between residents and nonresidents or between long and short positions in the foreign exchange market could also be introduced. These might include: (i) differential treatment of deposit accounts held by nonresidents, including differences in reserve requirements, liquid asset requirements, and interest rate controls (e.g., in Thailand, no interest may be paid for the short-term deposits of nonresidents) and (ii) asymmetric open position limits (e.g., in the Philippines, where only the overbought position is limited and the limit is also very low). Since few countries avail themselves of such measures, their effectiveness is difficult to gauge. However, the main reason they are used so seldom is probably that they are relatively easy to circumvent (e.g., in Thailand, the interest rate control could be circumvented by using a resident company owned by the nonresident to place deposits). In addition, such measures tend to distort bona fide prudential rules and might lead to risks in the financial system.

III. HAS PUBLIC INVESTMENT CROWDED IN OR CROWDED OUT PRIVATE INVESTMENT IN VIETNAM?²⁹

A. Introduction

66. **The promotion of investment, both public and private, has been at the forefront of Vietnam's growth and poverty reduction strategy over the past decade.** The government's Socio-Economic Development Plan (SEDP) for 2006–10 has placed continued emphasis on the need for more investment in infrastructure development, in particular, with a key role reserved for the broadly-defined public sector. At the same time, the government has pursued market-oriented reforms, and taken important steps to improve the business environment, with a view to fostering both investment by Vietnamese individuals and private enterprises and foreign direct investment (FDI). Vietnam's historic accession to the WTO in January 2007 has been associated with a sharp increase in foreign investor interest in Vietnam, making FDI an increasingly promising engine of growth in the period ahead.

67. **The government's simultaneous efforts to promote public and private investment raise obvious questions.** Is it possible that there has been too much public investment at the expense of potentially more productive private domestic investment and/or FDI? What steps could be taken to improve the investment mix in the period ahead?

68. **In principle, public investment can either crowd out or crowd in private investment.** Crowding out can occur through three channels. First, in economies operating at full employment, public investment financed by taxes or domestic borrowing uses scarce resources that could have otherwise been available for private investment. Second, increased government spending that is financed through borrowing from the domestic banking system or through the issuance of bonds on the domestic capital market can lead to a reduction in the availability of credit for the private sector and/or an increase in domestic interest rates, which discourages private investment. Third, restrictive laws or regulations may effectively reserve some sectors for public investment, where private investment could have been more productive.³⁰

69. **In contrast, crowding in may transpire when public investment has positive externalities for private investment.** Public investment can improve the investment environment and reduce production costs for the private sector by providing improved physical infrastructure (e.g., transportation and communication networks, power and other public utilities), and by helping improve the quality and supply of the labor force (e.g.,

²⁹ Prepared by Pritha Mitra, Policy Development and Review Department (PDR).

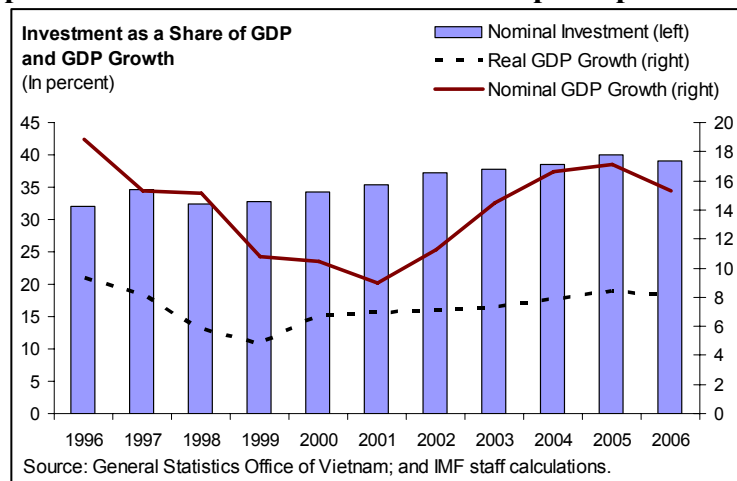
³⁰ See for example Aschauer (1989a,b), Ghali (1998), and Voss(2002) for empirical evidence pointing to crowding out of private investment in a variety of industrialized and developing countries. Mitra (2006) also finds evidence of crowding out in India, which, like Vietnam, followed a growth strategy heavily dependent on public investment.

through the provision of health and education services, worker training programs, etc.). In economies operating below capacity, the increased aggregate demand arising from public investment can also spur private investment.³¹

70. **This chapter develops an empirical test to assess the extent to which Vietnam’s public investment has been associated with such crowding out or crowding in effects.** The test is based on the estimation of a structural vector autoregressive (SVAR) model, which is used to better understand the interactions, if any, between public investment, private domestic investment, and FDI. The chapter is organized as follows. Section B provides background information on recent trends in the volume and composition of investment in Vietnam, domestic and external public debt, and domestic credit. The formal empirical analysis and its results are discussed in Section C, and Section D concludes.

B. Background

71. **Investment has been an important contributor to the sustained rapid expansion of the Vietnamese economy over the past decade.**³² While the annual rate of growth of real GDP fell in the late-1990s in the aftermath of the Asian crisis, it rose steadily thereafter, and reached a level exceeding 8 percent in 2005–06. Total investment exhibited a similar, if somewhat attenuated, trend, falling to 32 percent of GDP in 1998–99, and recovering strongly thereafter, to 40 percent of GDP by 2006.

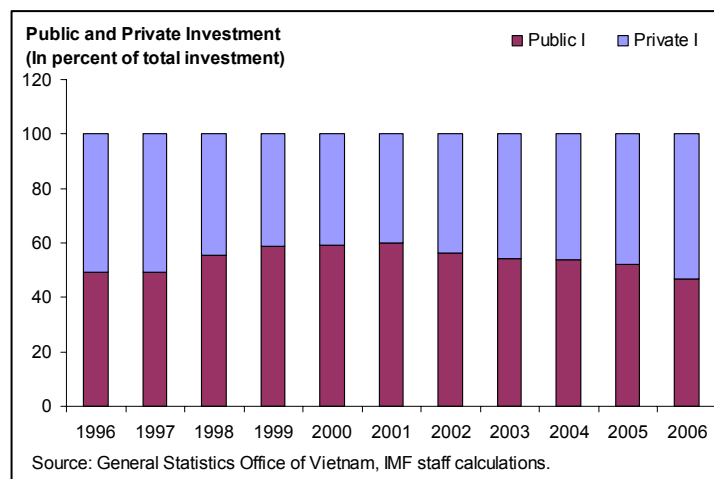


72. **Broad trends in the evolution of public and private investment mask important changes in its composition.** As is illustrated in the figure below, the share of private investment, including both private domestic investment and FDI, fell sharply to around 40 percent in the late 1990s, owing in large part to the effects of the Asian crisis, while

³¹ Agenor (2000), Belloc and Vertova (2006), and Pereira (2001a,b) provide empirical evidence of such crowding in.

³² The important relationship between investment and GDP growth has been discussed extensively in a number of studies, including Barro (1991), Canning and Fay (1993), Easterly and Rebelo (1993), IMF (2004, 2005), Khan and Kumar (1997), and Milbourne et al. (2003).

the share of public investment rose to 60 percent. This trend was partly reversed in recent years, with the shares of public and private investment becoming about equal in 2006. The recent recovery of private investment appears to be more than accounted for by a sharp increase in private domestic investment, which surged from around 8 percent of GDP in 1996–2001 to 13½ percent of GDP in 2006.³³ FDI had risen sharply



following the launching of Vietnam's reform program in the late 1980s, but it fell dramatically from almost 10 percent of GDP in 1997 to 5¾ percent of GDP in 1999 in the aftermath of the Asian crisis. Since then, FDI has risen more modestly than private domestic investment, leveling off at 6 to 6½ percent of GDP, while its share in total investment has edged down from 17½ percent in 2001 to 16½ percent in 2006.

Structure of Investment by Ownership, 1996–2006

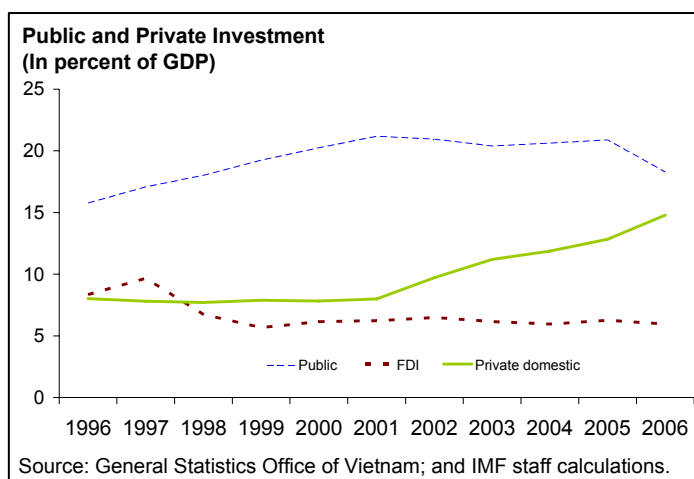
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
In percent of total investment											
Total investment	100	100	100	100	100	100	100	100	100	100	100
Public investment	49.1	49.4	55.5	58.7	59.1	59.8	56.3	54.0	53.6	52.2	50.1
Private domestic investment	24.9	22.6	23.7	24.0	22.9	22.6	26.2	29.7	30.9	32.1	33.6
FDI	26.0	28.0	20.8	17.3	18.0	17.6	17.5	16.3	15.5	15.7	16.3
In percent of GDP											
Total investment	32.1	34.6	32.4	32.8	34.2	35.4	37.2	37.8	38.4	40.0	40.0
Public investment	15.8	17.1	18.0	19.2	20.2	21.2	20.9	20.4	20.6	20.9	20.0
Private domestic investment	8.0	7.8	7.7	7.9	7.8	8.0	9.7	11.2	11.9	12.8	13.4
FDI	8.3	9.7	6.7	5.7	6.2	6.2	6.5	6.2	6.0	6.3	6.5

Sources: General Statistics Office of Vietnam, Vietnam Central Institute for Economic Management, IMF staff estimates.

73. **A closer review of trends in contributions to growth suggests that FDI may have become a more important engine of growth than suggested by the above figures.** As is illustrated in the table below, the foreign-invested sector has emerged as the most dynamic segment of the economy in recent years, recording annual growth rates well in excess of 10 percent. The rates of growth recorded in the outputs of the public sector and the private domestic sector have been more subdued. Thus, the foreign-invested sector's share of GDP

³³ The SOE equitization and reform process that gathered pace in the late 1990s is likely to have played an important role in the growth of private domestic investment during 2000–06.

has more than doubled from 7½ percent in 1996 to 17 percent in 2006, while the share of GDP accounted for by the public sector fell from around 40 percent in 1996–98 to 37½ percent in 2006, and that of the private domestic sector fell from more than 50 percent to 45½ percent over the same period. Foreign-invested enterprises (FIEs) have also contributed to the dynamism of Vietnam’s exports, with FIEs’ share of total exports (including oil) rising from 4 percent in 1995 to more than 50 percent in recent years.³⁴ These trends can be expected to continue in the period ahead, as Vietnam’s recent entrance into the WTO has further spurred foreign investor interest, with new FDI approvals rising to a record US\$10 billion in 2006.



GDP Share and Growth Rate by Ownership, 1996–2006
(In percent)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
GDP share (at current prices)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public sector	39.9	40.5	40.0	38.7	38.5	38.4	38.4	39.1	39.2	38.4	37.3
Private domestic sector	52.7	50.4	50.0	49.0	48.2	47.8	47.9	46.5	45.6	45.6	45.7
Foreign-invested sector	7.4	9.1	10.0	12.2	13.3	13.8	13.8	14.5	15.2	16.0	17.1
GDP growth rate (at constant prices)	9.3	8.2	5.8	4.8	6.8	6.9	7.1	7.3	7.8	8.4	8.1
Public sector	11.3	9.7	5.6	2.6	7.7	7.4	7.1	7.7	7.8	7.4	5.5
Private domestic sector	6.6	5.2	3.8	4.2	5.0	6.4	7.0	6.4	7.0	8.2	8.7
Foreign-invested sector	19.4	20.8	19.1	17.6	11.4	7.2	7.2	10.5	11.5	13.2	15.0

Sources: General Statistics Office of Vietnam; Vietnam Central Institute for Economic Management and IMF staff calculations.

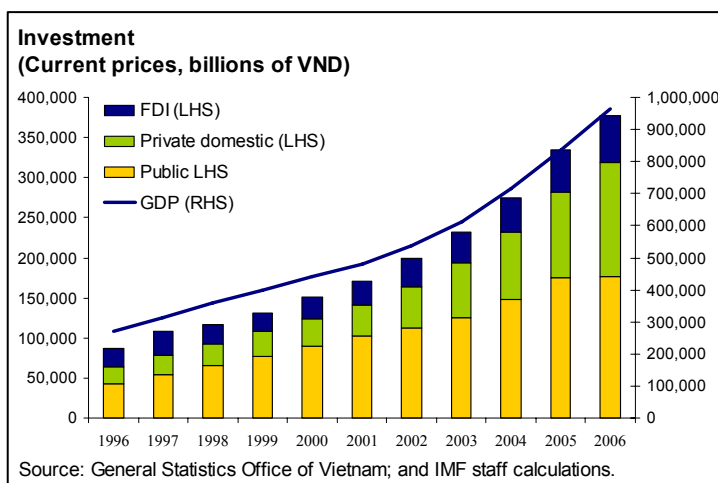
74. Aside from its direct contributions to export and GDP growth, FDI can also have positive spillover effects on the rest of the economy. FIEs can play a leading role in disseminating their know-how in the areas of technology, managerial expertise, and marketing, including by providing on-the-job training for their employees, who may

³⁴ During the 1990s, most of the FDI in Vietnam was concentrated in mining and quarrying and import-substitution industries. However, since 2000, FDI has been more heavily oriented toward export-oriented sectors, including garments, footwear, furniture production, and assembly-line activities in the electrical and electronics industries. FDI in heavy industries, mainly export-oriented manufacturing, has risen from under 25 percent of new FDI inflows in 2000 to well over 30 percent in 2006. The share of the oil and gas extraction industry in FDI has also grown from 15 percent to over 30 percent over the same period, while that of light industry has fallen from 15 percent to 5 percent. Other key FDI sectors include construction, agriculture and forestry, the food industry, and hotel and tourism. See Anh et al. (2006) for a more comprehensive review of the recent trends in FDI, and the channels through which it may have affected Vietnam’s growth. For a discussion of the effectiveness of different types of FDI in boosting growth, see Alfar and Charlton (2007).

subsequently seek employment in domestic firms.³⁵ Between 1995 and 2003, FIEs are estimated to have trained or retrained over 300,000 Vietnamese workers, 25,000 technicians and 6,000 managers, including through partial training abroad (Le Dang Doanh (2002)).

75. Despite the rapid recovery of private investment following the Asian crisis, Vietnam's public investment continues to account for more than half of total investment.

Public investment includes primarily investment financed through the budget; so-called state credits, which include projects funded off-budget through the issuance of investment bonds and government on-lending operations through the Vietnam Development Bank (VDB) (formerly Development Assistance Fund); and investment carried out by SOEs in which the government



retains a majority stake.³⁶ Total public investment rose from less than 16 percent of GDP in 1996 to 20 percent of GDP in 2006. Reflecting the Vietnamese government's emphasis on improving social infrastructure and poverty reduction, major infrastructure such as roads, bridges, power plants, water and sanitation, schools, irrigation, and other rural infrastructure have accounted for a large share of public investment. The share of transport infrastructure alone increased from about 30 percent in the second half of the 1990s to over 40 percent in recent years. While official development assistance (ODA) has been an important source of financing for this investment, a growing portion has in recent years been funded through the issuance of domestic government bonds. In addition, the banking system has been an important source of financing for most SOEs.

76. In this context, there is a clear possibility that the high level of public investment has crowded out private domestic investment through financial channels. A cursory look at recent trends in monetary and credit statistics provides useful insights in this regard. As is shown in Table 2 below, the banking system's net credit to government declined to near-zero in 2000–01, but it rose sharply thereafter to around 4 percent of GDP in 2005–06. At the

³⁵ Moran et al. (2005) discuss in more detail the spillover effects of FDI; Anh et al. (2006) have used survey data and quantitative analysis to assess the relative importance of different channels of spillover in Vietnam's textiles, garments, and footwear sectors, food processing, and mechanical and electronic product industries.

³⁶ One of the weaknesses of disaggregated investment data is that investment by recently equitized SOEs, in which the government retains a minority stake, are classified as private domestic investment even if the government continues to contribute to their capital. As a result, a part of the increase in private investment recorded over the last few years may be due to the change in the status of some equitized firms from SOEs to private enterprises.

same time, the government has increased the issuance of domestic bonds to nonbanks, with the result that the total stock of domestic public debt (including debt held by banks, which is included in the figures on net credit to government) has more than tripled from 5 percent of GDP in 2000 to 18½ percent of GDP in 2006. Moreover, bank credit to SOEs remained on an upward trend throughout the 1996–2006 period, more than doubling from about 10 percent of GDP in 1996 to 22½ percent of GDP in 2006.

77. The rising absorption of domestic savings by the government and SOEs suggests that it is entirely possible that private sector investment has been financially crowded out. However, as is also indicated in Table 2, bank credit to the rest of the economy (i.e., the nonstate sector) has risen even more sharply than credit to the public sector during the period under review—from 9 percent of GDP in 1996 to 49 percent of GDP in 2006. The apparent paradox of such large contemporaneous increases in credit to the public and private sectors is explained by a rapid growth of domestic savings during the period in question, together with an environment of declining inflation and an increasingly stable macroeconomic environment, which encouraged savers to channel a growing portion of their funds into the domestic banking system. Thus, broad money surged from around 25 percent of GDP in 1996–97 to 95 percent of GDP in 2006, enabling Vietnam’s banking system to sharply increase its lending to the public and private sectors while at the same time rapidly building up its net foreign assets—from 5 percent of GDP in 1996 to 30 percent of GDP in 2006. With bank deposits continuing to grow much more rapidly than bank lending, banks were under no pressure to increase their interest rates, thereby reducing the risk of crowding out.

78. In sum, the above data do not provide any clear indications as to whether there may have been financial crowding out of private domestic investment in recent years. The restoration of public confidence in the banking system and rapid monetization in the context of the Vietnamese government’s program of macroeconomic stabilization and market-oriented reform seem to have made it possible for the domestic financial system to accommodate sharp increases in credit to the state and nonstate sectors without exerting pressure on inflation or the balance of payments. Nevertheless, it is still possible that some of the rising demand for private sector credit may have remained unfulfilled because the government and SOEs have continued to borrow heavily on the domestic markets. Anecdotal evidence indeed suggests that many Vietnamese private businesses consider their limited access to bank financing to be a major constraint on their growth. However, this is a common occurrence in developing countries, and does not necessarily prove the existence of crowding out by credit to the public sector. Risk and prudential considerations are often important factors that may limit the expansion of lending to the private sector even in countries in which banks hold large amounts of idle liquidity

Table 2. Vietnam: Summary of Monetary Survey, 1996–2006

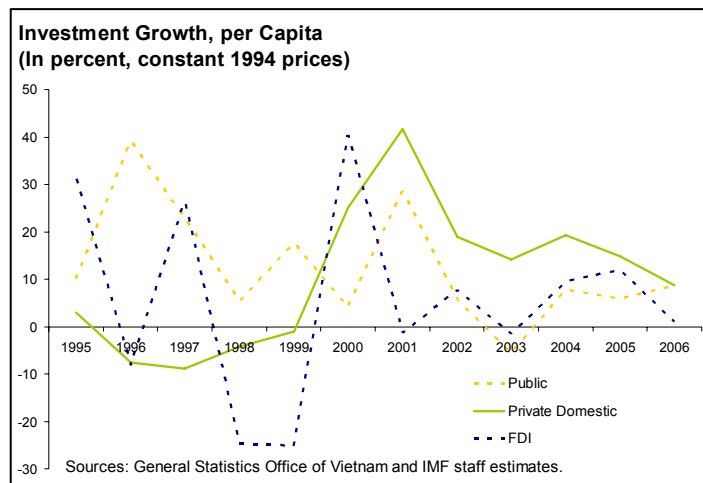
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Domestic credit	55,322	66,809	81,027	115,682	155,236	191,204	239,921	316,872	434,571	585,559	730,330
<i>Of which:</i>											
Net credit to government	4,428	4,400	8,377	2,952	(484)	2,102	8,843	20,135	14,526	32,461	36,496
Credit to state-owned enterprises	26,809	30,980	38,077	54,336	69,918	79,745	89,500	97,800	97,807	181,300	218,500
Credit to the rest of the economy	24,085	31,429	34,573	58,394	85,802	109,358	141,578	198,937	322,239	371,798	475,334
						(In annual percentage change)					
Domestic credit	17.6	20.8	21.3	42.8	34.2	23.2	25.5	32.1	37.1	34.7	24.7
<i>Of which:</i>											
Net credit to government	(5.5)	(0.6)	90.4	(64.8)	(116.4)	534.2	320.8	127.7	(27.9)	123.5	12.4
Credit to state-owned enterprises	11.3	15.6	22.9	42.7	28.7	14.1	12.2	9.3	0.0	85.4	20.5
Credit to the rest of the economy	31.7	30.5	10.0	68.9	46.9	27.5	29.5	40.5	62.0	15.4	27.8
						(In percent of GDP)					
Domestic credit	20.3	21.3	22.4	28.9	35.1	39.7	44.8	51.7	60.8	69.9	75.6
<i>Of which:</i>											
Net credit to government	1.6	1.4	2.3	0.7	-0.1	0.4	1.7	3.3	2.0	3.9	3.8
Credit to state-owned enterprises	9.9	9.9	10.5	13.6	15.8	16.6	16.7	15.9	13.7	21.6	22.6
Credit to the rest of the economy	8.9	10.0	9.6	14.6	19.4	22.7	26.4	32.4	45.0	44.4	49.2
						(Share of domestic credit)					
Domestic credit	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Of which:</i>											
Net credit to government	8.0	6.6	10.3	2.6	-0.3	1.1	3.7	6.4	3.3	5.5	5.0
Credit to state-owned enterprises	48.5	46.4	47.0	47.0	45.0	41.7	37.3	30.9	22.5	31.0	29.9
Credit to the rest of the economy	43.5	47.0	42.7	50.5	55.3	57.2	59.0	62.8	74.2	63.5	65.1
Memorandum items (in percent of GDP)											
Net foreign assets of the banking system	5.2	6.7	8.6	15.3	21.7	24.4	21.9	21.4	20.4	22.8	29.8
Broad money (M2)	23.8	26.0	28.4	40.1	50.5	58.1	61.4	67.0	74.4	82.4	95.5
<i>Of which:</i>											
Currency in circulation	8.3	8.0	7.5	10.3	11.8	13.8	13.9	14.8	15.3	15.7	16.4
Commercial bank deposits	15.5	18.0	20.9	29.8	38.6	44.4	47.6	52.3	59.2	66.8	79.1
Net domestic assets	18.5	19.3	19.7	24.8	28.8	33.7	39.5	45.6	54.0	59.6	65.7
Public debt	...	...	...	...	33.0	36.0	38.2	41.0	42.7	43.9	43.7
<i>Of which:</i>											
Domestic	...	...	...	...	5.1	6.2	10.1	13.7	15.4	17.4	18.7
External	...	...	...	...	27.9	29.8	28.1	27.3	27.3	26.6	25.0

Sources: State Bank of Vietnam; Ministry of Finance; and IMF staff calculations.

79. **Another mechanism through which public investment might have discouraged private investment could be so-called ex ante crowding out.** Such crowding out could occur when the government prohibits private investment in certain protected sectors reserved for SOEs or effectively pre-empts private investors by taking the initiative to undertake projects that might have been commercially viable, and of interest to private investors, but are no longer so, because the government has made the investment itself. In the case of Vietnam, laws that have in the past limited foreign participation in telecommunications and transportation (AsDB 2006) may be a case in point. Foreign investor representatives in recent Business Forums have indicated a willingness to expand their investment in certain sectors that are still dominated by public investment once some of the existing legal and regulatory hurdles are removed. However, it is difficult to assess the empirical relevance of this type of crowding out on an aggregate level.

80. **One approach that could be used to ascertain possible crowding in or crowding out effects of public investment would be to empirically estimate the extent to which movements in public and private investment may have been interrelated over the last few years.** A rough indication of the patterns of any co-movements between the different components of investment can be gleaned by plotting their respective growth rates.

As is shown in the figure above, private domestic investment and FDI appear to have moved broadly in line with public investment during the latter half of the period under review.



However, no obvious pattern emerges during the earlier part of the period, when public and private investment were at times moving in opposite directions, possibly reflecting a countercyclical public investment policy in the aftermath of the Asian crisis.

To elucidate the extent to which public and private investment may have been related throughout the sample period, the following section undertakes a more rigorous analysis based on SVAR techniques.

C. SVAR Analysis

81. **The dynamics between public and private investment can be evaluated in a more rigorous manner using a SVAR approach developed in Mitra (2006).** This approach permits an assessment of the reaction over time of private domestic investment and FDI to an increase in public investment, taking into account both contemporaneous and lagged effects. If the overall reaction over time is positive (negative) then this can be viewed as an indication that crowding in (crowding out) has taken place.

82. The structure of the shocks is specified as follows:

$$u_t^{GI} = \alpha e_t^{FDI} + e_t^{GI} \quad (\text{equation 1})$$

$$u_t^{FDI} = \chi e_t^{GI} + e_t^{FDI} \quad (\text{equation 2})$$

$$u_t^{PI} = \phi e_t^{GI} + \delta u_t^{FDI} + e_t^{PI} \quad (\text{equation 3})$$

$$u_t^{GDP} = \gamma u_t^{FDI} + \lambda(u_t^{GI} + u_t^{PI}) + e_t^{GDP} \quad (\text{equation 4})$$

Where e_t^i represents an independent shock (or structural shock) to the variable i . u_t^i represents the overall shock on variable i , which can be impacted by independent and overall shocks of other variables. An increase in the overall shock to FDI, u_t^{FDI} , in response to an independent shock to public investment, e_t^{GI} , would suggest crowding in of FDI by public investment (in other words $\chi > 0$). Annex III includes a more detailed description of this model.

SVAR Coefficient Estimation Results 1/

Equation	Shock Variable	Respondant Variable	Coefficient	Coefficient Estimate	p-value
<i>Independent Shocks</i>					
1	FDI	GI	α	0.75	0.00
2	GI	FDI	χ	1.29	0.00
3	GI	PI	ϕ	0.00	0.99
<i>Overall Shocks</i>					
3	FDI	PI	δ	0.22	0.13
4	FDI	GDP	γ	0.05	0.74
4	GI	GDP	λ	0.06	0.72
4	PI	GDP	λ	0.06	0.72

Source: IMF staff calculations.

1/ GI = public investment; PI = private investment.

The results of the estimation, presented in the table above, can be summarized as follows:

- **Public investment seems to have crowded in FDI both in the short and medium terms.** A one percent positive shock to public investment is estimated to lead to a concurrent significant increase in FDI by 1.29 percent, confirming the commonly-held view that, in Vietnam, public investment in infrastructure and human capital has been an important complement to FDI.³⁷ The corresponding impulse response function shows that

³⁷ While it may seem implausible that public investment can have an immediate effect on FDI, there are numerous examples of FDI projects that may be undertaken only if the government invests in complementary infrastructure (e.g., FDI-developed harbors, for which the government has to develop an adequate road access network). In some cases, a country's ODA, which is used to fund a part of Vietnam's public investment, may be narrowly targeted to improve infrastructure necessary for FDI originating from that country.

a positive shock to public investment tends to have a positive impact on FDI for two and a half years, before the effect gradually subsides (see Figure 3).³⁸

- **Conversely, a positive shock to FDI, independent of public investment, is estimated to lead to increased public investment.**³⁹ A 1 percent independent positive shock to FDI is estimated to lead to a statistically significant increase in public investment by 0.75 percent. The accumulated impulse response function points to a positive effect that lasts for two years after the public investment policy shock.⁴⁰
- **Increased public investment does not appear to have any significant impact on private domestic investment based on estimation over the entire sample period (1994–2006).** However, the figure above points to an intriguing possibility of an evolving relationship, with possible crowding out during the first half of the period followed by crowding in during more recent years. Further tests, such as performing the analysis separately on the first and second half of the sample period could help cast more light in this area once better-quality data become available. In addition, the analysis may be enriched by applying data sorted by major types of private investment.
- **An increase in FDI surprisingly is estimated to lead to a lagged decline in private domestic investment.** The contemporaneous response of private domestic investment to a 1 percent independent positive shock in FDI is of the expected positive sign but is not statistically significant. However, the accumulated impulse response function indicates a lagged negative reaction. This result is surprising, as one might have expected that increased FDI would have positive spillover effects on the private domestic sector. However, typical spillover effects such as transfers of technology and managerial know-how are generally passed on to large-scale private domestic businesses. For most of the period under study, private domestic investment in Vietnam consisted of small-scale businesses that were unlikely to be in a position to absorb such positive spillovers.⁴¹

³⁸ Given the relatively weak quality of some of the available data, the qualitative results of the impulse response functions should be given greater weight than the quantitative results. For the same reasons, the impulse response functions can be expected to be more accurate for the first few quarters than for later quarters.

³⁹ Such a shock could include an increase in investor interest in Vietnam motivated by strategic reasons, diversification considerations, market-friendly reforms or other investment incentives that are independent of public investment (e.g., the reforms introduced in the context of WTO accession). Encouraged by the promising prospects for FDI, the government may launch new public infrastructure projects with the goal of inducing further FDI.

⁴⁰ This result is consistent with Granger causality tests which point to bidirectional Granger causality between FDI and public investment.

⁴¹ Anh et al. (2006) provides empirical evidence that also points to a lack of significant positive spillover effects of FDI in Vietnam, owing in part to the limited skills of its labor force.

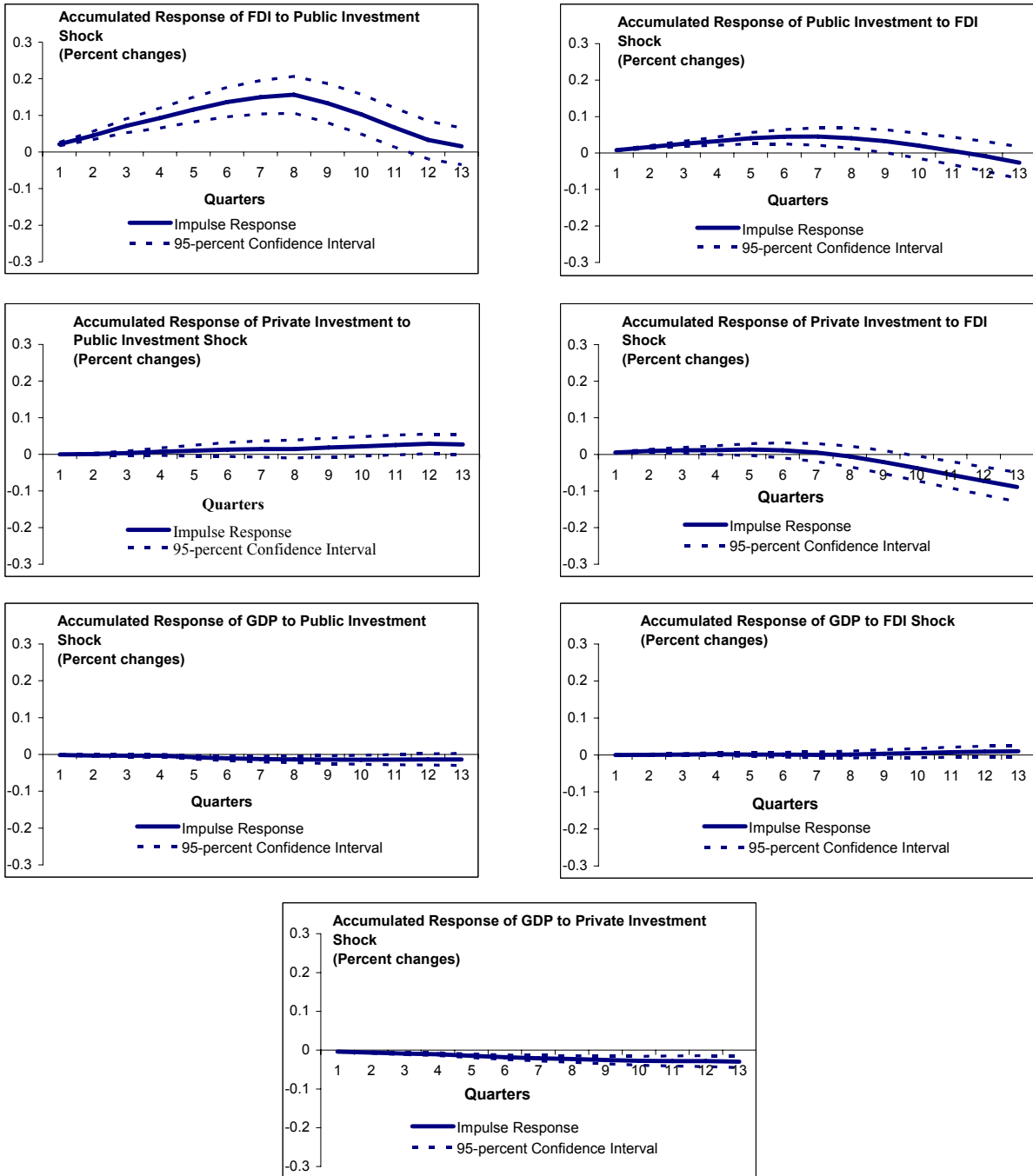
- **Increases in public investment, FDI, and private investment are not estimated to have led to contemporaneous increases in GDP.** The responses of GDP to a 1 percent independent shock in FDI, and in government and private investment, are of the correct sign but they are small (0.05–0.06 percent) and statistically insignificant. While long lags in GDP’s responsiveness to the shocks could partly explain this result, the corresponding impulse response functions remain close to zero.

D. Conclusion

83. **Public investment has absorbed a large share of the Vietnamese economy’s domestic saving since the mid-1990s, but the available data do not provide any clear evidence of a crowding out effect on private domestic investment, and there are strong indications that public investment has helped crowd in FDI.** The pursuit of broadly sound macroeconomic policies and market-oriented reforms, and the accompanying rapid monetization of the economy, have made it possible for the Vietnamese banking system to meet the growing demand for credit by both the public and private sectors without giving rise to pressures on inflation or the balance of payments. At the same time, increasing public investment has served to remove some of the infrastructure bottlenecks that are among the most serious disincentives to FDI, thus creating an enabling environment for FIEs to contribute to Vietnam’s export-led pattern of rapid growth.

84. **Going forward, to reap the full benefits from Vietnam’s increasing economic and financial integration, the government will need to continue to invest in essential public infrastructure, especially in sectors in which there is little scope for commercially viable private investment.** At the same time, remaining regulatory constraints that may hamper investment in projects that could be of interest to domestic or foreign private investors need to be removed. The government has recently taken important steps in this direction through the enactment of the Unified Enterprise Law, the Common Investment Law, and Decree 78/2007/ND-CP dated May 11, 2007 on investments under the build-operate-transfer (BOT), build-transfer-operate (BTO) and build-transfer (BT) models. With the latter decree, the scope for private investment in infrastructure has been greatly expanded to include roads, bridges, tunnels, railways, airports, seaports, water treatment facilities, power plants, and power transmission lines. The opening up of these key sectors should make it easier for Vietnam to capitalize on the positive investment climate created by WTO accession, while facilitating the maintenance of medium-term debt sustainability, and helping to ensure that the private sector will have sufficient incentives and financial resources to continue to thrive in an environment of growing global competition.

Figure 3. Vietnam: Accumulated Impulse Responses of Investment and GDP to One Standard Deviation Shocks 1/



Source: IMF staff calculations.

1/ Horizontal-axis units are in quarters of a year.

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ANNEX III

Public and Private Investment in Vietnam—Model Details

A structural vector autoregressive (SVAR) model is applied to better understand the interactions between public investment, FDI, private domestic investment, and GDP in Vietnam. The model simultaneously regresses each variable on lags of itself and all other variables in the model. The underlying structure of the variance-covariance matrix is specified in such a way that it is possible to isolate the impact of an independent shock in one variable on the other variables.⁴² In other words, the reaction of FDI, private domestic investment, and GDP to a sudden increase in public investment (an independent shock) can be simulated. The model is estimated for the period 1994Q1–2006Q4 on the natural logarithms of public investment (GI), FDI, private domestic investment (PI), and GDP, all in real per capita terms, based on data from the Vietnamese authorities that have been seasonally adjusted.⁴³

The dynamics of the variables are explored with the following VAR structure for the SVAR model:

$$\begin{aligned}
 GI_t &= \alpha^{GI} + \sum_{i=1}^l \beta_i^{GI} GI_{t-i} + \sum_{i=1}^l \chi_i^{GI} FDI_{t-i} + \sum_{i=1}^l \delta_i^{GI} PI_{t-i} + \sum_{i=1}^l \phi_i^{GI} GDP_{t-i} + u_t^{GI} \\
 FDI_t &= \alpha^{FDI} + \sum_{i=1}^l \beta_i^{FDI} GI_{t-i} + \sum_{i=1}^l \chi_i^{FDI} FDI_{t-i} + \sum_{i=1}^l \delta_i^{FDI} PI_{t-i} + \sum_{i=1}^l \phi_i^{FDI} GDP_{t-i} + u_t^{FDI} \\
 PI_t &= \alpha^{PI} + \sum_{i=1}^l \beta_i^{PI} GI_{t-i} + \sum_{i=1}^l \chi_i^{PI} FDI_{t-i} + \sum_{i=1}^l \delta_i^{PI} PI_{t-i} + \sum_{i=1}^l \phi_i^{PI} GDP_{t-i} + u_t^{PI} \\
 GDP_t &= \alpha^{GDP} + \sum_{i=1}^l \beta_i^{GDP} GI_{t-i} + \sum_{i=1}^l \chi_i^{GDP} FDI_{t-i} + \sum_{i=1}^l \delta_i^{GDP} PI_{t-i} + \sum_{i=1}^l \phi_i^{GDP} GDP_{t-i} + u_t^{GDP}
 \end{aligned}$$

The model is estimated in levels because (i) the level variables are those of interest; and (ii) in the presence of cointegration, a differenced model can result in a loss of information.⁴⁴ Given that the Johansen approach finds weak cointegration, the model is estimated in levels,

⁴² Isolating the impact of a shock in one variable on other variables is not possible in a simple VAR analysis, where the residuals or shocks of all variables may be correlated with one another. Consequently, a shock to one variable contemporaneously impacts the other variables, making it impossible to extract the effect of an independent shock to public investment. See Bernanke (1986) and Sims (1986), seminal papers in macroeconomic applications of SVAR models, for more details.

⁴³ As not all the data are available on a quarterly basis for the entirety of the period studied, some of the quarterly series have been interpolated using quadratic methods. This may have reduced the robustness of the estimates.

⁴⁴ See Clements and Mizon (1991) for a demonstration of this point. Additionally, Sims et al. (1990) show that most standard asymptotic tests are still applicable for VAR estimation in levels.

even though all the variables contain unit roots (of order I (1), based on the Dickey-Fuller unit root test).

The VAR model is specified with 5 lags based on the likelihood ratio test. Alternative lag specifications provide similar results.

The variance-covariance matrix is specified as follows:⁴⁵

$$u_t^{GI} = \alpha e_t^{FDI} + e_t^{GI} \quad (\text{equation 1})$$

$$u_t^{FDI} = \chi e_t^{GI} + e_t^{FDI} \quad (\text{equation 2})$$

$$u_t^{PI} = \phi e_t^{GI} + \delta u_t^{FDI} + e_t^{PI} \quad (\text{equation 3})$$

$$u_t^{GDP} = \gamma u_t^{FDI} + \lambda(u_t^{GI} + u_t^{PI}) + e_t^{GDP} \quad (\text{equation 4})$$

- This structure is intended to capture the possible complementarity between public investment and FDI. Public investment in infrastructure development, in particular, may create a more conducive environment for FDI, while the prospect of FDI may provide more incentives for the government to increase investment in infrastructure. Thus, an independent shock in public investment (FDI), such as an announcement of increased public investment, may be expected to directly impact FDI (public investment). See equation 1 (equation 2).
- Similarly, the model can capture interrelationships between private and public investment, and between FDI and private investment. Private investment may react positively to an independent positive shock in public investment in the presence of complementarities between the two types of investment (e.g., an announcement of increased investment in public infrastructure could spur private investment) or negatively, in the case of financial or ex ante crowding out. Spillover effects of FDI on private investment may be captured in the impact of an overall shock to FDI on private investment (equation 3).
- Finally, by definition of GDP, an overall shock in GDP is a function of public investment, FDI, and private domestic investment. It is assumed that the magnitude of the impact on an overall GDP shock of the shocks to public and private domestic investment are the same. This assumption is motivated by the results in the table on page 49, where we see that the shares of the public sector and of the private domestic sector in GDP have remained relatively stable (or declined) over the period studied. Similar observations can be made for their growth rates. Consequently, shocks in these two variables would be

⁴⁵ This formulation imposes the required number of restrictions for identification. Various orderings of Cholesky decompositions give similar qualitative results.

expected to have a similar impact on GDP. In contrast, FDI's share in GDP and its shock to FDI will have a distinctive impact on GDP.

- A GDP shock does not concurrently impact public investment, or FDI, or private investment, since in Vietnam it takes more than one quarter to measure unanticipated changes in GDP and formulate an adjustment in any of these variables.