

# THE DETERMINANTS OF THE VIETNAMESE ECONOMICS COMPETITIVENESS, A LESSON FOR DEVELOPING COUNTRIES

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## Abstract

Vietnam has been very successful for the last two decades, since the adoption of “Doi moi” in 1986. Over the last two decades, an economic growth rate in Vietnam has been one of the highest worldwide (with GDP growing by respectively 8% per year). The increase of the Vietnamese share of world trade is the highest of all major Asian exporters (including China) since the mid-1990s. « Why is Vietnam so competitive with respect to other Asian exporters? » This paper considers Vietnam's competitiveness, its definition and measurement.

The major characteristic of East Asian economic development is rapid industrialization. It has been accelerated by export orientation and a specialization pattern that has evolved from simple (ie garment, shoes, toys, etc.) to more sophisticated products. Countries have used their comparative advantage to catch up industrialized economies. According to Okita (1985) the great diversity among the Asian nations in their stages of development and resource endowments “works to facilitate the flying geese pattern of shared development as each is able to take advantage of its distinctiveness to develop with a supportive division of labour.”

The “flight of wild geese” image has acquired different meanings over time. It was first used to describe the life cycle of industries (Akamatsu, 1962); it has been successively extended to the evolution of industrial structure, then to the shift of industries from one country to another.

According to this latter meaning, as Japan and the other East Asian countries leave industries in which they have no comparative advantage, later industrialized countries are able to move in these industries and join the “flying geese” formation. The textile & clothing industry offers an example of the shift of industries in Asia, from Japan to Hong Kong, Korea, Taiwan etc. then to Malaysia, Philippines, Thailand etc. and now to China, Vietnam, etc.

In this paper, we also analyze Vietnam's potential for sustainable growth and international integration. Our paper draws on international foreign trade databases and uses traditional indicators of trade specialization and competition.

### *Paper outline:*

#### *1. Introduction*

#### *2. Vietnam's export performance*

#### *3. Comparative advantage and international competitiveness*

#### *4. Measurement of competitiveness*

#### *5. Determinants of Vietnamese competitiveness*

#### *6. Foreign direct investment as a determinant of competitiveness*

#### *7. Evaluation and conclusion*

### *Reference*

*Database: World Bank indicators 2008, UNCTAD, Vietnam General statistics office*

Key words: Competitiveness, Exportation, Exchange rate, labour costs, FDI (Foreign Direct Investment), revealed comparative advantage (RCA).

JEL classification: L6, O24, O57, F1, F31, P5.

## Introduction

Vietnam has been very successful for the last two decades, since the adoption of “Doi moi” in 1986. Over the last two decades, an economic growth rate in Vietnam has been one of the highest worldwide (with GDP growing by respectively 8% per year). The increase of the Vietnamese share of world trade is the highest of all major Asian exporters (including China) since the mid-1990s. « Why is Vietnam so competitive with respect to other Asian exporters? » This paper considers Vietnam's competitiveness, its definition and measurement.

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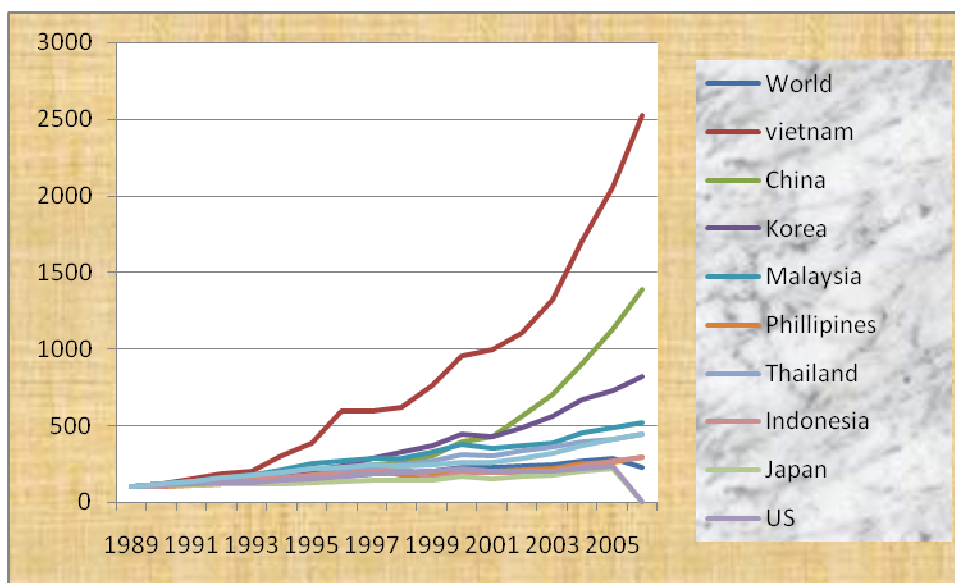
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# 1. Vietnam's export

In recent years, the record of Vietnamese exports has been spectacular, though cyclical. Vietnamese exports have expanded very rapidly; even compared to China (figure 1). Its growth is by far the most dynamic of all Asian exporters. Other Asian countries have also shown rapid export growth but, despite substantial devaluations, in recent years many have lagged behind Vietnam (table 1). As is clearly apparent in figure 2, in recent years, Vietnamese exports have grown much more rapidly than other Asian countries' exports, by 22.67 percent in 2006.

Figure 1

Export growth rate of Vietnam compared to major Asian exporters (index 1989=100)



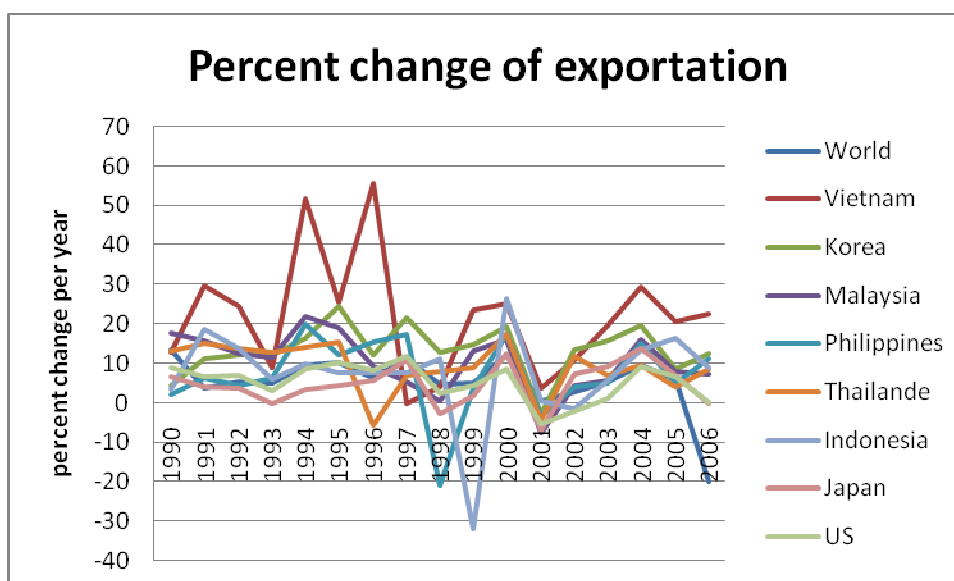
Source: Computed by Author from World Bank Indicators 2008.

Table 1: Export Growth 1989-2005 (percent change p.a)

	1989-1993	1993-1996	1996-1999	1999-2002	2002-2005
World	27,66921	31,1406151	27,1991892	20,7637997	23,8835548
Vietnam	76,5811747	142,094083	83,4513385	63,7001878	80,7050588
Korea	39,8854726	64,9850457	61,0653511	44,292674	56,9778931
Malaysia	57,7278165	61,6417367	28,3730462	26,2127154	34,124309
Phillippines	18,6290601	53,4531038	15,1428701	21,2619309	28,6848904
Thailande	55,3265165	37,1826998	18,9815052	34,3007846	33,0024349
Indonesia	41,9522473	31,3304965	-5,26181054	-5,89195358	34,5614108

Source: Computed by Author from World Bank Indicators 2008

Figure 2: Percent change of exportation

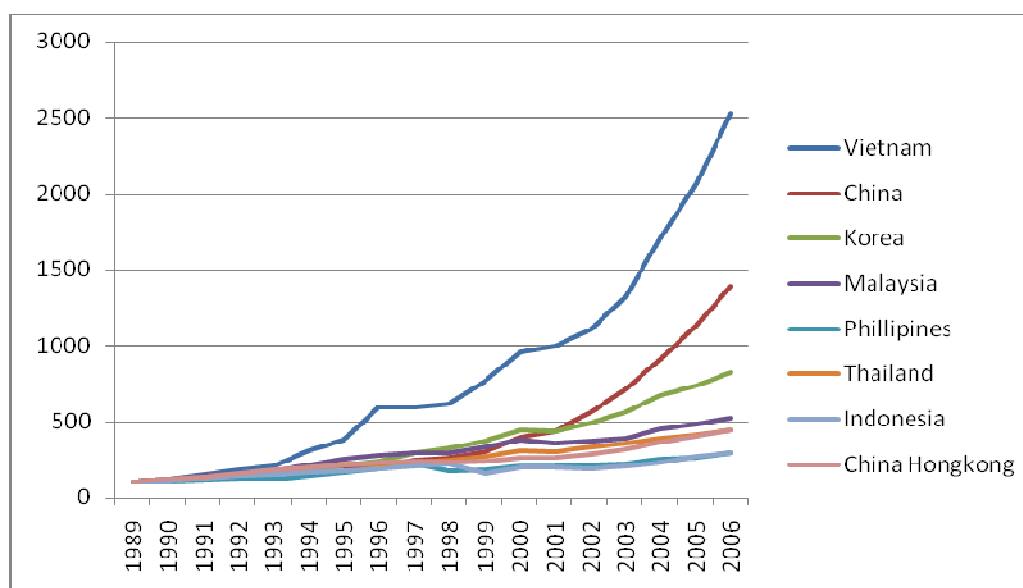


Source: Computed by Author from World Bank Indicators 2008

An alternative way to evaluate the development of exports is to see them as a share of world trade (Figure 3). The results are striking. The market share of Vietnam on the world has been multiplied by more 25 from 1989 to 2006. Other East Asian countries show slightly increases in their shares of world trade except China and Korea, the former shows a increase of 14 times and the latter is 8 times.

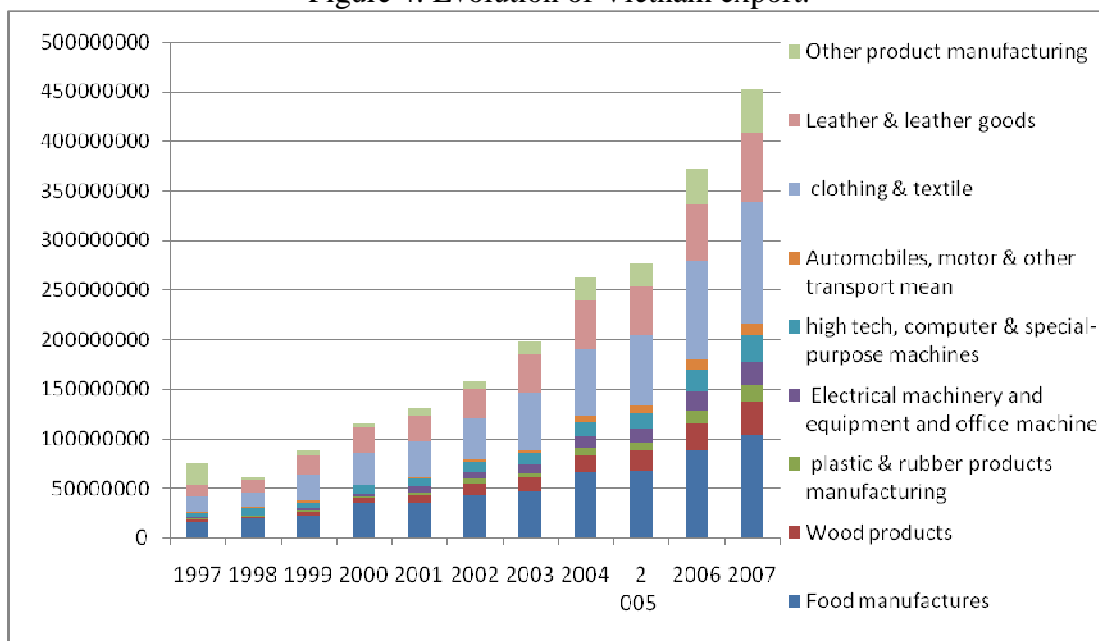
We base on the annual panel data of Vietnamese export-oriented industries of the Vietnamese GSO (General Statistics Office) data during the period 1997-2007 (See figure 4, 5 & appendix for the list of Vietnamese export-oriented industries) in order to explain the change in the Vietnamese export composition. Export composition reflects the traditional development ladder (Adams and Ichimura, 1998; and Vernon, 1966) approach, starting with raw materials in the lowest income countries, then increasing powerfully in the manufactured mass production goods and finally turning to high-tech and capital goods as the economy's productive power matures.

Figure 3: Evolution of World's market shares of Vietnam compared to major Asian exporters (1989=100)



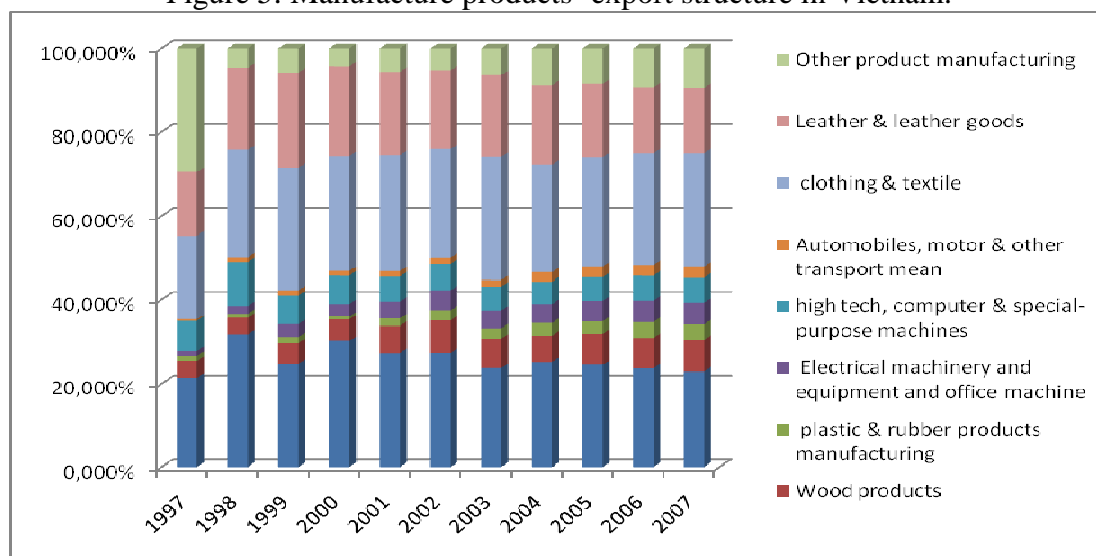
Source: Computed by Author from World Bank Indicators 2008

Figure 4: Evolution of Vietnam export.



Source: Computed by the authors, from Vietnam General Statistics Office database.

Figure 5: Manufacture products' export structure in Vietnam.



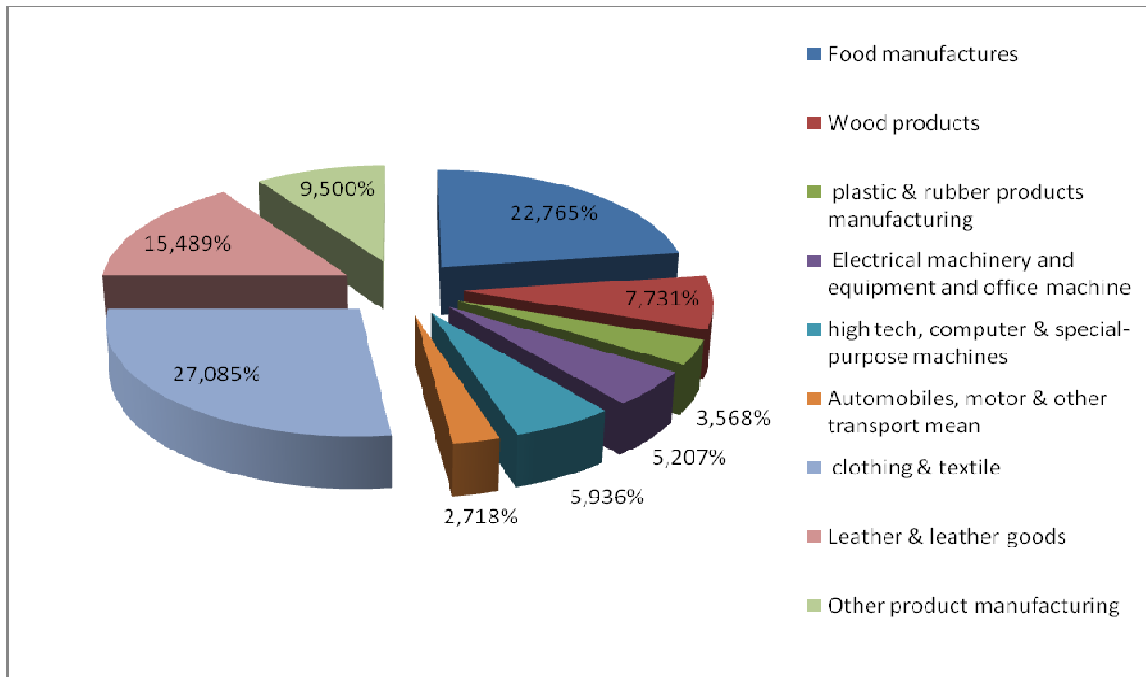
Source: Computed by the authors, from Vietnam General Statistics Office database.

The Vietnamese government uses policies that promote industries to export. These policies aim on the one hand to promote industries known as « traditional » that their output is exported for a long time such as textile products; food and beverage, wearing apparel, dressing and dying of fur; leather tanning and dressing. On the other hand, these policies intend to privilege « emergent » ones such as office, accounting and computing machinery; electrical one; radio, TV and communication equipment; wood and wood products.

Since becoming a member of ASEAN in July 1995, manufacture products show more and more their strength in the export structure of Vietnam. If in 1997, the share of these products in the Vietnamese export value was of 37.68%, it rose to 47.81% in 2000 then stepped up to 51.55% in 2007. This progression is supported by the role of certain export-oriented industries such as “food manufacturing”, “clothing manufacturing and products of textile industry”, “leather and leather products and shoes”, “wood product”, “computing, electronic products”, and “electrical product &

equipment". The figure 6 below represents the manufacture products' export structure in Vietnam in 2007.

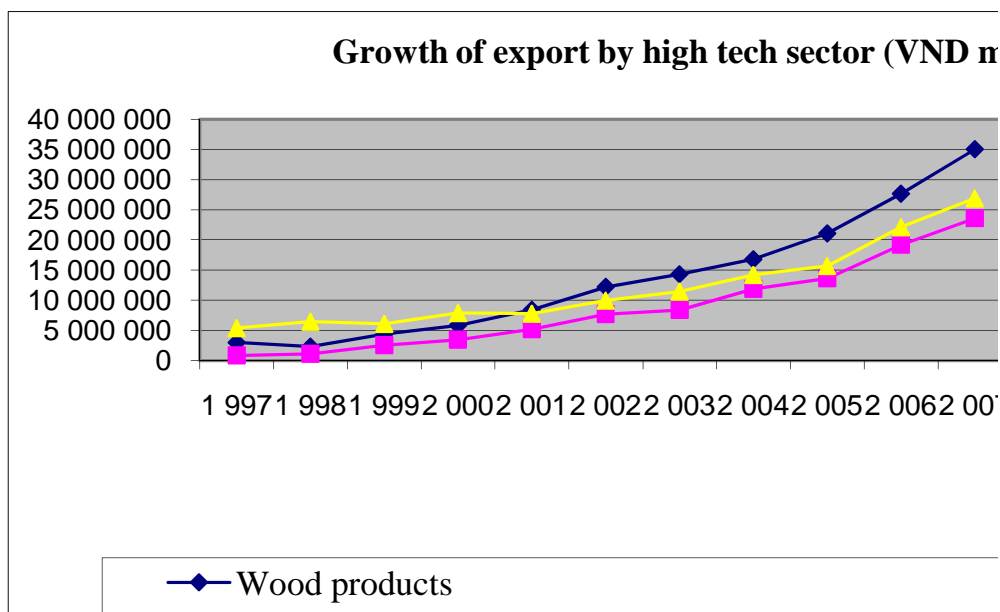
Figure 6: Export share of Vietnamese manufacture products in 2007.



Source: Computed by the authors, from Vietnam General Statistics Office database

In this structure, we observe important part of the first three industries. Their share is respectively of 27.085%, 22.765% and 15.489%. The share of the last three is still weak (just 7.731%, 5.936%, and 5.207%). However, there are emergent industries and their export value increases during time. The figure 7 illustrates the export trends of those products.

Figure 7: Growth of export by high tech sector



Source: Computed by the authors, from Vietnam General Statistics Office database

## 2. Comparative advantage and international competitiveness.

The explanation of international competitiveness by economists goes back many years to the theory of comparative advantage and factor pricing (Ricardo and Heckscher-Ohlin). While Ricardo

focused on one production factor and differences in technology (climate), Heckscher and Ohlin dealt with labour and capital inputs and justified comparative advantage based on underlying differences in factor endowments and relative factor prices. This approach has been extended to many products and many factors (Dornbusch, Fisher and Samuelson, 1977). In the modern theory of trade under imperfect competition, factor-based comparative advantage continues to play a central role in explaining trade patterns, although scale economies and strategic motives are also important (Helpman and Krugman, 1985). Ronald Jones (2000) has also noted that absolute advantages may influence patterns of specialization if some inputs to production are mobile across borders, as are capital; management and technology in today's globalized economy.

Comparative advantage with factor pricing may lie at the heart of the theory of specialization and trade, but it is not always closely related to real-world discussions of competitiveness. Comparative advantage is a microeconomic concept, focusing on industry-specific trade, explaining why one country might export labour-intensive products while another country might specialize in capital-intensive ones. By definition, each country has a comparative advantage in the production of some products – those for which it has a lower relative (opportunity) cost than its competitors. Comparative advantage has little significance from a macroeconomic perspective. It is not meaningful to say that at any time country A in the aggregate has a comparative advantage over country B.

Factor-based comparative advantage is an equilibrium concept, predicting a pattern of trade when prices, trade flows and exchange rates are in equilibrium. Business decisions, in contrast, often must explicitly consider short-term situations as well as long-term equilibrium outcomes. These will include current economic conditions, exchange rates and other factors that may represent deviations from long-run equilibrium, sometimes for fairly long periods of time.

Finally, factor-based comparative advantage does not take explicitly into account the technological options available to the producers. At the microeconomic level, when dealing with specific products, it is not always clear from theory alone which country has the most favorable mix of resources and factor prices for various types of production. Depending on technology and infrastructure, a shortage of labour relative to capital that implies relatively high wage rates may be offset by differences in technology. High wages may or may not translate into competitive disadvantage for labour-intensive products if alternative technologies – using less labour and more capital are available. For example, many products that are produced by hand in Vietnam are also produced, by machine, in the United States.

By competitiveness is meant the ability, under present conditions, of a country's producers to command world markets.<sup>1</sup>

In contrast to the comparative advantage approach, it is appropriate to talk meaningfully about international competitiveness both on the macro and micro levels. International competitiveness is a matter first of costs: which country is able to deliver the product to the market most cheaply. Contributing to costs are factors that directly affect prices, such as exchange rates, domestic wages and material costs, and productivity. Capabilities to produce goods of appropriate quality and meeting world market specifications are particularly important. Transportation and communication costs, and trade barriers and trade strategy may all play a role. Competitiveness is not an equilibrium concept. It represents a position at a point in time or its change over time. Since adjustment on the product supply side is likely to be very slow – it takes many years to acquire technical competence, to establish production facilities and to develop export markets –

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<sup>1</sup> *Competitiveness is a term used widely in the business administration literature (Porter, 1990), for example: . . . upgrading an economy is the result of broadening and upgrading the competitive advantages of a nation's firms: the attainment of wider . . . patterns of competitive advantage challenge any simple notions of comparative advantage (Porter, 1996, p. 278).*

competitiveness typically refers to a time of disequilibrium when a country can increase its share of export markets. In other words, competitiveness often refers to dynamic rather than static perspectives.

Common usage of the term, competitiveness, is usually broader than would be implied by a formal definition. In particular, advocates for competitiveness often stress the role of sustained productivity growth in producing products that meet the test of international markets<sup>2</sup> (*Porter, 1990; and Competitiveness Policy Council, 1992*)

Policy may also play an important role in promoting international competitiveness, both from a static and dynamic perspective. It is in this context that the term has been embraced by politicians to represent the failures or successes of Western economies.

In contrast to comparative advantage, it is appropriate to talk meaningfully about international competitiveness both on the macro and micro levels. At the macro level, a country's exports may be highly competitive in the destination countries or in comparison with products originating in other countries. That may reflect underlying factor cost and productivity considerations. It may also reflect the current exchange rate, undervaluation or overvaluation, in addition to tariffs, transportation costs and trade restrictions as well as product quality and specifications.

It does make sense to think of a country's aggregate competitiveness and about policies intended to advance its competitiveness. Competitiveness has dynamic attributes in the sense that, given resource environment, countries may become more competitive as a result of learning-by-doing, assimilation of technology, capital accumulation, increasing scale of production, and policy intervention.

From a micro perspective as well, it is possible to ask whether certain industries are competitive in world markets. This calls for a comparison of costs in the competing countries, at a prevailing exchange rate, involving such factors as wages and capital costs, scale of production and, of course, technology. As we have noted in the discussion of comparative advantage, some industries will be more suited to an economy's endowment of factors and skills than others. But whether an industry's products compete successfully in world markets also depends on considerations related to management ability and strategy. Dynamic improvement in competitiveness meaning that the competitiveness of currently exporting industries improves or that new products, perhaps technologically more advanced ones, become competitive is possible even when the underlying resources and comparative advantage in production show little change.

The issue of Vietnamese trade is today much more an issue of competitiveness than of comparative advantage. Of course, Vietnam's abundant labour supply represents an example of comparative advantage relative to the old industrial countries, par excellence. But Vietnam has had such a labour resource endowment for generations and we must seek another explanation for Vietnam's current export competitiveness.

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### 3. Measurement of competitiveness

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<sup>2</sup> *Paul Krugman (1994) criticizes the tendency to characterize competitiveness by imagining a nation 'like a big corporation, competing in the world market place', a saying attributed to President Clinton. He argues that competitiveness is 'a dangerous obsession' since it may lead to policy choices that are not clearly in the national interest – for example, protectionism when foreign goods 'threaten' local producers. He prefers an approach that looks only at productivity growth as a measure of national performance, but this ignores the key role that international trade (and competition) may play in driving productivity differences (see Cohen, 1994).*



The measurement of international competitiveness may be approached from a ‘results’ or from a ‘causes’ perspective. Results are basically export performance and the trade balance. These are ex post concepts and do not ask ‘why’, though there is often an implied explanation. Growth of exports, particularly growth that is more rapid than in other countries, implies competitiveness. A positive trade balance is also frequently cited as a positive measure of competitiveness.

Presumably, competitiveness reflects relative costs, but it may also be affected by product attributes and trade restrictions. This may lead to confusion. The ability to command world markets does not necessarily imply higher living standards.

A classical results measure, focused on particular industries, was Balassa’s ‘revealed comparative advantage’ (RCA) (Balassa, 1965), the share of a country’s exports of a specific product category

$$RCA_{ij} = \frac{X_{ij}}{(\sum_i X_{ij})} / \frac{(\sum_j X_{ij})}{(\sum_i \sum_j X_{ij})} \quad (1)$$

Balassa relates RCA measures to such underlying factors as capital intensity and human resource development (Balassa, 1979). The RCAs are sector specific and static. It is possible to make them dynamic by focusing on comparisons over time and in terms of rates of change. For example, growths of a specific export more rapidly than worldwide growth of the specific product exports suggests competitiveness in the specific product.<sup>3</sup>

Such a dynamic comparison is shown in Table 6. One may want to measure international competitiveness directly, seeking the causes of a country’s or an industry’s international trade success. The exchange rate is, of course, the most immediate measure of the terms of trade. However, the nominal exchange rate, though relevant to trade transactions, fails to take into account differences in domestic currency production costs. Comparisons of the temporal movement of real exchange rates can be computed by adjusting changes in nominal exchange rates for the underlying domestic price movements.

It is more difficult to establish comparisons of real competitiveness at a point in time in absolute terms, since they depend on the absolute levels of domestic input costs (or prices) and on productivity. Can the product be produced more cheaply in one country than in another? The basic ingredients for such a comparison need to be the exchange rate and the underlying costs in the trading countries. There are several possibilities:

- comparison of wage rates or capital costs,
- comparison of unit labour or unit capital costs, and
- comparison of unit total costs.

In each case, comparisons must be made in terms of currencies adjusted at nominal exchange rates since these rates apply to goods sold in international trade. Comparisons of wage rates or capital costs alone fail to allow for differences in productivity. And the differences due to production technology and its adaptation to local conditions are critical. Thus, factor cost computations call for unit cost comparisons. One may compare relative wages and relative productivities to ascertain competitiveness, for example:

$$(l/q) * w > or < (l_f / q_f) * w_f) / XR \quad (2)$$

Where  $(l/q)$  represents unit labor input,  $w$  represents the wage rate, the subscript  $f$  stands for the outside world and  $XR$  is the exchange rate (units of domestic currency per dollar). Given the

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<sup>3</sup> Other approaches to measure competitiveness, the Michaely index, a measure of relative net exports, or the  $X^2$  measure focus on somewhat different questions like trade balance and specialization (Laursen, 1998).

exchange rate, one may determine labour competitiveness for individual industries on the basis of unit labour output statistics for separate industries.

Multi-factor cost comparisons pose additional problems since the weights attached to the factor inputs are likely to differ between countries because of differences in relative factor cost.

Production at different sites is likely to use different combinations of labour and capital: lots of labour where labour is cheap and capital expensive and capital-intensive methods where capital is relatively cheap. That is, after all, what comparative advantage is all about? In that case, the total unit cost comparison should use the factor weights appropriate for each of the economies, i.e.:

$$((l/q)*w)*W + ((k/q)*r)*(1-W) > or < (((l_f/q_f)*w_f)*W_f + (k_f/q_f)*r_f)*(1-W_f)/XR \quad (3)$$

where k represents capital, r is the interest rate, and W stands for the capital share of inputs.<sup>4</sup>

An added complication lies in the need to allow for intermediate inputs, sometimes coming from foreign sources. The comparisons based on a single input, labour or capital, are feasible so long as appropriate data on wages or interest rates and data on output or on labour or capital productivity can be developed. Multi-factor comparisons are more difficult because of the need for appropriate weights.

It is possible to approximate a multi-factor comparison by making use of data from international comparison programmes like the International Comparison Project (ICP) at the University of Pennsylvania and the International Comparisons of Output and Productivity (ICOP) of the Groningen Growth and Development Centre. The ICP work takes a final expenditure approach to purchasing power parity. It has a long and distinguished history going back to Gilbert and Kravis (1954), Summers and Heston (1991) at the University of Pennsylvania, and more recently at the World Bank in association with other international organizations.

Survey-based prices for fully described comparable items in final demand, so-called specification pricing, are used to translate final demand components in the comparison country to US dollar values. The computation yields estimates for per capita GDP in PPP\$:

$$GDP_{PPP\$j} = \sum_i (Q_{io} * P_{ijPPP\$}) / Pop_j \quad (4)$$

These can be compared with GDP on an exchange rate basis, sometimes called the Atlas method:

$$GDP_{XRj} = \sum_i (Q_{io} * P_{ij}) / Pop_j / XR_j \quad (5)$$

The comparison between per capita GDP in PPP\$ and on the basis of the exchange rate yields a measure of exchange rate over- or undervaluation (U):

$$U_j = 1 - GDP_{XRj} / GDP_{PPP\$j} = 1 - (\sum_i (Q_{io} * P_{ij} / XR_j) / Pop_j) / \sum_i (Q_{io} * P_{ij} / XR_{iPPP\$}) / Pop_j = 1 - XR_{iPPP\$} / XR_j \quad (6)$$

where  $GDP_{PPP\$j}$  and  $GDP_{XRj}$  are GDP per capita in purchasing power terms (prices are in PPP\$) and in exchange rate terms (prices are in local currency but the total has been divided by the exchange rate), respectively.  $Pop_j$  represents population. The  $Q_{io}$ 's are quantities. The quantity weights in this calculation differ greatly between the countries. It has been customary to use a Fisher average between estimates based on comparison country quantity weights and base country (usually the US) weights.

This approach provides a comprehensive measure of undervaluation based on a detailed appraisal of prices and of all inputs into the production process. However, for purposes of evaluating costs, a

<sup>4</sup> Note that even though the weights (w) are country specific, there is no index number problem here. The comparison is between the cost of producing in one country and in another using the locally appropriate mix of labour and capital.

problem with this approach lies in the price measures. These are expenditure prices, since the purpose of the PPP comparison is to compare final output per capita.<sup>5</sup>

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If PPP is to be used for productivity comparisons or production costs, the comparison should rather use input prices. Further difficulties are that the weights applied to the price measures may not be appropriate for production of traded commodities, and the quantity weights are not likely to be appropriate either for the base country or the comparison country. Indeed, one would like to use weights based on production inputs rather than on consumption.<sup>6</sup>

Finally, detailed surveys have not been available for some countries, including Vietnam! In this case, regression methods are used to estimate a statistic for Vietnam on the basis of related countries. This represents a serious shortcoming.

Nevertheless, in the absence of data on production structure and input prices, there is much to be said for such a measure. It represents a quick way to measure the undervaluation of a country's currency with respect to the nominal exchange rate, and it provides a rough benchmark for inter-temporal studies on the movement of real exchange rates. Assuming that wages and GDP per capita are proportional, the measure may be thought of as a single factor indicator of competitiveness.

Alternatively, since it deals with a broad mix of products whose production calls for labour and capital and the resulting per capita income, it may also be seen as a multi-factor comparison. It is important also to note that there are important aspects of competitiveness that are not captured by either approach. These include costs of delivering products to world markets, including transportation, communication and coordination costs, as well as policy-related barriers or incentives to trade. In many countries government policy has favored export-oriented development, which may give a competitive edge to export enterprises. At the same time, market opening, for example, the increasing presence of foreign firms in Vietnam that is set to take place now that Vietnam has been admitted to the WTO, gives extra incentives for foreign firms to set up production facilities in anticipation of greater market access in the future.

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Foreign direct investment is likely to be the most important contribution to competitiveness through the introduction of new production methods, world market product specifications, and advanced management procedures. These are measured only indirectly in the comparative price or unit value relative data.

## **4. Determinants of Vietnamese competitiveness**

The discussion above to measure the determinants of Vietnamese competitiveness is necessary to look at a variety of measures and to infer how they explain the competitiveness of Vietnamese products. As we have noted, at issue is the role of the exchange rate versus other factors in explaining Vietnamese competitiveness.

### **a. Revealed Comparative Advantage**

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<sup>5</sup> *An important fraction of the prices used in this calculation apply to non-traded goods and services. These are often cheap compared to goods that are traded internationally. But this may not represent a problem when the purpose of the calculation is to use per capita real incomes as a proxy for wages.*

<sup>6</sup> *For a discussion, see Kravis, Heston and Summers (1978) and Summers and Heston (1991), and also the many papers of the Penn International Comparison Project <<http://www.pwt.econ.upenn.edu>>.*

A picture of rapidly increasing Vietnamese competitiveness is apparent if we compute a dynamic form of revealed comparative advantage (RCA), comparing the growth rate of world trade of a specific country to the growth rate of world exports (Table 6). Note that an RCA in excess of 1 suggests that a country is competitive in world markets, i.e. that its share of world exports has been increasing. Vietnam is above 3, in the 1993 to 2005 period. Significantly, we can see a systematic decline in the RCAs of most East Asian countries with low or negative numbers, except for China, Korea. It is important to note, however, that revealed comparative advantage is an ex post measure, demonstrating but not explaining the underlying trends.

Table 2: Dynamic RCAs 1990-2005 (annual % change in country exports/annual % change in world exports)

	1990-1993	1993-1996	1996-1999	1999-2002	2002-2005
Vietnam	2,76773983	4,56298253	3,06815537	3,06784831	3,37910581
China	1,55705471	1,42773057	1,63769905	4,08241266	4,55786899
Korea	1,44151107	2,08682601	2,2451166	2,13316804	2,38565379
Malaysia	2,08635579	1,97946432	1,04315779	1,26242382	1,42877848
Philippines	0,67327763	1,71650764	0,55673976	1,02399037	1,20103103
Thailand	1,99956979	1,19402586	0,69787026	1,65195124	1,38180582
Indonesia	1,51620691	1,00609755	-0,19345468	-0,28376086	1,44707985
Japan	0,53012542	0,43971669	0,59438417	0,73077324	1,57606025
US	0,9309056	0,97759795	0,99272092	0,25810543	0,62606638
China Hongkong	2,21929295	1,24683435	0,4111312	1,01472961	2,00449092

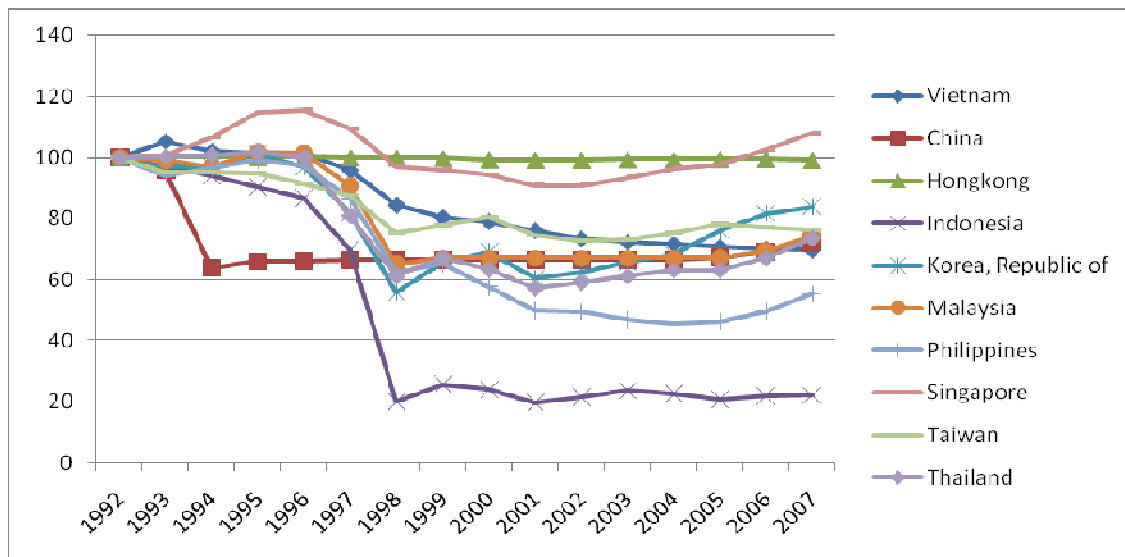
Source: Computed by Author from World Bank Indicators 2008

## b. The Exchange Rate:

The nominal exchange rate is typically the rate relied on for evaluating trade transactions and is often the target for exchange rate pegging between different currencies, the VN dong to the dollar for example. But longer term decisions about importing and exporting, or about foreign sourcing of production, must be based on a real exchange rate that takes into account changes in domestic prices as well. Figure shows real exchange rates adjusted for inflation differentials between East Asian countries and the United States.<sup>7</sup>

Figure 8: East Asian exchange rate adjusted for inflation

<sup>7</sup> For reasons of consistent coverage, deflation was done on the basis of the CPI. Alternative measures of prices, more appropriate in this case, gave approximately the same results. Comparison against the Japanese yen and the euro would show even greater depreciation for the Vietnamese and East Asian currencies since the US dollar has depreciated relative to the yen and the euro. These data show the same patterns as the nominal rates, though perhaps a little more strongly since the US inflation rate was higher on average than in most of the East Asian countries.



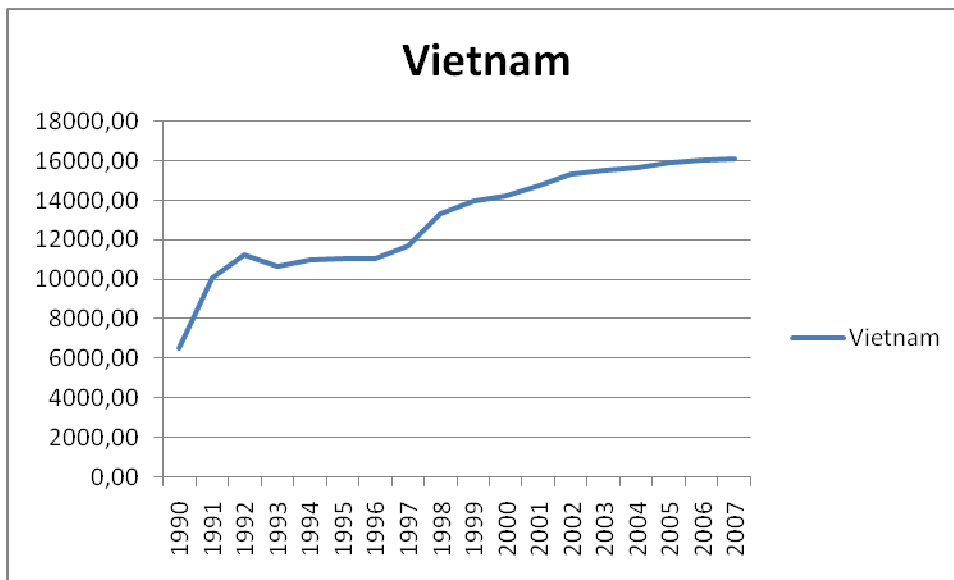
*Source: Computed by the authors, from PWT 6.3 database*

The graph shows the paths of real exchange rates from their initial levels normalized to 100 in 1992. The 1996 devaluation of the Vietnamese currency from 11032.58 VN dong to 13268.00 VN dong per US dollar is smaller than the devaluations of other East Asian exchange rates, except for Hongkong, in the crisis of 1997–1998.

Before the “Doi Moi” Reform, Vietnam had triple-digit inflation (774 percent per annum in 1986), multiple exchange rates, and a rapidly depreciating currency in the parallel market. In the early 1990s, however, Vietnam began to overcome these problems by containing inflation and stabilizing its currency. International integration with the West began in earnest around 1993. Since then, Vietnam’s exchange rate management has evolved significantly as capital liberalization proceeded and new external circumstances arose.

In the final stage of disinflation, the State Bank of Vietnam (SBV) kept the VND/USD exchange rate at around 11000 from late 1991 to early 1997. The exchange rate was, moreover, virtually fixed at that level from early 1994 to late 1996. This “11000 VND policy” can be interpreted as an attempt to secure lasting price stability by the discipline of a dollar peg. This reform in the exchange rate finally succeeded in reducing inflation to a very low level. However, the side effect of this policy was gradual overvaluation. From the summer of 1996, the SBV began to effectively depreciate VND by broadening the bandwidth around the official central rate. The actual rate always stayed near the highest (most depreciated) end of the band. Figure 9 depicts movement of exchange rate in Vietnam from 1990 to 2007.

Figure 9: The movement of exchange rate in Vietnam from 1990 to 2007.



Source: PWT 6.3

From 1997 to 1998, Vietnam had to cope with the impact of the Asian financial crisis. While Vietnam was not directly attacked by speculators, VND became overvalued relative to the regional currencies which fell sharply (see figure 8). The official central rate itself was devalued from 11683.33 in 1997 to 13268 VND/USD in 1998 (about 13 percent) while others East Asian (except for Hongkong) was devaluated from 30 to 50 percent or 244 percent in the case of Indonesia (The devaluation of Chinese currency was 56 percent from 5.51 to 8.62 RMB yuan/USD in period of 1992 and 1994, before the Asian financial crisis).

In February 1999, the SBV introduced a new exchange rate mechanism. The central rate was now set daily at the average of interbank exchange rates on the previous transaction day with a very narrow band of  $\pm 0.1\%$ . With this mechanism, VND started to crawl (depreciate) very slowly towards the present level of 15509.58 (December 2003). From 2004 to late 2007, the State Bank of Vietnam (SBV) kept the VND/USD exchange rate at around from 15.644 to 16.073. This mechanism improved the efficiency of exchange rate regime in contributing to significant or consistent exports and FDI inward growth.

The discussion above deals with the changes in competitiveness over time. An important question is the level at a given point in time. In this sense, there is little disagreement that the VN dong is undervalued, the question is by how much. International comparisons of purchasing power have long indicated that for many developing countries per capita GDP on purchasing power parity (PPP) basis yields much higher figures than the corresponding comparison based on nominal exchange rates (Summers and Heston, 1991).

Though developing countries have very low incomes in comparison to the United States and other advanced countries when translated into dollars at market exchange rates, the disparity is not as large when adjusted for differences in local purchasing power (Table 3). For Vietnam, the discrepancy between market- and PPP-adjusted income is extreme – exchange rate-based GNI per capita is \$890, compared with PPP-adjusted GNI per person of \$2700 – a factor of 3 to 1. This represents an undervaluation of 67 per cent (Table 3). This implies an equilibrium rate of exchange of perhaps 5524.4VND per dollar rather than 16 977 VND per dollar, its recent pegged value. In other words, each 1000 VN dong is worth 18 cents rather than its pegged exchange rate of 5.8 cents. By this measure, Vietnam’s undervaluation is greater than in many other East Asian countries.

Table 3: Gross national income per capita 2008, Atlas method and PPP and undervaluation

Country	\$XR basis (Atlas methodology)	\$PPP basis	undervaluation
Vietnam	890	2700	67.04%
Indonesia	2010	3830	47.52%
Philippines	1890	3900	51.54%
China	2940	6020	51.16%
Thailand	2840	5990	52.59%
Malaysia	6970	13740	49.27%
Singapore	34760	47940	27.49%
Korea, Rep.	21530	28120	23.44%
Japan	38210	35220	-8.49%
United States	47580	46970	-1.30%

Source: Computed by Author from World Bank Indicators 2008

*There are several channels through which real exchange rates may affect FID inflows. In Vietnam's context, the most important channel may be that a depreciation of the real exchange rate reduces the cost of domestic labor (and other productive inputs) relative to foreign production costs. The depreciation increases labor demand and employment, thereby raising the return on capital. Thus, green-field FDI increases in response to depreciation.*

*Real exchange rates can directly affect on the relative prices of Vietnam's exports, and also explore the indirect real exchange rate linkage via FDI. Exports may also increase in the wake of direct investment as the producers in the home country use the host country as a platform for selling to third country markets. (see part 5)*

### **c. Labour costs**

As we suggested above, an advantage of the PPP exchange rate or unit value comparisons is that it provides a ready though approximate 'multi-factor' measure of currency under- or overvaluation. But since PPP or unit value comparisons are based on surveys of domestic prices, they are imperfect measures of costs of Vietnamese products actually delivered to world markets, where market prices in a world currency such as the US dollar are relevant. While comparative information on production structures and input costs is not available, clearly wages represent a key cost ingredient. Vietnamese wages are extremely low by world standards and in comparison with most, but not all, East Asian countries.

(ULC) unit labour cost measure the average cost of labour per unit of output and are calculated as the ratio of total labour costs to real output. ULCs should not be interpreted as a comprehensive measure of competitiveness, but as reflection of cost competitiveness. Table 4 shows ULCs of Vietnam is lower than other East Asian countries. It is not surprising that many products can be produced in Vietnam at much lower cost than in the Japan, the US and others East Asian countries.

Table 4: Unit labor cost

Year	Japan	R, Korea	Singapore	Taiwan	Vietnam
2000	93.9	59.6	64.8	79.9	2.1
2001	86.1	54.2	71.6	75.1	2.32
2002	81.2	56.2	67.6	65.4	2.42
2003	80.3	57.9	67.4	64.6	4.02
2004	81.3	61.7	63.7	64.5	2.54
2005	75.6	69.3	62.9	64.7	2.60
2006	70.1	73.3	62.8	61.7	3.00
2007	66.7	74.6	66.1	57.9	3.13

Source: <http://ftp.bls.gov/pub/special.requests/foreignlabor/prodsuppt09.txt>

About the apparel manufacturing, labour cost per hour of Vietnam is extremely low in comparison with other countries (table: 5). Only Bangladesh, Cambodia and Pakistan have lower labor cost per hour.



<b>Apparel Manufacturing Labor Costs in 2008</b>				
In US\$ per Hour – Including Social Charges				
Countries	Labor Cost	Labor Cost	Labor Cost	Labor Cost
	US\$/Hour	US\$/Hour	US\$/Hour	US\$/Hour
		Bgladesh=100	Vietnam=100	India=100
Bangladesh	0.22	100	58	43
Cambodia	0.33	150	87	65
Pakistan	0.37	168	97	73
Vietnam	0.38	173	100	75
Sri Lanka	0.43	195	113	84
Indonesia	0.44	200	116	86
India	0.51	232	134	100
Haiti	0.49-0.55	236	137	102
China III (Inland)*	0.55-0.80	305	176	131
Egypt	0.83	377	218	163
China II (Coastal 2)	0.86-0.94	409	237	176
Nicaragua	0.97-1.03	455	263	196
Jordan	1.01	459	266	198
Russia	1.01	459	266	198
Philippines	1.07	486	282	210
China I (Coastal 1)	1.08	491	284	212
Malaysia	1.18	536	311	231
Thailand	1.29-1.36	600	347	259
Colombia	1.42	645	374	278
Bulgaria	1.53	695	403	300
Guatemala	1.65	750	434	324
Tunisia	1.68	764	442	329
Dom. Rep.	1.55-1.95	795	461	343
S. Africa	1.75	795	461	343
Honduras	1.72-1.82	805	466	347
Peru	1.78	809	468	349
El Salvador	1.79	814	471	351
Lithuania	1.97	895	518	386
Morocco	1.97	895	518	386
Turkey	2.44	1,109	642	478
Mexico	2.54	1,155	668	498
Poland	2.55	1,159	671	500
Brazil	2.57	1,168	676	504
Costa Rica	3.35	1,523	882	657
Slovakia	3.44	1,564	905	675
Slovenia	3.55	1,614	934	696
Romania	4.03	1,832	1,061	790
Latvia	4.23	1,923	1,113	829
Hungary	4.45	2,023	1,171	873
Source: Jassin – O' Rourke Group, LLC				
©EmergingTextiles.com (1998–2008)				

Moreover, according to « The Global Competitiveness Report 2009-2010 » of WEF (World Economic Forum), Vietnam ranks 38 in the labour market efficiency pillar of global competitiveness index (see table: 6). (The efficiency and flexibility of the labor market are critical for ensuring that workers are allocated to their most efficient use in the economy and provided with incentives to give their best effort in their jobs. Labor markets must therefore have the flexibility to shift workers from one economic activity to another rapidly and at low cost, and to allow for wage fluctuations without much social disruption. Efficient labor markets must also ensure a clear relationship between worker incentives and their efforts, as well as the best use of available talent—which includes equity in the business environment between women and men.(Global Competitiveness Report 2009-2010)

Table 6: Labor market efficiency in 2009- 2010 (Ranking of 133 economies)

Countries	Vietnam	Cambodia	Indonesia	India	Korea, Rep.	Bangladesh	Philippines
Rank	38	52	75	83	84	112	113
Score	4.70	4.53	4.30	4.23	4.22	3.89	3.89

Source: *The Global Competitiveness Report 2009-2010*

Other cost considerations are more difficult to measure than labor cost. It is well known that transportation, and communication costs have been coming down for many years and trade barriers are set to be reduced with Vietnam’s entry to the WTO.

## 5. Foreign direct investment

A critical consideration for competitiveness is supplying products that meet world market specifications with respect to design, quality and technological content. This represented an important step in the growing competitiveness of Vietnamese industry.

Viet Nam is a relative newcomer in the world of FDI. It opened to foreign investors in the late 1980s under the Doi Moi policy of renovation and economic reforms. Although the opening has been decidedly gradual, Viet Nam managed to attract significant inflows of FDI quickly. The impact of these inflows has been very strong, and foreign investors have been a major force in the economic transformation during the past two decades and in Viet Nam’s integration into the world economy.

Reforms under Doi Moi have gradually removed the stranglehold of the public sector on the economy and allowed private investment and initiative. Key measures include the transfer of agricultural land from large State-owned farms to household farms, price liberalization and private ownership in industry and commerce.

Viet Nam also started reforming its State-owned enterprises (SOEs) and gradually opened to foreign direct investment (FDI). As a result of Doi Moi and the development of the private sector, annual real gross domestic product (GDP) growth averaged 6.8 per cent in the period 1986–2006, with relatively little volatility and moderate inflation. In nominal terms, the economy was 10 times its late–1980s size in 2006, at \$61 billion, making Viet Nam the 58th largest economy in the world in 2006, up from 76th in 1986. In addition to growing rapidly, the economy also diversified significantly. In 1990, agriculture represented over 30 per cent of GDP; by 2006 it had declined to under 19 per cent. In contrast, industry increased from 25 per cent to 41 per cent over the same period, creating a large number of jobs in the industrial sector (according to Investment Policy Review of Viet Nam).

Another sign of good economic fundamentals was the ability to weather the East Asian financial crisis in 1997 and expand, when most other East Asian economies were contracting

**Box 1. Viet Nam's membership in multilateral economic agreements**

Viet Nam joined **ASEAN** in July 1995. In addition to the founding members of 1967 (Indonesia, Malaysia, the Philippines, Singapore and Thailand), ASEAN includes Brunei Darussalam (1984), Viet Nam (1995), the Lao People's Democratic Republic (1997), Myanmar (1997) and Cambodia (1999). The overarching purposes of ASEAN are to accelerate economic growth, social progress and cultural development, and to promote regional peace and stability.

The ASEAN Free Trade Area (AFTA) is only one component of a wider project of establishment of an ASEAN Economic Community, which aims to create a single market and production base with free flow of goods, services and investment (see: box 1.1. International cooperation under the ASEAN agreement). Although it seeks the complete elimination of tariff and non-tariff barriers among member countries, that goal has not been achieved yet. The five founding members and Brunei Darussalam have reduced their intra-ASEAN tariffs on goods on the Inclusion List to less than 5 per cent, with more than 60 per cent of these goods subject to zero tariffs.

The other members were given more time to reduce tariffs on goods on the Inclusion List to a 0–5 per cent range. Viet Nam was given until 2006 to do so. The elimination and reduction of intra-ASEAN tariffs are also constrained by the Highly Sensitive List and General Exception List, to which commitments to liberalization do not apply.

APEC started in 1989 as an informal ministerial-level dialogue group with 12 member countries, before extending to 21 members. The objective of "free and open trade and investment in the Asia-Pacific by 2010 for developed economies and 2020 for developing economies" was set in the APEC leaders' declaration of Bogor in 1994. APEC operates as a cooperative multilateral economic and trade forum, and it seeks to advance its objectives of free trade and investment without requiring its members to agree to legally binding obligations. The policy agenda is advanced through annual leaders' meetings, in addition to ministerial meetings and the work of special committees and working groups. The 14th leaders' meeting was held in Hanoi in November 2006.

Viet Nam became a member of the WTO in January 2007, after a 12-year accession process. As such, it is a signatory to the General Agreement on Trade and Services (GATS), WTO's Trade-Related Aspects of Intellectual Property Rights (TRIPS) and Trade-Related Investment Measures (TRIMS) agreements.

Viet Nam did not sign up to WTO's optional Agreement on Government Procurement.

Source: ASEAN, APEC and WTO websites.

**Box 1.1 International cooperation under the ASEAN agreement**

The Bangkok Declaration of 1967 gives a twin goal to ASEAN: (a) accelerate economic growth, social progress and cultural development in the region; and (b) promote regional peace and stability. In 2003, ASEAN leaders instituted three pillars of cooperation: (a) the ASEAN Economic Community; (b) the ASEAN Socio-Cultural Community; and (c) the ASEAN Security Community.

The ASEAN Economic Community seeks to establish a single market and production area by 2020, based on free trade in goods and services, free flows of direct investment and freer flow of capital. A number of mechanisms have been put in place in order to achieve that goal, including:

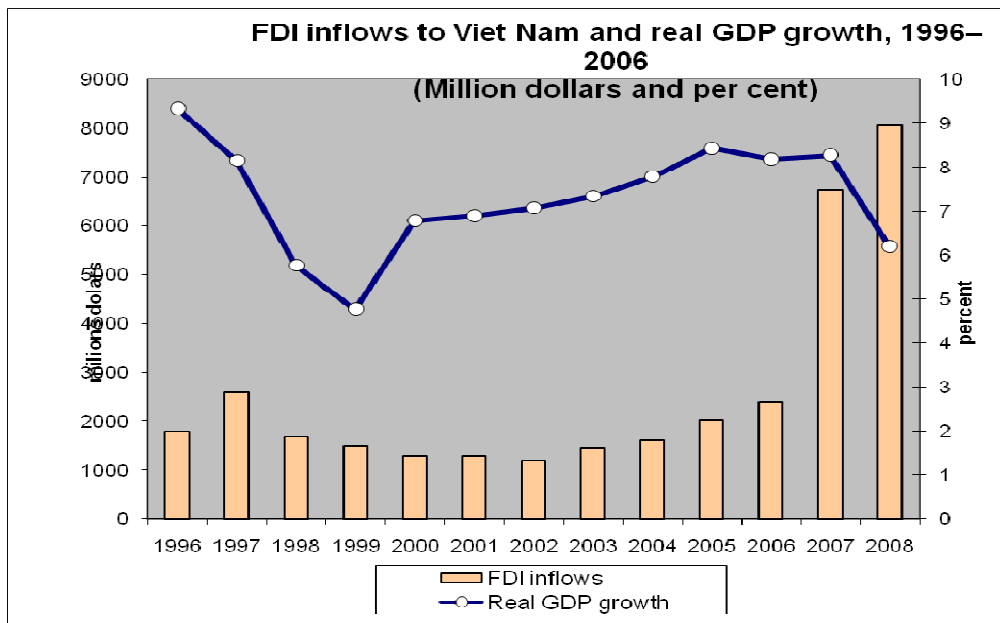
- + AFTA: Launched in 1992, AFTA seeks the elimination of tariff and non-tariff barriers among ASEAN countries. This has not yet been achieved, even though intra-ASEAN trade is subject to a common effective preferential tariff – applicable to goods that meet a 40 per cent ASEAN content requirement – 0 to 5 per cent in most instances. Certain goods on a General Exception List and Highly Sensitive List are excluded from the tariff elimination schedule, however.
- + The ASEAN Framework Agreement on Services (AFAS): Signed in 1995, AFAS seeks to reduce the restrictions on trade in services among member countries. It also seeks to put in place mutual recognition arrangements for the qualifications of professionals.
- + The ASEAN Agreement for the Promotion and Protection of Investments: Signed in 1987, the agreement provides for MFN treatment, protects against arbitrary expropriation or nationalization, guarantees repatriation of capital and earnings, and gives access to international arbitration under UNCITRAL and ICSID.
- + The ASEAN Investment Area (AIA): signed in 1998, the AIA seeks to put in place a coordinated approach to FDI promotion and facilitation. Most importantly, it calls for ASEAN members to open up all industries to FDI originating from within the group by 2010, with some exceptions specified in a temporary exclusion list, a sensitive list and a general exclusion list. It also calls for full national treatment for ASEAN investors by 2010 in the industrial sector.
- + Measures to facilitate the movement of business people and skilled workers.
- + Cooperation on customs issues (valuation, electronic processing, and harmonized nomenclature).
- + Institutional framework for the protection of intellectual property rights.
- + Harmonized standards of quality with the purpose of putting in place a “one standard, one test, accepted everywhere” policy.

Source: ASEAN website.

## a. FDI trends

The effects of Doi Moi policy on FDI materialized rapidly after the opening of the economy to foreign investors in 1987. From a complete ban prior to 1987, FDI inflows picked up to \$180 million in 1990, before surging to \$2.6 billion in 1997, on the back of the overall dynamism in the region and optimism over the pace of reforms in Viet Nam (figure 10). This surge in FDI coincided with and reinforced the strong increase in economic activity as Doi Moi started to unleash market forces and private initiative. While some of the initial foreign investments took place in oil and gas, manufacturing rapidly became the primary driver of FDI.

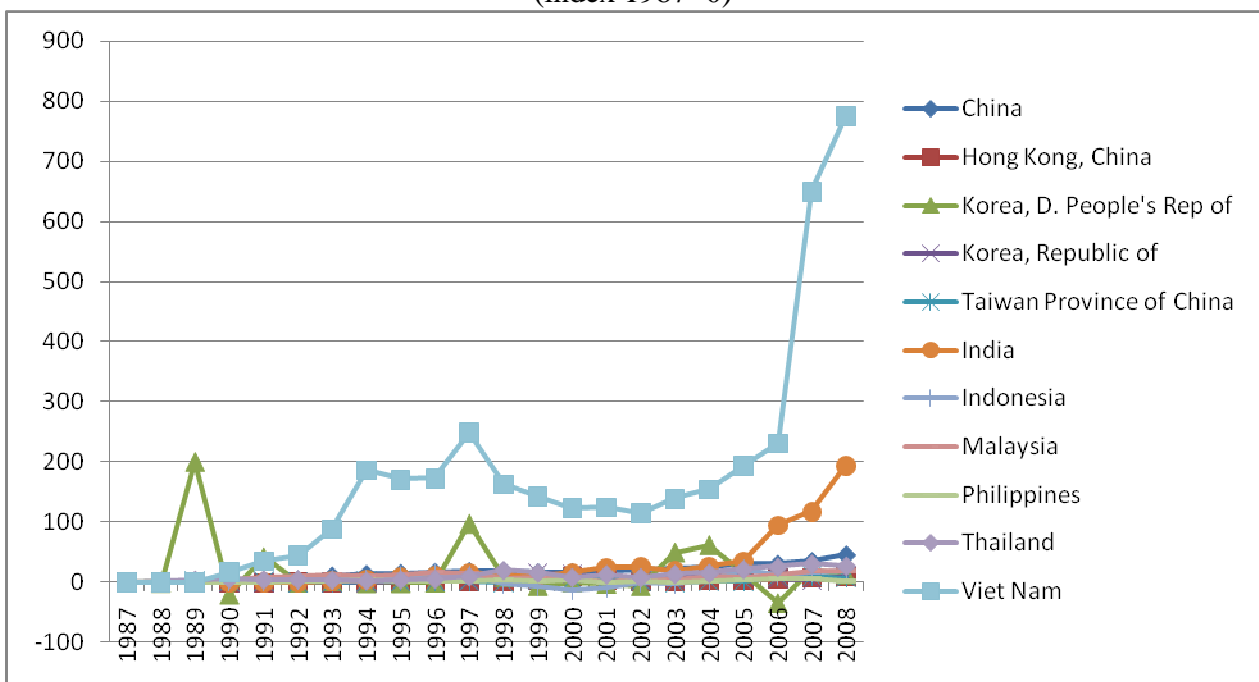
Figure 10:



Source: UNCTAD handbook of statistics 2009

In addition to growing rapidly economy, the FDI flows of Vietnam was more than 775 times its 1987 size in 2008, at \$8050 million while they were only 45, 194, and 2 times in the case of China, India, and Philippines. (Figure 11: FDI inflows growth rate to Viet Nam, and other East Asian countries, 1987–2008)

Figure 11: FDI inflows growth rate to Viet Nam, and other East Asian countries, 1987–2008 (index 1987=0)



Source: Created from UNCTAD FDI/TNC database

Although the initial response by investors was strong, the rise in investment abated starting in 1995, despite a one-off peak in 1997. The number of FDI projects declined between 1995 and 1998 (table 7: FDI project registrations and average size, 1988–2007), while FDI flows fell from their 1997 peak for five consecutive years to \$1.2 billion in 2002. The decline in project registrations started before the financial crisis that shook East Asia in July 1997 and produced a collapse in output in Hong Kong (China), Indonesia, Singapore, the Republic of Korea, Malaysia, the Philippines and Thailand, with limited effects in China, India and Taiwan, Province of China.

The slowdown in FDI growth starting in 1995 can be partly attributed to the relatively slow pace of reforms after the groundbreaking opening of 1987. Investors' interest and expectations were high, but somewhat toned down, as they confronted difficulties in running their businesses, including as a result of a difficult regulatory environment, discriminatory pricing and trading restrictions.

The real turning point, however, was the East Asian financial crisis. As output collapsed around the region and as the risk of global contagion was real, foreign investors put projects on hold. During the 1990s East Asian boom, many investors from the region had started turning to Viet Nam as a new location to expand export facilities, as well as to access a new emerging market for their goods. With over 60 per cent of FDI in Viet Nam originating from countries in the region, inflows were cut sharply as the main corporations in the Republic of Korea, Singapore, Thailand or Hong Kong (China) were caught in a wave of restructuring, liquidation or mergers and acquisitions (M&As). (In 1997, the top three sources of FDI as a percentage of total FDI were Japan (17 per cent), the Republic of Korea (14 per cent), and Singapore (11 per cent). Other regional investors included Thailand (7 per cent), Taiwan Province of China (6 per cent), Hong Kong (China) (5 per cent), and Malaysia (3 per cent).

These circumstances left little room for companies in the region to focus on investments abroad. In addition, Asian exports to the world contracted by about 5 per cent after more than a decade of very fast growth, which reduced the need for and attractiveness of Viet Nam as an export platform.

Table 7: FDI project registrations and average size, 1988-2007

(Million dollars and number of projects) (8)

Year	Number of projects	Registered capital	Implemented capital	Average Registered capital per project
1988	37	341,7		9,2
1989	67	525,5		7,8
1990	107	735		6,9
1991	152	1291,5	328,8	8,5
1992	196	2208,5	574,9	11,3
1993	274	3037,4	1017,5	11,1
1994	372	4188,4	2040,6	11,3
1995	415	6937,2	2556	16,7
1996	372	10164,1	2714	27,3
1997	349	5590,7	3115	16,0
1998	285	5099,9	2367,4	17,9
1999	327	2565,4	2334,9	7,8
2000	391	2838,9	2413,5	7,3
2001	555	3142,8	2450,5	5,7
2002	808	2998,8	2591	3,7
2003	791	3191,2	2650	4,0
2004	811	4547,6	2852,5	5,6
2005	970	6839,8	3308,8	7,1
2006	987	12004	4100,1	12,2
2007	1544	21347,8	8030	13,8

Source: GSO (General Statistics Office and Ministry of Planning and Investment).

(8). Registrations are on the basis of total project cost over the whole duration of the investment, including the part financed by third-party debt. Numbers as reported on this basis therefore do not match FDI inflows as reported on a balance of payments basis. Some registered projects may also never materialize.

The sharp decline in FDI inflows between 1997 and 2002 had a negative impact on GDP growth, given the importance of the foreign-invested sector in the economy, but it must be noted that real GDP growth fell only marginally below 5 per cent in 1999, before picking up again to more than 7 per cent per annum. Given that Viet Nam was not open to the short-term capital flows whose volatility so affected other East Asian economies, it was able to weather the East Asian financial crisis much better than other countries.

FDI inflows to Viet Nam were relatively slow to recover, however, and they did not increase as a result of the wave of consolidation and M&As that occurred in other countries in the region as part of the post-crisis recovery (Figure 11: FDI inflows growth rate to Viet Nam, and other East Asian countries, 1987–2008). In the Republic of Korea, M&As soared from about \$300 million per year on average in 1993–1997 to almost \$6 billion per annum in the subsequent five years. M&As also picked up significantly after the financial crisis in Hong Kong (China), Singapore and Thailand. In contrast, Viet Nam's regulations against M&As precluded it from participating in the rebound in FDI through this channel. More importantly, it also took time for corporations in the region to complete their restructuring at home and start looking again for investment opportunities abroad. FDI inflows started increasing again at a strong pace in 2003, reaching \$2.3 billion in 2006. Several factors are underpinning this new wave of growth in foreign investors' interest in Viet Nam. First and foremost, Viet Nam is increasingly establishing itself as a platform for the production of manufactured goods for the global economy. It is increasingly seen as one of the alternatives to China, with similarly low labour costs, reasonably efficient and competitive infrastructure services and an increasingly welcoming environment. Foreign investors also took notice of the acceleration in structural reforms in the early 2000s and the improvements in the investment framework. In addition, the ratification of the bilateral trade agreement (BTA) with the United States in 2001 opened up large export opportunities and was a clear sign that reforms were going to be sustained and that accession to WTO was firming up.

## **b. Distribution by sector and industry**

As above illustrated briefly, Viet Nam's economic landscape has altered radically over the past 20 years, moving from an agriculture-based to an industry- and services-based economy. FDI has been one of the engines behind this transformation and it continues to be a driving force of industrial growth and economic diversification. Although the first foreign investments were directed in the oil and gas sector, the industrial sector rapidly became the main magnet for FDI, as foreign investors used Viet Nam as an export platform. By the late 1990s, the manufacturing sector accounted for almost 45 per cent of registered foreign investments. Other sectors that attracted significant FDI inflows included construction, real estate and tourism-related investments (table 8).

Table 8: Sectoral distribution of foreign investment projects, 1995–2007

	1988-2007			2001-2007			2007		
	number of project	Registered capital (million dollars)	Share of total r.capital (%)	number of project	Registered capital	Share of total r.capital (%)	number of project	Registered capital	Share of total r.capital (%)
Total	9810	99596.2	100	—	—	100	1544	21347.8	100
Agriculture and forestry	518	3397.5	3.4112747	—	637	1.2	14	48.3	0.22625
Mining and quarrying	119	3742.8	3.7579747	—	716	1.3	16	262.3	1.22869
Manufacturing	6323	52345.4	52.557628	—	33698	62.2	985	10882.6	50.9774
Electricity, gas and water supply	30	1937.7	1.9455562	—	994	1.8	7	9.6	0.04497
Construction	254	6808	6.8356022	—	2209	4.1	73	993.3	4.6529
Hotels and restaurants	291	7620.6	7.6514967	—	3090	5.7	38	1968.1	9.21917
Transport, storage and communications	272	5072.3	5.092865	—	1493	2.8	30	356.5	1.6995
Real estate, renting business activities	1341	14191.8	14.249339	—	9068	16.7	327	6114.8	28.6436
Other	550	4480.1	4.498264	—	2296	4.2	54	712.4	3.3371

Source: GSO

The predominance of manufacturing FDI further increased in the past few years, as the sector attracted more than 62 per cent of all registered capital in 2001–2007. Real estate is a very distant second with 17 per cent of the total, followed by hotels, construction and transport with less than 6 per cent each. This predominance of the manufacturing sector highlights that foreign investors have chosen Viet Nam mainly as a centre of production for globally traded goods. Early investments had a relatively low technological content, including in textile and garment and footwear.

The ratification of the BTA with the United States, for example, allowed Viet Nam to export garments without quotas. Asian investors, including from China, were attracted as a result. The surge in apparel and footwear exports to the United States immediately after ratification of the BTA in 2001 indicates that investors had established factories in anticipation of the ratification.

More recently, manufacturing investments have progressively become more technologically advanced and with higher domestic value added, even if Viet Nam remains sought after for its low labour costs. Goods manufactured for exports in Viet Nam are no longer restricted to apparel and footwear, and increasingly include consumer electronics and electronic assembly. The decision by Intel to establish a \$1 billion semiconductor assembly and test facility in the country is not only a landmark for Viet Nam, but also a clear indication of a growing trend (box 2). In the same sector, Hon Hai–Foxconn (Taiwan Province of China) indicated that it had plans to invest up to \$5 billion over the next five years in several sites to manufacture electronic goods and computer products, from digital cameras to music players, motherboards and other computer components. The company



indicated that it would also build urban development for its workers, who could number up to 300,000 in the future.

**Box 2. Intel selects Viet Nam for a \$1 billion investment**

*In February 2006, Intel announced that it would invest \$300 million to build a semiconductor assembly and test facility in the Saigon Hi-Tech Park in Ho Chi Minh City. Eight months later, it announced that the investment would be increased to \$1 billion in order to build a larger complex (13,935m<sup>2</sup>, later increased to 46,452m<sup>2</sup>). This is the first such investment by the semiconductor industry in Viet Nam and will be the largest factory in Intel's global network of assembly and test facilities. The factory is expected to begin production in 2009 and will produce 600 million chipsets annually at full capacity.*

*Intel's selection of Viet Nam is a significant landmark and image-building event for the country. Investor confidence could be boosted by Intel's selection of Viet Nam over other regional contenders such as India. The decision will give a significant boost to the Saigon Hi-Tech Park and could generate further interest by other investors in the same sector, and be at the basis of the development of an electronics cluster in Viet Nam.*

*The assembly and test facility should employ about 4,000 people at full capacity, most of whom will be relatively high-skilled. The investment is likely to generate significant skills transfer and development opportunities. Given the needs of this type of facility, Intel faces a skill shortage, particularly at the engineer and senior management levels. Intel has instituted a three-fold solution. First it began hiring personnel earlier than normal and training them at other Intel facilities in Asia. Second, it has worked with universities to develop curricula. Lastly, Intel is engaging American universities to open a new engineering college in the high-tech park.*

*Source: Intel website.*

With such a predominance of FDI in the export-oriented manufacturing sector, Viet Nam has attracted little market-seeking FDI or foreign investment in the non-tradable and services sectors. The exceptions are real estate, tourism and construction. It is particularly notable that Viet Nam has not attracted significant levels of FDI in telecommunications, finance, media or other services, whether for exports or for domestic consumption. This is in sharp contrast with most developing countries, including in the region, where there is a clear trend of services FDI overtaking manufacturing FDI. UNCTAD's World Investment Report 2004 points out that services FDI accounted for two thirds of global FDI flows in 2001–2002, and that services FDI has diversified from the initial focus on trade and finance to other sectors such as telecommunications, business services, electricity and water.

The main reason underlying the lack of services FDI in Viet Nam is that the Government had chosen to keep most services sectors closed to foreign investors. Much of this is going to change in the next few years as Viet Nam is committed to opening up many of the services sectors to FDI as part of its accession to WTO.

### **c. Types of FDI and the role of export processing and industrial zones**

From their inception in 1991, Viet Nam's industrial and export processing zones have attracted a significant share of total FDI, and they continue to play a key role. There are currently 179 industrial and export processing zones in Viet Nam, 110 of which are operational, with the remaining 69 under construction. Nineteen of the operational zones have been developed jointly by the Vietnamese Government and foreign investors. The majority of investment has been in the manufacturing sector, initially in textile and garment, but increasingly also in other higher value added sectors such as consumer electronics, as the recent investments from Intel, Foxconn and Nidec show.

Total investment by foreign companies located in zones amounted to \$13 billion as of end-2007. In addition, national companies had invested close to \$6.5 billion. The total land area available for industrial development in the zones amounted to close to 26,000 hectares, with a further 17,000 hectares in zones currently under development. The average occupancy ratio is quite high at 74 per

cent, with a number of zones operating at full capacity. Over 1 million workers were employed in the zones as of end-2007, almost one sixth of total formal employment.

**Box 3. The Tan Thuan export processing zone and Hiep Phuoc power plant**

*The Central Trading and Development Group (Taiwan Province of China) established the first export processing zone in Viet Nam in 1991. The Tan Thuan export processing zone is adjacent to the Ho Chi Minh City port area. By end-2006, total FDI in Tan Thuan amounted to more than \$500 million. About 55,000 people were employed in the zone, and 81 per cent of the area was leased. FDI has flowed into the zone, primarily from Taiwan Province of China and Japan, and also from Australia, Germany, Hong Kong (China), Malaysia, Singapore, the Republic of Korea and the United States. Investments range from food processing to semiconductors, with textiles and garment representing a quarter of total investment. Illustrating the changing landscape of FDI in Viet Nam, electrical appliances and electronics are now the second largest sector at 20 per cent.*

*Several key factors have underpinned the success of Tan Thuan. First and foremost, infrastructure is among the best in Viet Nam. The Taiwanese zone developer provides, among other things, a 2-Mbps dedicated internet connection, on-site private postal services (DHL and Federal Express), wastewater and solid waste treatment facilities, and a direct pipeline to a water plant. Most importantly, Tan Thuan obtains its electricity directly from the dedicated 375-MW Hiep Phuoc power plant, which was also built by the zone developer. Hiep Phuoc is connected to the zone via a dedicated transmission line, and excess capacity is sold through the national grid.*

*The management board of Tan Thuan also facilitates installation procedures by working with the Ho Chi Minh City Export Processing Zone Authority (HEPZA). Support is provided to obtain investment certificates, construction permits, business licenses, import and export licenses, and certificates of origin.*

*This agency not only facilitates the process, but also helps investors prepare their applications (including translation) through the Tan Thuan and HEPZA Joint Service Centre.*

*Sources: Investor interview and company website.*

Zones are located throughout the country, even though there is a large concentration in and around Hanoi and Ho Chi Minh City. About 19 per cent of total FDI in the Red River Delta is in the zones, while in the South-East, the ratio is up to 45 per cent. There is also evidence that zones play an important role in the regions with low levels of foreign investment. The Mekong River Delta receives only 3 per cent of total FDI in the country, but 30 per cent of that FDI is in the zones. The South Central Coast region receives 5.7 per cent of FDI, 20 per cent of which is in the zones. Several factors contribute to the success of the zones. An important one is the higher quality of infrastructure. A number of zones are given priority in power supply in case of brown-outs, and the developers of the Tan Thuan export processing zone went as far as building a dedicated power plant (box 3). In addition, transport and telecommunications infrastructure has also been improved in and around the zones.

Another key factor in the success of industrial and export processing zones is the availability of land. Access to industrial land remains a complex issue for most foreign investors, and zones offer an attractive solution, as the land has already been cleared and registered for industrial use by the time the investor is ready to build its factory. The Government has not only made the zones easily accessible to investors, but it also offers fiscal incentives to zone investors. Certain zones also offer a somewhat more expedited licensing process and consultative services that help investors prepare applications. In addition, zones are used to promote the development of clusters of industrial activities (box 4).

**Box 4. Saigon Hi-Tech Park and cluster development**

The Saigon Hi-Tech Park (SHTP) is one example of a zone built to promote the development of a cluster of high-technology activities and higher value added foreign investments. It also illustrates the evolving nature of manufacturing FDI in Viet Nam. Another example of cluster-based zones is the QuangTrung Software City.

Built in 2002, SHTP is located just outside Ho Chi Minh City and is adjacent to HCMC National University. The park's stated vision is to "develop a technopolis that will greatly enhance the economic, technological, and intellectual base of Ho Chi Minh City and the Southern Economic Region of Viet Nam, and that will ultimately serve as a model for Viet Nam technological innovation, intellectual capital development and innovation economy." The goals and objectives explicitly include the development and transfer of technologies to national companies through linkages and fostering collaboration between tenants and with human resource development institutions outside the park, as part of a cluster development strategy. SHTP is open to a wide range of high-technology projects, including microelectronics, information and communications technology, automation, precision mechanics, bio-technologies and new and advanced materials. It has granted investment licences to 25 projects so far. Key tenants include Intel (United States), Jabil (Singapore), Nidec (Japan), Sonion (Denmark) and FPT (Viet Nam). The park provides above-average infrastructure. Although power is supplied from the national grid, SHTP plans to build a dedicated backup gas-powered system. On-site waste water treatment facilities are available, as well as a wide range of information and communication technology facilities. In addition, the park authorities provide assistance to investors to obtain the required permits and licences.

Sources: interview and SHTP website.

As illustrated by the Tan Thuan export processing zone, foreign investors have also been involved in zone development. Cumulative FDI in zone development amounted to almost \$600 million by end- 2007, with foreign developers involved in 19 zones. All investments involved joint ventures between one or several foreign partners and the national or local authorities. The last typically provide land as their capital contribution to the project, while the infrastructure is developed by the foreign partner(s). Foreign investors in zone development originate mostly from Asia (Japan, Taiwan Province of China, Singapore, Thailand, China and Malaysia – by size of investment), with United States and Belgian investors also involved in two zones.

#### **d. Relationship between exports and FDI**

In Vietnam, the FIE (foreign invested enterprise sector) is considered as an important exporter. Table 9 outlines the exports of Vietnam and FDI distribution in export sectors from 1990 to 2007. The share of FIEs in total exports increased from 18.24 per cent in 1990 to 53.01 per cent in 2007. This trend is in accordance with a boom in export-led FDI projects.

In terms of economic sector, by 2007, Light industry became the number one exporting sector. It accounted for 44 percent of the total exports, 18 percentage points higher than in 1990. The share of FDI in Light industry increased from 4 per cent in 1990 to 38 percent in 2003, and after decreased to 14 per cent in 2007, making it the second largest sector with cumulative FDI. The largest amount of FDI was attracted in Oil and Heavy industry. FDI into Oil and Heavy industry increased from US\$ 166.1 million in 1990 to US\$ 4295.1 million in 2007, about 54 per cent of FDI into Vietnam. As a result, the exports of Oil and Heavy industry accounted for US\$ 17267.7 million in 2007, making the second largest exporting sector after light industry. The FDI distribution in export sector suggests that FDI was concentrated in the sectors relatively more exports and the exports of the sectors with more FDI grew faster than the average. We may, therefore, consider that there exists a causal relationship between exports and FDI.

	EXPORT SECTORS												Total Exports and Exports by FIEs <sup>1</sup>		
	Oil and Heavy industry				Light industry				Agriculture - Fishery - Forestry				Total exports of Vietnam	Exports by FIEs	Share of FIEs (%)
	FDI		Exports		FDI		Exports		FDI		Exports				
	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%			
1990	166.1	60	261.5	26	11.1	4	269.5	26	9.8	3	487.0	48	1018	185.6	18.24
1991	869.0	44	697.1	17	58.3	3	300.1	14	76.5	4	1089	53	2086.2	300.3	14.40
1992	1848.0	56	954.8	26	149.6	5	349.5	14	35.4	1	1276.1	50	2580.4	546.7	21.19
1993	783.3	28	1014	33	384.2	14	526.5	18	212.4	7	1444.4	48	2984.9	610.5	20.45
1994	617.2	17	1167.6	37	520.8	14	938.2	23	326.3	9	1948.1	48	4053.9	1136.4	28.03
1995	537.8	24	1377.7	34	240.7	11	1549.8	28	187.2	8	2521.1	45	5448.6	1473.1	27.04
1996	392.5	16	2085	29	236.6	10	2101	29	92.6	4	3067.5	43	7253.5	2155	29.71
1997	550.9	21	2574	25	234.6	9	3372.4	37	266.5	10	3238.6	36	9185	3213	34.98
1998	927.5	49	2609	29	95.2	5	3427.5	37	78.5	4	3314.7	35	9351.2	3215	34.38
1999	573.9	29	3609.5	28	180.0	9	4243.2	37	149.3	8	3688.7	32	11541.4	4682	40.57
2000	1493.3	66	5382.1	28	311.0	14	4903.1	34	181.4	8	4197.6	29	14482.8	6810.3	47.02
2001	931.1	46	5274.3	31	483.1	24	5368.3	36	158.1	8	4413.7	29	15056.3	6798.3	45.15
2002	803.6	31	5304.3	37	681.2	26	6785.7	41	232.4	9	4616	28	16706	7871.8	47.12
2003	719.4	27	6485.2	35	984.0	38	8597.4	43	246.4	12	5066.9	25	20149.5	10161.2	50.43
2004	902.9	35	8633	32	533.5	21	10920	41	303.8	6	6951.2	26	26504.2	14487.7	54.66
2005	1203.9	42	11701.4	36	530.7	19	13293.4	41	162.3	4	7452.4	23	32447.2	18553.7	57.18
2006	3047.6	53	14428.6	36	775.2	14	16389.6	41	202.5	4	9008	23	39826.2	23061.3	57.90
2007	4295.1	54	17264.7	33	1093	14	23305.2	44	756.9	4	11830.0	23	52399.9	27775.7	53.01

Source: Ministry of Industry and Trade and Ministry of Planning and Investment

1 Foreign Invested Enterprises

## 7. Other factors influencing competitiveness

There is a question of export-promoting policies. The shift from self-sufficiency to trade expansion was a central element of Vietnam's modernization policy as has been the encouragement of FDI and private participation since then. There are numerous advantages and incentives for exporting firms, including foreign trade zones, retention of earned foreign exchange, special tax concessions, etc. Moreover, foreign firms are encouraged to establish joint ventures with Vietnamese firms in order to receive approval for producing for the Vietnamese market. These policies have undoubtedly encouraged FDI and have facilitated the development of export business. On the other hand, such policies are the opening of world trading potentials through reductions in tariffs and quantitative restrictions. These policy-related developments are likely a factor but not a complete explanation for Vietnam's recent export competitiveness.

## 8. Evaluation and conclusion

What do these informational elements suggest about the causes of Vietnam's competitiveness and export growth? The explanation clearly cannot be mono-causal. Vietnam's export competitiveness hinges on the coincidence of several factors: the favorable exchange rate, low wages and available supplies of unskilled labour, the reduced cost of communication and transportation, the flow of foreign direct investment and foreign management and its implications for Vietnam's productive abilities, the large scale of the potential domestic market, the opening of world markets, and the encouragement of Vietnamese foreign trade policy.

On the other hand, certain considerations have special importance. For example, Vietnamese export growth is more than a matter of low wages and an undervalued exchange rate. Appreciating the exchange rate, even by substantial amounts, is not likely to greatly diminish Vietnamese competitiveness. Vietnam's huge pool of cheap and increasingly mobile labour means that even with exchange rate readjustment, competitiveness based on low labour costs will be maintained for quite some time. Vietnamese competition may also further displace some low-cost export production in other parts of the world, Asian countries (including China), for example.

Secondly, Vietnamese producers have become greatly more proficient at meeting world requirements for quality and product design. The large inflow of foreign direct investment and entrepreneurship, which is responsible for much of the export flow, has facilitated this process, and, in turn, reflects the favorable economics of export production in Vietnam. The shift of Vietnamese production toward more advanced products with technological content is also notable.

Vietnam's competitive ace in the hole continues to be its large and potentially domestic market. Foreign firms seek entry to Vietnam not only to take advantage of low-cost export platforms, but also as a way to position themselves for future local sales. Aside perhaps for China, India, there are simply no others developing economies with such promise as a market.

Moreover, Vietnam's strength in export markets is as much a result of improved production abilities as of the exchange rate, a persistently undervalued VN dong would be a serious matter. The resulting adjustments in production and trade would not be consistent with long-term comparative advantage. Moreover, undervaluation is likely not in Vietnam's best interest, since it increases the cost of imported goods in Vietnam and lessens competitive pressures from abroad that help to raise Vietnamese productivity. On the other hand, even if the VN dong were significantly appreciated, patterns of trade will continue to change in favour of Vietnam.

For the US, specialization away from labour-intensive or low-technology products is inevitable and in the nation's overall interest. Structural adjustment among and within industries is painful and the impact on employment and wages represents an issue, socially and politically.

## Appendix for the list of Vietnamese export-oriented industries

### List of Vietnamese export-oriented industries

1500 Food manufacturing

1511 - Animal food manufacturing

1512 - Seafood product preparation and packaging

1514 - Grain and Oilseed milling

1520 - Dairy product manufacturing

1532 - Bakeries and Tortilla Manufacturing

1542 - Sugar and Confectionery product manufacturing

1700 Textile product manufacturing

1711 - Fiber, Yarn and Thread Mills

1712 - Textile ennoblement

1721 - Textile and Fabric Finishing

1722 - Carpet and Rug Mills

1723 - Net and String products

1729 - Other textile products

1730 - Knitting products

1800 Clothing Manufacturing

1810 - Garment products manufacturing

2500 Plastics and Rubber products manufacturing

2520 - Plastics products manufacturing

1900 Leather, leather products and shoes

1920 - Shoes manufacturing

2690 Non-Metallic Mineral products

2691 - Pottery, Ceramics and Plumbing Fixture Manufacturing

2692 - Clay Building Material and Refractory Manufacturing

2693 - Brick and construction products

3000 Computer and Peripheral Equipment Manufacturing

3100 Electrical Equipment

3130 - Electrical cables manufacturing

3200 Radio, television and communication equipments manufacturing

3210 - Electronic components

3220 and 3230 - Communication equipments

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