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Some Issues on the Development of the Viet Nam Steel Industry in the 2001-2010 Period

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1. Introduction

This paper is to discuss some issues relating to the general development of Viet Nam industry, including the steel industry. From the macro perspective, the goal of this paper is to come up with some stand-points and concepts in connection with the development of the steel industry in the period up to 2010, towards an industry with strong and effective steel industry, ensuring the efficient exploitation of potential natural, human and other resources throughout the country.

2. Industrialisation, modernisation and international economic integration

1. Industrialisation, modernisation

The 8th VCP national congress stated that by 2020 Viet Nam will basically become an industrial country with the development level generally outlined as the following: Though the GDP per capita not so high but by that time the production force is quite advanced, industry and services account for a high proportion in GDP and social labour; science and technology are able to catch and apply the most up-to-date achievements of the world. As far as the production relation is concerned, the ownership, management mechanism and distribution scheme blended, creating a strong incentive to promote economic growth, realising social justice. The State economy performed the dominant role and together with the co-operative economy has become the pillar-stone of the economy; private economy, small entrepreneurs and private capitalists accounted for a significant proportion; state capitalists with different forms have been popular. People have been better-off, having quite comfortable houses and favourable conditions for travelling, schooling and health-care. They have been exposed quite highly to cultural services, having healthy social relations, civilised lifestyle and happy families.

Following the completion basically of the first 10 year strategy (1991-2000), bringing our country out of crisis and preparing re-conditions for industrialisation, modernisation, the next 10 year's strategy will be the one of strengthening industrialisation, modernisation, creating the foundation for an industrial country in the following period. The next 10 year strategy should be oriented towards developing our

country rapidly and sustainably, building a sovereign economy, actively and effectively integrating into the world economy and continuing the renewal process more widely and profoundly.

Stemming from this target, in the next 10 years, the industrialisation and modernisation will be carried out under the following fundamental directions;

(a) Developing industry and improving the technological ability throughout the national economy are the central task through the period of national industrialisation and modernisation.

(b) Building economic and social infrastructure to meet the demand of the new development period and taking preparatory steps for the next period.

(c) Shifting economic structure in the direction of ensuring socio-economic efficiency, and raising the sovereignty of the economy, on the basis of enhanced technological ability, healthy macro economy, creating and bringing into play comparative advantages to produce competitive goods and services, to meet domestic purchasing power and promote exports and continuously improve international trade and settlement balance.

(d) Industrialisation and modernisation of agriculture and rural areas are a priority in the coming decade, creating a new change in the economic structure, labour structure and life quality in rural areas.

(e) Industrialisation has been closely linked with modernisation since the beginning and through the development stages, building a new industrialised country with appropriate technological structure and elements inherent in the post-industrial society.

(f) Bringing into play human knowledge through developing science, technology and training and education to improve the technological capability in every field of activity, overcoming the lag-behind and creating an advantage for the immediate and long term development.

(g) Development investment by the resources from the State and all the society and at the same time making use of external resources.

(h) Concentrating on medium and small projects.

2. Macro environment for the development of Viet Nam industry

In the coming period, Viet Nam industry will develop in a fast changing international environment both economically and politically. Two major trends affecting the social economic development of the countries world-wide should be considered.

Scientific-technical progress. Today, the world economy is facing a new era of development - the era of development towards a knowledge economy and an information society. This new trend has placed many nations in a position facing the demands for accelerating the scientific and technological development, improving national scientific and technological potential. The scientific and technological development will be the decisive factor for the competitiveness and position of a nation in the world.

The scientific and technological progress world-wide has been and is oriented towards using much more effectively material resources, combined with the discovery of new material and technology.

The process of industrialisation and modernisation in Viet Nam is not an exception. The target of gradually catching up with the international development level requires us to integrate effectively, grasping and going straight into modern technology, in which new material technology should be considered a spearhead and key priority.

Globalisation and economic integration. Globalisation and economic integration is presently a major trend, bringing about numerous opportunities as well as challenges to the nations, especially the developing and slowly developed ones.

Viet Nam has joined AFTA and undertaken to carry out the Common Effective Program for Preferential Tariffs (CEPT) to reduce the tariff rates to under 5% by 2006. Quantitative restrictions and non-tariff barriers on products under CEPT will be removed. For raw agricultural products belonging to the sensitive list, the restrictions and non-tariff barriers will be graduaaly removed through 2013.

Viet Nam is also negotiating to join WTO, APEC, etc. and has signed the US-Viet Nam trade agreement. The main principle of WTO is the orientation towards:

- Clarifying and making public all policies in connection with trade;
- No discrimination between its members in every commercial activity in connection with goods;
- No discrimination between domestic and foreign goods;
- Adopting tariffs the sole domestic production protection tool and every country should have a binding schedule for tariffs reduction; all non-tariff barriers should be removed; all non-tariff barriers necessary for protecting national security, health care or environment may be maintained but should be made public and should not be applied in the way of creating the protection barriers for domestic production.
- Encouraging fair competition.

Technology plays an important role in improving the potential productivity of production elements. Consequently, it is considered the factor mostly influencing the international competitiveness and so the development growth. Rapid technological change is the strategy of many countries, aimed at boosting the competitiveness in the process of integration into the international market. In several industries, comparative advantages of developing countries based on cheap labour resources have gradually lost their significance and even disappeared due to the process of introducing new technology and the process of automation from developed and newly developed countries.

The international circumstances have placed Viet Nam in a position facing great challenges but created opportunities for accessing the international markets (in broad sense) and civilisations world-wide.

As to industry in particular, this context demands careful study for choosing a proper direction, aimed at catching opportunities and minimising risks to boost the development of the industry and the

development of the national economy in general. Despite having the schedule for tariffs reduction under commitments to AFTA, the preparation of the units are still slow and the businesses, especially the State-owned businesses, are still waiting for the protection of the State. For the time being, Viet Nam still has to carry out a situation strategy in protecting the products which can be produced domestically, adjust steps in the process of trade liberalisation but not contrary to the commitments to AFTA and prepare to join WTO. The Government is also paying much attention to the policies and measures to encourage businesses to try their best in competition, not relying on the protection of the State.

There is also drastic change in the domestic environment. During the period of renovation, especially in the period Viet Nam carried out the 1991-2000 first socio-economic strategy, its economy has attained many achievements. Its economic potential has improved significantly: (i) to resolve basically the problem of food supply; (ii) to increase the ratio of internal accumulation up to 25% of GDP; (iii) quite rapid development of social and economic infrastructure; (iv) new economic mechanism has had drastic changes, facilitating the development investment throughout the economy and in the industrial businesses in particular. Legal framework for development investment activities have been improved significantly; macro-economic policies (basically) have brought about the stabilisation in economic development in general and the development of industry in particular, though the regional economic crisis took place in the 1997-1998 period.

The process of renovation has been and is being promoted to create a lot of opportunities for the development of industry in general and the steel industry in particular. In 2000, the Business Law has been promulgated and is being put into life; the Amended Foreign Investment Law has been promulgated, creating favourable conditions for the pooling of foreign investment; the administrative reform is being continuously promoted, facilitating economic activities.

3. Steel industry - development directions

1. The current situation of the steel industry - problems

The metal producing industry (including the steel industry) accounts for a small proportion in the industrial output: 3.3% in 1995; in 1999 this figure came down to 2.6%; it had the highest growth rate among industrial branches in the 1990-1995 period with the annual average growth of 27.8%. Then it plummeted in the 1996-1997 period and continued to increase with the annual growth rate of over 7%. The steel industry has attracted a small amount of industrial workforce (0.8% of the industrial workforce nation-wide). However, workforce in the steel industry requires high technical skills.

In the 1991-2000 ten-year period, the steel industry has achieved the following results:

(1) The steel output soared in the 1991-1995 period (30% on average) and continued to increase in the following 1996-2000 period. Namely, the steel outputs of the years are presented below in Table 1.

Table 1 Steel output in the 1991-2000 period

In 1,000 tonnes

Year	1991	1995	1996	1997	1998	1999	2000
Output	149	450	900	1,050	1,150	1,300	1,400

Source: Viet Nam Steel Corporation.

The production capacity of the steel industry has increased significantly. The current production capacity and the steel output in 1999 are presented below in Table 2.

Table 2 Steel production and manufacturing capacity and the steel output in 1999.

Items	Current production capacity, 1,000 tonnes	Main products	1999 output, 1,000 tonnes
Crude steel	500	Billets	350
Long rolled steel	2,500	Round steel, bar, wire rod, small and medium section	1,300
Manufactured products after rolling	500	Welded tubes, plated toles of different kinds	190
Flat steel	Not produced yet		

Source: Viet Nam Steel Corporation.

(2) Investment has been and is being made to transform, upgrade and provide additional equipment for Thai Nguyen Iron and Steel Corporation and Southern Steel Corporation to boost the steel production.

(3) In 1996, Viet Nam Steel Corporation entered into a joint venture with foreign companies to invest in 12 projects, which have been or are being put into operation, including:

- Construction round steel with a capacity of 850,000 tonnes (almost all the projects put into operation);
- Welded tubes with a capacity of 45,000-50,000 tonnes (black steel, zinc plated);
- Zinc-plated tole, colour-plated with a capacity of 100,000 tonnes per year;
- Manufacture and processing of tole and wire steel.

In 1996, when a range of new production units appeared, the steel industry met the demand for such ordinary steel used in construction in Viet Nam as round smooth steel, flecked steel, wire steel, and roll steel. By 2000, with the above capacity, the steel industry will have met about 58%of the demand for steel.

This industry is expected to increase rapidly after 2000. It is an important industry, meeting the demand for raw material for the development of several other industries. In general, the achievements reached by the industry in recent years have been very encouraging. But looking at it more carefully we can see that the past years is only a transitional period, aimed at adapting step by step to the new mechanism and sound development. Despite the quite high growth rate achieved in the steel industry, it has not been fundamental. The real growth value of the steel industry has not been high due to the fact that we had to

import a large quantity of billets and hot rolled steel for further processing and manufacturing.

The investment for increasing new output has concentrated on the steel rolling and after-rolling manufacturing and processing and little has been invested in the refinery of pig-iron and steel or the raw material supply for the production. The products are mainly round smooth steel, flecked steel, wire steel, plated tole, welded tubes with ordinary quality used in construction. Different kinds of flat steel used in the building of ships, cars, oil warehouses, road bridges, railways; steel sheets , manufacturing steel, special steel, high quality steel must be completely imported. This has not only brought about the passiveness of the economy but also unable to meet the demand for the steel by the national defence when necessary. However, at present status quo, investment in the development of the raw material supply and the large-scale steel production are still facing a lot of difficulties (to be described in detail in the next section).

To meet the domestic demand for steel, annually we had to import a large quantity of steel. The amount imported in the 1991-1996 period is as follows:

Table 3 Steel import of Viet Nam in the 1991-1996 period

In 1,000 tonnes

Year	1991	1995	1996	1997	1998	1999
Import	113	1,100	1,549	1,320	1,735	2,266

Source: Ministry of Planning and Investment.

The development of the steel industry has been limited due to the following factors:

- The steel consumption market is still small: In 1996, 1.3 million tonnes of steel was sufficient to meet the steel demand of Viet Nam, used mainly in construction; after 1996, demand for steel increased but still limited (in 2000, the demand for steel is expected to be 2.5 million tonnes), the steel consuming industries started to seek their direction of development.
- Lack of investment capital: Investment for developing the steel industry requires large investment capital and the private and small businesses in Viet Nam presently are unable to invest. Though the steel industry deemed to be one of the prioritised industries, the State cannot invest much in it due to the lack of capital.
- The infrastructure for the development of the steel industry has not been uniformly developed.

2. The development policy environment of the steel industry

Being a basic industry and considered for many years one of the devilment focus of Viet Nam industry in the period of centrally planned economy, this industry has been given priority in the investment development.

In the context of current market mechanism, there are no longer previous priorities and protection

conditions, though there are still priorities to support the development of certain industries. The industrial policy environment has changed and the steel industry has also been affected by that overall change.

Then what is the current policy environment for the operation of the steel industry like? Here are some factors included in the policy environment for the steel industry.

2.1 Investment policy related to the steel industry

Borrowing capital for development investment

In the current period, the Government encourages industrial businesses in general to invest in development by their own capital and at the same time issues the policies for the businesses to have access to and able to borrow capital for development investment, except the cases where the Government directly carries out the investment with capital from the state budget.

Capital resources to be lent to businesses are: (i) domestic capital resources and (ii) external capital resources. With regards to domestic capital resources, businesses can borrow in two forms: preferential credit borrowing and commercial borrowing.

(i) Domestic borrowing:

The credit borrowing for development investment is carried out in accordance with regulations set in Decree No.43/1999/N§-CP by the Government, issued on 29/6/2000. The lending is to be adjusted in accordance with Decision No. 175/Q§-TTg by the Prime Minister, issued on 2/3/2000 and in which the lending interest rate was adjusted from 9% per year down to 7% per year.

State's preferential credit

The projects belonging to this borrowing resource are carried out in accordance with the annual investment plan for capital construction of the State. Presently, the Government is pondering the preferential lending interest rate for the steel industry.

Commercial borrowing

The commercial borrowing by businesses complies with the above mentioned procedures and is to be carried out by the commercial banks and the Investment and Development Bank.

(ii) Foreign borrowing

Businesses themselves can borrow capital straight from foreign resources or reborrow from the foreign borrowing resources of the Government or the State Bank in the way of self-responsibility, meaning: If you borrow, you will be responsible for paying back the debt.

Direct borrowing: Businesses borrow and pay directly foreign borrowings.

Reborrowing: Businesses borrow from domestic banks from State's capital resources or from the State Bank, borrowed from foreign resources.

The State Bank is a State regulatory body over foreign borrowings and payments by businesses belonging to all kinds of economic sectors, established and operating in accordance with the laws

of Viet Nam, including the foreign borrowings by businesses established and operating in accordance with the Viet Nam Foreign Investment Law.

The projects can reborrow from the state capital resources or from the State Bank in such a mechanism as in the preferential credit capital of the State.

In reality, it is very difficult to borrow domestic capital for development investment in the steel industry since the borrowing demand is very high (over tens of millions dollars), the banks have no enough money to lend at the current interest rate and the production efficiency of the industry is much lower than the world average. Moreover, borrowing procedures are still cumbersome, the processing of documents is slow, missing investment opportunities.

With regards to foreign capital resources, businesses find difficulties borrowing directly since the creditors still do not believe in the solvency of Vietnamese businesses. Consequently, in most cases, they have to borrow through the brokerage of foreign organisations. The procedures and mechanisms for foreign borrowings are also tight and complicated. The most difficult issue at present is the guarantee and re-guarantee. This is easy to understand as in the early stages of development, Vietnamese businesses are still not strong enough in the international markets.

Pooling foreign direct investment

Since 1986, the Government has tried to put forward several measures to pool foreign investment capital and attained significant achievements. The results could have been better if we had had a more rational and uniform system of measures to attract foreign investment capital.

In 2000, the Amended Foreign Investment Law was issued to provide more favourable conditions for attracting foreign investment capital into Viet Nam. However, foreign investment in the steel industry, especially in the upstream production segment is still facing scores of difficulties and not so attractive due to the specific features of the industry. Infrastructural conditions have not developed, so investment projects normally also have to incur such infrastructure development as the construction of roads, bridges, ducts, power and water supply. This is particularly burdensome for the investment projects in the steel industry. Many projects could not pool investment capital as the investment capital for the infrastructure is too high.

2.2 Tax policy and measures to protect domestic production

The tax policy for the steel industry is deemed to have highly protected domestic production. Import tax on raw materials for production is zero or insignificant and the steel products that can be produced domestically are in general imposed a quite high tax rate, up to 30-40%.

According to the latest decision, the Government has issued the list of goods and the tax rates of the commodity items under the Common Effective Program for Preferential Tariffs) of Viet Nam for the year of 2000 and the steel products made domestically mostly have a tax rate of around 40%.

According to many experts, the tax policy imposed on the domestic raw materials and products sold domestically is rational. However, there are no estimates of the impact of import tax rates on the items related to the operation of the steel industry.

On the whole, the State still maintains the protection policy for domestic production, consequently, domestic steel production units are still able to survive and develop in the context of competition of imported goods. However, in the context of gradual integration into the region and the world, the domestic steel production will still face a lot of disadvantages in the conditions of competition from imported goods. And the issue of protection should be considered seriously, aimed at finding solutions to improve the competitiveness of this industry in the market and preparing for the conditions of non-protection from the State.

3. The issues to be studied in the development of the steel industry

3.1 Does exist a strong enough steel industry?

The metal material industries are of special importance, providing basic input for other technical-economic industries, such as construction and mechanical industries and national defence and security. There is no developed industry without the development of such industry.

With such a nation having a population of 77 million as Viet Nam, in the future, when the economy is at a higher development stage, the development of the steel industry will surely play an important role.

At present, the direct contribution of the steel industry to the GNP actually is quite modest, about 1% of the total industrial value added output. However, the impact of the steel industry on other socio-economic activities is of great significance. The steel industry currently meets approximately 55-60% of the demand for steel consumption in the Vietnamese market for capital construction and manufacturing operation. According to recent forecasts, by 2010, the demand for steel consumption in Viet Nam will increase to about 6-7 million tonnes and in 2020 will rise up to 15 million tonnes—a scale, which is the pre-condition for the development of this industry.

An issue of special importance to be studied in the long term is the potential of natural resources for the development of the steel industry. Viet Nam has this potential.

The answer to a strong enough steel industry is much needed for the development of Viet Nam industry and Viet Nam economy. The cause of industrialisation and modernisation requires the development of the steel industry.

3.2 The issues in connection with the development of the steel industry

(1) The scale of the economy

Despite the drastic development in the past years, the economy of Viet Nam is currently of small

scale. The scale of the economy has a significant influence on the development of the industry: limited market, limited possibilities for capital accumulation for investment.

Due to the specific features of the industry, to ensure the efficient production, the production scale of metal material products should be large enough, whereas the demand for metal materials is diverse and fragmented, except the steel demand for capital construction.

(2) Product competition in domestic and international markets

It can be said that the market for metal (steel) material products is very big with the total trade value in steel of about USD 141 billion in 1996 (WTO annual report, 1997). However, according to the studies carried out by many experts, the steel output world-wide has been stabilised at the level of 800-900 million tonnes per year. This means there will be ferocious competition in the international steel market.

Also according to a WTO report in 1997, 10 leading countries in pig-iron and steel trade in 1996 accounted for 58.1% of the world total steel trade value, of which the two powers Germany and Japan accounted for 10.9% and 10.8% respectively. China has recently increased significantly the steel output with 2.6% of the world total steel trade value in 1996. The steel exporting powers have large output scales, the steel is diverse and of high-quality. They are strong competitors making the world price of steel go down. In recent years in particular, Russia has increased its steel output, affecting much the steel market.

We should pay much attention to the world market and the competition in the world steel market and it has a quite significant influence on the development of the domestic industry.

According to several studies, the domestic market will reach a scale of 6-7 million tonnes of steel of different kinds by 2010. However, this market consists mainly of ordinary construction steel. The demand for high quality steel for mechanical manufacturing is still low due to the weak development of the mechanical industry. Moreover, Viet Nam market is currently highly competitive due to the imported steel. Domestic production businesses hold only over 30% of the market.

All the above information shows that Viet Nam steel industry can only develop if there is a proper investment in the direction of ensuring efficiency and quality to have competitive strength in the market, both domestically and internationally.

(3) Resources for development

There are different assessments in connection with natural resources for the development of Viet Nam steel industry. The two main issues on the focus are: (i) iron ore and (ii) energy resources for steel refinery.

As to iron ore, the valuations are not uniform, especially those of its scale and quality and all these issues should be studied carefully. Moreover, one of the particularly important features—the valuation of the exploitation technical capabilities, the overall economic characteristics of the

exploitation, etc.—has not been clarified and uniformly assessed.

As to fuel and energy resources, Viet Nam has energy resources and is able to exploit enough quantity for the development of the national economy in the period up to 2010. However, according to recent studies on energy, without new energy resources or new technologies in its exploitation, processing and use, by 2010, Viet Nam will have to import a large quantity of energy. Moreover, some fuel resources for the industry of ferrous metallurgy coke coal is to be imported; rich coal is limited; valuable natural gas exploited has not met the demand by the metallurgy industry. Consequently, the seeking for a less energy consuming technology is a necessary move for the development of the non-ferrous metallurgy industry and in line with the policy of efficient exploitation and use of national energy resources.

It can be stated that domestic resources for the development of the non-ferrous metallurgy industry are an invaluable asset for the country and the problem here is how to exploit them efficiently? The point of time and the kind of technology to be used? Those are the questions to be solved.

(4) Technical-economic requirements

Investments in the material industry in general and in the metallurgy industry in particular are normally enormous and a feature of very importance is the low rate of return on investments. So, for this industry, investment decisions should be pondered carefully.

As to technology, with a long history of development, the world material industry has reached a high level and boasted scores of technological solutions. Each selected technology allows to create a category of products with certain quality and serves a certain market. Consequently, the technology selection has to pay special attention to the long term goal of development: to increase the competitiveness of products based on the advanced technology, high productivity and high quality.

At present, the domestic technological capability has achieved a certain level and the human resources of the industry are able to absorb and apply creatively the metallurgy technologies, which have been applied world-wide. But the question is how to apply these technologies in Viet Nam to achieve economic efficiency. Two issues to be put forward: (i) technological equipment: the key question here is that many kinds of technological equipment cannot be made domestically yet; (ii) from research to practical application: the production scale is a decisive factor in the technological efficiency, consequently the issue of applying research achievements into practice is very important and not clarified yet.

(5) Regional and international production division and co-operation

In the new circumstances of the world economy, the trend of integration and co-operation has become stronger than ever. As stated above, Viet Nam has officially joined and is carrying out its commitment to AFTA, APEC and preparing to join WTO. This process is leading to: (i) competition in production and sales right in the domestic market; (ii) creating favourable conditions to exploit

other markets; (iii) creating opportunities to take part in the division and co-operation in the region and world-wide.

So, the question put forward for the material industry is perhaps to identify clearly the product strategy with two major orientations: (i) to ensure the competitiveness and meet domestic demand to take initiative in the domestic material supply; (ii) to be able to enter the regional and international markets; to take part in international co-operation.

4. Orientations for the development of the steel industry

With above analyses in a very macro manner, the principal concepts to develop Viet Nam steel industry should be formulated as follows:

(1) For a long period before reaching a high level of development, Viet Nam steel industry should develop basically in the *direction of import substitute.*

Despite this orientation, some issues should be pondered: (i) we should identify production capacity and conditions to improve production efficiency, increase competitiveness (technology, product quality, production organisation, costs, etc.) when Viet Nam its commitments to CEPT and then other commitments related to tariffs; (iii) steel products for the economic development include a lot of categories, so we should spell out the orientation of product strategy.

(2) In the period from now to 2010, in addition to the development direction of import substitute, the steel industry should focus on the *target and direction* to improve its competitiveness for development and integration, aimed at being able to export after a period of time.

This dominant idea should be grasped thoroughly in the appropriate arrangement of targets and master planning solutions. The build-up of the national industrial potential, including the steel industry, should be placed in the conditions of meeting this requirement.

(3) Product orientations

It is obvious that at present, the supply of basic materials to the mechanical industry cannot be ensured by domestic resources. Supporting industries are less developed, limiting the development possibilities of the mechanical industry nation-wide and even foreign-invested mechanical production joint ventures as well. But the material demand for the mechanical industry is very diverse and its scale is still small. That is why for many years, Viet Nam mechanical industry in most businesses has created for itself a small scale capability of metallurgy and undermined the specialisation characteristic of mechanical production, leading to low efficiency, low quality of material and mechanical products have been less competitive. With this reason, in the immediate period, the mechanical industry should determine the development of the material industry for the mechanical industry: *to produce alloyed steel in a quite concentrated manner with medium and small scale, appropriate technology, aimed at improving production efficiency and quality, being able to compete right in the domestic market,*

creating pre-conditions for the development of larger scale in the coming period.

Another direction of development is the ordinary construction steel of high quality. This market is very big even domestically. With present domestic production capacity and up to 2010, the demand for this market cannot be met. However, the production of large scale based on the domestic resources in the first stage is an option which can hardly bring high efficiency and imposes high pressure on the economy from the perspective of investment. To solve this problem, the immediate target of the steel industry should be *oriented towards the downstream development—the last stage to create a lot of added value with small investment—and linked to the target of long-term development is to form a large scale steel production industry based on domestic resources when conditions are favourable (in respect of investment and technology in both the exploitation of natural resources and steel refinery, etc.)*

(4) Development mechanism

As described in Part I, the national development policy of our Party and State is oriented towards the rapid and sustainable development, solving well social issues. To do this, we should strengthen the process of renovation, building a socialist oriented market economy and putting all internal resources into play for development.

In this context, the steel industry should also be developed in an appropriate mechanism. The policies for the development of the steel industry should also be focused on mobilising the participation of economic sectors. However, to have an effective and sustainable participation, we should strengthen the standardisation and quality management, improve management by financial instruments and create an equitable environment among the sectors. This is an extremely important issue, ensuring the healthy development of the industry.

(5) Development stages of the steel industry

Steps:

- To focus on the medium and small scales in the period to 2005, even to 2010;
- To actively prepare conditions to be able to develop in large scale in the following periods towards a steel industry of high level of development, which can compete and meet a fundamental part of the demand for development of the national economy.

So,

(a) For the time being, we should find a solution to restore the production of the Thai Nguyen Iron and Steel Corporation, based on the principle of ensuring socio-economic efficiency in the direction of management renovation, upgrade and renovation of technology to improve the competitiveness of products in the market.

(b) To find solutions, choose appropriate scales for the development of Thai Nguyen's pig-iron and steel for the following periods, also on the mentioned principles.

(c) To stabilise and facilitate the rearrangement of the material production for the mechanical industry with quite concentrated production scale, ensuring the characteristic of specialisation and economies of scale. This stabilisation can only be created on the basis of volunteer principle, through financial instruments, creating conditions for the efficient production.

(d) Selected development of some steel rolling mills (downstream), taking into account the development potential of upstream businesses to meet immediate demand, create added value, increase accumulation, creating pre-conditions for the development of high level of the industry in the following periods.

(e) The development investment should be fully assessed for investment projects on the basis of accounting correctly and fully all the costs, including the costs in connection with environment, opportunity costs, etc., aimed at assessing correctly the efficiency of investment projects.

2 – 8

General Framework for Restructuring Viet Nam's Steel Industry Policy under Integration Process

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Part 1: Analysis of Viet Nam's steel industry situation

1.1. Starting point of Viet Nam's steel industry: Steel production technology, investment situation and distribution of production units.

Up to 2000, there have been some investments in Viet Nam's steel industry, as a result, it has fairly modern tools for refining, rolling and after-rolling steel. However, the technology of the whole industry is still backward in comparison with that of the world industry (Table 1.1).

Table 1.1 Comparison of basic criteria of Vietnamese and the world - steel industry

	Unit	Domestic	Joint - venture	In the world	Comparison (%)	
1	2	3	4	5	7= 3/5	8=4/5
To refine steel						
Molten time	Minute	180		50	360.00	
Wasted steel (Scrap) consumption	Kg/ton	1250		1100	113.64	
Electric consumption	kWh/ton	900		350	257.14	
Electrode consumption	Kg/ton	8		2	400.00	
To mill steel						
Mill steel speed *	m/second	14	38	110	12.73	34.55
Blend steel consumption	ton/ton	1.11	1.05	1.03	107.77	101.94
Oil consumption	Kg/ton	65	48	25	260.00	192.00
Electric consumption *	kWh/ton	143	142	80	178.75	177.50

Referring to these criteria, it can be seen that domestic steel mills are working in backward technology condition. The time spent for melting is about 360% over the average rate of the world. Rates of scrap and power consumption are too high; especially the latter is 257.14% higher than that of the world. In rolling process, domestic mills show the speed of about 12.73% that of the world. Other consumption rates are higher. Particularly, the rates of power and oil consumption equal 260% and 178.75% of the world rate,

respectively. The bad condition of technology, apparently, will have negative impact on price, quality and competitiveness of Viet Nam's steel products in the future.

All equipment of Viet Nam's steel industry are distributed in three main areas as indicated in the table 1.2.

Table 1.2 Equipment distribution and mill network of Viet Nam's steel industry

Area and corporation	Capacity * (Ton/Year)	Place	Appliance (Whole area)
Viet Nam Steel Corporation Thai Nguyen Steel Company Southern Steel Company Danang Steel Company Middle of Viet Nam Metalware Company	760,000 240,000 460,000 40,000 20,000	 Thai Nguyên Bien Hoa Da Nang Da Nang	2 Small size balst - furnace 100m^3 22 Small size electric arc furnace 6-30t/batch 4 Uninterrupted founded machine 5 Semi - Uninterrupted laminated round steel rolling - mills 7 mini handicraft rolling - mills
Joint venture Vinakyoei VSC-POSCO Vinausteel Natsteel Vina Tay Do Steel	850,000 240,000 200,000 180,000 110,000 120,000	 BR-VT Hai Phong Hai Phong Thainguyen Cantho	2 modern uninterrupted laminated round steel rolling - mills 3 Semi - Uninterrupted laminated round steel rolling - mills 2 small size mills produce welded 5 mills produce sheet iron zinc plated, Color plated and process to cut and bend steel plates, steel piece.
Other area About 22 production enterprises belong to local industry and non state sector, 250 in private sector (household)	946,000 3-20,000	To place in all local areas in the country	About hundreds of mini rolling mills and tens of steel process lines.

As being shown in the table, the industry possess many weakness in terms of technology and equipment. These weakness are displayed more clear in main points bellows.

Firstly, Thai Nguyen Iron and Steel Corporation, the oldest enterprise of the industry, was founded in 1963. The Corporation has three small EAFs with capacity of 100m^3 per batch for each and some units producing flat steel. Currently, due to old condition, only one furnace is still working. Additionally, the backward facilities and limited skill of the workers brought losses to the corporation; products were unstable in the past years. Low productivity became a problem of the corporation, as compared to Japan's companies; the average output per worker of Thai Nguyen Iron and Steel Corporation is about 15 times less than that of Nippon Corporation. Nippon Corporation yearly produces 10 Mt with 5000-6000 workers, while Thai Nguyen with over 10,000 workers only produce 200-300 Kt per year. Therefore Thai Nguyen Corporation need to dismiss unskilled labor and non-profit units.

Broadly, Viet Nam's Steel Industry is not better than Thai Nguyen Iron and Steel Complex in terms of equipment and technology level (Figure 1.1). The survey data shown that third world technologies dominated

* Only account for rolling - mills

75% technology used in the industry and allocated in old factories in both the North and the South. Medium technologies accounted for 10% and lain in individual production lines. Advanced technology accounted only for 15%, and mostly utilized by joint ventures with South Korea and Japan such as Vinakyoei, VSC-POSCO.

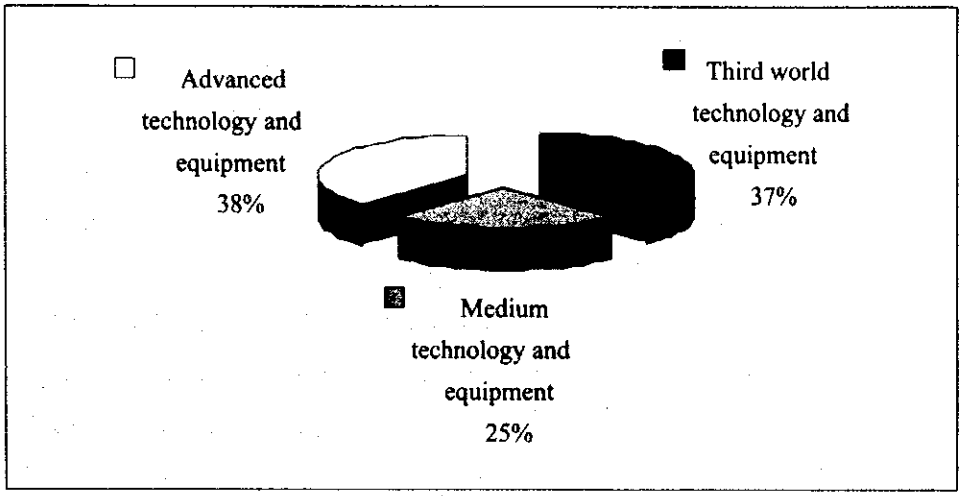

Figure 1.1 Equipment and technology level of Viet Nam's steel industry

Origins of equipment and technology are another evidence of third world (Figure 1.2). Chines and SNG's technologies and equipments accounted for 33 and 20 percent of total technologies and equipment used in the industry, respectively. These technologies and equipment were imported around 40 - 50 years ago and were backward by 3 - 4 technology generations. Technologies and equipment imported to the South before 1975 were very backward. Some advanced and medium technologies and equipment imported by join ventures were mainly allocated in downstream of the industry.

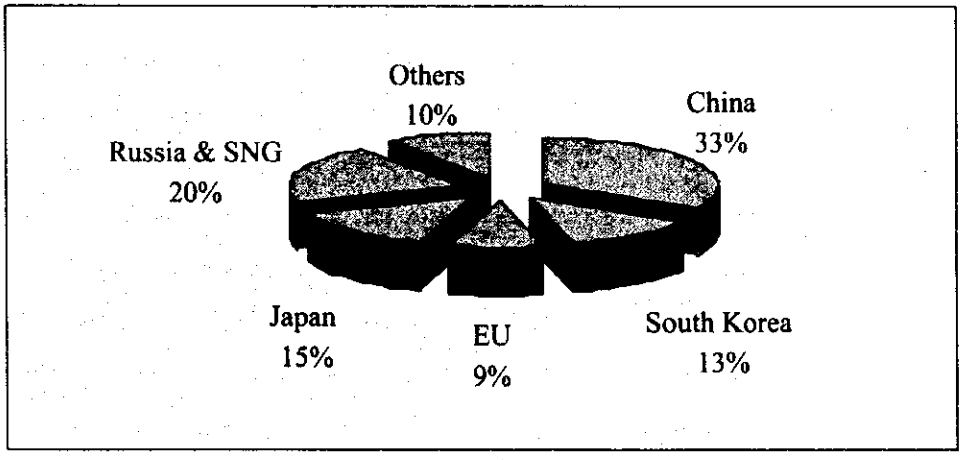

Figure 1.2 Origins of technologies and equipment of Viet Nam's steel industry.

Secondly, the production allocation and organization are not appropriate. Most of steel-making units were built long time ago, which were not planned to fulfill requirements of steel industry technology to get

combined linkage and easy transport. The corporation's producing units are also spreaded along the country basing on older units. While joint venture steel rolling mills are allocated properly, based on the distribution of material and input sources for rolling process and consumption. For example, three biggest joint venture steel rolling mills in Viet Nam all located in Baria—Vungtau and Haiphong near imported material and gas sources, however, in the long term, if the domestic material is created, this allocation will reveal its limitations. In local and non-state steel industry, enterprises are allocated very arbitrarily. This violates the general technique rules of steel production. To enhance efficiency of the industry, producing units for different stages must be concentrated and be implemented order of producing chain. It will be ineffective and less competitive if one enterprise make flat products in the North then they will be cooled and transported over a thousand km to other enterprise in the South for hot rolling.

Thirdly, investment in steel production is seriously unbalanced between capacity of billet production and steel rolling. Billet production capacity is very low, meeting only 25% demand for small square billet. Meanwhile, in recent years, increase in demand for billet throughout the country has been leading to imbalance of the industry.

Table 1.3 Production situation of Viet Nam's steel industry

Products	Designed capacity (ton/year)	Output 1998 (Ton)	Mobilized rate of capacity (%)
Crude steel (Blend steel and bar steel)	470,000	305,682	65
Rolled Steel (Round steel and contractual steel)	2,000,000	1,200,000	60
Blowpipe, sheet steel plated	500,000	120,000	24

The imbalance in capacity is explained by the imbalance in investment pattern. Investment in billet production has not been attracted due to requirement of huge capital, long time for production preparation and low rate of return. Other reason is that the value added of billet production is low, this does not attract foreign investors while local enterprises lack capital. Furthermore, importing billet is so it was not protected (tax rate is 3%). On the other hand, the demand for rolled products is high, mainly construction steel. In addition, the investment in rolling process does not require too much capital so not only central and local but also private enterprises can invest. Foreigners find their profit in this process so a lot of types of joint venture appear. Investors can benefit from a high protection barrier in local rolling construction iron and steel market (with a tax rate of 40%). All above reasons make the disequilibrium between billet refinery and production and steel rolling process.

Due to improper investment, Viet Nam annually still imports nearly 1 million ton billet for local bar steel production. In next 5-10 years, billet import still accounts a large share, however the local supply needs gradually to be increased. The project to expand Thai Nguyen Corporation's production capacity by building EAFs is feasible and can reduce billet import by a half (about 500,000 tones in 2005).

Fourthly, product lines are not abundant, it only includes long products (bar, wire rods for construction) and some sheet products (tinplate, welded pipe). There is no hot and cold rolling tools to make plate steel. Quality of product is low, except products of joint ventures. The imbalance in production raised problem for the industry in choosing proper products meeting market demand in the coming years.

Fifthly, on account of irrationality in organizing producing and importing billet, obstacle technology, low productivity, production cost of domestic hot and cold roll steel is very high, as a consequence domestic steel products have trouble in competing with imported steel products.

Production cost is lower in case of steel made from imported billet both in Thai Nguyen Iron and Steel Complex and South Iron and Steel Complex. This difference is due to lower price of imported billet in comparison with n that of domestic billet. The result supports the idea of importing and putting away money to develop downstream facilities of the industry in period of next 5 - 10 years.

Table 1.4 Production cost of domestic roll steel

Unit: VND/ton

Catalogues	Thai Nguyen Steel		The South steel	
	Imported billet	Domestic materials	Imported billet	Domestic materials
Material cost	2969775	3031823	2832410	2989210
Fuel and energy	213031	213031	216099	216099
Depreciation	142151	142151	81548	81542
Salary	41516	41561	56720	56720
Medical and life insurance	8312	8312	2061	2061
Management cost	264930	264930	333023	333023
Exwork cost	3639761	3701809	3521862	3678662
Minimum selling price	3821749	3886900	3697955	3862595
Price of imported billet	2744000		2660000	
Price of domestic billet		2800000		2800000

Price of imported billet by Thai Nguyen Iron and Steel Complex is 3.01% higher than by South Iron and Steel Complex, as consequence, Thai Nguyen production cost is higher. So, Thai Nguyen Iron and Steel Complex need to examine reasons for and search for new sources of billet.

Analysis of production cost also reveal that domestic steel products were at competitive disadvantages position. Billet, main material accounting for huge proportion in production cost, produced by domestic producers has price not higher in comparison with that produced by producers in South East Asia region. Therefore, high production cost of steel made by producers in Viet Nam is due to higher rate of material consumption and lower productivity in comparison with producers in South East Asia region.

1.2 Viet Nam steels market: supply sources, price and protection mechanism.

In the past years, Viet Nam steel market suffered from a lot of fluctuations and imbalance between demand and supply in some kinds of products. In general, rolling products have not yet met the demand.

Table 1.5 Rolling steel production and consumption in Viet Nam market

Year	Output		Consumption		To meet demand (%)	Import		
	1,000 tons	% increase	1,000 tons	% increase		1,000 tons	% increase	% increase in importing
1991	149		350		-57.43	201	42.57	
1992	196	31.54	540	54.29	-63.70	344	36.30	71.14
1993	243	23.98	800	48.15	-69.63	557	30.38	61.92
1994	280	15.23	990	23.75	-71.72	710	28.28	27.47
1995	450	60.71	1100	11.11	-59.09	650	40.91	-8.45
1996	900	100.00	1400	27.27	-35.71	500	64.29	-23.08
1997	1050	16.67	1700	21.43	-38.24	650	61.76	30.00
1998	1150	9.52	1900	11.76	-39.47	750	60.53	15.38
1999	1270	10.43	2090	10.00	-39.23	820	60.77	9.33
2000	1400	10.24	2300	10.05	-39.13	900	60.87	9.76
Average		***27.83***		***21.78***	***-51.33***		***48.66***	***19.35***

The Table 1.4 shows that the rolling steel production of Viet Nam during 1990s has increased significantly in absolute term, the annual growth is 27.83% on average. In which, the level of 1996 is the highest owing to new production of some joint ventures such as Vinakyoei, VPS, Vinausteel and Natsteel Vina invested in 1995 and late 1996. Production output rose, but did not meet the demand yet, although the consumption, on average, increased 21.78% yearly. As such, in general, in 1990s investment in rolling steel production is insufficient. The domestic supply met 51.33% demand. In order to solve this deficiency, in the past recent years, Viet Nam allowed importation of a large amount of rolling steel (accounting for 48.66%) with average import growth rate of 19.35% per year. This rate is higher than Viet Nam economy's average growth rate of material import during last ten years (16.78%). Therefore, in long term, rolling steel import for domestic consumption continues to make up a high proportion.

However, domestic production structure is not appropriate with consumption structure. Almost domestic steel output is bars and simple shapes serving for principle construction (more than 85%). For these reasons, Viet Nam's steel industry overproduced construction steel with low quality but underproduced shapes, plates, low carbon steel and high carbon steel that were inputs of machine-making, ship building, metal spare part industries. Improper product structure required steel business enterprises to seek market for construction steel not only in Viet Nam but also abroad. On the other hand, steel importation for other industries need to be carried out effectively. Hence, in the next few years Viet Nam's steel industry will have to make some changes in production investment structure.

The issue directly associated with domestic demand and supply of Viet Nam's steel industry is price competitiveness. Currently, supply of rolling steel products for construction exceeds demand, the consumption is facing difficulties because of high price. Domestically produced steel for construction is 10-15% higher than products imported at CIF price from Russia and SNG (25-28 USD per ton) and 5%

higher than products imported at CIF price from Japan, South Korea and Western countries (10-12 USD per ton). As such, price competitiveness is a disadvantage for construction steel production businesses. If in the coming time the price of Viet Nam's construction steel decrease by 10-15 USD per ton, the competitive pressure in local market will fall, this is appropriate with the way to step by step eliminate trade barriers according to the agreement signed with AFTA. If the price decrease by 20-25% USD per ton then our products will be able to have competitiveness in the world market. According to experts of VSC, this competitiveness is depended on low depreciation of some enterprises. Other factors can lead to reduction in price such as higher productivity, decrease in management cost and higher capacity of mills need longer time.

Due to complex fluctuation in domestic market, balance between supply and demand for products are not reached, barriers were created to protect domestic businesses to implement import substitute strategy for material production as well as ensure sufficient import of some kinds of steel as a vital input of some industries.

Non-tariff barrier was applied to bar steel for construction by stipulating import quota. This solution helped enterprises associated with VSC to produce rolling steel make profit and VSC became a profit business in 1998 and 1999. (Figure 1)

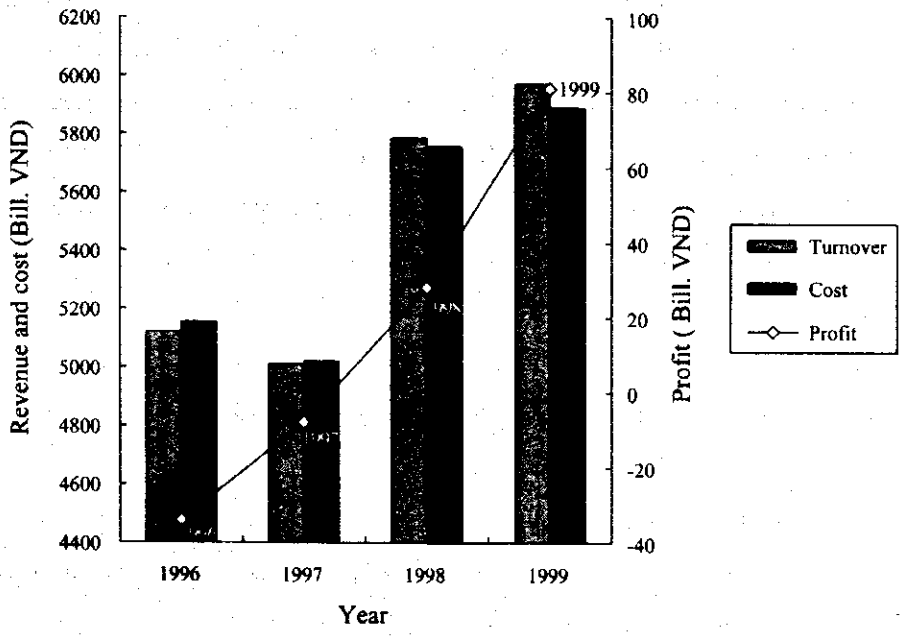

Figure 1.3 Turnover, cost and profit of VSC

Tariff tools are best used by imposing different tax rates based on purposes. Currently, tax rate on billet is 3% and on different non-alloy steels are from 0 to 40%. The import tax on bars and shapes is 40% (see appendix 2—Current Import Tax Table). Due to complex taxes we can use two criteria: average imported-steel weighed tariff and protection coefficient for steel domestically produced business.

Table 1. 6 Average tariff of imported iron and steel

Products	Amount (1000 tons)	Average Price (USD/ton)	Value (1000USD)	Tax rate (%)	Density Import	Tax (1000USD)
Long product	100	271.1	27110	35	0.04	9488.5
Cold rolled steel	375	435.1	163162.5	15	0.23	24474.38
Hot rolled steel	625	342.6	214125	15	0.30	32118.75
Blend steel	1245	243	302535	3	0.43	9076.05
Sum			706932.5			75157.68

As shown in table 1.6, the average tax on imported steel is 10.63%. Therefore, all rolling products have a tax rate higher than the average level and need to follow the way to reduce tariff according to CEPT in the years to come. This will put a fierce competitive pressure on Viet Nam's steel businesses against imported steel from ASEAN countries after the year 2006. However, The calculations above does not show an accurate protection level of steel product in Viet Nam market because steel billet has a low tax rate (3%) with a large import amount cause deviation in the result. Therefore, average weighed tax rate for three imported rolling products of 16.34% shows that the protection level for rolling producing enterprises is very high. In the future, to compete with imported rolling steel, tariff protection remains a necessary tool for existence of steel industry.

In current practice, almost rolling products were produced from imported billet with low tax rate, while tax on final product was high therefore protection coefficients applied to various rolling products are different. Using price in the world market as selling price and price of billet import as factor cost, we have protection level for long, cold rolling flat and hot rolling flat as follows: 274.7%, 12.18% and 26.16% respectively. Obviously, the protection coefficient for construction bar steel is very high as long as it was produced from imported billet. In fact, the selling price of long products by Viet Nam's enterprises is 10-15% higher than the world marker price so that the protection level is much higher. It implied that all rolling steel enterprises are existing and operating depending on protection barrier, if tax on output was cut down and that on tax on imported billet was maintained 93%), enterprises (including joint ventures) would suffer losses unless they reduced their production costs.

In brief, from situation analysis in technology, investment allocation and production structure aspects of Viet Nam's steel industry above as well as fluctuations in Viet Nam's steel market and impacts of protection we can draw some following conclusions:

- Viet Nam's steel industry is still in small scale with backward facilities, except some joint ventures. Protection technologies were not synchronized. Product structure was improper with low quality;
- The imbalance in production of billet and final products was serious, this required a long time to adjust and a huge investment capital;
- High production cost resulted from various reasons had increased price of final products, making Viet Nam's steel industry less competitive;

- Viet Nam's steel industry has not a master plan yet, it needs to be rearranged;
- The competitiveness of the industry is weak; most of its enterprises are operating under protection of trade barriers. They will be facing problems when Viet Nam implements CEPT of AFTA commiment.

Part 2: Policy selections for Viet Nam's steel industry

2.1 Alternatives for policy option for Viet Nam's steel industry

+ **Alternative 1:** Planning strategies and policies for the steel industry must be placed in general economy. According to us, in the next 10-20 years, Viet Nam's steel will not be a key industry of the country yet; it is not given priority to develop. From an agricultural country, where sufficiency still exists and small productions are popular, to carry out large scale and modern production we can not depend on heavy industries, can not start from steel industry. We made serious mistakes in 1960-1970s when invest too much in heavy industry. The thought "priority for heavy industry" developed in mineral exploitation, metallurgy, machinery industries... caused capital waste, inefficiency and prevented Viet Nam's economy from development. We cannot make these mistakes again.
+ **Alternative 2:** Regional and International integration is an indispensable trend that Viet Nam have to follow. Steel industry as well as others of Viet Nam's economy have to accept competition and stand steadily in competition not rely wholly on the state's protection. The impacts of participation in ASEAN free trade area and WTO on Viet Nam's economy need to be fully analyzed, however, we can see here the direct impact on three following subjects:
  - State's import and export tax revenue will be reduced;
  - Consumers will benefit from lower price and more abundant types of goods;
  - Enterprises have cope with competition. Competition may accelerate production and business but they will be put on the bank of bankruptcy.

Under regional and international integration process, Viet Nam's steel industry will face more challenges than advantages. According to documents we have, we can affirm that Viet Nam's steel industry has no advantage over other ASEAN countries, the competitiveness of Viet Nam's industry is very weak.

Theoretically, competitive advantages are formed by interaction of factors:

1. Available production conditions (labor, natural resource, geographical location, and natural conditions...
2. Conditions of domestic market;
3. Complementary and related industries;
4. Strategies, structure of enterprises and competition within the country;
5. Policies and regulations of government;

6. Random factors.

Out of six factors above first four factors are the most important. Analysis of conditions and situation of Viet Nam's steel industry under the integration into AFTA and furthermore WTO shows that Viet Nam's industry has no competitive advantage. This is indicated in following aspects.

a. Mineral sources for steel industry are small as compared to that of ASEAN countries. For example, Viet Nam is 0.01; Thailand is 0.47; Philippines is 0.3 and Indonesia is 1.54.

b. Workers of Viet Nam's steel industry are in large number but low quality. There are not enough experts and skillful workers. This pattern is common in Viet Nam's labor force. Based on Human Development Index (HDI) Viet Nam ranked 116th, while Philippines ranked 99th, Indonesia 105th, Thailand 54th, and Singapore 53rd. Low labor cost is merely production cost advantage. This advantage can only be undertaken by labor and material intensive products. With products required high technology there is no this advantage at all.

c. Other ASEAN countries with more advanced technology will have stronger competitiveness than Viet Nam. Furthermore, other ASEAN countries and South Asia countries implemented export strategy sooner so that they can get an appropriate export structure in favor of deeply processed products. Viet Nam mainly exported raw materials ranging form natural minerals to agricultural products. Steel used industries of ASEAN countries such as Thailand, Singapore, Indonesia and Philippines... developed well, having products exported to many developed countries. In Viet Nam, steel used machinery industries developed slowly. Some well-developed machinery industries such as automobile, motorbike, ship building... belonged to joint venture or enterprises with 100% foreign capital. It will take a long time for Viet Nam to receive high technologies of strong machinery industries from foreigners. Therefore, it is difficult for Viet Nam's steel industry to penetrate domestic market. The industry is at a risk of loosing its market in its own countries.

d. As compared to other country in the region and all over the world, production cost and other consumption criteria of Viet Nam's steel industry were higher. This cannot be solved in the near future (see table 1.1) and reduce competitiveness of the industry in local markets.

To summary, under participation in AFTA/CEPT and regional integration process, Viet Nam's steel industry has fewer advantages.

+ **Alternative 3:** Policies of steel industry must be based on efficiency measures. It is dangerous to pursue independent economy by building all industries at any expenses. Of course, we should consider fairly between politics and economic development. Economic and social efficiency is the most important. If there is an unsolved contradiction in state and firms' benefits, in our opinion, what benefit state then state must follow, what benefit firms then firm must invest.

In general, Viet Nam's steel industry is now operating ineffectively, many enterprises belonged to Viet

Nam Steel Corporation, say Thai Nguyen iron and Steel Company and steel mills of the metal and material company in central region, suffered losses for a long time. Other steel pipe making, steel processed joint ventures and international trade center are also in the same situation.

Under low business efficiency and, huge investment continuously bring losses Viet Nam's steel industry become a burden of the nation. Hence, we need to consider and select appropriate steps.

2.2 Development strategy of Viet Nam's steel industry

2.2.1 Development strategy of steel industry in the period 2001-2010

2.2.1.1 Objectives

- Ensuring stability of domestic market. Local steel enterprises should hold market share of 70-80% after implementing AFTA/CEPT. For traditional products (coil, long), the production shall fully meet domestic demand and gradually export;
- Investing intensively current steel mills to maintain capacity, improve quality and use modern technologies in production. The investment must be considered carefully;
- Strengthening the steel industry in which VSC is essensial. Rearranging business and production system to increase competitiveness. Stopping operation enterprises producing low quality products, causing environmental pollution and bring losses;
- Gradually reducing state's protection for steel industry. Implementing open policy to attract foreign investment in both upstream and downstream. Ensuring that after the year 2000 there is no state's protection in steel industry and business production system following market mechanism is formed.

2.2.1.2 Steel demand and market projection

Due to deficient and inconsistent statistics of Viet Nam's steel industry performance and local steel used industries have no strategic forecasts, therefore an accurate projection for Viet Nam's steel industry is impossible. According to documents on demand projection of VSC (with the help from JICA), the projection of VAI and BHP completed in 1993, of NKK in 1994 and of NIPPON STEEL in 1994, we are in favor of the steel demand and market projection done by VSC with the help from JICA. This forecast was based on scientific base and suitable for practice in Viet Nam.

Table 2.1 Overall projection of Viet Nam steel market

Năm	Demand of market (ton)	Average per capital (kg/person)	Average GDP (USD/person)	Output ratio long/flat steel (%)	Product rate Expectation
1998	1,900,000	24	310	65/35	60
1999	2,090,000	26	330		
2000	2,300,000	28.2	253	61/39	65
2001	2,540,000	30.7	380		
2002	2,800,000	33.4	408		
2003	3,080,000	40	472		
2005	3,700,000	42.2	505	55/45	73
2010	5,700,000	62	740	50/50	73

Table 2.2 Market demand projection by kinds of products

Sort	2000		2005		2010	
	Volume (1000 tons)	Density (%)	Volume (1000 tons)	Density (%)	Volume (1000 tons)	Density (%)
- Total demand	2,300	100	3,700	100	5,700	100
+ Long products	1,400	4	2,040	55	2,850	50
- Round bar steel, striped steel	670	29	1,000	27	1,420	25
- Coiled steel	550	24	600	16	750	13
- Figured steel	180	8	440	12	680	12
+ Flat products	900	39	1,660	45	2,850	50
- Plate steel	180	8	260	7	450	8
- Hot rolled steel	240	10	370	10	740	13
- Cold rolled steel	160	7	330	9	570	10
- Kinds of sheet iron plated	180	8	400	11	630	11
- Blowpipe, blend figure	140	6	300	8	460	8

As such, to fulfill domestic steel demand, Viet Nam total output of final steel product must increase by 8-10% per year during 2001-2010 period.

2.2.2 Some concrete orientations of the industry

- Final steel product output (rolling steel and after rolling processed products) in 2005 will be 2.8 million tones, in 2010 be 4.5 million tones meeting 80% domestic demand;
- Equipment and technology: in this period, modern equipments with small and medium capacity, advanced technologies should be chosen and product gains international standard. Investment capital is form steel companies and foreigners. Raw steel is produced by scrap-EAF technology;
- Increases self-sufficiency supply of billet, alternates partly imported billet. This is an urgent requirement of Viet Nam's steel industry, however, we suppose that in 2001-2010 period Viet Nam mainly has to import billet for rolling. Increasing billet production capacity by projects is presented in table 2.5. These projects bases on market demand for steel estimated until 2010 and current capacity

of the industry. The second one should be given priority. Feasibility of these two projects is fairly high. They do not require huge investment capital and correspond to practice of Viet Nam. Importing billet and final products at a relatively large quality still plays decisive role;

- VSC self invests some relatively big projects (about 100 million USD) that demand for its products is high such as billet, hot and cold rolling plates;
- Stimulates foreign investment in the industry in the form of 100% foreign capital or joint venture. To achieve efficiency the industry has to plan concretely and government needs to approve the master plan. We should only invest to produce specific steels, limit investment in rolling process and production of construction steel;
- Classifies steel production enterprises in Viet Nam basing on evaluation of quality and efficiency. Increases investment in profit enterprises and closes steel mills suffering losses, low quality and old technology. Accelerates freedom in steel industry. Equitizes some enterprises of VCS;
- Allows strong corporations of Viet Nam invest in steel industry;
- In the period 2001-2010, the industry will begin form hot and cold rolling to building high furnace, basic oxygen furnace preparing for apply of synchronic technology in the next stages.

Table 2.3 Alternative for investment projects

Project	Product	2000	2005	2010
Option 1: No investment in new facilities only investment to improve current facilities	1. Long products (round, fingure, wire)	- Excess of capacity of 0.5 Mt. Need to export or operate not at full capacity - Minimum Import of 1.2 Mt. of square billet	- Operate at full capacity, fully matched domestic demand - Minimum import of 1.7 Mt. of square billet	- Minimum import of 1.6 Mt. of square billet and 1.0 Mt. of long product
Option 2: Limited investment : expansion of currents plants, small scale of new investment	1. Long products (round, shapped, and wire) 2. Flat products (hot milling and cold milling)	- No new plants - Import of 0.8 Mt.s of products	+ Production of 0.5 Mt. of square billet + Import of 1.2 Mt. of square billet, and 0.6 Mt. of soft iron and scrap. - Production of 0.8 Mt. of hot milling, 0.2 Mt. of cold milling - Import of 1.1 Mt. of flat product, and 0.65 Mt. of flat billet.	- Production of 0.5 Mt. of long product- Prodution of 1 Mt. square billet, 1.1 Mt. of soft iron. + Import of 0.5 Mt. of long product, 1.2 mt. of square billet. - Production: + 1.2 Mt. of square billet + 0.4 Mt. of cold milling steel - Import:1.7 Mt. of flat product; 1.3 Mt. of flat billet.

2.3 policy research for steel industry

2.3.1 Protection policy selection for domestic steel production

Domestic steel production is now strongly protected by state (level 4). State is imposing high tax on steel and steel product import. Non-tariff tools are used up. The current existence of prohibition of products that are produced sufficiently in Viet Nam, quota limitations and import control of products that are produced insufficiently... need to be eliminated early.

When determine tax reduction schedule to commodity following AFTA/CEPT, Products can be divided into three groups with different levels of tax reduction.

Group 1: the group with export advantages. Taxes imposed on these commodities will be cut down soon. They include agricultural products (rice, coffee, and tea), fishery products, textile and garment and rubber.

Group 2: the group that can compete with import commodities in the future. Tax reduction schedule of this group will be later and slower. They include vegetables, food, milk, electronic, machinery product, ship, chemical products (fertilizer, pesticide, processed rubber, tire, cosmetics and detergent) and cement.

Group 3: the group with low competitiveness. Tax reduction schedule for this group is slowest. The state's protection level still relatively high. These commodities consist of natural minerals and mental, paper product and sugar.

This classification is aimed to reach an appropriate tax reduction schedule and have corresponding measures to either facilitate export or protect local production.

As presented above, Viet Nam's metallurgy industry, in which steel is the most important, has a weak competitiveness.

Compares to other ASEAN countries, generally, steel industries in these countries do not really develop, it has the same price as Viet Nam's, over 400 USD per ton, so that it is difficult for them to compete against steel production of some countries such as Russia, Ukraine, South Korea... Currently, most of steel products from ASEAN are with low tax rate and classified into the group 1, except Indonesia and Malaysia where some thin non-alloy rolling steels follow CEPT slowest.

Bases on production situation and competitiveness of the industry and practical CEPT implementation of ASEAN countries, Tax reduction schedule of Viet Nam for steel products is planned with slowest cut down steps, especially such products out of the temporarily exceptional list.

Iron, billet, stainless steel, technical steel and specific steel (most of them have low tax rate, and cannot be produced domestically and play as inputs of other industries) are put into reduction list. Now most of them have a tax rate of 0% so in practice there are only about ten commodities with a higher tax rate need to be cut down since 1998 according to the schedule announced by Viet Nam government.

Tax reduction schedule:

2000	2001	2002	2003
15%	10%	10%	5%

Steels for construction, shape, small sized steel products... with a fairly high tax rate, are now produced domestically and controlled by import quota, are taken into temporarily exceptional list. The schedule of some particular commodities is given below.

	2002	2003	2004	2005	2006
- Constructive and figured steel		30%	20%	10%	5%
- Other plate steel	20%	20%	15%	10%	5%
- Roofed sheet	25%	20%	20%	10%	5%

Some restrict protections for steel industry need to be reduced rapidly. Viet Nam's steel industry cannot be working under non-tariff barriers. Quota and import source controls need to be eliminated. State should strengthen quality standard management; implement strict control over the market to prevent low quality products; accelerate competition within the industry to abolish sluggishness. Although it is being highly protected and have a slow tax reduction schedule, steel industry's investment trend and its structure transition need to be carried out as soon as possible avoiding passive cases at the last time. State's protection for steel industry, in our opinion, should not be extended over the year 2006.

2.3.2 Investment policy selection

Investment plays a vital role for the development of the steel industry. In order to use the capital effectively we need in-time and suitable policies and solutions.

Investment is an action for the future. In other words, investment only brings us results after we finished the investment. It is difficult to find soon the mistakes that we made during the investment process, the these result in a lot of bad consequences for a long time and take us too long to dealt with. Therefore, having a long-term policy for investment is very important. The mistakes that we make in building investment structure in the period 1976-1980 had negative impacts on the development process for many years. The innovation of investment in steel industry, which should be paid special attention from the leadership, has created a plentiful of good changes in the recent years.

The investment projects that need huge capital during 1976-1989 and then were basically completed, and currently we are in good condition for building an investment plan until the year 2010 and afterwards. At present, there are many changes both domestically and over the world so that we have to have visionary plans to outline long-term suitable investment policies in the transition process. Hence, investment policies need to be considered in many aspects.

Referring to capital sources, we have domestic capital, including that from state budget, from state-owned enterprises, from private enterprises and from people. Foreign capital includes official capital of foreign governmental and international organizations, capital of non-government organizations and

Vietnamese abroad.

Referring to capital distribution, we need to assign the capital according to economic industries helping to form modern economic structure and promoting the economic transition in favor of industrialization and modernization.

To fulfil above requirements we need to have specific mechanism and policies in mobilizing capital, organizing and managing investment capital, and in creating capital market and its related policies.

a. *Policy for domestic capital mobilization*

For investment of enterprises, enterprises that belongs to any economic sectors are all equal in business, and in re-creating capital for the development, apart from limited fields relating to security, national defense and some other special public welfare. Enterprises that operate in the same economic field all have to pay tax in the same way and have right to implement expansive reproduction.

Persistently stop any subsidies in any form such as price subsidy, tax reduction, low interest borrowing and so on.

For capital accumulation of people, in order to exploit and utilize effectively capital of people the state need to encourage any classes of people to carry out any business-production activities, consume reasonably, increase saving for investment.

The state needs to protect private capital, through which create favorable climate for people not only self-invest, (if they have ability and expectation) but also save and contribute to social capital sources. Building rapidly monetary and capital markets, at the same time, reforming baking and financial system. It's also the basic method to stimulate people to enrich themselves legally.

It is possible to say that if the capital of people and enterprises is mobilized and used effectively it will play very important role in economic development.

b. *Policy for foreign capital mobilization*

In building and developing steel industry of the country, besides the use of domestic capital it is also important that the state needs to have proper policy to exploit and mobilize foreign capital, from official sources of both government and non-government organizations. They mainly include the following sources:

Official Development Assistance (ODA). This is the non-refunded or low interest capital sources by foreign countries and international financial organizations. These sources are added to the state budget and state can use directly to invest or lend.

We need to have different policies to different countries and international financial organizations in mobilizing such huge capital sources, which may amount to a bill. USD per year or higher. In doing so we have to base on investment plans, construct the list of favorable investment projects and programs calling the capital from ODA agencies according to international practice.

We need to have different policies to different countries and international financial organizations to

mobilize the capital complying with their policies in the framework of Viet Nam's manner and policy. We also need to have effective policy for foreign debt management ensuring that the borrowing and paying ability is suitable to the country.

Foreign Direct Investment (FDI). This is a relative huge source. In the coming time, this source is perhaps much larger than that of ODA.

In the context that we still lack experience in international business, we need strengthen the mobilization of FDI capital. Because, on the one hand, like ODA capital, FDI capital generally helps implement technology transfer process, technical and professional training and create stable market. On the other hand, FDI capital is connected closely to the responsibility of preserving and developing capital that will reduce the debt burden of Viet Nam. The state needs to stop subsidies for the investment of enterprises. These enterprises must themselves pay both interest and principle from their own profit.

Capital form oversea Vietnamese. Vietnamese living abroad generally do not have much money, however they may be an intermediary bridge for attracting foreign capital, and in some cases they may contribute to invest into Viet Nam. The state needs to have stimulative policy to expand this source. In any case, state needs to have overall policy to mobilize every capital sources for socio -economic development.

c. *Policy for using capital*

Capital from state budget. Budget capital is derived from the domestic accumulation and foreign capital, mainly ODA capital. Budget capital needs to be used properly and effectively to promote socio-economic development.

Budget capital is also used to develop public constructions, steel industry projects, which are very important for the economy that private enterprises are not able to invest. Heavy industry construction projects will contribute to promote economic transition in favor of industrialization. These constructions need to be considered carefully and must be implemented mainly or fully by state budget. Budget capital should also be pourer in infrastructure projects, export-processed and special economic zones.

Additionally, budget capital is also used for lending, mainly from ODA capital to encourage investment in high effective and short payback-period projects to pay foreign debts. We need stop using budget capital to Subsidy state-owned enterprises that are operating ineffectively.

Foreign investment capital. The FDI capital, which is invested in Viet Nam according to foreign investment law of Viet Nam, is very important. We need to control socio -economic efficiency and environment of these projects.

In the future, we need to control the efficiency of projects that were granted investment license ensuring that the actual and projected results are the same and we also need to have adjustments, if necessary, to projects that were licensed but ran ineffectively.

State should encourage private foreigners to invest in some sectors on which the country focuses.

Capital of oversea Vietnamese. We should have policy to stimulate the investment of Vietnamese living abroad in domestic and joint venture projects. Creating favorable conditions for oversea Vietnamese re-invest and draw profits according to the law.

Capital of enterprises firstly should be used to re-invest, increase effectiveness and expand business production, create job for labor.

Public and private enterprises are encouraged to corporate with each other to form enterprises in many forms of possession.

State needs to build the plan for the development of state-owned enterprises, through which formulates stipulations on equitization. State also needs to identify clearly the list of enterprises that will be reshuffled.

Private sector is encouraged to develop in some fields that do not conflict with the law. Putting aside a part of income to invest directly or contribute to construct domestic capital market.

State needs to have policy to encourage production and saving, increase saving proportion to develop economy. Building investment plans to gain the highest efficiency. These plans are not the same with that in the centrally- planned mechanism before. They are merely oriented to create favorable condition for every investors and suitable to socio-economic policy of the country in each period.

State's investment in steel industry in both short term and long term is necessary, however this investment should focus on transition trend to increase competitiveness of the industry. State should endow capital (billions of USD) into big projects with modern technology (after 2010).

In the period 2001-2010 investment will be carried out in depth, broad investment will be limited. These investments in both local and joint venture enterprises should be considered carefully in favor of specific steel production with small and medium scale, not in favor of rolling process and steel for construction because now its supply exceeds demand. Besides, efficiency, billet import ability should also be taken into account. In our opinion, importing billet for rolling and buying a part of materials from abroad is efficient and feasible.

State should pay attention to scientific research activities to develop steel industry in the future. This is a program of the state. We need research, assess entire natural material provided for steel industry, steel technology advancement in the world and put steel industry in the economy as a whole not in VCS's opinions... relying on these bases to early draw plan and implement investment in the industry in the future.

State should subsidize a proportion of power price as an investment for steel industry.

In the last years, state had a strong support for VSC. In 1999, the total business capital of VSC at the end of financial year is 1,410,393 billion VND, out of which 1,040,068 granted by state budget. In fact,

VSC had minimized financial problems owing to state's support. This should be reviewed. State should only support efficiently operating enterprises of VSC and help to relieve social consequences caused by bankruptcy of some enterprises. State cannot always "feed" VSC. Financial supported policy of state in the next few years will also focus on private firms if they are working effectively and comply with state orientations. Enterprises producing steel for export and import substitute should be given priority.

2.3.3 Non-tariff policy

Combining tax reduction with non-tariff barrier elimination flexibly and properly in order to maintains the protection for domestic production in necessary cases.

Simultaneously, we need to build and complete an effective non-tariff system that must be suitable with and accepted by international practice. This will create a proper protection for domestic producers while we have to reduce tax barriers.

Currently, our non-tariff barriers are very simple, mainly including license and quota. We are in short of systematically technical, quality controls like in other countries, especially; such protections are not oriented in favor of domestic production.

Given below are some orientations of Viet Nam's non-tariff policy system when Viet Nam takes part in commercially economic cooperation with ASEAN and APEC.

Firstly, these policies have to guarantee the following targets:

- Make it favorable for the development of Viet Nam's trade, increase the foreign trade turnover and budget revenue;
- Protect properly domestic production, encourage the innovation of technology, and strengthen goods competitiveness in the world market;
- Promote the integration of Viet Nam into world trade and the implementation of the party's reform policy;

The building of non-tariff policy system, at the same time, has to follow principles below;

- Non-tariff methods applied must be suitable with international practice that were specified by WTO;
- They must also follow specific stipulations by ASEAN and APEC;
- Non-tariff system must be strong enough to protect domestic infant production as well as facilitate enterprises to reform, strengthen competitiveness in the world market;
- Although commercial profit is the major target, but we also have to have close and suitable combinations between tariff measures with non-tariff ones, between free trade as designed by CEPT with domestic production protection for interests of the nation;
- The non-tariff system must guarantee an exit if domestic trade is threatened by international competition;
- Viet Nam's tariff measures should be oriented to promote free trade, increasingly eliminate

trade obstacles according to the development level of the economy, create favorable conditions for the development of trade.

In order to apply non-tariff policies effectively following targets and principles mentioned above simultaneously suitable with domestic production protection we need to identify clearly the list of commodities for protection and classify them in different protection degrees. The identification of the list must be based on both qualitative and quantitative analyses of domestic demand and supply, competitiveness of domestic goods and the changes in the world market.

Although current condition does not allow us to implement a profound research, however base on the practice in Viet Nam and other ASEAN countries, in the short term, we can plan to classify the commodities for protection of Viet Nam as follows:

- Level 1(highest): the commodities in the sensitive list
- Level 2: the commodities that are very important to the economy such as automobile, motor, fertilizer, pesticide, cement, iron and steel...
- Level 3: the commodities that can be produced domestically

The protection for the commodities out of the protection list above need to be alleviated soon and free trade should be implemented.

Viet Nam's non-tariff policy system first can be built in 4 major groups based on rearrangement of old non-tariff measures and creating of some new measures suitable with stipulations of WTO:

Group 1: Common non-tariff measures in the framework of WTO:

- Automatic and non-automatic import license
- Quota: According to WTO, including quantity quota, quantity and tax combined quota and quantity and special license combined quota.
- Checking before goods are on board
- Origin principle
- Antagonistic tax
- Anti-dumping measures
- Prevention methods

Group 2: Technical measures:

- Technical standard regulations
- Quality regulations
- hygiene verification
- Sanitation protection

Group 3: Administrative measures: include other current import-export regulations of our country such as import-export origin, state-owned enterprises... that are not put in group 1 or 2 as stipulated by WTO

Group 4: Other macroeconomic policies that have indirect impacts on export and import such as: exchange rate mechanism, payment, interests rate, banking credit, investment policy...

If we follow tariff and non-tariff measures regulated by CEPT we have to reduce non-tariff barriers after finishing our non-tariff system. This needs to be done urgently because it will take a long time and require the cooperation of many related ministries and industries.

After completing the non-tariff policy system, we start to eliminate non-tariff barriers. This process will be carried out closely with tariff reduction based on three above-analyzed levels and can be as following steps:

- Step 1: begin with the reduction of administrative procedure
- Step 2: reduce common non-tariff measures
- Step 3: promote to apply technical measures and other invisibly indirect protection measures.

Apart from measures in tax reduction schedule and financial support, the elimination of limitations of import quantity and non-tariff barriers is also very important under integration process into APEC and WTO.

The elimination of import quantity of some commodities following CEPT should be abolished early in order to get preference from other member countries.

Other non-tariff barriers should be step by step eliminated under integration Process

Building quality standard manual of steel industry corresponding to international regulations and publishing quality management policy for easy implementation of enterprises.

2.4 Integrated steel mill building

In our opinion, it is now too soon to affirm whether or not to build integrated steel mill in Viet Nam. We can only affirm that the building of the integrated steel mill in the period 2001-2010 is impossible.

To build integrated steel complex, we need meet restrictive conditions and have full scientific ground. The period 2001-2010 should be the time for pre-feasibility. We will only be able to make final decisions after 2006, at that time the impact of regional integration will fully come into effect. Integrated mill can only be built when there is a sufficient market demand (about 9 million tones per year) and an availability of necessary material, power, water source and proper location. According to us, the building of integrated mill should be considered after 2010, maybe from 2013-2016.

2.5 Solutions to increasing business effectiveness of Viet Nam's steel companies

2.5.1 market development

In the past years, market development has been paid much attention, currently the market of companies includes: local market is divided into three areas: the Central, the North and the South; foreign market is Laos, Cambodia, Taiwan, Hongkong and so on. However, under the international integration, our

companies will have to face with severe competition from export products so that companies should pay special attention to the market development. This task may follow below directions:

2.5.1.1 Strengthening traditional markets

The traditional markets of Viet Nam's steel companies are in the north, the central and in the south. The companies continue to maintain and occupy these markets, exploit these markets in depth, control capacity and structure of the markets, fluctuations of the demand for construction materials, and take care of socio-economic development strategies of the state and regions.

Maintain and expand the markets via cooperation with construction material industries in supplying and consigning goods in order to increase consumption and, at the same time, introduce product trademarks in provinces. Strengthen prestige and keep the cooperation in the long term.

In doing so, the companies need:

- Increasing the quality of products and services for traditional consumers, the companies always have to guarantee the quality of products and services;
- Create favorable conditions and give priority in payment to traditional consumers, the companies should permit these clients to defer payment in a given period;
- Develop some new products and diversify products
- Favor in price to some regular consumers

2.5.1.2 Expanding to potential markets

At present, owing to the increasing of technical science and living standard the demand for steel is on the rise, it is estimated that until 2010 the steel amount demanded of the country will reach to 7.5 mill tons per year. Therefore, steel companies are required to invest in production so as to meet the demand of the market.

In order to penetrate in all local markets and export we need to have a system of synchronous measures: such as product orientation, quality, quantity, promote marketing, organize proper selling channels, expand the network in populous areas to make favorable condition and meet the demand in time, implement after-sale service. These are important measures in the integration of the companies.

2.5.1.3 Promoting market research

Market research is a compulsory task of all businesses. It is prerequisite to penetrate market of companies. To get the success in business the first thing that all enterprises have to do is to perceive fully and exactly what are related both directly and indirectly to the market demand, preference and purchasing power. These activities will help identify vital markets and determine potentials of markets that are not fully exploited yet.

In the recent years, with the reform of the country a lot of metal business enterprises of Viet Nam General Steel Corporation and some private firms do metal business. The demand for construction is

increasing. Hence the companies are required to be able to estimate the demand throughout market research.

A team that specialize in market research needs to be formed in each company. We need to have a market research staff team with high professional knowledge to outline suitable production and business plans increasing the efficiency. This team will help leadership build and carry out production and business plans more effectively. The information reported must fulfill the requirements: rapidly and exactly. In business now we can only project exactly market demand and its fluctuations to determine clearly: what to produce, how much to produce and how to export if we receive and process information timely.

Market research includes observation, analysis, projection of market fluctuations and other changes that may have impact on the companies' market.

Through market research the companies will build measures to increase quality of products and set reasonable price.

2.5.2 Improving sale network and sale method

2.5.2.1 Improving sale network

The improvement of sale network is very important so that companies should have some following measures:

- Strengthen current sale network: companies should upgrade their stores, selling places to attract consumers, increase the number of consumers and opportunity of selling. Companies need to build investment plan for vital stores.
- Reassess the operation effectiveness of stores, create good condition to concentrate capital, amount of goods for profitable stores and also have supports for loss stores or dismiss them in necessary cases.
- Create new selling places: companies need to open more selling places both locally and abroad.
- Reinforce the rights of stores: in the past time these stores have proved their role in the market and help the companies carry out well production and business. However, to full play the capacity of stores Viet Nam's steel company need to allow them to expand suitable business in the market

2.5.2.2 Improving sale method

In the past years, sale methods that applied by companies are very abundant, however the structure is still not suitable. In the coming time, the structure should be changed. The companies should continue to increase wholesale to raise the revenue and create the close relationship with their consumers. Wholesales that are not through storehouse should be encouraged because this method helps companies reduce the costs, gain higher profit and quicken the capital circulation. To promote this method is not easy for unusual demand is relatively huge and it can be met in many ways.

Develop agents, especially agents for foreigners, to increase revenue and create more jobs for

workers. Increasing selling agents to foreigners to get more hard currencies to help import activities of the companies. This method only cost companies preservation and carriage fees. When goods are sold the companies check the revenue so they do not need capital for buying goods. Besides wholesale the companies need to strengthen direct sale.

Diversify sale methods to serve the demand of any consumers, apply and develop a wide range of sale method in order to meet the new business conditions. Using marketing tools for sale promotion.

Companies need to maintain and develop relations with other agencies that usually buy their products with a large amount. Companies should sign consumption contracts with such consumers to stabilize the sale and increase their prestige. Economic contracts are the way to achieve business targets safely hence they should be accelerated in selling products.

For new markets, companies have to have proper penetration strategies, because these are places that companies can open the relations with other new consumers. Therefore, companies should attempt to collect and analyze information of fluctuations in the market in order to find business opportunities suitable with the potential of the companies.

2.5.3 Applying flexible price policy

In current period, when steel supply exceeds, applying flexible price is very crucial for steel companies to attract consumers and increase revenue.

Base on production cost, demand and supply, market price and competitiveness of the rivals the companies usually have to adjust price to encourage clients to buy their products ensuring high profit. Price is a factor of competition. It plays a vital role in business. Therefore, setting price is very important. Companies should have specific policy to each kind of product, receive quickly information of price changes in the market to adjust in time. Additionally, companies should also have price policy for each region to strengthen the competitiveness of the company and gain the highest possible profit.

For payment methods, companies should allow deferred payment and accept payment in any form cash, cheque...

2.5.4 Well organizing services in business

Well organize services in business to attract clients

- *Carriage service*: one of the characteristics of steel product is long and bulky, therefore the transportation is very difficult. To do the best service the companies should carry goods to hands of consumers. If consumers are near the stores the companies should bear the cost of transportation, if not, the companies should charge the cost reasonably. For foreign clients, there need to be proper agreement on transportation method and other regulations;
- *Organizing advertisements*: Advertisement is a tool to promote sale, advertisement has an important impact on consumers. It helps consumers improve their knowledge of the products, and improve the image of the products. The demand for steel products in increasing, therefore

advertisement is very important. To compete against foreign products companies have to organize advertisement activities well not only domestically but also internationally. Companies can do advertisements internationally in two directions: standardization and regionalization. Advertisements should include measures against rivals to penetrate the market by similar products;

- *Fair, purchase encouragement:* Steel companies should expose their products in fair and encourage purchase to excite consumers' demand;
- *Sale promotion: Companies can promote sale in three ways:* to introduce new products, to increase consumption of the products and to attract directly consumers at detail sale places.

2.5.5 Increasing international integration

International integration is necessary for Viet Nam's steel companies in the context of increasing economic regionalization and globalization. This international process has positive effects on the development of the companies. It will create open relationship between Viet Nam's steel industry and that of the world. It is a chance for Viet Nam's steel industry to catch up with that of the world, to find new consumers and to make a stable stand in the world market.

Besides opportunities, the international integration also brings Viet Nam's steel companies a lot of difficulties and obstacles due to low starting point of our industry as compared to that of developed countries in the region; Viet Nam economy is developing slowly and facing many difficulties and challenges in the international integration; a lot of resources are not ready to exploit, the competitiveness in the world market is weak. Therefore companies have to prepare for this integration.

- The steel industry have to increase competitiveness against import steel when the import tax is reduced to 5% and non-tariff barriers are eliminated.
- New factories have to meet international standard on productivity and other technical criteria to dominate local market and export.

Chapter 3 Textile and Garment

3 – 1

Viet Nam's Textile and Garment Industry Development

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1. Characteristics of textile and garment industry

- The final products of the textile and garment industry are garments, a kind of essential consumer goods whose importance for human being ranks just after that of human demand for food. This demand will increase progressively alongside the increase in people's income. Frequent changes are seen in the products of this industry and their colours and designs become increasingly diverse as a consequence of external influences. These products are required to meet different demands of human being, such as travel wear, formal wear, worker's protective clothes, casual wear and so on. The higher are the people's living standards, the more varied are the demands for the products and the greater is the need for their production. Production that meets the market demand for small lots and shortened period of time from production to market is the current trend of the textile and garment industry.

- Scientific and technological progress also has a strong impact on the production and consumption of textiles and garments. As a result of the information and communications technology development, new fashions and models can be spread very quickly; it can take only one day for a new fashionable design introduced in United States to be found in Hongkong and Taiwan, etc. Therefore, the key to improve the competitiveness of garments is their frequent close link with the market and their ability to meet the rapidly changing market demand for consumption. The industry's production must be dynamic enough to catch up with market demands so that the products can be able to compete in the market.

- The textile and garment industry is characterised by upstream and downstream linkages as follows:

Materials ---> Spinning ---> Fabric weaving ---> Printing and dying ---> Sewing

The downstream segments such as materials production (cotton planting, production of artificial and synthetic fiber (filament) and spinning often require a certain production size and large investments. The upstream segments can be of small and medium size; particularly, the initial capital investment required to create one job in the sewing segment is just around USD 1,000. Fabric dying and finishing segment is also an important one that is required to ensure good quality and proper colours of the fabric to serve as an input to sewing segment and to diversify products. The application of new technologies in downstream segments has become

more common, such as creation of new raw materials and materials, and automation that aims to improve quality and productivity. New technologies have also been applied to sewing segment, e.g. introduction of information technology into marketing, designing and so on. However, as much as 80% of the work in the components assembling (sewing) segment, which is labour intensive, requires much manual labour. This industry is therefore a labour intensive one whose comparative advantage belongs to the countries that have abundant and cheap labour. In addition, another advantage of this industry is that production can be organised in small- and medium-sized enterprises, and even on a household scale.

The vertical linkage in the industry from materials to final products, which are garments, is not necessarily developed in a close manner like the "self-sufficiency" model. Cotton can be imported to produce yarns, yarns can be imported to produce fabric, or fabric can be imported to produce garments, depending on expected economic efficiency. However, if a good linkage among different segments can be created, costs can be reduced substantially, more jobs can be created, and especially the ability to take initiatives in export production can be created, thereby improving the economy's value added.

- Textile and garment industry is a labour intensive industry whose technical requirements, particularly in the garment sector, are not high. From the experience of other countries, this industry occupies an important position during the early stage of a country's industrialisation. And the wave of the industry's development is shifting from high labour cost to low labour cost countries like Viet Nam at present.
- A characteristics of the industry that should be further emphasised is that production can be organised on small and medium scale, creating subcontract-based networks.
- Another characstics of the industry that should be further emphasised is production can be organised on small and medium scale, forming up subcontract-based processing. Moreover, household-based production or production following the street industry model can even be organised of strict quality control can be ensured. Such production scale facilitates job creation and mobilisation of funds among the population. Combination of different production scales, i.e. large, medium and small, can be made.
- This industry also affects the development of supporting production network such as production of components, auxiliary materials like sewing thread, buttons, fasteners, packages and so on. This enable the creation of trades and jobs for the people living in the areas surrounding factories.

2. Textile and garment market in recent years

Export performance

Since the adoption of the Vietnamese Government's renovation policies, the value of exported textiles and garments has kept increasing rapidly despite of the collapse of the former Soviet Union and Eastern European markets. Export value increased from over USD 100 million in 1990 to USD 1.5 billion in 1999.

Textiles and garments export value

(in million USD)

Year	Textiles	Garments	Textiles and garments	Share in total export value (%)
1990	27.8	90.7	118.5	7.9
1991	29.4	142.9	172.3	9.9
1992	39.6	357.2	396.8	15.6
1993	61.7	521.6	582.7	17.8
1994	107.8	691.6	799.4	17.8
1995	147.8	878.8	1,026.6	18.2
1996	175.5	1,162.7	1,338.2	19.8
1997*	171.0	1,332.0	1,503.0	16.4
1998*			1,450.0	15.5
1999*			1,500.0	15.0

Source: Report on "Vietnam's Textile and Garment Industry - Successes and Future Challenges" prepared by Hal Hill, 1998

** Statistical Yearbook, General Statistical Office, 1999*

The textile and garment industry has become the largest exporting industry among the top ten exporting industries whose export value exceeds USD 100 million.

Products with high export value are shown in the following table:

Unit: million USD

	Export items	1997	1998	1999
1	Crude oil	1426	1239	1860
2	Textiles and garments	1503	1450	1500
3	Shoes and sandals	965	1031	1350
4	Rice	891	1100	1020
5	Fisheries	781	858	950
6	Coffee	502	594	585
7	Rubber	191	127	114
8	Cashew nuts	133	117	132
9	Handicrafts and fine art articles	121	110	120
10	Coal	110	102	96

Source: Ministry of Planning and Investment

A majority of exported garments is produced on a subcontract basis in which the foreign buyer/order maker supplies the local producer with imported fabric and auxiliary materials needed for garment production and then buy the final products. There are cases where the buyer even supplies the local producer with equipment required for garment production and then gets the final products as a payment for the equipment. This way of doing business is appropriate at the initial stage when the Vietnamese garment producers and exporters are still in lack of the knowledge of international markets. However, the value added that can be created from that kind of business is low and the production and business operations of local producers depend greatly on foreign orders.

Following are some analyses of Viet Nam's textiles and garments export and import performance.

Net trade value

From the difference between the value of export and that of import of the entire textile and garment industry, it is clear that the industry has a relatively large net textiles import surplus. Viet Nam's net trading ratio (NTR) has been high and relatively consistent for a long period:

Net trading ratio in Viet Nam's textile and garment industry

	Textiles		Garments		Textiles and Garments	
	NET X (mill. USD)	NTR (%)	NET X (mill. USD)	NTR (%)	NET X (mill. USD)	NTR (%)
1990	-107.4	-60	84.9	0.88	-22.5	-0.09
1991	-154.2	-0.72	136.3	0.89	17.9	0.05
1992	-292.3	-0.79	334.8	0.88	42.5	0.06
1993	-491.1	-0.80	491.0	0.89	-0.1	0.00
1994	-599.9	-0.74	649.7	0.89	49.8	0.03
1995	-843.4	-0.74	828.1	0.89	-15.3	-0.01
1996	-100.7	-0.74	1104.0	0.90	96.7	0.04
1997*	-855.0	-0.78	936.0	0.51	79.0	0.03

Note: NET X = X-M (exports minus imports)

NTR = X-M/X+M

Source: Hal Hill

* *The author's calculations are made with data from the Report on Export and Import Performance produced by General Statistical Office.*

The above table shows that the garment industry tends to export more than the textile industry. However, the value of garments illegally imported from China has not been estimated and included in the garment industry's import value. Viet Nam's textile industry has become a net importer because a bulk of materials and fabric required for contract-based garment production are imported.

Compared to some countries in the region, the share of Viet Nam's textiles and garments export in the total export value is low, reflecting limited local supply ability. A problem that should be addressed is the renovation of the textile and garment industry's production structure so as to improve the its efficiency.

Unit export price

Data on unit export price serves as an indicator for export products' quality comparison. Although the data are in a simple, unprocessed form and their quality depends much on the accuracy of records and observations over products that are very inhomogeneous, the author of the study entitled "Textile and Garment Industry in Viet Nam: Successes and Future Challenges", Hal Hill, shows some data to compare Viet Nam's textile and garment unit export price with that of several countries in the region. These comparisons show that Viet Nam's textile and garment industry has a much lower unit export price compared to other countries. This also implies that Viet Nam's textile and garment industry still relies on

exporting low value-added products. If the industry is able to diversify into products of higher quality and value-added, its export value would increase while its production costs decrease, and export efficiency would be improved. A survey conducted by Thormton in 1998 shows that the production cost in this industry can be reduced by 25% or more. The renovation required does not simply cover the product mix, but also an improvement of quality control, products delivery and so on, thereby bringing about higher prices that customers are willing to pay for.

Unit price for selected garment exports

cross-country comparison (Viet Nam = 100)

SITC		Viet Nam	Indonesia	Thailand
8412				
	1995	100	191	471
	1996	100	128	218
8413				
	1995	100	185	176
	1996	100	259	243
8414				
	1995	100	105	120
	1996	100	100	119
8415				
	1995	100	148	144
	1996	100	157	144

Source: Hal Hill, calculations based on UN data (by dividing export value by export quantity)

This is a useful reference for Viet Nam. The past experience of East Asian countries in this regards is one of shifting from low value added products to high value added ones with an aim to break protection barriers of Western countries in the form of quota-based quantitative restrictions and consequently increase their export value.

Markets for Viet Nam's textile and garment exports

- Among the quota-bound markets, EU is a large market for Viet Nam's garment exports. On the average, the value of garment exports grew at more than 16 percent per annum over the past years.

Value of textile and garment exports to EU

(in million USD)

Year	Textiles	Garments
1993	4.5	245
1994	12.8	285
1995	5.0	350
1996	8.0	420
1997	6.0	450

Source: Viet Nam General Customs Department

However, what calls for attention is the fact that approximately 70 percent (in value) of textiles and garments exported to EU go through intermediaries like Hongkong, Taiwan, Republic of Korea, and Germany. This leads to the question of how to create a direct access to markets for our exports so that our products can be sold directly to the buyer without going through intermediate order makers, thereby reducing our dependence on them and at the same time improving our export efficiency.

A majority of garments exported to EU markets are those that can be easily produced (such as jackets and shirts). Very few enterprises are able to produce high value added products that require higher skills and techniques such as suits or high quality shirts. Consequently, even quotas are available for many items of that type, no enterprises are able to produce for export.

- For a number of markets for which quotas are not imposed such as Japan, Taiwan, Singapore, Russia and so on, Viet Nam's annual export value has been in creasing rapidly. Japan is a big market and the value Viet Nam's textile and garment exports to Japan accounts for as much as 46.3 percent of its total value of textile and garment exports. However, the share of Viet Nam's textiles and garments exported to Japan accounted for merely 3 percent of the total value of the latter's textile and garment imports.
- U.S and North American markets. These are also major markets for imported textiles and garments. From 1993 to date, the value of Viet Nam's textile and garment exports to the U.S has increased rapidly.

Viet Nam's textile and garment exports to the U.S

(In million USD)

	1994	**1995**	**1996**
- Garments	2.45	15.08	20.0
- Knitted wear	0.1	1.7	3.59

In the absence of the Viet Nam - U.S bilateral trade agreement, Viet Nam's textile and garment exports to the U.S were subject to high tariff rates. However, this is an important initial step for Viet Nam to access the U.S market, and to understand the laws and trading practices of a new market full of promise.

Many people are optimistic about the possibility to export textiles and garments to the U.S market after the conclusion of the Viet Nam - U.S bilateral trade agreement. However, many remaining impediments to Viet Nam's textile and garment exports to the U.S, such as regulations on quota and origin, should be taken into consideration in this regard. In addition, the competition between Viet Nam and other countries in the region, especially China, and countries which have border with the U.S like Mexico should also be taken into consideration.

Quotes from Sai Gon Economic Review Issue No 30 dated July 20, 2000

Mr. Le Quoc An, President of the Board of Directors of Viet Nam Textile and Garment General Corporation (Vinatex), believes that within three or four years from the time when two countries granted normal trading regulation (NTR) to each other, Viet Nam's textile and garment industry will be fully able to reach an export value of one billion USD to the US market. He said, "At present, although the tariff rates imposed on Viet Nam's textiles and garments exported to the U.S are two to three times higher than those imposed on products from other countries, Viet Nam is still able to reach an export value of USD 70 million for these products in 1999. Once the tariff rates are reduced, the export value will certainly increase rapidly." >From the experience of Cambodia, only two years after the NTR was exchanged between the two countries, the value of textiles and garments exported from Cambodia to the U.S increased from zero to as much as USD 600 million in 1999. Mr. An confirmed that " Viet Nam's capacity for textile and garment production is greater than that of Cambodia and therefore there will be more opportunities for our country. "

Competition from Chinese textile and garment industry is the greatest competitive challenge for Viet Nam's counterpart. More in-depth studies are required to make comparison of direct costs and efficiency of textiles and garments between China and Viet Nam. Some comparisons have been made between Chinese textile and garment industry and that of Viet Nam in several aspects. Following is one of them for readers' reference:

First, the Chinese textile and garment industry has a longer history than that of Viet Nam and the country started their export-oriented industry development at least a decade before Viet Nam did.

Second, after the normalisation of the Chinese and U.S relationship was made and as a result of international diplomatic and trade relations, China was able to negotiate with the U.S for a substantial increase in the quotas for its exports to the U.S during the 80s, making the country's quota-based quantity exceed any of that of other East Asian textile and garment exporting countries.

Thirdly, China enjoys special advantages resulting from the presence of Hongkong and, to a certain extent, Taiwan. China is able to inherit the quotas for textiles and garments left by these countries due to their loss of labour comparative advantage (increased labour cost). The textile and garment exporting enterprises in Hongkong and Taiwan has an incomparably high level as regards international textile and garment markets, including customs procedures and fashion demand. They are also able to transfer know-how to highly competitive enterprises in China, especially those located in the Southern coastal areas.

Fourthly, unlike Viet Nam, China's competitiveness benefited from its devaluation in 1994. This advantage and the country's low inflation rates resulted in considerable reduction of local costs as well as local prices compared to the international prices.

Finally, business costs seem to be lower in China than in Viet Nam while the two countries have about the same wage level. In addition, the charges to utilities and the tax rates in China are generally lower.

The positive aspects of the competition between Viet Nam and China should be taken into consideration. To some extent, this competition would encourage the development of the Vietnamese textile and garment enterprises in an efficient manner. The Chinese textile industry is taking strong steps in an effort to restructure itself and their experience should be looked at.

Quotes from Textile and Garment Journal

Chinese Textile Industry - Restructuring Measures for Integration

..... In 1997, although the textile industry achieved remarkable results, it also revealed several problems as follows:

state-owned enterprises still operated with losses though the total loss was reduced by 2.2 billion yuan compared to that in 1996. The number of loss-making SOEs accounted for 51% of the total number of SOEs and the ratio between assets and liabilities increased to 76%. The key components of the textile industry were in a difficult situation. Statistics show that the cotton sub-sector incurred a loss of 1.3 billion yuan in 1997, a reduction of 810 million yuan compared to that in 1996. The capacity utilisation in the dying and printing sub-sector was as low as 50 percent and only one third of their production plan was fulfilled. This sub-sector incurred a loss of 380 million yuan which is similar to that in 1996. The number of loss-making SOEs accounted for 68 percent of the total SOES in this sub-sector, one third greater compared to that in 1996.

The domestic market is seriously affected by the competition from imported fibers. This sub-sector

used to be one of the profit-making sub-sectors of the industry, but has weaken in recent years and met with many problems regarding product mix, production technology, and a management style that leads to its less competitiveness compared to China's foreign competitors, especially the neighbouring countries and other countries in the region whose artificial fiber sub-sector is growing rapidly. These countries take advantage of currency depreciation to devaluate their fiber prices in the Chinese market. At present, one third of Chinese artificial fiber are loss-making, another one third are operating at the break-even point, and the remaining one third are making little profit.

..... The textile industry has developed a plan for a period up to the year 2000 to remove 10 million obsolete spindles and accelerate the process of reorganising the facilities and assets of SOEs, reforming their personnel through merging, buying and forcing loss-making enterprises to go bankrupt, and improving SOEs' efficiency by shedding workers and at the same time providing jobs to redundant workers.

In order to see major changes in the industry, at the end of 1997, the Government ministries and agencies concerned developed a programme consisting of strengthening measures as mentioned below:

1. *To encourage the removal of obsolete spindles, the Government will provide a 3 million yuan grant aid and a 2 million yuan soft loan to every removal of 10 thousand spindles. The grand aid will be made up of transfers from the central government and the local government budget, 50 percent each.*

2. *The State will give attention to the textile industry by abolishing its non-performing bank loans and requiring each local government to at least maintain the level of performance in 1997 while the new amount of expenditures is increased by 10 billion yuan to finance the replacement of spindles and the implementation of the project on reform of cotton yarn weaving enterprises.*

3. *The State requires the textile industry to make a proper arrangement for redundant workers, encourage them to seek jobs from employment service centres and ensure adequate income for those workers to meet their basic needs, and provide them with retirement allowance and health insurance.*

4. *Provide substantial support to textiles export. In 1998, the ratio of rebate on textile export tax is expected to increase by 2 percent compared to the standard level of 9 percent, and over 15 percent of quotas committed under the agreement between China and Europe and the agreement between*

China and the U.S will be provided directly to enterprises entitled to do business with foreign partners.

5. *The State requires enterprises comply strictly with the system in which "the State issues production permits and buys products permitted to be produced", controls new cotton rolling capacity while export is encouraged and entitled to obtain export credit and adequate export tax rebate.*

6. *The cotton supply system will be improved and the State allows the price of products to fluctuate within a range of 6 percent. The export-oriented products made from Xinjrrang cotton as a substitution for imported cotton will enjoy tax exemption.*

(Quoted from Viet Nam Textile and Garment Journal, January 1999)

Domestic market for textile and garment products

With a projected population of about 88 million inhabitants by the year 2005 and nearly 100 million by the year 2010 and increased incomes, the demand for textiles and garments is expected to increase very rapidly. Some forecasts expect the demand for textiles and garments to increase by 6 to 8 times between now and the year 2005 and over 10 times between now and the year 2010.

The level of people's consumption also changes as a consequence of external influences. When the living standards of the people improve, they would necessarily demand for "delicious food and nice clothes". The preferences for design and fashion is no longer simple as before when their incomes were low, and will change year after year, particularly in urban areas. Some traditional garment products such as simple black silk trousers for females, and garments made from brown colour fabric for rural inhabitants and so on have also changed. The requirement for a diversity of colour has become apparent. There is also an increasing trend for consumption of ready-made garments whose demand tends to exceed that of tailoured garments. People have been increasingly recognising the advantages of ready-made garments in the aspects of their convenience, their fit with consumer's preference, and their cheaper prices compared to those of tailoured garments.

Another issue that is relatively pressing is the very cheap price of imported textiles and garments flown into Viet Nam, especially smuggled products, second-hand clothes, etc. flown into Viet Nam though various channels, that adversely affects locally produced goods.

On the other hand, the system of wholesale and retail trade of locally produced textiles and garments is not yet organised and in fact left open for private traders' control. Domestic enterprises have not been able to establish distribution channels right in the domestic market. The relationship between production and distribution and that between wholesale trade and retail trade are required to be established properly

so as to enable textile and garments producers to control the domestic market.

3. Some features of Viet Nam's textile and garment industry

(1) The production scale remains small, a majority of equipment and machinery is obsolete, and the industry's competitiveness is low. A dynamic garment industry exists besides an inefficient textile industry

Viet Nam's textile and industry occupies an important role in the national economy, ensures domestic supply of one kind of essential goods, and has a comparative advantage for export promotion. The export value in the year 2000 is estimated at nearly USD 2 billion, placing the industry among the top exporting industries. The export value of the industry in this year even exceeds that of petrol. The industry absorbs a large portion of the workforce which accounts for 22 percent (over 500 thousand workers) of the total industrial workforce.

Although the industry sees an annual output growth of more than 10 percent, its production size remains small with per capita yarn production of merely 0.8 kg and that of fabric of less than 5 meters. Equipment and machinery currently used in the spinning and weaving segments is obsolete, thereby failing to provide fabric as an input for export-oriented garment production.

As of late 80s, there were 860 thousand of spindles in 13 SOEs in the industry. A majority of equipment was made in 60s and used for over 20 years. Over the past years, a number of too old equipment was improved, innovated or removed and replaced by new ones, and yet the rate of replacement was merely 5.2 percent. Since old and obsolete equipment and technologies accounts for a majority part in the industry, although the quality of products has seen some improvement, their output fails to meet adequately the demand for high quality yarns, making the industry still rely on imported yarns. The coverage of combed yarn spinning technology merely accounts for 3 percent while carded yarn spinning technology still dominates the spinning industry. Technology for PE mixed yarn spinning accounts for less than 16 percent.

A majority of equipment formerly used in the textile industry is composed of narrow width shuttle automatically changing weaving machines that were imported from China and used for a large number of years. Consequently, the quality of products has been declining and the ability to diversify products is very limited. Over the past years, new machines, including some modern weaving machines, were imported to replace the old ones, and to upgrade the quality of textile products. During the past decade, about 1500 new non-shuttle weaving machines (foraxample: rapier loom, airjet loom)out of the existing 10,500 weaving machines were imported for the textile industry, meeting roughly 15 percent of the weaving capacity.

In recent years, more investment has been put into the dying and finishing segment of the industry, but the SOEs got most of the investment. This investment has contributed to improving the quality of and diversity of products of which there are new items that were unable to be produced before. Nevertheless, the investment is scattered and yet to be regarded as complete due to the shortage of capital.

Given the need to produce for export, investments have been continuously put into the garment industry for the purpose of production expansion and equipment replacement. Most modern sewing machines currently in use are those with high speed ranging between 4,000 and 5,000 circles per minute. The industry is also equipped with machines of special use like double needle sewing machines or zig-zag hem-stitching machines, etc. There are sewing line for producing only one product, such as shirts, trousers and jeans, sewing lines and the washing and pressing system.

Modern technologies for computer-aided design and drawing for cutting have been applied in some places.

(2) *Garment export turnover remains high mainly due to subcontract and the industry still has to import heavily.*

In recent years, garment export turnover keeps rising and the industry has become one of the major export earners of the economy.

Processing for export is the key feature of the industry since Viet Nam is yet to be able to make its own designs, produce its own materials and create its own network in international markets. Under this mode of production, all textiles and other accessories (e.g. threads, buttons, labels, packaging etc.) are temporarily imported for re-export after turning into finished products. It is clear to see that the market is that of the contractor. The added value made on the export product is found mainly in the wages and salaries of workers and managers.

At present, 80% of garment export is from subcontracts. According to the Viet Nam Garment & Textile Corporation, the corporation's own export value in 1997 reached USD 475 million, out of which only 24% were from direct export. Leading companies within the corporation like Viet Tien, May 10 etc. based most of their operations on subcontracts.

This mode of production, however, is necessary in the initial stage to help the industry secure jobs and learn the art of export marketing. Vietnamese garment industry's strategy is to quickly turn to direct export of its own products and to enhance its own effectiveness.

To direct export(FOB export), the industry has no other way but to overcome existing shortcomings in marketing and over-dependence on foreign partners. It also has to make up the current lose linkage between textile and garment manufacturing sectors within the industry. The current approach of investment-production oriented should be redirected to market-effectiveness oriented. The industry's enterprises should overcome their own weaknesses, actively explore markets and offer new designs to attract customers.

Other important points in the industry's strategy also include upgrading the current outdated equipment and technology of the textile sector, creating exportable garments and forging a close and cohesive linkage between the textile and garment sectors. For FOB export, the Vietnamese textile & garment industry has to overcome the following four weaknesses:

- Labelling,
- Designing,
- Increasing the domestic contents in a product, and
- Enhancing product's competitiveness.

(3) Almost all materials used in the textile sector is imported

Virtually all inputs to the textile industry, such as cotton, polyester yarns, etc. are imported from abroad. Following are the main figures for the last few years:

	1991	1995	1999
Manufacture			
1- Yarns (thousand tons)	40	59	74
2- Cloth (million metres)	280	263	317
Import			
1- Cotton (thousand tons)	32.5	68	77
2- Threads and polyester (thousand tons)	26.3	93.8	160
3- Cloth (million metres)	20	72	505*
Material production			
1- Cotton (thousand tons)	2.86	4.1	5.2
2- Silk (thousand tons)	0.78	1.4	-

* USD million

Cotton cultivation

The cultivation of cotton in the last few years has been maintained on over 10,000 ha of land. The low effectiveness of this sector results in its low pace of development. Under the Central Cotton Company's estimation, to develop the cultivation area, it is necessary to have cotton productivity bypassing the cost productivity, which is now 690 kg of seeds wool per hectares in Dong Nai Province or 840 kg/ha in Son La Province etc. Secondly, cotton must have its own competitiveness comparing to other harvest on the same area at the same time, bringing about higher effectiveness on one unit of cultivation land. After years of cotton development, the sector has been able to (i) locate cotton's ecological demands and land availability for the cotton development land fund; (ii) pinpoint the appropriate cultivation techniques and seasons in Viet Nam's conditions, applying mixed cultivating regime and effective plant protection methods; (iii) create new cotton varieties with higher productivity for Viet Nam. Cotton hybrids give an average of 1.5 tons of seeds wool per hectare and about 2.5-3 tons/ha under good watering. The quality of cotton fibre is now equivalent to American average fibre. According to statistics, real cotton productivity has been increasing twice in the past 6 years. In the Southern cotton-potent provinces, average productivity has reached 850kg of seeds wool per hectares while that of the Central Highland and Southeastern provinces reached 900-1000kg/ha.

Silk

The cultivation of mulberry for silk production has also been developed in the last few years and now covers about 25 provinces in all areas of the country. In 1986, there were only 4,700 hectares of mulberry in the whole country and the cultivation area peaked in 1994 with 30,000 hectares. Now it remains stable at 20,000 hectares.

Silk processing has made some progress with the total capacity of existing silk unwinding equipment reaching 1,870 tons/year in which Japanese automatic equipment gives about 810 tons. Annual silk production is now 1,000 tons, giving a total export turnover of USD 5-6 million/year. Mulberry cultivation, cocooning and silk manufacturing are intertwined that gives a final effectiveness. However, it should be noted that Viet Nam's silk production is not without difficulties. To overcome this, Viet Nam needs to promote the traditional silk production wards, manufacturing silk for domestic consumption and export.

Synthetic threads

Viet Nam could develop a petrochemical industry based on its oil and gas production. At present, there are some projects in PE threads production using foreign investment by Hualon Co. Ltd. and Samsung Co. Ltd. By implementing these projects, it is hoped that Viet Nam would have sufficient synthetic threads for domestic consumption after 2000 and reduce its import.

(4) Foreign investment in the textile and garment industry

By the end of 1998, there were 68 projects in the textile sector and 71 projects in the garment sector as follows:

Year	Number of projects in the textile sector	Number of projects in the garment sector	Investment capital in the textile sector (in thousand USD)	Investment capital in the garment sector (in thousand USD)
1988	0	2	0	1,400
1989	1	0	11,607	-
1990	2	1	22,925	954
1991	4	4	13,192	6,129
1992	9	9	62,435	30,996
1993	9	10	477,684	20,157
1994	5	2	30,599	1,200
1995	16	16	346,906	24,898
1996	12	16	132,135	32,363
1997	5	11	27,616	25,809
1998	5	4	43,020	7,512
Total	68	71	1,168,019	151,418

Regarding investment forms, most of the projects are 100% foreign owned. In the textile sector, 60% of projects are 100% foreign owned and account for 80% of the sector's total capital. Most major projects are of this type. In the garment sector, these figures are 54% and 60% respectively. Joint ventures in the textile sector account for 35% projects and 8% capital. In the garment sector, these are 46% and 40% respectively.

South Korea, Malaysia and Taiwan are countries having most investment projects in the textile sector while Taiwan, South Korea, Hong Kong and Japan lead in the garment sector.

As regards the location of the projects, most of them are found in the Southern areas of Ho Chi Minh City and Dong Nai Province, accounting for 80% of projects in the textile sector and major investment projects in spinning, textile, dye & print, PE threads production etc.

As for the scale of investment, projects of over USD 10 million account for only 20/180 or 11% of all projects in the textile and garment industry. Some of major investment capital like the Hualon complex textile-thread-dye project show slow pace of implementation since investor(s) invests and explore the market at the same time. Most projects are medium or small ones. In some particular cases, investors even brought in obsolete or used equipment to exploit their full life and cheap labour of Viet Nam. The small scale of investment might be suitable for the textile and garment industry but also shows some precautions by the investors who only want quick money and do not look for long-term business. In the last two years, investment shows signs of pausing in waiting for the Viet Nam-US Trade Agreement. It is hoped that the signing of the Agreement would push up investment in the industry to grasp the opportunity to explore the vast and potent American market.

(5) R&D, personnel training etc. are yet to meet the demand of production and business development

At present, the industry has got only two R&D facilities, i.e.: (i) Textile Research Institute and (ii) Garment Research Institute.

The first one employs 125 people of whom 90 have graduate and post-graduate degrees, undertaking some applied researches. However, the linkage between research and production remains limited due to the small number of order from enterprises. Small State budget for this institute, its obsolete and poor infrastructure, lack of retraining for researchers and technical staff, brain-drain etc. contribute to its inability to expand research activities, not to speak of research on new technology. Some researches were detached from production and thus, could not be applied.

The Fashion Institute was established on the basis of the former Institute for Garment Research and has the responsibility of mapping out fashion strategy as well as making new designs for domestic consumption and export. It also has to disseminate information on fashion, designs and to train designers. However, the institute's facilities and staff are too small. Its Hanoi branch has about 13 university graduates while the Ho Chi Minh City branch has 4. Both lack fashion designers. Hence its limitation on fashion and designs

creation. The Institute only meets 10% of the market demand on fashion designs. In Hanoi and Ho Chi Minh City, a number of private showrooms regularly offer to the market new designs by their own designers.

All in all, studies on fashion design in Viet Nam are still at a very young and inexperienced stage without sufficient interaction with international designers and market. To move from processing to direct sales (FOB), it is necessary to enhance the stage of making new designs to offer customers abroad and should be the thrusting task of the industry today.

Just like R&D, training and re-training are of much importance, especially when the pool of engineers and professionals are yet to meet the industry's demands in terms of quality and quantity. Only recently the Hanoi Polytechnics and Hanoi University of Industrial Design have allocated specific courses in textile and garment engineering and design making. Against this backdrop, students could not have sufficient basic training in the area and are not up to latest scientific and technological progress in the world. New staffs have to spend 3-5 years after joining the industry to be able to make some use of their professional knowledge. At the same time, they show certain weaknesses in applying their knowledge and lack good command of foreign languages.

A close cooperation between research institutions, training schools and enterprises has been paid due attention. Some able candidates shifted to work for other undertakings. Despite its old age, the industry has just 32 post-graduates out of whom none possesses a doctorate.

(6) *Though dynamic, the private sector possesses small potentials and backward technology*

According to statistics, the private textile and garment sector has about 57,000 spinning poles acquired from used equipment of the public sector, 6,000 textile machines and looms. In the whole country, there are some 200 private and limited companies, 100,000 families employing 400,000 labourers. Textile machinery include mostly old type wooden looms or discarded equipment from the public sector. In Ho Chi Minh City, the non-public sector does not have modern equipment but is very flexible in meeting market demands and thus, reaps high business efficiency at low investment cost. This is also the result of making full use of the labour force, economising all production costs and taking the advantage of the City's pool of specialists.

In some provinces, a number of traditional wards are still able to maintain their age-old production of traditional items but in a new form more attached to the market.

The private sector's garment production develops fast recently while the cooperative sector sees its decline and has to turn into limited liability companies. These enterprises have the capability of mobilising capital from the public at medium and small scales and turn out to be very dynamic in business. Most of them are of the 100-300 labour scales. Their common features might be:

- Compact management that gives quick decisions and good estimation of the situation;

- Maintenance of product quality and customers' trust;
- Active marketing;
- High capacity in capital mobilising and efficiency.

4. Issues on Viet Nam's textile and garment industry development policy

(1) Enhancing competitiveness for effective integration into the region and the world

Enhancing the industry's competitiveness is a prerequisite to boost textile and garment export, especially the prospective American market where the toughest competitor for Vietnamese textile and garment products is China.

Major importers of Vietnamese textile and garment products include the EU, Japan and in the future, the US. In all of these markets, China tops in the same products. The trading regime for textile and garment products in these countries remains the same for both China and Viet Nam, not to mention the MFN status that China enjoys in America. In this context, it is of much importance that Viet Nam must enhancing its competitiveness in terms of cost and price, quality and delivery of goods.

To encourage export, the Government has already applied the 0% tax on textile and garment exports. However, it is necessary to continue lowering the input costs and raising productivity so that Vietnamese products could compete with Chinese or other countries' products. Further, the creation of a level playing field for all enterprises, all sectors are also important in facilitating the cut of unnecessary costs. A study shows that despite Viet Nam's low labour cost, other costs in the production chain in Viet Nam remain high, especially in terms of transportation. Hence its low competitiveness against other countries, including China.

Enhancing the competitiveness should start from efforts of each and every enterprise which in turn requires them to strengthen their managerial capability. This is particularly important to public sector enterprises where efficiency is low. A recent survey discloses that most enterprises in the industry get low profit per turnover ratio. This is an alarming sign for the development of these enterprises. Therefore, there must be measures to consolidate public enterprises, to enhance production and business efficiency.

(2) Developing the inputs: material production, spinning, cloth making, printing and dying to guarantee quality cloth for export garment production and domestic consumption

The current supply for domestic consumption remains low, at 1kg and 5 m/capita. In the long run, the need for development of production for domestic consumption is of much importance and huge. Cloth demand for export garment manufacturing is met mostly by import and thus, decreasing the industry's

export efficiency. Upgradation of present technology of businesses and investment into the enhancement of inputs of the textile sector have become a must.

Materials supply for the textile industry should follow two directions: (i) cotton development and (ii) construction of synthetic fibre factories. As mentioned before, the application of new technology has brought about the creation of new high-yield cotton varieties that allows cotton to bypass the efficiency barrier and reach a profitable level for cultivation expansion. Cotton no longer stands at the self-sufficient stage in some areas and now enters the stage of commercial production. On this basis, it is necessary to create the proposed cotton producing area to supply materials for the textile and garment industry. Farming promotion policies, credit and tax holidays are also needed for the development of such areas. The Government should keep on supporting R&D activities in the industry and issue guidance on the effective application of new technology to farmers. As regards synthetic fibres, the production should be planned quickly and effectively along the development of the petrochemical industry.

The production of fiber, cloth and their printing and dying should be facilitated so that enterprises could upgrade their present equipment and technology. Due attention should be paid first and foremost in the creation of quality products for the export garment sector like cloth manufacturing, printing/dying and finishing. Foreign investment into these areas should be encouraged.

The industry must be developed nationwide in a closely interacting system from material development and production to the last eye in the chain to enhance the added value domestically. Only this is the answer to a long-term vision and good development strategy. In a country of the size of Viet Nam where the population could reach 100 million by 2010, the size of the market is big. A short-term vision in the current poor condition of production, low investment... would not guarantee the industry's competitiveness in the export markets, especially when the economy becomes open to the world. There exist some arguments that it is not necessary to develop everything but a few that have the potential for high competitiveness and efficiency. Therefore, it might be good to see links established, not just quantitative balances. Enterprises should be able to enjoy a favourable business environment and should enhance their own self-resilience for further development. Only on these basis that the industry, both in the private and public sectors, could develop. This would add to the process of structural adjustment, forging closer and more effective links within the industry. China is doing the same where the Government assists with a small credit so that the industry could upgrade its facilities and implement its feasible projects.

(3) Gradually moving into direct export (FOB), ceasing subcontracts and enhancing export efficiency.

The following table shows a comparison between FOB and processing:

		FOB	CMT
+	Samples	active	from the contractor
+	Materials and accessories	self-decision	supplied by contractor
+	Production	active	passive, sometimes controlled
+	Risk	high	stable
+	Business efficiency	high	low

This clearly shows that direct export has high efficiency. If most of materials are to be produced domestically, the efficiency could be even higher. However, this situation requires that businesses must be very dynamic and active. They must also understand the market, fully informed and being able to establish their own networks and customers. They should further pool their own designers commanding good knowledge of big markets like the EU, U.S, and Japan.

The creation of good links, close cooperation and coordination between the textile and garment sectors would guarantee highly efficient direct export (FOB). Research coordination between these two sectors from market research to the making of concrete designs, colours, materials selection etc. is required. Based on the already produced materials, it is necessary to select the right designs to suit customers' tastes and vice versa. This two-way information should be regularly exchanged.

(4) Furthering research on technological transfer and human resources development

Technological renovation is an important factor contributing to the enhancement of business competitiveness of the manufacturing sector. New technology facilitates the boost in productivity and product quality.

Some would tend to think that the textile and garment industry is just a labour intensive sector and therefore new technology is not that important. The industry itself is an age-old one with constant technological renovations and high-tech has been applied to increase the level of automation, productivity and quality. The industry's review on investment drew the some lessons, out of which the most important two are:

Selection of equipment: this is very important and requires firm and sound technological knowledge in the field. The industry has got many painful experiences from the selection of cheap equipment that were outdated, unmatched with production requirements etc. and thus, brought about low

competitiveness.

Some businesses only invest in equipment and regard this as the key to high quality products while at the same time ignore the necessity of technological transfer, training and retraining, production organisation etc. Hence their failure in realising the proposed goals in terms of quality, productivity or efficiency etc. Their investment is thus inappropriate in increasing competitiveness.

These lessons show the importance of technological transfer and training. Besides, it should be noted that one must be serious in considering the technological aspects before expanding investment and renovation of existing enterprises.

Survey on business performance of textile and garment enterprises

	Name of enterprises	Capital per worker (mill.USD)	Sales per worker (mill.USD)	Profit/ Sales (1997)	Profit/ Sales (6 months of 1997)	Accumula-tive Loss/ Capital (%)
	CENTRALLY MANAGED ENTERPRISES					
	Yarn Weaving					
1	Dong Xuan Textile Factory	62	59.6	1.26	1.2	0
2	Industrial Fabric Weaving Enterprise	30.6	39	0.8	-0.7	0
3	March 8 Weaving Factory	72	48.5	0.26	0.02	13.6
4	Hanoi Textile Company	56.3	72.5	0.23	0.7	0.5
5	Hai Phong Woolen Products Factory	36.8	14.2	0	0	32
6	Ha Dong Woolen Products Factory	38	22.2	12	-3.9	7
7	Nam Dinh Silk Factory	69.7	33.96	6.5	0.1	3
8	Nam Dinh Textile Factory	62.8	41.5	-0.02	-2.1	43.9
9	Vinh Phuc Textile Factory	63.5	31	0.08	0	0
10	Hue Textile Factory	106	89	0.02	-4.4	0
11	Hoa Tho Textile Factory	88	41.5	-19.6	1.8	7.3
12	Nha Trang Textile Factory	84	107	3	1	0
13	Thang Loi Textile Factory	67	77	0.2	0.13	0
14	Dong Phuong Textile Factory	87	67	6.6	0.2	5.1
15	Phuoc Long Textile Factory	90	71	0.85	0.84	0
16	Viet Thang Textile Factory	70	76	0.2	0.2	0
17	South East Textile Factory	63	130.7	1.3	0.75	0
18	Vinh Thinh Textile Factory	134	116	0.15	-17	0
19	Thanh Cong Textile Factory	129	92	0.13	0.12	0
20	East Asia Textile Factory	87	64	0.1	0.3	0
21	Phong Phu Textile Factory	76.5	134	1.8	1.8	0
22	Binh Loi Blanket Factory	56	22	2.8	0.7	0
23	Bien Hoa Wool Factory	27	24	0.9	0.3	0
	Garment					
24	Duc Giang Garment Company	17	24	2.8	5.4	0
25	Garment Company No 10	21.5	31	5.9	8.6	0
26	Thang Long Garment Company	25	21	1.9	1.4	0
27	Chien Thang Garment Company	18	16	1.4	1.7	0
28	Ho Guom Garment Company	23	14	0.6	2.6	0.4
29	Export Garment Company	12	41	0.3	0.4	0
30	Hung Yen Garment Company	19.9	22.8	2.1	1.2	0
31	Nam dinh Garment Company	14.4	13.4	1.3	0.2	0
32	Ninh Binh Garment Company	10	3.7	-1.2	-65	1
33	Dap Cau Garment Company	16	17.6	1.8	0.6	0
34	M Thanh Son Garment Company	9.6	6.9	0.4	0.7	0.1
35	Hoa Binh Garment Company	16	20	4.5	4.2	0
36	Binh Minh Garment Company	18	26	11.1	13	0
37	Nha Be Garment Company	19	24	3.4	4	0
38	Phuong Dong Garment Company	20	21	12.4	8	0
39	Viet Tien Garment Company	72	96	3.5	4.6	0
40	Doc Lap Garment Company	19	22	0.8	1.5	0
41	Frendship (Huu Nghi) Garment Company	17	28	4.6	4.8	0
42	Dong Nai Garment Company	15	25	2.3	2.7	0
	LOCALLY MANAGED ENTERPRISES					
	Garment					
1	Garment Company No 40, (Hanoi)	24	15.4	7.9	6.2	0
2	Hai Phong Garment Company No 3	9.8	26	0.8	0.45	0
3	Hai Phong Garment Company	16.5	16.5	1.7	2.5	0

4	Hai Phong Garment Company No 2	7.6	16	3.2	5	0
5	Hung Thinh Garment Company	16.3	30	2.9	3	0
6	Son Ha Garment Company	1.5	11.5	3.5	2.2	0
7	Hai Duong Garment Company No 2	12	9.9	8.3	4.9	0
8	Hai Duong Garment Company No 1	8.4	8.6	1.4	1.1	0
9	Hien Street Garment Company	18.3				
10	Hung Yen Garment Company No 2	8.3	7.8	5.1	2.1	0
11	Binh Luc Garment Company	4.6	3.2			
12	Duy Tien Garment Company	7.7	4.9	1.5	1.6	0
13	Ha Nam Garment Company	21.6	31.7	0.4	0.1	0
14	Son Nam Garment Company	25.2	20	0	-9	6
15	Dong A Garment Company	13.3	7.6	0	0	0
16	Nam Ha Garment Company	8.8	11	1	0.3	0.1
17	Song Hong Garment Company	11	23	0	0	0.4
18	Thai Ha Garment Company	19			8	0
19	TB Th. Ha Garment Company	23	3	0	0	6
20	Dong Hung Garment Company	6.3	4	14	-46	0
21	Kien Xuong Garment Company	7	3	-3	-2	42
22	Hung Ha Garment Company	9.6	6	1	2	0
23	Thai Nguyen Garment Company	15	11	1	1	0
24	Phu Tho Garment Company	8	18	0	0.4	0
25	Viet Tri Garment Company	11.4	9.7	2	0.3	0.02
26	Song Hong PT Garment Company	15.7	31.8	0.2	-0.4	0
27	Phu Tho Garment Company No 1	11.6	17.8	3	0.1	2
28	Bac Giang Garment Company	10	5.5	1	0.1	0
29	Bac Ninh Garment Company	21.4	7.4	1	0.1	0
30	Quang Ninh Garment Company	22	10	2	4	5
31	Hoa Binh Garment Company	5.3	0.5	0.5	0.4	0
32	Thanh Hoa Garment Company	11.5	5.7	0.1	0.3	0.2
33	Bim Son Garment Company	8.5	8	1	0.2	0
34	Nghe An Garment Company	17	11.3	-4	-13	16
35	Thanh Cong Garment Company	26.5	6.1	1	-3	0
36	Thua Thien Garment Company	8.6	5.5	3	3	0
37	Hue Garment Company	16.3	14.2	2	3	0
38	Da Nang Garment Company	20	23	0.4	1	0
39	Quang Nam Garment Company	32	0	0	1	0
40	Hoi An Garment Company	9.4	7.6	0.4	0	0
41	Dien Ban Garment Company	19.7	5.3	1	0	2
42	Nui Thanh Garment Company	9.3	9	4	3	0
43	Truong Giang Garment Company	13.2	9.6	3	7	0
44	Binh Dinh Garment Company	12.6	7.3	0.3	4	0
45	Khanh Hoa Garment Company	9.7	15.2	2	2	0
46	Sai Gon Garment Company No 2	17.9	32	3	2	0
47	Tien Phat Garment Company	15.6	15	16	0	0
48	Phu Nhuan Garment Company	14.8	17.2	10	12	0
49	Sai Gon Export Garment Company	17	25.2	4	3	0
50	Sai Gon Garment Company No 3	16	29.7	4	3	0
51	District No 1 Garment Company	9.5	30	7	5	0
52	Tay Ninh Garment Company	26.8	19	9	16	0
53	Dong Tien Garment Company	15.7	35	3	4	0
54	Dong Nai Industrial Garment Company	15.7	28	1	0.05	0
55	Binh Thuan Garment Company	11.6	12	3	0	0
56	Long An Garment Company	11.6	12.7	3	3	0
57	My Tho Garment Company	9.7	11.4	6	6	0
58	Tay Do Garment Company	22	27.6	4	0.1	0