Assessing the developing day of Thai Nguyen province through research of industrial products

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ABSTRACT
The value of industrial production is considered to be an aggregate indicator. This refers to the production and business results of an industry produced in a given period of time, usually one year. This is the basis for assessing the industrial development of the whole country as well as of each region, region and locality. Thai Nguyen is a province with a long-standing industry, which has long been considered the "cradle" of Vietnam's metallurgical industry. The value of industrial production will reflect the development of the industry, which will assist the leaders in managing the development of industrial strategies, plans and plans for each period. Period. As a result, the industry's added value will be calculated at current and constant prices, serving the economic structure (at current prices) and growth rate (at comparative prices).

Keywords: Value of industrial production, industry, Thai Nguyen industry, target group, criteria

1. THEORETICAL BASES FOR INDUSTRIAL PRODUCTION VALUE CRITERIA

The value of industrial production is the total value of material products and services of industrial groups (mining, processing, production and distribution of electricity, gas, hot water, steam and cashew air conditioning, water supply, waste management and treatment, waste disposal) in a given period.
The value of industrial production includes:
- Value of materials, energy, spare parts;
- Cost of production services and depreciation of fixed assets;
- Salary, wage for labor;
- Production tax and surplus value created in the product value.

2. THE VALUE OF INDUSTRIAL PRODUCTION IS DIVIDED INTO TWO CATEGORIES

2.1. The value of industrial production at current prices

According to the United Nations National Accounts statistics, the GO indicator is calculated at the basic price, in case there is no adequate source of information, accounting conditions and accounting is not appropriate, then use the production price to calculate. The basic price reflects the actual amount the unit receives when selling the goods or services. Going for a basic GO price provides better information for the business unit. For Vietnam, the current production price is GO. The production price here is determined to include product tax (import tax, excise tax, turnover tax, package tax, etc.), but not VAT, after Vietnam has applied VAT Information on product tax collected from production units (enterprises, individual business establishments) is inaccurate, resulting in the disaggregation of data to calculate the GO according to the production price is not accurate. On the other hand, the GO calculation at basic prices reflects more substantively the results of production and business of each locality without being affected by increases or decreases by adjusting the tax policy of the State. The value of industrial production at current prices is the total value of products produced by industrial activities calculated according to the prices at the time of calculating the production value.

Calculation:

\[
\text{The value of industrial production at current prices} = \text{Net revenue of industry} + \text{State subsidies (if any)} + \text{End of period and beginning of inventory period} + \text{The consumption tax arises to the State budget}
\]

Inside:

Net revenue of industry

Net revenue is usually used to refer to a company with net sales decreases and profits. Sometimes, though, users are referring to net profit, which is the sales network of all costs. Net revenue generally does not include cost of goods sold, general and administrative expenses or other expenses (costs are usually included in operating income). Net revenue is usually intended as a measure of the "real top line" rather than the bottom line.

Net industrial revenue is the indicator reflecting business results of industrial enterprises. Net revenue is also known as real revenue, sales of industrial products and
services after deducting items such as trade discount, rebate, value of returned goods and consumption tax. Particularly, the export tax or value added tax of industrial enterprises shall be calculated according to the method of direct remittance, corresponding to the turnover determined in the period (including both domestic consumption and export). At the enterprise and other types of turnover are calculated for industrial production.

**State subsidies (if any)**

The State shall subsidize theState from the State budget for the purpose of price subsidy provided that the State shall set a low selling price (for goods and services of a public utility nature in the country or to compensate for losses incurred by the State). The State encourages production for export before joining WTO. Revenues on this item shall be calculated by the actual amount arising in the period when the State must subsidize the enterprise whether or not such amount of money has been received by the enterprise.

At present, for industrial enterprises supporting production of textile, garment; leather - shoes; electronics and information technology; automobile assembly and assembly; the manufacture of which these products have not yet been manufactured or manufactured in the country until January 1, 2015 but must meet the European Union (EU) technical specifications or equivalent; Supporting high tech products, the State also has some incentives on corporate income tax and import tax.

**End of period and beginning of inventory period**

Factors used to calculate the difference between the end of the period and the beginning of the period of industrial inventory include the costs of unfinished production, finished products, shipments of industrial activities, specifically:

- Uncompleted products are determined as the difference between the end of the period and the beginning of the finished product, which is the difference between the unfinished products on the line used for the production and the semi-finished products. industrial output. The difference in uncommitted products of other non-industrial activities (such as construction in progress) is excluded.

- Finished goods are calculated by the value of the difference of (+) or minus (-) at the end of the period and at the beginning of the period of finished products in stock. Unrealized finished product inventory does not include stock of purchased goods and then sold without processing at the enterprise and inventories of raw materials, fuel, materials, tools and spare parts.

- Commodities for sale are calculated by subtracting the difference (+) or minus (-) at the end of the period and at the beginning of the consignment. This includes the value of the goods produced by the enterprise in the materials of the enterprise or the product processed by the processing enterprise in another unit, which has been exported but not consumed paid or unpaid, or residing in the agent's warehouse at the beginning and the end of the term. It is calculated according to the sales price without sales tax.

**The arising consumption tax shall be remitted to the State budget**

Consumption taxes incurred shall include taxes levied on products and services consumed only when consumed by industrial products and services; The current regulations include: Value added tax on domestically sold goods by the direct method and value added
tax on domestically sold goods by the deduction method, special consumption tax and export tax, such as: after:

For VAT on the sale of goods domestically by the direct method (without deduction), excise tax, export tax is the actual tax amount payable in the period corresponding to the turnover calculated in factor "industry net revenue".

For value added tax on domestically sold goods calculated on the basis of the deduction method, the payable value added tax shall be the output value added tax amount minus (-) the input value added tax amount already deducted. minus in the period.

2. 2. Industrial output value at constant prices

The production value at constant prices is similar to the production value at current prices, but is calculated on the basis of fixed prices of producers as a basis for comparison. The output value of industry at constant prices is calculated from the production value at current prices and the price index of the producers with the formula as follows:

Industrial output value at constant prices = \[
\frac{\text{The value of industrial production at current prices}}{\text{Price index of producers}}
\]

when calculating the production value of industry at constant prices, the consumer price index of industrial goods producers is reported in the year compared to the year 2010.

3. CONTACT THE DEVELOPMENT OF THAI NGUYEN'S INDUSTRY THROUGH INDUSTRIAL PRODUCTION VALUE

3. 1. Development development from Thái Nguyên from the 1960 to the last anniversary XX

Industry from the Thái Nguyên has been images from the first 60 of the anniversary XX. The life of the heart of the middle of business Vietnam are the Gangers area of Thái Nguyên (the first 60) and the mechanical area Pick the Pick (the beginning of the 70) was given Thái Nguyên to the location is the middle of business water in time. Since that, Thái Nguyên được coi là trái tim của ngành công nghiệp luyện kim của Việt Nam. Over over the long development development, the company of the Thái Nguyên has already exists at animate of the battle of the battle, do change the mechanic management ... To this, Thái Nguyên has already have a matching structure full arguments with the most of most of most exported of industry, from the traditional formula to the current company, such as the family variable, real made, mechanical, metal, in chất, output materials output ... There can be said, Thái Nguyên is provinces development for heavy metal global, metal kim loại, metal, mechanic, generator mode.

As soon as the North was liberated (1954), Thai Nguyen became a political and economic center of the Viet Bac region, which has been invested by the government, particularly in the industrial sector. Thai Nguyen Iron and Steel Industry. In 1958, Thai Nguyen Iron and Steel Complex started construction with the help of technical and equipment of China, the initial design capacity is 100,000 tons of steel per year. In the early 1960s, the Thai Nguyen Iron and Steel Industry was built. Thai Nguyen has become the first and largest metallurgical industry center in the country with dozens of factories such as Luu Xa Iron and
Steel Enterprise (each with 150 tons of steel per day); Gia Sang steel rolling mill (built in 1975, designed capacity of 50,000 tons of steel per year). Other mining enterprises are also established in localities such as Trai Cau iron mine (producing 250,000 - 300,000 tons of ore per year); Nui Voi mines, Phan Me coal mine, Cam Ngan, Cao Ngan power plant, Hoang Van Thu paper mill, Cong river mechanical plant, 1/5 mechanics factory. Light industry enterprises with different functions also appear here such as processing tea, sawn timber, garment.

In the period 1960 - 1975, factories and factories in Thai Nguyen were still operating in the context of a war-torn country, so they "produced and fought". Severely industrialized facilities, factories, mines, bridges and roads were destroyed and damaged. Therefore, in the period of 1976-1990, Thai Nguyen industry restructured and strengthened and rehabilitated production functions of existing factories and enterprises and continued production activities. When the economy of our country changed from subsidy to market mechanism, factories and factories in Thai Nguyen faced many difficulties, many equipment factories are too old, technology is backward (Hoang Van paper mill Cao Ngan power plant, Luu Xa iron and steel factory ...). As a result, Thai Nguyen's steel production only maintained its average production (40,000 tonnes / year), and its output dropped from 138.7 thousand tonnes in 1976 to 10 thousand tonnes in 1989. Besides difficulties in technology, backward technique is the working style in the long-term subsidized by the staff and workers. Therefore, in this period, the proportion of industrial production value of Thai Nguyen reached a low level. The structure of the industry is still predominantly pre-built, slowly changing. Distribution of industrial territory is concentrated in coal mining areas, metal ores, Thai Nguyen city and surrounding areas. However, in the period before 1990, Thai Nguyen industry was built and developed, creating the foundation for industrial development of the province in the next period.

Since the 1990s, the industry of Thai Nguyen gradually overcome the difficult situation and has made positive changes. In the period 1991-1995, the value of industrial production increased by 20.2% / year on average, local industry increased 24% / year, infrastructure was invested to build the base export. As a result, cities have changed dramatically. Since 1996, industrial production has been transformed in a way that is compatible with the market economy managed by the State, industrial development policy to expand the structure of the component involved in production, receiving investment, joint venture with foreign countries. Thai Nguyen is considered one of the provinces with strong industrial development and is an important industrial center of the Northeast. In addition, Thai Nguyen is listed on the list of 8 key industrial provinces of the North, many products of Thai Nguyen industry such as TISCO, DISOCO, FUTUI, MEINFA, Tan Cuong tea, Viet Thai garment ... has met the needs of the domestic market and export, affirmed the brand in the market, at the same time, contributing significantly to the construction and defense of the country.

3. 2. Development status of Thai Nguyen industry in the period of 2000 - 2017

The industrial production value of the province has increased continuously over the years. In 2000, the total value of industrial production of the whole province (at constant prices in 2010) was 5,188.9 billion dong; 2005: VND 12,141.2 billion; 2010: 24,902.2 billion; in 2015 is 376.863,8 billion; 2017 is 571,000 billion, up 18.9% compared with the plan, rising to the top of the Northern Midlands and Mountains, ranked third in 10 provinces in the capital region and ranked seventh in the country.
In 2005, it increased by 2.4 times compared to 2000; In 2010, it increased more than 2 times compared to 2005; By 2015 it will increase by more than 15 times compared to 2010 and 2017 by nearly 24 times compared to 2010. Growth rate Industrial production value in the following periods: 2000-2005: 18.9%; From 2006 to 2010: 15.5% per year; 2011 - 2015 is 72.1% per year. For the whole period of 2000 - 2017, the growth of industrial production value in Thai Nguyen reached 29.9%, higher than the national average and the Northern Midland and Mountain areas. Thus, it can be seen that since Thai Nguyen has attracted foreign direct investment capital from Samsung Group, the value of industrial production has increased rapidly. In 2016, the industrial production value of Thai Nguyen is in the third position compared with 10 provinces in the metropolitan area, after Bac Ninh and Hanoi, far surpassing the rest of the region. Compared with the Northern Midland and Mountainous provinces, Thai Nguyen is always at the top of the industrial production value. In 2017, industrial production value reached over 571,000 billion VND, reaching 101.5% of the plan, up 19.6% compared to 2016, ranked 7th in the country, leading the Northern Midland and Mountain.

![Figure 1. Value of industrial production in the area (in 2010 constant prices) and Thai Nguyen industrial development index in the period 2000 - 2017](Source: Thai Nguyen Trade and Industry Department, 2017)

The industrial output index has generally fluctuated in the direction of increasing time: in 2000 it was 114.2% and in 2017 it was 119.6%. In particular, the index surged in 2014, when Samsung Group entered a stable operation and began to produce products to market. Thus, in 2014, the index of industrial production reached 682.26%.
Table 1. Average growth rate and economic growth rate by economic components in the period of 2000 - 2017. Unit: Value of the industry production: billion, Growth rate: %

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</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5,118.9</td>
<td>12,141.1</td>
<td>24,902.2</td>
<td>365,628.8</td>
<td>571,000</td>
<td>18.9</td>
<td>9.02</td>
<td>3.4</td>
<td>29.9</td>
</tr>
<tr>
<td>Government</td>
<td>3,478.1</td>
<td>8,575.8</td>
<td>13,204.3</td>
<td>15,568.3</td>
<td>20,362.9</td>
<td>19.8</td>
<td>9.02</td>
<td>3.4</td>
<td>10.3</td>
</tr>
<tr>
<td>Outside the state</td>
<td>743.2</td>
<td>2,400.4</td>
<td>9,525.7</td>
<td>14,950.6</td>
<td>23,227.1</td>
<td>26.4</td>
<td>31.7</td>
<td>9.4</td>
<td>99.1</td>
</tr>
<tr>
<td>FDI</td>
<td>897.6</td>
<td>1,164.9</td>
<td>2,172.2</td>
<td>3,351.10</td>
<td>5,274,10</td>
<td>5.4</td>
<td>13.3</td>
<td>173.9</td>
<td>42.5</td>
</tr>
</tbody>
</table>

(Source: Thai Nguyen Trade and Industry Department, 2017)

The industrial production value of all economic sectors also tends to increase and fluctuate. The industrial production value of the state-owned sector increased from VND 3,478.1 billion in 2000 to VND 20,362.9 billion in 2017; The non-state economic sector increased from VND 743.2 billion in 2000 to VND 23,227.1 billion in 2017. The highest increase was in the FDI sector, which increased from VND 897.6 billion in 2000 to VND 527,410 billion in 2017, an increase of nearly 600 times in 17 years. The growth rate of industrial production value in the periods of economic sectors also reached a high level, especially in the FDI sector. On average, the period of 2000 - 2017 is 42.5% per year.

The industrial production value of the non-state industrial sector also reached a high level, especially since 2010, because the macro-economic mechanisms and policies of the province have been more and more open. This is to attract more enterprises to expand
production scale and the dynamism of industrial enterprises in this area in production and business activities.

The FDI sector continues to have the highest growth rate, especially in the period of 2011 - 2015, reaching 173.9% / year, the highest in economic sectors. This is a relatively competitive area both in the domestic and export markets, especially in the recent years due to the relatively high level of equipment, technology and technology. The At the same time, it promotes the brand advantage and market of foreign parent company such as Samsung of Korean corporations.

The average industrial production value per capita from industrial production has also increased continuously over the years.

![Graph showing average growth rate in humans in the period of 2010 - 2017 (current price)](source: Thai Nguyen Trade and Industry Department, 2017)

In 2010, the average industrial production value of the province was 22 million VND / person, while the average level of the whole country was 34.1 million VND / person, is Thai Nguyen was lower than 12.1 million VND compared to the whole country. By 2015, the average industrial production value of Thai Nguyen province will far exceed the national average of 72.3 million VND / person, Thai Nguyen is 341.4 million VND per person, ie Thai Nguyen is 4.58 times higher than the whole country. By 2017, Thai Nguyen still holds the top position in the country and the Northern Midland and Mountains in terms of industrial production value per capita, reaching 464.1 million VND.

In 2016, industrial production value of the foreign invested sector accounted for the highest proportion (93%) of the whole province; Only 7% of local industry (local industry accounts for 3.6% and central state industry accounts for 3.4%). With the growth momentum, the province's industry will have a strong increase in production value, contributing greatly to the growth of the province's economy.

The index of industrial production value by industrial activity at constant prices in 2010 also showed positive changes in the direction of increasing the value of industries requiring
high intellectual content, Gradually reduce the share of the value of industry-based activities that rely primarily on resources. Index of industrial production value of Thai Nguyen leads the region and the whole country.

**Table 2.** Index of industrial production value by industrial activity in the period 2010 - 2017 (at constant prices in 2010). Unit: %

<table>
<thead>
<tr>
<th>Field of operation</th>
<th>2010</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining industry</td>
<td>107.5</td>
<td>80.3</td>
<td>80.9</td>
<td>79.9</td>
<td>82.8</td>
<td>84.1</td>
</tr>
<tr>
<td>Manufacturing and processing industry</td>
<td>111.6</td>
<td>95.3</td>
<td>746.8</td>
<td>205.4</td>
<td>307.3</td>
<td>319.6</td>
</tr>
</tbody>
</table>

(Source: Thai Nguyen Trade and Industry Department, 2017)

**Figure 3.** Industrial production value of Thai Nguyen by kind of economic components in the period 2010 - 2017 (Price)

(Source: Thai Nguyen Trade and Industry Department, 2017)

In 2010, the mining industry is valued at VND1,137.5 billion and by 2015 it will fall to VND1,003.0 billion, while its development index will decline from 107.5% to 79.9%. But the processing and manufacturing industries tend to increase the proportion of production
value. This is in line with the general trend of the world and also represents a positive change in the industrial restructuring of Thai Nguyen.

In the structure of industrial production value of the province, the state economic sector always plays the leading role. However, the foreign-invested sector is increasingly asserting its role in contributing value to the overall economy.

The foreign invested sector contributes positively to the overall provincial budget revenue. Compared with the previous period, foreign invested enterprises have increasingly shown their role and position. In 2008, the production value of this sector was modest, accounting for the smallest share of all economic sectors (4.32%). This proves the effectiveness of the province's attracting foreign investment is limited. At present, the industrial production value of this sector has increased sharply, from VND2,172.2 billion (2010), accounting for 8.72% of the industrial production value of the province. VND371,004.3 billion (in 2015), accounting for 90.48% of the industrial production value of the province. This shows that the capacity of attracting foreign investment capital into industrial development of the province is very high and deserves to be ranked among the top 10 countries in terms of capacity to attract foreign investment. This result is due to the great effort of the province to complete the highway system, especially accelerate the work of compensation and clearance and reform the working style of the rolling civil servants, civil servants, diversifying promotion activities, mobilizing investment through promotional activities, introducing and building a list of priority projects calling for foreign direct investment Organizing workshops to attract domestic and foreign investment, enhance and improve the quality of consultancy services, support enterprises, meet the needs and suit the desire of investors.

4. CONCLUSIONS AND RECOMMENDATIONS

Thai Nguyen's industry in the period 2000 - 2017 had a positive change. The value of industrial production in the foreign-invested sector tended to fluctuate (16.94% in 2000, 6.1% in 2009) due to market difficulties and some large projects are slow to put into operation. But in the period 2010 - 2015, tends to increase in value. By 2015, this sector accounts for 91.65% of the industrial production value of the province. The indicator of industrial production value shows that the industry of Thai Nguyen province has strong growth, especially the increase in industrial production value and has made a considerable contribution to the total structure. products in the province, economic restructuring, job creation, changes in the structure of industrial products and structure of exports. However, this criterion also reflects the fact that the province's industry grows in breadth and depth. Besides the achievements, the industrial development of Thai Nguyen still has some limitations that need to be overcome:

Although in recent years, Thai Nguyen has been assessed as quite successful in attracting foreign investment in industrial development. However, in order to modernize the province's industrial sector, capital is required, while Thai Nguyen is a poor province, has low budget revenues, receives annual budget subsidies from the central government. The accumulation of the economy is limited (the rate of accumulation accounts for less than 20% of GDP). Therefore, the state budget is invested to develop the industry as well as invest in the development of infrastructure and construction. and synchronous development of industrial parks and areas with many limitations, depending mainly on the support of the
central budget. In addition, most of the investment capital is concentrated on small-scale projects that are not focused on basic industries, leading to dependence on FDI enterprises.

The level of technology is generally backward, reaching only average level (except for some industries such as information technology and electronics, metallurgy, mechanical engineering, tea processing has been renovated, enhanced capacity technological force). Most of the sectors also use backward technology, old technical equipment so low productivity, products lack competitiveness, product quality is not high. The design of models and models are poor, so it can not meet the high precision and uniqueness in the industrial products. On the other hand, many enterprises with low technology level have not met the standards of technology, especially in the current conditions of integration, FDI enterprises investing in Thai Nguyen more and more open. These companies are not qualified in terms of technology to produce products that meet the quality criteria to supply to large enterprises so they can integrate more deeply. Into the supply chain of the local business is very lock the towel.

The database is not implemented. Mặc dù có cấu công thuc có sức mạnh dịch chuyển và bước đầu đi vào sản phẩm công nghệ cao, nhưng yếu tố vẫn chỉ tập trung ở một số doanh nghiệp lớn hoặc doanh nghiệp có nước ngoài. Tồn tại chênh lệch lớn giữa database structure to the city and cities, the lost balance to be between the database processing, processing and work. The primary is the primary kernel to the development state is missing the solid persistence and output of non are non in Thái Nguyên. Switch the configuration structure in which are not been mounted with the kernel configuration switch, the configuration structure and configuration the business components, not created the relationship between the business configuration and switch the database structure, service. The database configuration for the slow transaction, the rate of the job required for the learning of the quality required. The configuration structure of the general business is not implemented. In other products, industry khai thác khoáng sản và luyện kim (use multiple resources, making multiple force for the ground level and environment) is used for high rate. Ngành nghề may gia công nhề; substates and extra substants instead of non modul, non development, painting. Some number of business lines of traditional as metal, xi măng, khai thác than has been development near to threshold, in the time to will have a valid limit.

Industrial structure is not really reasonable. Although the structure of industrial products has shifted sharply and started to produce hi-tech products, it mainly concentrated in some large industrial enterprises or foreign invested enterprises. There is a huge gap between the industrial structure of the city and the districts, the imbalance between the structure of the processing industry, the manufacturing and the mining industry. This is the main reason leading to the lack of sustainability and low efficiency of Thai Nguyen industry.

The restructuring of industry by sector is not really linked to the labor restructuring, regional structure and economic structure, and there is no strong link between industrial restructuring and restructuring of agriculture and services. The industry structure is slow to move, the proportion of industry requires high scientific and technical content is low. Internal structure of the industry is not reasonable. In industries, the mining and metallurgical industries (which use a lot of resources, put more pressure on infrastructure and the environment) also account for a high proportion. Light industry is outsourcing; The supporting industries and small-scale spare parts production have not really developed and the competitiveness is not high.
Some traditional industries of the province such as metallurgy, cement, coal mining have grown close to the threshold so in the future will have limited contribution.

Many industries with the strength of the province such as mining, metallurgy, construction materials, thermal power ... are mostly resource intensive, energy intensive and have a great impact on It also threatens the sustainable development of local as well as neighboring areas. Many enterprises, such as mineral exploitation, use outdated technology, causing loss of resources and serious environmental pollution. The establishment and development of industrial zones also pose many problems to solve, especially the problem of environmental pollution. Most industrial parks and clusters have no common wastewater treatment system.

The trend of globalization and international economic integration has been more and more deep and strongly affecting all branches and economic sectors. In general, Thai Nguyen in particular has participated in many trade agreements, providing opportunities for import and export of general goods and industrial goods in particular. In the integration trend, the province has also had many reforms in institutional and investment environment, creating conditions to attract foreign direct investment (FDI) capital, receive and transfer advanced production technologies modern, fostering, raising the level and industrial style for laborers.

Therefore, it is necessary to have concrete and practical solutions on mechanisms and policies, capital mobilization, technology transfer and human resource quality improvement in order to promote the development of the industry towards quality and durability.

References


