



Analysis of the potential for economic growth in the non-oil and gas processing industry sector in West Java province for the 2005-2009 period

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ABSTRACT

This research is one of the efforts to find out the potential of the non-oil and gas processing industry sub-sector which has a major influence on the economic growth of the non-oil and gas processing industry sector in West Java Province during 2005-2009. This study uses data on West Java's GRDP in the non-oil and gas processing industry sector and Indonesia's GDP in the non-oil and gas processing industry sector. This thesis uses an economic basis model which is reflected in the analysis of Location Quotient (LQ) and Shift Share. And Sectoral Typology is also used which is useful for knowing the leading sub-sectors of the non-oil and gas processing industry in West Java. West Java has three basic non-oil and gas processing industries, namely the other goods industry (creative industry), the textile industry, leather goods and footwear and the transportation equipment industry. machines and equipment. And two potential industries to be developed into the base sector, namely the wood and wood goods industry and the cement and non-metal mineral goods industry, because these two industries have good growth in the Province and occupy Typology VI, which means this industry is a non-base sector, has rapid growth at the provincial level, although growth at the national level is slow, so it has the potential to be developed into a base sector.

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1. INTRODUCTION

The goal of development in Indonesia is to create a just and prosperous society equally, both morally and materially. In its development, the role of the agricultural sector in economic development in Indonesia has begun to be shifted by the role of the manufacturing industry (non-oil and gas processing industry) which is experiencing rapid development. The shift in the role of the agricultural sector by the industrial sector has resulted in a change in the economic structure from an agrarian-based economy to an industrial-based economy.

The non-oil and gas processing industry sector has an important role in economic development in Indonesia and makes a sizeable contribution to Indonesia's economic growth. Because the non-oil and gas processing industry sector is the largest contributor to Indonesia's GDP. During the 2005-2009 period, the structure of the economy in Indonesia was still dominated by the non-oil

and gas manufacturing sector. Even though from 2005-2009 there was a large decline in contributions, the non-oil and gas processing industry remained the main contributor to GDP.

This was due to the economic crisis, which caused a breakdown in the world financial system, causing a decline in world economic and trade activities. This also affects the economy in Indonesia. It can be seen from the decline in sector contributions to Indonesia's GDP. The weakening industrial growth was also caused by the large demand that had not recovered due to the global crisis from both the domestic and international markets. West Java Province is one of the provinces dominated by the highest non-oil and gas processing industry sector in the formation of its GRDP. And is one of the provinces on the island of Java that contributes to the GDP of the non-oil and gas processing industry sector, the largest. However, during 2009 West Java's economy could not escape the influence of the global economic crisis.

Macroeconomic dynamics at the national level have implications for the regional economy. The impact of the global economic turmoil that occurred in 2008 had a sizeable impact on the economy of West Java. The affected sector is the non-oil and gas processing industry sector, because this sector is very vulnerable to events outside the country, because most of the industrial production in West Java is exports and vice versa, raw materials are still imported materials.

Every regional economic development effort has the main goal of increasing the number and types of employment opportunities for local communities. In an effort to achieve these goals, local governments and their communities must jointly take regional development initiatives. Therefore, the local government along with community participation and by using existing resources must be able to assess the potential resources needed to design and develop the regional economy.

Studies on the economic potential of the non-oil and gas processing industry sector have been carried out by several researchers, one of which is by Ida Nuraini (2005), where researchers examine the potential for economic growth in the non-oil and gas processing industry sector which involves one region, namely Malang Regency. Based on the previous research, the researcher is interested in conducting the same study but with a wider area coverage. Namely in West Java Province. The reason for choosing West Java as the location of this research study is because West Java is one of the provinces on the island of Java that contributes to the non-oil and gas processing industry sector, the largest for Indonesia's GDP.

Table 1. Percentage Distribution of GRDP in West Java Province of the Non-Oil and Gas Processing Industry Sector at Constant Prices 2000,-2005-2009 (Percent)

Processing industry sub-sector	2005	2006	2007	2008	2009
1.Ind.Food,beverage and tobacco	11,9	12,32	11.83	10.49	11.29
2. ind. textiles, leather goods and mats foot	24,26	24.5	23.68	20,82	20,36
3. ind. wood and goods from wood	1.43	1,4	1.34	1.21	1.41
4. ind. paper and printed matter	2.64	2.64	2,41	2.07	2,20
5. ind. fertilizers, chemicals and goods from rubber	10.51	11,12	11.56	8.77	9.04
6. ind. cement and non-metallic minerals	2.07	1.86	1.84	1.72	1,8
7. ind. base metals, iron and steel	0.64	0.62	0.57	0.54	0.49
8.Ind. transportation equipment, machinery and the equipment	44,24	43.25	44,54	52,31	51.08
9.Ind. other goods	2,31	2,29	2,21	2.07	2,32
GRDP ADHK	100	100	100	100	100

The non-oil and gas processing industry sector can be classified from several perspectives of approach. In Indonesia, it is classified based on commodity groups, business scale and based on product flows. The most universal classification is based on ISIC (International Standard of Industrial Classification), which is based on commodity. Among them: 31. Food, beverage and tobacco industry, 32. Textile industry, leather goods and footwear, 33. Wood goods and other forest products industry,

34. Paper and printed goods industry, 35. Fertilizer, chemical and rubber goods industry, 36. Cement and non-metallic minerals industry, 37. Basic metal, iron and steel industry, 38. Transportation equipment, machinery and equipment industry, 39. Other goods industry.

Development activities in the economic sector, especially the non-oil and gas processing industry sector that need to be considered by a regional planner is the ability to analyze the potential of what industrial sector is potential in the region. If each Regional Government is able to see which sectors have advantages/weaknesses in their area, then the sectors that have advantages will have prospects for development and are expected to encourage other sectors to develop. Thus it will be able to increase regional output and location efficiency in the area concerned.

2. RESEARCH METHOD

In this study no sample is needed. Because the entire object of research can be reached by researchers. The population studied is the non-oil and gas processing industry sector based on commodity goods, namely: the food, beverage and tobacco industry, the textile industry, leather goods and footwear, the wood goods industry and other forest products, the paper and printed goods industry, the fertilizer industry, chemicals and rubber goods, cement industry and non-metal mineral products, base metal industry, iron and steel, transportation equipment industry, machinery and equipment, and other goods industries. The data used in this study is secondary data which is research data obtained from a second or secondary source of the data we need. The secondary data of this research comes from the Central Bureau of Statistics (BPS). In accordance with the problems and objectives that have been formulated, this research method is a quantitative analysis method, namely where the data used in the research is in the form of numbers. In this study the method used is quantitative with a descriptive format aimed at explaining, summarizing various conditions, various situations, or several variables that arise in the community which is the object of research based on what happened.

3. RESULTS AND DISCUSSIONS

Research result

1. Geographical and Demographic Conditions of West Java Province

West Java Province is geographically located between 50501-70501 South Latitude and 1040481-1080481 East Longitude with territorial boundaries: The North is bordered by the Java Sea and DKI Jakarta Province, the East is bordered by Central Java Province, the South is bordered by the Indonesian Ocean, in the west it borders the province of Banten. West Java has an area of around 37,116.54 square kilometers and a population of 43,021,826 people, has a population density of 1,159 per square kilometer. Bandung City and Cimahi City have a higher population density compared to other Cities/Districts in West Java.

The industrial sector is the main sector in the Indonesian economy which makes the largest contribution to economic growth in West Java. In Indonesia, the industry is divided into four groups, namely: large-scale industry, medium-scale industry, small industry or household craft industry. There are 3,475 large industries in West Java that absorb 1,914,235 workers, with a total investment of 119,882,497 million rupiah. Meanwhile, small and medium industries in West Java totaled 198,478 which absorbed a workforce of 2,280,375 people, with a total investment of 6,040,433 million rupiah.

2. Analysis of Economic Growth Potential

The writing analysis in this study aims to identify the development of the provincial GRDP and the potential for economic growth in strategic sectors and sub-sectors that have the potential to be developed to increase the GRDP in the analysis area. To find out the potential of the economic sectors, especially the sub-sector of the non-oil and gas processing industry that supports the GRDP of West Java Province, the LQ analysis tool is used to determine whether the economic sector is a base or non-base sector, and the Shift Share method is also used to support the LQ and Typology analysis tools. to clarify the results of LQ and Shift Share.

Table 2. The percentage distribution of Indonesia's GDP at constant prices in 2005-2009

Business field	2005	2006	2007	2008	2009
1. Agriculture, animal husbandry, forestry and fisheries	13,13	14,21	13,82	13,67	13,61
2. Mining and excavation	11,14	9,1	8,72	8,28	8,27
3. Processing industry	27,41	27,83	27,39	26,79	26,16
a. oil and gas industry	4,99	2,59	2,43	2,29	2,14
b. Non-oil and gas industry	22,42	25,24	24,96	24,5	24,02
4. Electricity, Gas and Clean Water	0,96	0,66	0,69	0,72	0,78
5. Construction	7,03	6,08	6,2	6,29	6,44
6. Trade, Hotels and restaurant	15,56	16,92	17,33	17,47	16,9
7. Transportation and Communication	6,51	6,76	7,25	7,97	8,8
a. Transportation	3,97	3,83	3,71	3,59	3,62
b. Communication	2,54	2,92	3,54	4,38	5,18
8. Services	8,31	9,24	9,25	9,27	9,43
a. General government	9,96	4,15	4,11	4,05	4,07
b. Private	4,87	5,09	5,14	5,22	5,36
GDP	100	100	100	100	100

Discussion

1. Food, beverage and tobacco industry

The food, beverage and tobacco industry in West Java Province has an important role as seen in the contribution of the food, beverage and tobacco industry, which ranks third largest, with a contribution of 11.29 percent in 2009 for the province of West Java, after the transportation equipment industry, machinery and equipment and the textile industry, leather goods and footwear.

The growth of the food, beverage and tobacco industry distribution fluctuated during 2005-2009. The contribution decreased in 2007 to 10.48 percent from the previous year which amounted to 12.32 percent, then decreased again in 2008, which amounted to 10.49 percent. This could be due to an issue circulating in the community that there is additional food that is not allowed for the food and beverage industry which has worried the community.

The steps taken by the government in overcoming the problems faced by the food, beverage and tobacco industries include building infrastructure (roads, ports, docks and their supports) in production centers, reducing high economic costs (levies, fees and transportation, etc.) , eliminating regional regulations that are burdensome to entrepreneurs, improving the business climate that has not been conducive, especially incentives and harmonization of import duty rates, overcoming the flood of imported products at low prices, both legal and illegal, increasing inter-industry linkages with other economic sectors including coordination between related agencies.

Table 3. Analysis of the Food, Beverage and Tobacco Industry

No	Aspect	Parameter	Meaning
1	LQ	<1	Non Base Sector
2	Acting	Positive	Grow fast in National
3	DJ	Negative	Growth is slower than National
4	Typology	VII	Not enough

2. Textile Industry, Leather Goods and Footwear

The textile, leather goods and footwear industries have a large role as seen in the contribution of the textile, leather goods and footwear industries to the GRDP of the non-oil and gas Manufacturing Industry Sector in West Java Province. The contribution of the textile, leather goods and footwear industry in 2009 amounted to 20.36 percent, ranking second in contribution to West Java's GRDP in the non-oil and gas processing industry sector.

Distribution of the textile industry, leather goods and footwear during 2005-2009 growth decreased from year to year. The problems that occur in the textile industry, leather goods and footwear include, many machines are old (80% are 20 years old), PLN has set new power/installation (3x the normal cost), local shoe brands are not yet developed, lack of supply materials made of leather, limited HR capabilities in design and technology, high dependence on foreign buyers/principals.

Policy steps taken by the government include continuing the machinery restructuring program by providing interest subsidy assistance to the restructuring textile industry, increasing security in the domestic garment product market through suppressing smuggling.

Table 4. Analysis of the Textile Industry, Leather Goods and Footwear

No	Aspect	Parameter	Meaning
1	LQ	>1	Base Sector
2	Acting	Negative	Slow growing at National
3	DJ	Positive	Growth is faster than National
4	Typology	II	Very well

3. Wood and Other Wood Products Industry

The wood and wood goods industry in West Java has a small role in the GRDP of West Java Province, this can be seen in its contribution in 2009 of 1.41 percent. The wood and wood goods industry tended to fluctuate during 2005-2009. The decrease occurred in 2007 to 1.34 percent from the previous year which amounted to 1.4 percent. Then in 2008 it decreased again to 1.21 percent and in 2009 it rose to 1.41 percent.

The problems that occur in the wood industry include the scarcity of supply of wood and rattan materials and the continued export of raw and semi-finished wood/rattan products, the prevalence of illegal logging and illegal trade, dependence on design technology and engineering machinery/equipment for wood and rattan furniture from outside. country, weak ability to design and finish furniture.

Policy steps taken to overcome these obstacles include accelerating the expansion of Industrial Plantation Forests (HTI) and Community Plantation Forests (HTR), regulation of exports of forest products, obligation to verify exports of wood/rattan products. The incentives included the proposed repeal of Permendag No. 12/2005 concerning rattan export provisions to guarantee the supply of raw materials and encourage investment in the domestic rattan industry, controlling obstacles in the transportation of legal wood/rattan raw materials, and building a timber terminal.

Table 5. Analysis of the Timber and Wood Products Industry

No	Aspect	Parameter	Meaning
1	LQ	<1	Non Base Sector
2	Acting	Negative	Slow growing at National
3	DJ	Positive	Growth is faster than National
4	Typology	VI	Almost from Enough

4. Paper and Printed Goods Industry

The paper and printed matter industry in West Java Province has a visible role in the contribution of the paper and printed matter industry, with a contribution of 2.20 percent in 2009 for the province of West Java. The paper and printed goods industry during 2005-2009 tended to fluctuate. In 2007 it decreased to 2.41 percent from 2.64 percent the previous year. Then it rose in 2009 to 2.20 percent.

The problems faced by the paper and printed goods industry include a lack of supply of raw materials due to illegal logging operations and imbalances in demand and supply of raw materials. Policy steps taken to deal with this problem include accelerating the expansion of Industrial Plantation Forests (HTI), increasing environmental pollution control, and increasing illegal logging control.

Table 6. Analysis of the Paper and Printed Goods Industry

No	Aspect	Parameter	Meaning
1	LQ	<1	Non Base Sector
2	Acting	Negative	Slow growing at National
3	DJ	Negative	Slower growth than National
4	Typology	VIII	Less

5. Fertilizer, Chemical and Rubber Products Industry

The fertilizer, chemical and rubber goods industries have a large role as seen in the contribution of the chemical and rubber goods industries to the GRDP of the non-oil and gas processing industry sector in West Java Province. The contribution of the fertilizer, chemical and rubber goods industry in 2009 was 9.04 percent, ranking third in the contribution to West Java's GRDP in the non-oil and gas processing industry sector. The growth of the fertilizer, chemical and rubber goods industries is fluctuating. It decreased in 2008 to 8.77 percent from the previous year which was 11.56 percent. And in 2009 it rose again to 9.04.

The problems in the fertilizer, chemical and rubber goods industries include the end of natural gas contracts for fertilizer factories, disruption of gas supplies for raw materials/energy in several regions, more industrial raw materials are exported, dependence on exports of naphtha and condensate as raw materials. domestic petrochemical raw materials are exported. While the policy steps taken to overcome problems in the fertilizer industry include increasing natural gas, reviewing sales of natural gas for export whose contracts have expired, and restructuring factory machinery/equipment.

Table 7. Analysis of Fertilizer, Chemical and Rubber Products Industries

No	Aspect	Parameter	Meaning
1	LQ	<1	Non Base Sector
2	Acting	Negative	Slow growing nationally
3	DJ	Negative	Slower growth than National
4	Typology	VIII	Less

6. Cement Industry and Non-Metal Mineral Products

The cement and non-metallic minerals industry has a role in the formation of the GRDP of the non-oil and gas processing industry in West Java, as seen in the contribution of the cement and non-metallic minerals industry in 2009 of 1.8 percent. The growth of the cement industry for 5 years tended to decline during 2005-2009. This is due to the potential threat of export cement from China. To

overcome this problem the policies adopted by the government are securing coal and gas energy supplies in the long term, increasing energy conservation efforts, Notifying the application of mandatory SNI to the WTO, Overcoming illegal cement imports in border areas.

Table 6. Analysis of the Cement Industry and Non-Metal Mineral Products

No	Aspect	Parameter	Meaning
1	LQ	<1	Non Base Sector
2	Acting	Negative	Slow growing at National
3	DJ	Positive	Growth is faster than National
4	Typology	VI	Almost enough

7. Basic Metal, Iron and Steel Industry

The basic metal, iron and steel industry has a visible role in the contribution of the base metal, iron and steel industry to the GRDP of the non-oil and gas Processing Industry Sector in West Java Province. The contribution of the basic metal, iron and steel industry in 2009 was 0.49 percent in the contribution to West Java's GRDP in the non-oil and gas processing industry sector. The growth of the base metal, iron and steel industry has fluctuated. Its growth declined in 2007 to 1.84 percent from 1.86 percent the previous year. Then decreased again in 2008 to 1.72 percent and rose again in 2009 to 1.8 percent.

The problems that exist in the steel industry include the many non-standard steel products circulating in the market, dependence on imported raw materials, and increased exports of iron ore. Steps taken to overcome this problem are the development of a non-ferrous metal industry (aluminum, copper and nickel) by utilizing local resources to increase added value and encourage increased utility in existing industries followed by an increase in production quality through the application of standardization.

Table 7. Analysis of Basic Metal, Iron and Steel Industries

No	Aspect	Parameter	Meaning
1	LQ	<1	Non Base Sector
2	Acting	Negative	Slow growing at National
3	DJ	Negative	Growth is slower than National
4	Typology	VIII	Less

8. Transportation Equipment Industry, Machinery and Equipment

The transportation equipment, machinery and equipment industry has a large role as seen in the contribution of the transportation equipment, machinery and equipment industry to the GRDP of the non-oil and gas Manufacturing Industry Sector in West Java Province. The contribution of the transportation equipment, machinery and equipment industry in 2009 was 51.08 percent, ranking first in the contribution to West Java's GRDP in the non-oil and gas processing industry sector. The problems that usually arise from this industry are that the local raw material and component industry is still weak, the design and engineering capabilities of the component/motor vehicle industry are weak, and domestic funding is still limited. For the electrical equipment machine industry, rotary equipment products are still in the development stage.

Table 8. Analysis of the Transportation Equipment Industry, Machinery and Equipment

No	Aspect	Parameter	Meaning
1	LQ	>1	Base Sector
2	Acting	Positive	Grow fast in National
3	DJ	Positive	Growth is faster than National
4	Typology	I	Special

4. CONCLUSION

Based on the results of the research and discussion, the following conclusions can be drawn: Based on the results of calculating the location quotient index in the Province of Java, three basic non-oil and gas processing industries, namely the other goods industry 2.78 percent, the textile industry, leather goods and footwear 2.09 percent and the transportation equipment, machinery and equipment industry 1.42 percent. The processing industry sub-sector in West Java that has the potential to be developed is two industries, namely the wood and wood goods industry and the cement and non-metal mineral goods industry. This potential sub-sector for development has the criteria of having good growth at the provincial level even though it is not a base sub-sector, so it has more than enough potential.

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