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Features of Formation of Product Manufacturing Processes with High Added Value in Kazakhstan

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Abstract: Added value generated in commodity production and has a "fixed" characteristic as the newly created value. It is equivalent to "the difference between the value of produced goods and services used in the production process. Economic nature of the value added is the increment (addition) of the value of produced goods and services. In other words, value added neither is "adding value to the selling price of the goods" as a subjective action and neither is the cost of goods and services used in the production of goods. Valuation of marketable products allows to take into account the difference in the cost of production of goods and services and gross valuation products. This difference should be in mind while taking into account and measured cost effectiveness in the production of goods and services.

Key words: Export, import, value, effectiveness, production

INTRODUCTION

Recently lots of attention is given to the transition of the economy from the directions of exporting raw materials to the industrial economy with high value added products with higher product prices. On the basis of empirical studies on several researches is proved otherwise influence of intensive development of the natural resources sector to the long term economic growth. Sax and Warner on the experience of 100 countries have identified an inverse correlation in research and analyzing of communication growth rate of the aggregate incremental cost individually and the share of exports of natural resources in the HEP. This study is important for the transition economy of the exporting raw materials.

The wealth of natural resources and the predominance in the development of resource production sector of the economy in the long term not stimulate economic growth and vice versa stop it. The output from this such that the specialization of the country on a long-term production of raw materials can not be an effective strategy for sustainable economic growth.

Literature review: During the second half of the twentieth century scholars such as Korden, Niri, Salter, Vaynberg, Dasgupta is tvud created a model of intensive development of the sector "booming sector model" based on the theory of world trade demand and supply factors and macroeconomic dynamics (DiMatteo, 1993). It describes the intensive development of a small open sector. Such sector includes the industry related to the production of mineral resources. With the help of "Booming sector model" was investigated an inverse effect generating resource sharing that have arisen among the processing and manufacturing industries in countries such as the UK, Norway, Canada, Latin America, Indonesia, Egypt (Pykhteev *et al*. 2014). According to the Corden and Nir is determined the basis model "booming sector model" as results of contradictory relations of the two influences and the movement of resources and the impact of the costs-arise in the growing developing sector (DiMatteo, 1993).

The effect of resource movement is detected in the growth of mobile factors (labor and capital) limited production that generates the direction of resources from other sectors. If a high profitability of the manufacturing sector created by the owners or created by the state through taxes it ensures the growth of demand for the sector of goods which is not to trade. In this case, the price of goods which is not trade is growing which resulting in decrease of demand for the products of

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Table 1: Export structure in Kazakhstan

	Mining production			Manufacturing production						
Years	Extraction of energy resources	Etraction of mineral resources	In all	Food production	In all	Metallurgical enterprise production of finished metal products	Production of equipment machinery and manufacturing	Production of electrical equipment and optical devices manufacturing	Production of machine devices manufacturing	Production chemical
2005	19.3	13.1	32.4	16.0	49.3	17.8	2.1	1.1	1.0	1.2
2006	25.3	11.7	37.0	17.2	49.9	17.9	1.7	0.9	1.0	1.0
2007	31.2	8.80	40.0	13.0	50.6	23.8	1.5	0.7	0.7	0.9
2008	28.9	8.40	37.0	13.4	53.6	22.4	1.3	0.8	1.4	1.4
2009	33.1	8.10	41.2	12.5	49.1	20.7	1.2	0.8	1.2	1.4
2010	33.7	7.90	41.6	12.5	48.9	20.4	1.6	0.9	1.1	1.4
2011	39.1	7.40	46.5	10.2	45.5	21.5	1.4	0.9	1.5	1.1
2012	46.8	6.20	53.0	9.0	40.0	17.7	1.3	0.8	1.8	0.9
2013	48.5	6.10	54.6	7.7	39.4	18.5	1.1	0.8	2.0	0.8

Counted according to the Agency of Statistics of the RK. Socio-economic development of the Republic of Kazakhstan. 2016

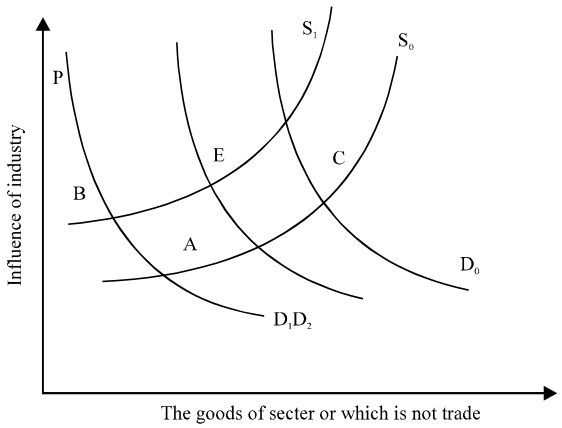

Fig. 1: Influences that will make a boom in the industry of raw materials

manufacturing and processing sector which in turn will leads to an increase in the real exchange rate. Changes in economy according to the result of intensive growth of the manufacturing sector called effect of expenses.

The unique action of these two effects affect to the passage of the manufacturing sector of the labor factor to non traded goods sector which will lead to de-industrialization to the transition of the labor factor to the manufacturing sector.

As shown in Fig.1, the production of non traded goods can be high or low on the initial level (at the points B, C). The cost effect leads to increasing, to decreasing of the effect of the resources movement. In the opinion of A. Hirshman, under specialization of national economy to raw materials, direct and inverse relationship between the resource industry and other sectors of the country's are weakening. Commodity sector can not provide the growth under the link between sectors because few manufactured exports of raw materials do not cause a demand in manufacturing. Exports of raw materials impact on the economy not directly but indirectly-through the importation of foreign currency (Hirschman, 1958). As a result, the sector of raw materials is an enclave in the communication system between the sectors that works to meet their needs and external demand. For the production of the resource sector in domestic demand the base is industry that serve as fuel and energy complex. This means that the internal stimulants of national resource sector are reduced. Therefore, in such form of economy, resource sector does not affect the production, only draws from them the production factors. The sector of raw materials is described by a low level of staff professionalism and low support of works. From this, we can lead to this conclusion the development of the commodity sector does not stimulate the growth of new technologies and the quality of operational provisions and human capital. Currency revenue stream of the country, in turn, leads to an increase in transfers to the budget of "resource tax" to the growth of imports of the purchased "resource income" all this leads to the system economic dependence on exports of raw materials and semi-finished products.

Purpose of Kazakhstan in entering to the number of 30 competitive capacity countries puts obvious challenges in way of formation of the modernization of production of products with high added value. In assessing the ability of competitive of technology method plays a huge role. In the competitiveness ranking of the world economic forum, the combined index 3 is considered as an index of:

- Technology
- Public institutions
- Macroeconomic environment protection

Advances in the development and problems of the economy in Kazakhstan depends on the sign of the export of raw directions and the "Dutch disease". Commodity structure of exports is a clear sign of the economic conditions. If we consider the Table 1 then in recent years, take place a growing of proportion of the

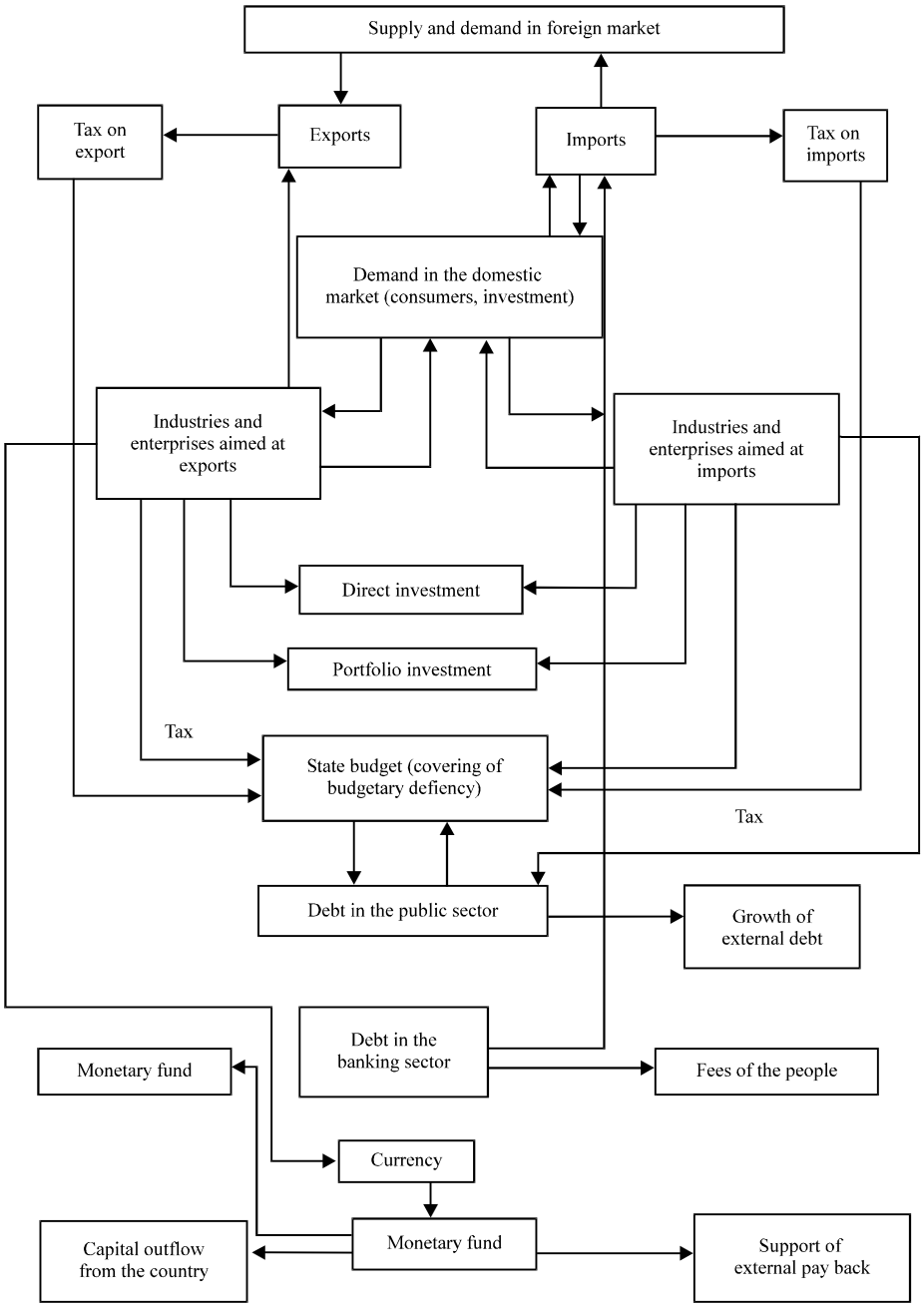

Fig. 1: Continuous impact of exports and imports on the economy (Figure developed by the author)

export structure of the raw materials industry while the share of processing industry from year to year decreases. In 2013, the share of production of metallurgical enterprises is 18.5%, production of metallurgical industry not related to the latest products because they are not subject to further processing. Therefore, metallurgy products are considered as semi-manufactured products. In the manufacturing industries by the largest share of second place is food production. In recent years, food production has reached many achievements and in comparison with other countries has a comparative feature.

Influence of export initial processed products and of natural resources on economy of Kazakhstan takes a systematic look and the export of natural resources determines the budget, the standard of living of the

people, all the conditions of the economic system. As shown in Fig. 2, on the company and its industry which are export-oriented due to the continuous growth falls the main burden:

- Direct and portfolio investment
- Formation of state budget revenues
- Execution of the social functions of the state
- Formation of foreign exchange reserves and hold the exchange rate

The enterprise focused on the domestic market have little impact on the economy above the listed indicators. Import provides domestic demand of the people for consumer products, technological and investment demand of industries and enterprises oriented to the domestic market and exports. Non-oil sector (excluding black and nonferrous metallurgy) non competitive capacity compared to the external market, to the import.

The emergence of this trend is set of the task to the republic, on the formation of the strategy of industrial-innovative development of the state and its regions aimed to modernizing. One of the main objectives of the program of accelerated industrial and innovative development for 2010-2014 is mastering of elements of added value at the specific production.

MATERIALS AND METHODS

The size of added value as an economic category is used to determine the efficiency of production. Added value-the difference of the cost of the product sold by the company and the company purchased the product for the treatment of the material. In other words, added value-the additional value added at promoting a product on the market under the processing. In fact, added value is calculated by direct counting method of accounting and statistical calculation in the enterprise and can be in the following form:

$$Q = T_q + T_p + p + Д + K_p + Y_p + \Delta O + \Delta B + N + \Delta C$$

Where:

T_q = Expenses for payment of wages
T_p = Reimbursement of capital, i.e., the transfer of depreciation for fixed assets recovery
P = Transfers for social needs
Д = Other costs (rent, payment for services of other organizations)
K_p = Commercial expenses
Y_p = Management costs
Δ_O = Operating expenses/income difference
Δ_B = Expenses except realization/income difference
N = Taxes
Δ_C = Net income (net)

If the commodity has covered a long refining process, the cost of value added increases. Depreciation transfers, along with equivalent income made by the company, added to the value added because they are considered as factors of the cost of goods. Added value is a result of the services of many processors or product arising as a result of public, private labor. Since added value is calculated as the difference of cost of services, raw materials spent on the production of goods and income after the sale of the goods, if you reduce the current consumption of raw material, energy and other material resources, the collection will increase the added value thus improve the outcome of the recent services of industrial complex.

If we consider the difference of the term added value from the term "additional cost" embedded by K. Marx then AC is one of the basic concepts of Marxist political and economic theory is considered as the difference between the cost of the labor force (the cost of hard worker) and the salary of the employee.

In the opinion of modern economic science, Marx's understanding of the non arise of added value from commodity circulation, (i.e., trade) may not seem obvious because in different countries combine to provide level added value in 30% (Belousov *et al*., 2013).

The close connection HEP and added value gives meaning to the latter. Because HEP indicators are identified as a result of the sum added value by manufacturing industries. The concept of "high added value" is given in the Tax Code of the Republic of Kazakhstan. The code includes "high added value" is when, after the sale of goods (works, services), the share of income exceeds the share added value by 40%, and belongs to the category of products with high added value. For enterprises with the production of products with high added value can be attributed in satisfying the following conditions (The Tax Bulletin in Kazakhstan):

- Income from private industry, excluding construction sites, the total income of 90%
- Income from sales of goods and services exceeds the share added value by 40%
- Payment of taxes non less 12%

The size of added value is calculated as follows: the sum remitted to employees in the tax period, the amount of amortization of transfer, transfer of tax amount. For enterprises producing products with high added value does not apply:

- Which use the bowels
- The enterprises producing excisable goods
- The enterprises using special tax regimes

- Oil-chemical enterprises are exempt from corporate income tax (The Tax Bulletin in Kazakhstan)
- The enterprises operating in the special economic zone, ñreate for development of technologies that are exempt from corporate income tax (The Tax Bulletin in Kazakhstan)
- The enterprises operating in the special economic zone of "Seaport Aktau" exempt from corporate income tax, property tax, land tax (The Tax Bulletin in Kazakhstan)

RESULTS AND DISCUSSION

So, in Kazakhstan the production of high added value refers to the food production, processing of wood and manufacturing of wood products, machine production, the production of electric appliances and vehicles. It has been revealed 5 factors that prevent the formation of such industries in the economy of Kazakhstan: the first factor is shown in Table 2 features is the ownership structure formed at the moment in the economy of country. In 2009-2013 year, manufacturing products of foreign ownership increased by 2.3% and for 5 year, not more changed. In 2013, the size of the products from the production of foreign manufacturing enterprises is 65.6%. This shows the high dependence of our economy. From this, you can see a significant amount of production is carried out through multinational companies. They carry out their activities in order to develop the economy of the country where their production sýtuated that does not meet the socio-economic ideology and goals of our state. For state manufacturing of the product with high added value is an important goal and the goal is to multiply the income of TNCs on the basis of traditional technologies. Not matching these objectives due to the presence of several objective factors hindering the infusion of capital and labor in industry producing goods with high added value and innovative nature. In the case of high competition, the system of protection of intellectual property and technology and the task is to find a niche of high-tech products with high added value in the world market, the implementation of any strategy to modernize due to a lack of scientific and technical state can come into contact with the above tasks.

In production at high total value added in the technological structure of the national economy, there are two options. First, local improvement special sections of a number of scientific and technological, that is provides an additive improving economic efficiency. Second, reduce the difference between the technological level of science and technology series provides improved economy multiplier effect.

The second factor, the formation of products with high added value in the export of raw materials economy may be different strategy of innovative development of the economy. These strategies include resource-export; knowledge-intensive and export-innovation and resource sector.

Economic development with resource conservation innovation strategy is deeply planted imbalance in industrial structure extrapolation and extension of the commodity export direction. Kazakhstan has implemented this strategy. This option can eliminate or reduce the scientific and technological potential of the country (Terriff *et al*., 2009).

Export-knowledge-based strategy is the inverse of the innovation strategy. In the case of reducing the export of raw materials is not necessary to increase the high technology products. In this situation, the resource innovation strategy is effective and correct. Undertaken with the added advantage of the above two strategies. Resource and innovation strategy provides deep processing instead of them, i.e.:

- Development of the production of products with high added value
- Development of the production of knowledge products
- As a result of initial steps to increase the exports of products with high added value

This type of strategy should be based on the development and continuing of a series of technological processing and handling of products with high added value. This strategy is based on the use of long production series on the use of domestic raw materials with the help of technological cluster. This strategy requires the formation of economic instruments aimed at changing benefits from production to processing of raw materials, i.e., the investor must not only produce raw materials but also to create the conditions where treatment would be effective. The state with its own legal framework should encourage efficient use of human resources and capital, must also support local producers in the world market because it proved a direct link between the business sector and the competitiveness of the country's competitiveness.

On one side, the domestic economy will require increased consumption of natural resources by domestic producers for the production processing. But the implementation of such a strategy raises some interference for the production of products with high added value. So the producers of the metal on the market of Kazakhstan (company monopolists "Arcelor Mittal", "Kazakhmys") using a policy of discrimination, for domestic consumers in the domestic market of products

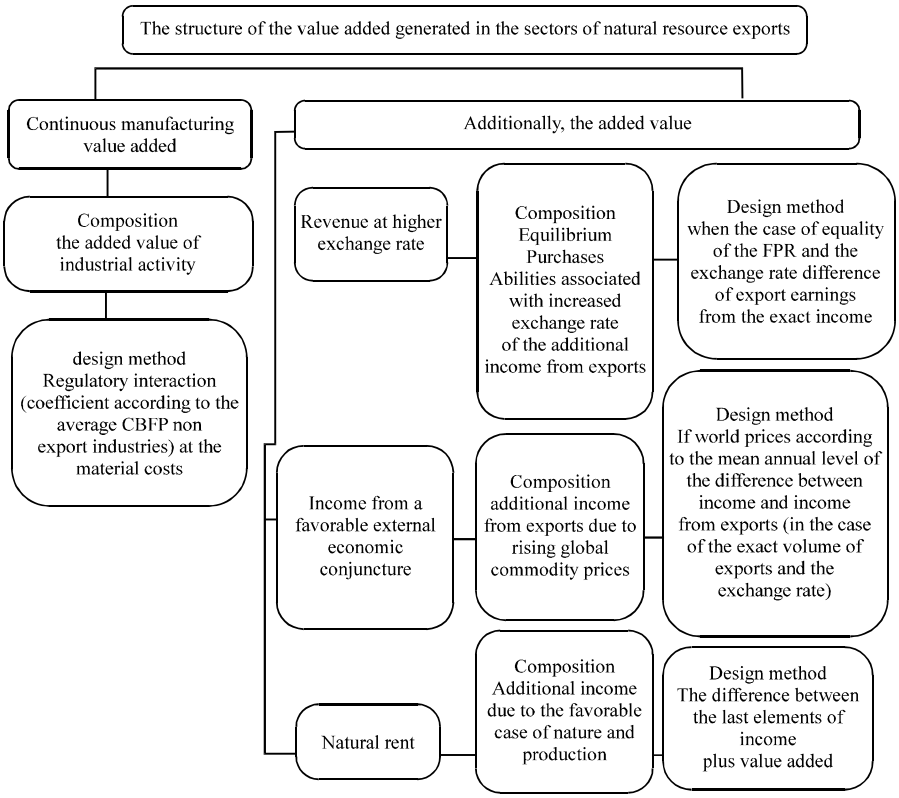

Fig. 2: Structure of the value added in the export of natural resources industries (Figure developed by the authorIncome from a favorable external economic conjuncture

Table 2: Production of manufacture on the facilities property (goods and services) %

Object of property	2009	2010	2011	2012	2013
For all objects of property	100.0	100.0	100.0	100.0	100.0
Property of joint ventures with foreign participation	39.8	41.2	43.0	42.0	45.0
Property of foreign legal persons and property of individuals	23.4	22.1	23.3	22.1	20.6
Property of foreign total	63.3	63.3	66.4	64.1	65.6

Calculated according to the Statistics Agency of Kazakhstan. Socio-economic development of the Republic of Kazakhstan. 2016

puts above the price than the price of foreign exports. Latest for preservation of competitive position abroad is selling at dumping prices. Related to this situation in the market and formed other resources, including oil products on the market. In this situation, the investor non profitable to produce products with high added value (Terriff *et al*., 2005).

If the share of exports of Kazakhstan products will be 90% of the raw materials and processed products, indexes of price changes are listed in Table 3. In this situation, for any entrepreneur would be advantageous to engage in the production of raw materials, due to the strong changes in food prices of raw materials and finished products manufacture products with high added value will be not profitable and with the release of the finished product refund long term, technology too expensive. For these reasons, in Kazakhstan manufacture of products with high added value is not generated.

The third factor as we see in Table 3, shows the possibility of price movements on the capital investment for export delivery. When exporting the product added value to the price of products in Table 4 and 5 may be additional high incomes.

For additional income include the following; additional income from exports due to increased activity of buying the currency at the exchange rate; additional revenue from exports in connection with rising global commodity prices; additional income from the use of the best production conditions of natural resources (Fig. 2).

The fourth factor, include the income obtained by using competitive advantages at low ranks that exporters take as additional income in the Republic of Kazakhstan. For example, if we consider the share of wage cost indices of metal products of the leading countries for the

Table 3: Price indices by economic sectors (in the month of December last year)

Price index for production/year	2009	2010	2011	2012	2013
For finished products	108.8	118.7	149.4	135.2	82.7
For the purchase of raw materials	130.2	105.5	153.3	81.2	114.2

Table 4: Price index of suppliers for export (in the month of December last year) %

Price Index/year	2009	2010	2011	2012	2013
Of all	126.0	115.2	146.5	86.4	110.2
CIS countries	109.1	119.2	131.0	127.1	87.5
far abroad	132.3	114.4	149.5	77.6	115.1

calculated according to the Statistics Agency of Kazakhstan. Socio-economic development of the Republic of Kazakhstan. 2016

Table 5: Share of wage costs of the total value added by industry production

Years	Variables	Total value added	Wages	Other production costs in other subsidies for the production postponement	Consumption of fixed capital	Net income and net profit of the mixed
2009	Production, total	100	26.7	2.2	22.7	48.4
2010	Production of ore	100	18.2	2.3	28.5	51.0
2011	Manufacture of metal ores	100	41.8	2.1	14.2	41.9
2012	Production processing	100	35.6	2.0	13.0	49.4
2013	Textile and clothing manufacture	100	33.8	1.5	15.1	49.6
	Metallurgical production and production of finished metal products	100	29.5	2.1	13.4	55.0
	Machinery and equipment manufacturing	100	64.2	2.1	10.0	23.7
2009	Production, total	100	27.7	2.8	23.4	46.1
2010	Production of ore	100	17.8	3.0	29.6	49.6
2011	Manufacture of metal ores	100	38.0	2.6	16.0	43.4
2012	Production processing	100	37.3	2.6	13.1	47.0
2013	Textile and clothing manufacture	100	51.9	2.1	14.2	31.8
	Metallurgical production and production of finished metal products	100	31.5	2.6	12.8	53.1
	Machinery and equipment manufacturing	100	58.6	2.6	10.0	28.8
2009	Production, total	100	23.6	2.0	20.0	55.0
2010	Production of ore	100	14.0	1.9	24.0	61.0
2011	Manufacture of metal ores	100	30.7	1.7	14.0	53.0
2012	Production processing	100	35.4	2.0	11.0	52.0
2013	Textile and clothing manufacture	100	60.5	2.3	15.0	22.0
	Metallurgical production and production of finished metal products	100	32.2	2.0	11.0	55.0
	Machinery and equipment manufacturing	100	59.2	2.1	8.0	31.0
2009	Production, total	100	24.0	2.2	22.4	51.2
2010	Production of ore	100	16.0	2.1	27.3	55.0
2011	Manufacture of metal ores	100	33.0	1.9	14.5	51.1
2012	Production processing	100	35.0	2.2	12.9	50.1
2013	Textile and clothing manufacture	100	55.0	2.4	13.7	29.1
	Metallurgical production and production of finished metal products	100	34.0	2.5	13.4	49.7
	Machinery and equipment manufacturing	100	59.0	2.6	12.5	26.2
2009	Production, total	100	26.2	2.9	21.1	49.9
2010	Production of ore	100	18.8	3.7	22.7	54.8
2011	Manufacture of metal ores	100	36.9	1.1	9.5	52.5
2012	Production processing	100	33.2	1.6	16.1	49.1
2013	Textile and clothing manufacture	100	53.0	1.8	16.3	28.8
	Metallurgical production and production of finished metal products	100	31.3	2.9	15	50.8
	Machinery and equipment manufacturing	100	32.8	0.2	13	54.0

production of rolled metal (with a list of the social funds), according to the international trade union share of wages in the cost of metal products in the United States (33.1%), Western Europe (France-27.5, Germany-26.8, UK-24.8). In the CIS countries, this figure is low (-12% Kazakhstan, Russia 13%, Ukraine 11%). As a result, these countries take advantage of competition in the lower ranks, the low level of salaries. Actively they shape the other companies in the industries of oil exports of metal products and competitive advantage in the lower ranks. These companies are firms that carry out production processes immediately pass through the additional steps for the conversion of raw materials are used in the production of final. The goal in creating this company is to transform raw materials into a product of the last consumption through the use of new technologies in the exporting countries are producing the product, and production using low technology are in developing countries (Terriff *et al*., 2005). The fifth factor, short-term and expensive loans and administrative interference for the production of products with high added value and diversification of the economy. Thus, in Kazakhstan, the

lending rates for businesses more than in Germany, at the 3-4 times in comparison with Japan by 5 times. Kazakhstan is also on the World Economic Forum in 2012. "Ease of Doing Business" Doing business took 47th place. This rating is the lowest in the World Trade jurisdiction at the 182 place, i.e., exporters and importers face a challenge. The package of measures to modernize the economy aimed at exports and its branches:

- Conducting marketing research to guide the positioning of the economy to the national, the global, regional system.
- Formation of personal competitive strategy of export raw material development through the mobilization of domestic resources and relationships

Effective use and promotion of the two types of factors of production: traditional, it includes: natural resources, labor, capital assets and specialized factors of production, it includes; innovation potential, the quality of human capital, entrepreneurial potential, information systems.

The first type factor is in private ownership. Raising its effectiveness is special competence of private business. The purpose of the local governing bodies is to create conditions for the unification of private business. In private business for postponing cost of the product is also in the government must raise competitive capacity without relying on low wages, modernization, tax incentives and other development path (Table 5) The Equation that determines the value added tax:

$$AV = \text{Payment of wages+tax+income+ consumption of fixed capital}$$

Now look at the structure of value added in industry and production of raw materials. For example, the production of ore and excavation pits salary was here in 2013, 18.8%, 3.7% taxes, income 54.7%, consumption of fixed capital of 22.8%. In the textile manufacturing industry in 2013 amounted to 53% of salary, taxes 1.85%, income -28.85%, consumption of fixed capital of 16.3%. Share of income in the production of textile industry is 2 times lower than the production of ore. Therefore, foreign investors will not decrease the interest in raw material industry.

CONCLUSION

The effective use of human capital and innovative capacity factor in the feed direction and second type of important goal is effective use and promotion of its development. In order to modernize the economy in the commodity-export direction is provided by the system and the formation of innovation. For example, in Germany, when resources were depleted coal mines, construction of new product instead of they building the research institutes and universities. This directly affects the development of human capital, currently Germany through human capital is considered a highly industrialized country. This method requires the intelligence branches of occupancy operational provisions of the people and the capitalization of human resources. In the years of independence, Kazakhstan has lost many research institutes, hundreds of scientists have gone to other industries. The development of science is very low, all this has a direct impact at the innovative development, restricts innovation development.

Income from commodity exports affects the wage increase and the permanent containment of the national currency but it has the opposite effect on the competitiveness of the sector. So, strengthening of the exchange rate is formed capital capacity manufacture and the economy must be capital capacity manufacture because capital provides people occupancy manufacture volume and quality of work.

Long time structural policy of the state-to change the structure of industries and the formation of high-value-added production. In conclusion such a policy must be put on the right path of oil revenues. Western analysts recommend effective use of oil revenues. Raising the disability grant oil can be compared with the scale of the impact of these actions on the economy. Thus our opinion that the revenue from the oil and gas industry needs to be invest for the development of human capital for higher wages in non the oil industry in manufacture process of a number of high value added.

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