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ASSESSING CONTRIBUTION OF LARGEST INVESTMENT PROJECTS TO THE RF FAR EAST ECONOMY

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Abstract

Starting from the late 20th century, the Far East of Russia faces serious challenges in its social and economic development, including the deterioration of the demographic situation and the growth of the share of resources in regions' economies. To solve these problems, new regional policy tools were developed. These include advanced economic development areas and the free port of Vladivostok. These preference regimes aim at attracting investment in the economy of the macroregion by offering significant tax remissions and regular exemptions and they operate in the Far Eastern Federal District since 2015. We analyzed 20 large investment projects in the Far Eastern Federal District implemented by the residents of the advanced social and economic development areas and the free port of Vladivostok. During the analysis, we calculated the value added created through these projects. We assessed their share in the gross regional product of specific Far Eastern regions and the macroregion as a whole. We also calculated value added forecasts. We determined the structure of the value added according to the sources of primary income. The research showed that the share of the 20 largest projects in the gross regional product of the Far Eastern Federal District will increase by 2023. Due to the long lead times, the benefits of advanced social and economic development areas and the free port of Vladivostok should become visible 10-15 years after their establishment. We determined that between 2020 and 2023, the largest amount of value added will be received from resource extraction projects.

Keywords: Far East of Russia, advanced social and economic development areas

1. Introduction

The Message of the President of the Russian Federation to the Federal Assembly defines the social and economic development of Siberia and the Far East as a national priority for the 21st century (Putin, 2013). The key tools employed to implement this goal include the advanced economic development areas (AEDA) and the free port of Vladivostok (FPV). These development mechanisms are new tools in regional policies, which calls for the assessment of the contribution of AEDA and FPV in the economic indicator dynamics for the Far Eastern Federal District (FEFD).

1.1. Brief description of AEDA and FPV

Following article 2 clause 3 of Federal Law No. 473-FZ of 29.12.2014, AEDA is a part of a Russian region where the Government of the Russian Federation established a special legal regime for business activities (Federal Law…, 2014). FPV is a part of the Primorsky Territory and municipal entities of other constituents of the Russian Federation where government support measures for business activities have been put in place (Federal Law…, 2015). AEDA and FPV offer a similar set of tax remissions and administrative preferences. The residents of AEDA and FPV can use concessionary rates for income, land, property, and resource extraction taxes, as well as social fees. Administrative preferences comprise the simplification of customs formalities, opportunities to attract ex-pat workforce outside quotas, and other support measures. A more detailed description of AEDA and FPV operation mechanisms can be found in (Leonov, 2017). The main difference between AEDA and FPV is that the resident of AEDA receives a plot of land and infrastructure from the managing company of AEDA. FPV residents connect to the infrastructure on their own and purchase land through bidding.

1.2. AEDA and FPV as special economic areas

AEDA fully comply with the following special economic area (SEA) criteria used by the UN Conference on Trade and Development (UNCTAD, 2019):

- clear geographical boundaries;
- regulatory regime that is different from the one applied to the national economy;
- Government support for infrastructure construction and upgrade.

FPV cannot be classified as AEDA according to the UNCTAD criteria because it lacks a government support mechanism for infrastructure construction. However, for the purposes of this research FPV can be viewed as a form of SEA.

2. Problem Statement

Contemporary research works formed two approaches to assessing the SEA influence on economic growth (Warr & Menon, 2015). The first approach is based on the neo-classical economic theory and it focuses on the assessment of static/direct impacts created by SEA (Warr & Menon, 2015). These effects may increase employment, investment, and value added. The theories of endogenous growth and new institutional economy form the second approach to the assessment of SEA, which allows for the assessment

of dynamic (indirect) effects, such as the transfer of new technologies and more advanced labor skills (Warr & Menon, 2015). This approach can be exemplified by the work of (Litwack & Qian, 1998). Although there are many theoretical works, empiric research works dedicated to SEA activities are low in number (Wang, 2013). The existing empiric works either focus on the study of SEA growth factors (Wong & Buba, 2017) or assess the influence of SEA on the municipality level (Wang, 2013).

Since AEDA and FPV are types of SEA, these regimes also create static and dynamic effects. The research work by (Krasova & Ma, 2015) claims that FPV will improve the competitive edge and attract new investment. The FPV regime is focused on the development of port infrastructure (Vorozhbit & Korneyko, 2016), as well as transport and logistics (Korec, 2016). The potential impact of AEDA on the changes in the economy of FEFD is ambiguous. On the one hand, AEDA can become the centers of economic growth due to the agglomeration effects (Isaev, 2017). On the other hand, there is a risk of enclaving the existing industrial centers and reducing the motivation for technological progress (Isaev, 2017). The majority of research works that deal with the analysis of the AEDA and FPV operation focus on describing the hypothesis concerning the impact of preference regimes on the FEFD economy and lack quantitative assessments.

The existing approaches in the empiric studies of SEA cannot be used for researching AEDA and FPV. The assessment of preference regime growth factors does not allow determining their effects on the changes in the region's economic parameters. The contribution of AEDA and FPV in the economic development of municipalities cannot be assessed because there are no detailed statistics at this level.

The first AEDA were launched in the Far East of Russia in 2015. The FPV regime was launched in the same year. The short period of their operation makes it complicated to assess the dynamic effects. It requires a longer time series. Therefore, this research only deals with the assessment of static/direct effects created by AEDA and FPV, particularly with the contribution of the preference regimes on the creation of value added.

The research work by (Min & Kang, 2018) claims that it is too early to assess AEDA and FPV because they are long-term development projects. The international experience shows that the most successful special economic areas (SEA) in China and Malaysia demonstrated low development indicators during the first years of their operation and began actively attract investment only after 5-10 years of their establishment (Farole, 2011). Obtaining quantitative assessments for the investment projects implemented in AEDA and FPV, however, is an important goal in the monitoring of their activities.

3. Research Questions

This paper deals with the amount of value added created by the residents of AEDA and FPV during the implementation of investment projects and its share in the gross regional product (GRP).

4. Purpose of the Study

In this research, we tried to achieve the following goals:

- determining the amount of value added created over the period between 2015 and 2019 during the implementation of investment projects based on the accounting (financial) report data from the resident companies of AEDA and FPV;
- assessing the value added that will be created between 2020 and 2030 as a result of implementing investment projects.
- assessing the share of project value added in the GRP of a region of the Russian Federation where the investment project has been implemented or is planned for implementation between 2015 and 2030.

5. Research Methods

5.1. Data sources

To solve the problems mentioned, we used the following information sources:
- accounting (financial) reports from resident companies of the preference regimes in question for 2015-2019 (the SPARK-Interfax information system, https://www.spark-interfax.ru/);
- the project business plan, investment volume, and the volume of grants received (data from the Far East Development Corporation JSC);
- the assessment of key social and economic development indicators from the FEFD regions of the Russian Federation for 2019 and their forecast values for 2020-2023 (data from executive authorities from the FEFD regions of Russia until 2023 following Federal Law No. 172 of 28.06.2014 on the Strategic Planning in the Russian Federation) (Federal Law, 1999).

5.2. The assessment methods for the value added of the projects and the description of data used

To calculate the value added, we used the following formula:

$$VA = X_1 + X_2 + X_3 + X_4;$$

where:
- X_1 is the expenses associated with labor compensation including payments to state non-budgetary funds (employee incomes);
- X_2 is the accrued depreciation (a proportion of company debt);
- X_3 – is net taxes (state income) calculated as the difference between the production tax value[1] and state (federal and regional) grants;
- X_4 – is the net disposable income (company income) equal to the gross profits (losses).

The lack of detailed accounting (financial) reports and the information on the accounting policies of companies made it impossible to take into account the value added created through the work in progress in this research. This value is accounted for as miscellaneous costs (per diem rates, import fees).

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[1] Production taxes include the following: resource extraction tax, company property tax, land tax.

The calculations were performed for 20 investment projects (20 Projects) implemented by the residents of AEDA and FPV with the planned investment volume of 10 billion rubles each[2]. These investment projects comprise 26.7% of the entire planned investment volume from the residents of preference regimes. The calculation of the value added created during the implementation of large investment projects can be deemed sufficient for the assessment of the AEDA and FPV contribution to the changes in the gross domestic product of the Far East. The distribution of the 20 Projects across the regions of the FEFD is provided in Table 1.

Table 1. The distribution of the 20 Projects across the FEFD regions

Territory	Number of projects	The volume of cumulative investment since 2015, bln. of rubles		
		2019 (actual)	2024 (forecast)	2030 (forecast)
Republic of Buryatia	-	-	-	-
Republic of Sakha (Yakutia)	1	32.9	90.1	99.7
Zabaykalsky territory	2	14.2	101.2	101.2
Kamchatka territory	1	0.0	5.3	5.3
Primorsky territory	11	157.4	503.5	512.0
Khabarovsk territory	3	31.9	107.6	107.6
Amur Oblast	1	0.2	39.1	39.1
Magadan Oblast	-	-	-	-
Sakhalin Oblast	-	-	-	-
Jewish Autonomous Oblast	n/a	n/a	n/a	n/a
Chukotka Autonomous District	1	0.8	14.6	16.1

The residents of AEDA and FPV in the Republic of Buryatia and Sakhalin Oblast do not implement projects with investment volumes above 10 billion rubles. The data for Jewish Autonomous Oblast is absent. In Magadan Oblast, the AEDA and FPV regimes have not been established because this region is treated as a Special Economic Area since 1999 (Federal Law…, 1999). Over half of the projects are implemented in Primorsky Territory (11 out of 20). The planned project investment volume in the region is 58.1% of the total values for all 20 Projects. The distribution of the 20 Projects across economic activity types is provided in Table 2.

Table 2. The distribution of the 20 Projects across the FEFD regions

Activity type	Number of projects	The volume of cumulative investment since 2015, bln. of rubles		
		2019 (actual)		2019 (actual)
Resource extraction	5	52.8	231.4	242.6
Transport and storage	7	61.8	174.4	174.4
Agriculture (+fishery and aquaculture)	4	19.6	82.0	83.5
Secondary production	4	103.2	373.6	380.6

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[2] The lack of forecast values in the work makes it impossible to assess the contribution of the integrated projects for the construction of a gas processing plant in Amur Oblast. This project is the largest one in FEFD in terms of investment volume.

The sectoral distribution of the 20 Projects shows that the processing industry receives the largest amount of investment (43.2% of the total capital investment for all investment projects in 2030). The extractive sector of the economy features 5 projects under implementation (27.5% of the total investment volume by 2030). The largest number of projects belong to the transport sector (7), and 6 of them are implemented in FPV (these projects mostly deal with the construction of coal terminals in seaports).

6. Findings

The results of value added calculations for the 20 Projects and their GRP shares across the regions of the FEFD are presented in Table 3.

Table 3. Value added of the 20 Projects and their GRP shares across the regions of the FEFD

Territory	Value added of projects, bln. of rubles		The share of the project value added in GRP, %	
	2019 (actual)	2023 (forecast)	2019 (assessment)3	2023 (forecast)
FEFD	35.3	241.0	0.6%	3.6%
Republic of Sakha (Yakutia)	11.5	101.5	1.0%	6.9%
Zabaykalsky territory	0.8	54.2	0.2%	12.6%
Kamchatka territory	1.1	2.1	0.4%	0.6%
Primorsky territory	18.5	51.5	2.1%	4.7%
Khabarovsk territory	3.0	19.9	0.4%	2.2%
Amur Oblast	0.3	0.2	0.1%	0.1%
Chukotka Autonomous District	0.0	11.6	0.0%	9.8%

In 2019, the contribution of the 20 Projects to macroregion's GRP was 0.6%. By 2023, their share will increase and amount to 3.6% of the forecast macroregion's GRP. The highest share of the projects in the GRP will be achieved in the Zabaykalsky Territory (12.6%). In the Primorsky Territory where the most investment projects are being implemented now, their contribution to the GRP in 2019 was 2.1%. The forecast values show that the contribution of the 20 Projects to the economy of the region will increase up to 4.7% by 2023.

The GRP contribution of a project is determined by two main factors: the project lead time, and its economic sector.

The list of largest investment projects includes 2 projects at the business-planning stage, 5 projects at the design stage, and 10 projects at the construction stage. Since the majority of the projects have not yet gone through the investment stage, their effects on the economy of the macroregion are insignificant. This is primarily explained by the small share of the project value added in the GRP of the macroregion in 2019. The projects will have a major impact on the social and economic situation after commissioning. The investment stage of 11 projects should finish before 2023, which will increase their contribution to the macroregion's GRP up to 3.6%. The other 9 projects will finish before 2028.

The assessment of the project value added across economic sectors is presented in Table 4.

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[3] GRP values for 2019 have not been published by Rosstat when this article was prepared. Therefore, this work uses the data for the executive authorities from the FEFD regions of the Russian Federation.

Table 4. Value added of the 20 Projects and their shares in the GRP across economic activity types

Activity type	Value added of projects, bln. of rubles		The share of the project value added in GRP, %	
	2019 (actual)	2023 (forecast)	2019 (actual)	2023 (forecast)
Resource extraction	15.4	172.1	0.3%	2.6%
Transport and storage	16.5	43.4	0.3%	0.6%
Agriculture (+fishery and aquaculture)	0.7	20.7	0.0%	0.3%
Processing industry	2.7	4.7	0.1%	0.1%

The results of 2019 show that transport and resource extraction industries made the largest contributions to the economy of the FEFD. The returns from investment projects in the agriculture and processing industry are insignificant. In 2023, the effect of extraction industry projects will be significantly higher than that of the other sectors. The global macroeconomic instability caused by the covid pandemic resulted in the increased prices for gold and other precious metals, which had a positive economic effect on the majority of mining projects. The primary markets are sensitive to significant price fluctuations, which creates high risks for project efficiency. The implementation of extraction projects explains the growth of their shares in the Zabaykalsky Territory, Chukotka Autonomous District, and Republic of Sakha (Yakutia).

Despite large volumes of investment, the impact of extractive industry projects on the GRP dynamics remains insignificant. The positive effects of implementing extractive industry projects will only become evident after 2024 because these projects take long before they reach the planned output volumes. The contribution of the processing industry projects to the economy of the FEFD is sensitive to the devaluation of the Russian ruble because these products depend on the supply of imported equipment. The largest processing industry projects are implemented in Amur Oblast and the Primorsky territory. The analysis of changes in primary income distribution allows us to identify the main factors behind the growth of the value added, whose main source is the increase in profits (the growth of the company income parameter). We can forecast the increase in the share of net taxes due to the expiry of tax rebates under preference regimes. The shares of other value added elements, such as employee incomes and depreciation, will reduce (Figure 1).
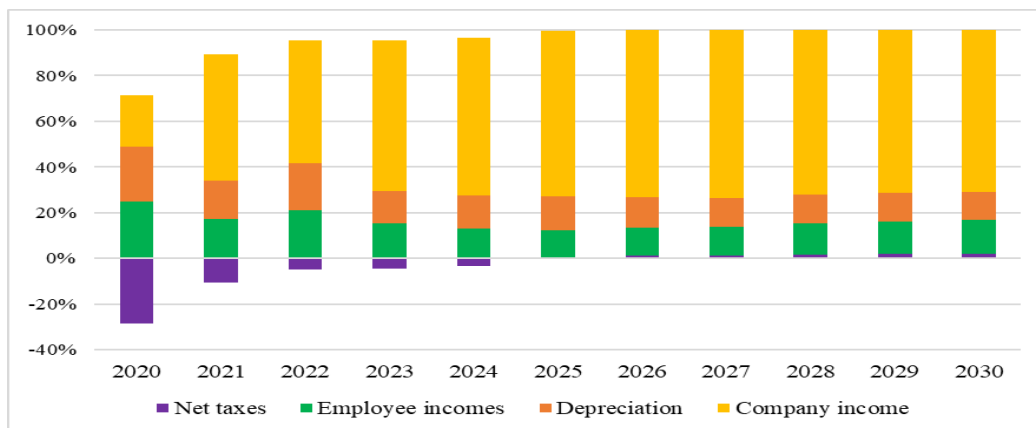

Figure 1. The structure of the value added for the 20 Projects in the FEFD in 2020-2030 across primary income types

7. Conclusion

The contribution of the 20 Projects to the GRP of the macroregion will amount to 3.6% in 2023 already. The projects in the Zabaykalsky Territory, Chukotka Autonomous District, and the Republic of Sakha (Yakutia) can increase their respective GRPs by over 5% by 2023. The Primorsky Territory has most projects and investments. Their implementation can increase the region's GRP by 4.7% by 2023. Their lower contribution can be explained by the higher GRP in Primorye and the prolonged time needed for the projects to reach their planned output volumes.

Investment projects are mainly implemented in the sectors that already exist and develop actively in the macroregion. They primarily include resource extraction and transport. These projects prove the most efficient from the point of view of investment effects for the GRP. However, extractive industry projects have high risks associated with the changes in the global economic conditions and the reduction of resource prices. Transport projects mostly focus on the construction of coal terminals in seaports that are indirectly connected with the extractive industry.

The assessment of investment project contributions shows that the share of the extractive industry in the economy of the FEFD will increase. Despite significant investment in the processing industry projects, their share in the macroregion's GRP will remain insignificant. The processing industry projects in the Far East depend heavily on the supply of imported equipment and materials. As a result, their created value added is very sensitive to the fluctuations of the Russian ruble exchange value.

The main income source within the structure of the value added is company income, while the share of employee incomes is going to reduce.

The share of net taxes in the structure of the value added during the first years of project implementation is insignificant. However, when tax rebates expire, it will increase up to 4% by 2030, which signifies the increase in budget revenues of all levels.

AEDA and FPV managed to attract large investors to the Far East.

However, the long lead times mean that the key benefits of AEDA and FPV operation should become visible 10-15 years after their establishment.

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