Industrial Economic Zone: The Case of Russia

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Abstract: The article has examined particular features of the Russian industrial special economic zones (SEZ). The main question posed by the authors is where there SEZ could be used an efficient economic tool in post-crisis Russia, which is facing significant domestic currency fluctuations. In order to answer this question the operational data of the three Russian industrial SEZs had been observed. Along with that data, the economic model of these SEZs was scrutinized. As an outcome the authors have found that the economic model, that is import substitution, is different in comparison to foreign export-processing zones. By carrying out a survey among the foreign residents of SEZs (9 out of 43) it appeared that such economic model is highly vulnerable to domestic currency rate fluctuations. Indeed, in the article it was empirically proved that the existing model of import substitution of the Russian SEZs is highly dependent on the domestic currency rate.

Key words: Special economic zones • Currency rate fluctuations • Import substitution model and foreign direct investment in Russia

INTRODUCTION

Since the appearance of the first industrial SEZ in Ireland, namely Shannon Industrial Estate in 1959, it became a frequently used tool for attracting FDI in developing countries. Foreign investors see SEZ as an enclave, within which unfavourable business conditions are mitigated by special treatment regime [1]. Among variety of industrial zones, EPZ seems as a one of the most popular in the world. Traditionally, EPZ provides a set of benefits, which allow politicians to deal with essential economic and social problems such as economic growth or unemployment.

The main advantage of EPZs for a host country is that they help to change the orientation of economy from inward to outward direction. This fact became highly important in times of globalization and economies’ openness. Apart from this advantage, EPZ also has the clear economic model of operating [2, 3] that is very stable to domestic currency rate fluctuations.

In the Russian case, industrial SEZs are not export-oriented and moreover the existing economic model of operation is not so clear. While providing the same treatment for foreign investors as EPZs, the main goal of the Russian zones creation is the opposite, namely import substitution. This fact poses serious question concerning the stability of the economic model of operation in case of the national currency fluctuations.

The aim of this paper is to find out whether an influence of the national currency fluctuations on operating conditions of foreign residents of zones exists or not. The findings will help to understand the real economic model of the Russian industrial SEZ operation and provide some policy implications.

This paper is organized in six chapters, including Introduction. In Literature Overview section general SEZ and EPZ features were mentioned. The specific legislative and business conditions of the Russian industrial SEZ were examined in “Industrial SEZ in Russia” chapter. In “Methodology” we used a tool to help us with the experiment—that is survey. In “Data” the received answers from the survey questionnaires were presented. Finally, the chapter for “Conclusion” provides the main finding and policy implications for the Russian government.

Literature Overview: Despite of being a widespread instrument for economic and social development in many countries, on the theoretical level SEZ still does not have a clear and unified definition. It has to be pointed out that the exact way of understanding what SEZ is varies from
country to country and depends on a national legislation. Nevertheless, what commonly understood as SEZ is geographically delimited area administered by a single body, offering certain incentives (generally duty-free importing and streamlined customs procedures) to businesses, which physically locate within the zone [4]. Such broad definition correlates with a numerous types of SEZs, for instance, technology or science parks, financial service zones, etc.

Generally speaking, whatever a type of zone is, a government has a number of goals for creating them. First of all, SEZ could be a proper tool for supporting large-scale governmental reforms aimed to enhance amount of national export. This way of using zones was employed in some Asian countries like China or the Republic of Korea before their rise. Also a government could create SEZ in order to reduce consequences of economic shocks, for example, unemployment [5]. Promoting favorable conditions for industrial companies in times of economic crisis or stagnation may help to slow down growth of unemployment. Moreover, SEZ could be isolated from other country’s territory in sphere of governmental policy. This possibility means that such enclaves could be used as pilot projects for introducing new tax, labor, customs and other legislation.

The last but not the least way of using SEZ is to attract more FDI, which is one of the most significant factors of economic growth for developing countries [6, 7 and 8]. It should be mentioned that FDI inflow could have a positive impact on foreign trade of a host country by increasing an amount of national export in long-term prospect [9].

Among myriad of SEZ types there is an industrial zone aimed to provide special infrastructure possibilities, along with conventional treatment for investors, in order to attract manufacturing companies. The main goal of creating such zones is to increase an amount of country’s export [10]. This goal became rather important since the beginning of liberalization of the world economy and spreading of WTO rules. The latter made the use of protectionism highly difficult for national governments to implement, while boosting their domestic companies’ invasion onto foreign markets.

Hence, EPZ became a proper tool to expand country’s export. Generally, EPZ is defined as ‘a delineated, enclosed and policed area of a country, usually in or near port of international exit and entry, which is treated for customs purposes as lying outside the domestic customs area’ [11]. Along with traditional tax, customs and administrative benefits for companies, EPZ usually provides an access to existing infrastructure like electric facilities or waste management.

By using EPZ a government tries to achieve the following goals [12]. Firstly, EPZ is used as a mechanism to improve the current account balance by expanding country’s exports. Consequently, companies receive foreign exchange earnings by selling their goods abroad. Secondly, EPZ creates new jobs and helps to mitigate negative circumstances of unemployment. The third goal is to attract FDI, which boosts economic growth and leads to a possible transfer of modern technologies from abroad.

The most commonly used type of EPZ is a traditional one, which provides benefits only for companies, which sell their goods on foreign markets. However, there is another sort of zone, namely hybrid EPZ, which allows residents to sell some percent of produced goods on domestic market. Traditional and hybrid EPZs have been popular in the last decades in many developing countries around the world, especially in Asia and Latin America. Moreover, in Thailand and Malaysia the creation of EPZs was a part of general governmental strategy aimed to integrate their economies into global economy by increasing export.

Economics of traditional EPZ has been examined in a set of academic articles. For instance, Johansson distinguished three main factors, which have a positive influence on a host economy [3]. Firstly, foreign investors could bring into EPZ technical, marketing and managerial know-how. Second factor is that such investors have an access to international distribution channels, which are not available for domestic companies. The last factor refers to an ability of foreign investors to provide wide international business dealings.

Warr stated that usual benefits of EPZ for a host country are employment and foreign exchange earnings [2]. He based his assumption on [13] ‘product life cycle’ model, which says that the manufacturing process shifts from developed to developing countries because of differences in labor costs between the former and the latter. On the contrary, transfer of technology does not seem as an important consequence of such zones’ operation. On the one hand, foreign companies use technologies, which are available to all. On the other hand, residents try to keep know-how in secret. Apart from transfer of technologies, buying local raw materials is not a choice in many cases because of low quality or simply absence of domestic analog.
It has to be pointed out that the benefits provided by EPZ for domestic companies are not accompanied with additional risks as it is for foreign investors. Among the variety of such risks for FDI, for instance, government instability, corruption or ethnic tensions [14], one is the currency exchange rate fluctuations [15, 16]. While the direct effect of currency fluctuations on foreign trade is ambiguous [17], it is obvious that export-oriented residents of EPZ might have losses in case of national currency appreciation and benefits in case of devaluation. The main factor of possible benefits and losses is the cost of labor force.

**Industrial Sezs in Russia:** Aforementioned fundamental points regarding the definition of SEZ have been partially used in the practice of creating zones’ in Russia. However, the broad definition stated above mixes up SEZ with other similar institutions that already exist in Russia, such as regional corporations of development, regional economic zones, technoparks and etc. It has to be pointed out that these institutions could provide to potential investors the same or alike benefits as SEZ. However the legislative procedure for creating and operating SEZs is quite different from procedures in many other cases’ [18].

According to Russian federal legislation (Law 116/22.05.2005) SEZ is an area within the Russian Federation territory, which is defined by the Russian federal government and has a special regime of doing business and may have special customs rules. Thus, a distinguishing feature of SEZ is an official governmental decision (bill), which creates such zone. Other institutions could also be created via an official procedure, for instance, as it was with SEZ in Kaliningrad, established by the federal law (Law 16/10.01.2006). Nevertheless, SEZ is the only one, which could be created by the federal governmental decision.

This feature leads to the fact that a special management company, namely JSC “Special Economic Zones”, operates SEZs in Russia. This company fully belongs to the Russian government. Furthermore the shares are not sold publically on any stock market. JSC “Special Economic Zones” builds and operates existing SEZs and is partly in charge of attracting new investors. Nowadays “Special Economic Zones” operates 28 SEZs, including 6 industrial SEZs, from which, 3 are functioning and the other 3 are currently under construction.

In accordance with the Russian federal legislation (Law 116/22.05.2005) the main goals of SEZ’s creation are: development of manufacturing in the high-technology industry, growth of tourist sector and health resorts, creation of port hubs and transport infrastructure, invention and commercialization of technologies, production of new types of goods. However, such goals are general and have not been specified in any other laws. Nevertheless, the Ministry of Economic Development of the Russian Federation defines a development of import substituting industries as a primary goal for industrial SEZ.

Hence, despite of similarity between EPZ and the Russian industrial zones in terms of legislative procedures or tax, customs and administrative treatment, the foregoing economics model of operating EPZs is not appropriate in case of Russia. Despite of export-oriented approach used in conventional model of EPZ, the Russian industrial zones try to attract foreign investors by providing them with favorable conditions to produce and sell goods within the country. The Russian government uses such industrial zones in order to change the structure of the economy from source-oriented to manufacturing one. This approach had been used by low-income countries in the last century, but was replaced by the outward orientation model [18].

The economics of the Russian industrial SEZ, which is mainly aimed to substitute import is rather different in comparison to aforementioned economics of traditional EPZ. The two following models could be described. The first one is that industrial SEZ replaces whole chain from raw materials to final product. The second model relies on the assumption that the Russian industrial SEZ substitute only the final goods.

### Table 1: Indicators of the Russian industrial SEZs operation.

<table>
<thead>
<tr>
<th>Name of SEZ</th>
<th>Year of creation</th>
<th>Number of Residents</th>
<th>Number of foreign residents</th>
<th>Residents’ claimed investment (ml $)</th>
<th>Residents’ revenue (ml $)</th>
<th>Residents’ workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabuga</td>
<td>2005</td>
<td>37</td>
<td>19</td>
<td>1668,36</td>
<td>2704,13</td>
<td>4213</td>
</tr>
<tr>
<td>Lipetsk</td>
<td>2005</td>
<td>29</td>
<td>12</td>
<td>667,32</td>
<td>594,66</td>
<td>2450,00</td>
</tr>
<tr>
<td>Toliatti</td>
<td>2010</td>
<td>13</td>
<td>12</td>
<td>9,99</td>
<td>99,54</td>
<td>208,00</td>
</tr>
</tbody>
</table>

Taking into account the above mentioned models of operation, the two following hypotheses about an influence of the national currency rate fluctuations could be implied.

**H1:** Devaluation of the Russian ruble would have a positive impact on the cost value of the foreign residents’ production. Hence, the final production would be more competitive in terms of price, when compared to import. This could be possible in case of substituting the whole chain of supplies.

**H2:** Devaluation of the Russian ruble would have a negative impact on the cost value of foreign residents’ production. Consequently, the final production would be less competitive in terms of price, when compared to import. It could happen in case of substituting only the final product, while raw materials and intermediate goods are bought from abroad [19].

**MATERIALS AND METHODS**

In order to test our hypotheses we conduct a special survey, which includes a set of special questions, devoted to possible influence of the Russian ruble devaluation, which acquired between January and March 2014 on future business plans of the companies (Table 2). The main questions were devoted to expectations of possible currency rate of fluctuations, possible effects of devaluation (which already happened) on cost value and competitiveness of final product (Table 3).

The questionary was mailed to 43 foreign residents of the three Russian industrial SEZ. Nine completed questionnaires were received, which have added up to more than 20% of foreign residents.

**Data:** According to the answers we received, it could be stated that the majority of foreign residents of the Russian industrial SEZ did not expect such huge devaluation of Russian ruble, which happened at the beginning of 2014. Six out of nine firms expected possible fluctuations with amount less than 3%, while two companies expected changes between 5 and 10% (Table 4).

In case of possible influence caused by the occurred devaluation, seven residents expect that the cost value of their products will increase, while two companies do not expect any changes (Table 5).

Five foreign residents expect that the final price of their products will be less competitive because of changes in cost value, while two companies do not expect any changes and the other two expect that the final price will be more competitive (Table 6). Among the five there are companies from automotive and machinery sectors. On the contrary, companies from woodworking and chemical sectors have more positive expectations.

Along with that, we found out that the most important factor of cost value increasing is that foreign investors have to buy raw materials, intermediate goods and special facilities from abroad (Table 7). In some case, companies cannot find suppliers from Russia or the quality of the Russian analogues are worse than import. For example, Russian companies do not have

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**Table 2: Dynamics of USD/RUB rate, 2014.**

<table>
<thead>
<tr>
<th></th>
<th>01 Jan</th>
<th>10 Jan</th>
<th>21 Jan</th>
<th>01 Feb</th>
<th>11 Feb</th>
<th>21 Feb</th>
<th>01 Mar</th>
<th>12 Mar</th>
<th>21 Mar</th>
<th>01 Apr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of 1$ (Rub)</td>
<td>32,66</td>
<td>33,15</td>
<td>33,64</td>
<td>35,18</td>
<td>34,76</td>
<td>35,77</td>
<td>36,18</td>
<td>36,40</td>
<td>36,11</td>
<td>35,61</td>
</tr>
<tr>
<td>Index, 01 Jan = 100%</td>
<td>100</td>
<td>101,51</td>
<td>103,01</td>
<td>107,72</td>
<td>106,44</td>
<td>109,51</td>
<td>110,79</td>
<td>111,46</td>
<td>110,56</td>
<td>109,02</td>
</tr>
</tbody>
</table>


**Table 3: Example of questions.**

1. **What kind of USD/RUB rate of fluctuations do you expect to see in 2014, when making marketing plans?**
   1. less than 3%
   2. from 3 to 5%
   3. from 5 to 10%
   4. more than 10%

2. **How does the current Russian ruble devaluation influence on cost value of your products?**
   1. there is no influence
   2. cost value will be increased
   3. cost value will be decreased

3. **Will the final price of your product be more or less competitive, compared to import analogues?**
   1. there is no change
   2. the final price will be less competitive
   3. the final price will be more competitive

Table 4: Expected currency rate fluctuations.

<table>
<thead>
<tr>
<th>Expectations</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 3%</td>
<td>6</td>
</tr>
<tr>
<td>from 5 to 10%</td>
<td>2</td>
</tr>
<tr>
<td>from 3 to 5%</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 5: Expectations of the cost value changes.

<table>
<thead>
<tr>
<th>Expectations</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will be increased</td>
<td>7</td>
</tr>
<tr>
<td>There is no change</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 6: Expectations for the change of final price caused by the devaluation (for manufactured products).

<table>
<thead>
<tr>
<th>Expectations</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will be less competitive</td>
<td>5</td>
</tr>
<tr>
<td>There is no change</td>
<td>2</td>
</tr>
<tr>
<td>Will be more competitive</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 7: Reasons why you choose to import (use suppliers form abroad).

<table>
<thead>
<tr>
<th>Reason</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no domestic analog</td>
<td>5</td>
</tr>
<tr>
<td>Domestic analogue has worse quality than import</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 8: Expectations of the amount of planned production changes.

<table>
<thead>
<tr>
<th>Expectations</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of planned production will not be revised</td>
<td>4</td>
</tr>
<tr>
<td>Company is planning to cut down the amount of planned production</td>
<td>3</td>
</tr>
</tbody>
</table>

It could be implied that the majority of foreign residents of the Russian industrial SEZ substitute only the final products, while they have to buy raw materials, intermediate goods and facilities from abroad. This fact allows us to make the two following assumption.

The first one is that such foreign residents are highly vulnerable to the Russian national currency fluctuations. We can see that it poses an additional risk to FDI flows and decreases confidence in the Russian economy. However, the amount of such risk has not been counted and has to be clarified in the following papers.

The second assumption is that the economics model of the Russian industrial SEZ, which is aimed to substitute import, should be changed from substitution of the final product to the substitution of the whole chain of supply. Otherwise the economic model for operating such zones is not stable.

For practical purposes, it means that creation of whole supplies chain will be needed, if the Russian government wants to attract FDI in SEZ in order to substitute import. One possible way to get this effect is to create special clusters.

CONCLUSION

In this paper the specific features of the Russian industrial SEZ were examined in order to find out the existing model of their operations. The theoretical question posed by authors was: if the import substitution model of such zones is stable to the national currency rate fluctuations or not. As it was understood, the existing model of the final product substitution has been recently dramatically influenced by the occurred devaluation of Russian ruble.

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REFERENCES