The Efficiency of Investment Incentives in the Czech Republic

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Abstract: Investment incentives belong to forms of support for foreign direct investments, and play an important role in the decision-making process of multinational corporations regarding the allocation of their investments. From the point of view of fiscal effectiveness they are investments of the country, and they should have their rate of return and bring income to the public budgets, preferably multiplied. The article deals with the issues of fiscal effectiveness measurement of investment incentives under the conditions valid in the Czech Republic. It focuses on a fiscal effectiveness model created for this purpose, which was verified in cooperation with business entities that have received investment incentives. It is based on inputs such as legal entity income tax allowance for a specific period, financial support for creation of new jobs, financial support for training and re-training of personnel, administrative costs of tax collection, subvention to support the transfer of technically equipped premises in industrial estates for an advantageous price. Its outputs are the real outputs from the taxes and other yields on the incoming side of the public budgets. The outcomes of the project confirm that multinational enterprises bring high added value and that they are effective and provide a high rate of return.

Key-words: foreign direct investment, efficiency, investment incentives, competitiveness

1 Introduction

Investment incentives belong to the priority interest not only in the countries with transitive economy but also in developed countries of Western Europe. Over the last couple of decades, as most countries have liberalized their policies in order to attract investment from foreign multinational corporations (MNCs), the attitude towards inward foreign direct investment (FDI) has changed considerably. There is an expectation that foreign MNCs will raise employment, exports, or tax revenue, or that some of the knowledge brought by the foreign companies may spill over to the host country’s domestic firms. Therefore, governments across the world have lowered various entry barriers and opened up new sectors to foreign investment. Governments also provide various forms of investment incentives to encourage foreign investors to invest in their jurisdiction. These include fiscal incentives such as tax holidays and lower taxes for foreign investors, financial incentives such as grants and preferential loans to MNCs, as well as measures like market preferences, infrastructure, etc. [1]

These investment incentives have generated a considerable debate about whether governments offer unreasonably large incentives to entice those firms to invest in their area. Still, this debate about the effectiveness of tax incentives is hardly new and has accumulated a long history. [6]

The Government of the Czech Republic wanted to enhance the competitiveness of the Czech industry and, therefore, established the system of investment incentives for foreign and home companies in 1998. [6]

Since that time, the system has been used to support approximately 641 projects and to create about 137,292 work places. [3]

2 Problem Formulation

2.1 Literary review

According to Brewer, empirical research on tax incentives shows that they sometimes work in attracting FDI, but it remains unclear whether they are beneficial on the whole. Incentives work only if certain preconditions are met, and provided that the correct design is chosen. However, even then, the
benefits remain doubtful if costs are not taken into account. [2]

Medalla points out that there is no presumption that benefits occur because fiscal incentives would encourage more investments. Indeed, the objective of granting fiscal incentives is not to induce more investment per se. [6]

Morisset and Pirnia claim that the potential benefit side of investment incentives has diverted the attention from the cost side. Even if tax incentives were quite effective in increasing investment flows, the costs might as well outweigh the benefits. [9]

Morisset emphasizes that the effectiveness of tax incentives is likely to vary, depending on a particular firm’s activity and its motivations for investing abroad. [8]

Wells reminds that tax incentives may have a significant impact on decisions on location within a genuine single market, such as within the European Union, and suggests that in evaluating the effects of tax incentives, account must be taken of home country policy. [20]

UNCTAD sees as the main consideration in design and administration of investment incentives a careful drafting, so that they achieve policy objectives with a minimum leakage of tax revenue. [16]

OECD prepared the agreement on International Investment Incentives and Disincentives, which is essentially a simple statement that the members “will endeavour” to make their policies more transparent and that they will consult with one another. However, the agreement has apparently been largely ignored and no developed country wished to highlight its own incentives. [13]

Seithi carried out extensive research and, among other issues, he also focused on institutional measures for attracting FDI. He suggested that most of the institutional measures can be categorized under the following three approaches: (1) at the macro level, which is liberalizing the general environment for trade and investment, (2) incentives targeted to attract FDI into specific industries or sectors of the host country and (3) project-specific incentives negotiated with individual MNCs. [14]

Seithi was interested in factors which drive and restructure international business activity: (1) technological advances, (2) pace and structure of economic development, (3) attitude of governments towards the limits of their economic boundaries, and (4) new organizational forms, and new methods of organizing economic activity. These elements are important as many studies show. But on the other hand, there are some factors which strongly discourage foreign investors to invest in a country, such as physical distance, poorer infrastructure, lower purchasing power, wage advantage and relative economic/political fragility militate against investments in developing countries.

According to the World Investment Report (1995) there is still an aim to produce a standardized methodology for evaluating the costs and benefits of different types of incentives. [18]

Margalioth uses standard arguments against the use of tax incentives, i.e. (1) tax incentives distort behaviour and are therefore inefficient. He is arguing that this opinion is flawed because tax incentives are meant to distort behaviour. But they attract investments that would not otherwise take place. He points out that if investments are not taking place because of certain market inefficiencies or if the FDI attracted by tax incentives bring positive externalities, tax incentives which should distort behaviour are efficient because they increase social welfare. It could also be considered that from an efficiency point of view, taxes on capital distort investment behaviour. Therefore, tax incentives, as long as they do not result in negative tax rates, reduce economic distortions. [5]

(2) investment incentives are ineffective and harmful, and have only minor effect on FDI decisions. Tax incentives cannot be harmful and ineffective at the same time if taxpayers can take advantage of the tax incentives without actually investing, or unless investors who would have made the investment even without the tax incentives benefit from them. However, it is necessary to focus on the structure and design of investment incentives. There used to be a consensus in the literature that the considerations of tax incentives have only a tiny effect on FDI decisions. There are more important determinants, such as consumer market size, labour skills, infrastructure, trade policies, political and macroeconomic stability, that dominate decisions regarding investment location. But many researches showed that globalization changed the situation through reducing these factors, and heightened the role that tax incentives play. It should be pointed out that many barriers, e.g. tariffs and currency exchange controls, are reduced and also taxes are adjusted. [5]

(3) It is better to deal directly with the problems that make developing countries less attractive for investment instead of trying to compensate for the disadvantages by offering tax incentives. Margalioth shows attitude of opponents who use tax incentives to attract FDI that using them should compensate for corruption, political instability or lack of infrastructure. [5]
2.2 The problem formulation

The Czech Republic is a popular destination for investment incentives. There is no standardized methodology for evaluating the investment incentives, so it was considered as important to try to find out whether the investment incentives are efficient or not. It is impossible to calculate inputs and outputs in all companies that have received investment incentives.

For proceeding with this research, it was necessary to obtain annual reports of chosen companies and internal account sheets of companies (profit and loss account, balance sheet and book of accountants) for the last 5 years.

The aim of this research was to examine the efficiency and structure of inputs and outputs.

2.2 The methodology

First of all, it was necessary to focus on the theoretical aspects which influence fiscal (tax) effectiveness of investment incentives as one of the possible kinds of public support provided by government.

It is possible to express the tax efficiency by the following formula:

\[ Ef = \frac{T_n + T_w + T_v + T_e + T_o + I + H + S}{W_p + R_e + T_r + D_i + T_c} \]  

In the numerator the following greats will be considered:

- \( T_n \): yield of income tax of natural person from the dependent activity,
- \( T_w \): yield of income tax which is collected from the separated tax base with special tax rate, i.e. yield from the withholding tax,
- \( T_v \): yield from the Vehicle Excise Duty,
- \( T_e \): yield from the estate duty,
- \( T_o \): various charges,
- \( I \): insurance on social security,
- \( H \): public health security,
- \( S \): savings on the expenditure side of the state budget, for example savings on the amount of unemployment benefits when a physical person who is unemployed becomes an employee.

Output in the process of pursuing of fiscal (tax) effectiveness \((Ef)\) is the real yield from taxes, alternatively other incomes from the state budget, such as the determinative source of the income side of the public budgets.

In the denominator these greats will be calculated:

- \( W_p \): financial support for creating work place in CZK,
- \( R_e \): subvention for costs related to retraining of employees in CZK (other cost for retraining which are paid from the public budget),
- \( T_r \): the amount of income tax relief in CZK,
- \( D_i \): subvention for supporting the development of industrial estate,
- \( T_c \): administrative costs related to tax collecting.

Financial support for newly created work places and subvention for payment of part of costs for retraining are expenses from the point of view of the public budget. Its source lies in the collection of taxes and social insurance. The amount of tax relief does not belong to the expenditure part of the public budget and at the same time the investment incentives should bring effects in the scheme of the incomes of the public budget.

It is important to mention that from the methodological point of view the model of the fiscal efficiency was modified and does not take into account the yields of value added tax. In the studied companies the export exceeded the import, and it influenced the excessive deduction, i.e. that the tax on input is higher than the amount of tax on output.

It should be mentioned that in the calculations made, the author did not take into account the savings \((S)\) on the expenditure side of the state budget in the numerator. The author decided purposely to omit this great because the calculation would increase the efficiency. The gained results would not be precise enough. It is also speculative to calculate these savings.

2.3 The companies

The list of companies that have been granted investment incentives is available on the website of the Czechinvest Agency. [3]

It is necessary to mention the fact that there are listed all of the companies even though some of them did not make use of the incentives. The research focuses on 5 companies, 4 of them are related to automotive industry and 1 to food industry.

The data were collected over the period of 5 years after the given company received investment incentives. This period is seen as long enough according to a specialist in this field.

2.4 Conditions for granting investment incentives

Administration of investment incentives was first supported by Government Decree No. 298/1998. The finale was the amendment of Act No. 72/2000 Coll and its subsequent updating in Act No. 452/2001 Coll. This Act has been amended twice. [7]
Receiving investment incentives is regulated by Act No. 19/2004 Coll. that related with entering the European Union. Receipt also depends on investment incentives and changes in some acts (Investment Incentives Act), valid since 2 July 2007 as amended, and some other acts. All of the conditions can be found on the website of Czechinvest. [3]

Investors who launch new production, extend the existing production or modernize it for the purposes of a significant change to the product or the production process can, in the case of an investment which is higher than CZK 50 million, gain the following investment incentives:

1. Legal entity income tax allowance for the period of 10 years for newly established companies or existing legal entities. Or whole entity income tax allowance for 5 years (for newly established companies), part entity income tax allowance for 5 years (for expanding companies).

2. Financial support for creation of new jobs CZK 50,000 per employee in the regions with the highest unemployment.

3. Financial support for training and re-training of personnel. It is in the amount of 25% of cost for training and re-training of personnel in the regions most affected by unemployment. The total amount of the investment incentives (apart from training and re-training) cannot exceed 40% (or 60% by small-sized and 50% by medium-sized companies) of the investments into a long-term property and an intangible property.

Further conditions for gaining investment incentives are the following:

1. The investment must be made into a branch of the processing industry, either into one of the high-tech branches mentioned by the act, or into another branch of the processing industry, provided that at least 50% of the price of the production line will be the acquisition cost of machinery from a government-approved list of advanced (high-tech) machinery.

2. It must be the launch of new production, the extension of existing production, or its modernization for the purposes of a significant change to the product or the production process.

3. The investor must invest no less than CZK 100 million (CZK 350 million before the amendment). In regions where the unemployment rate is higher than the national average by at least 25%, this requirement is reduced to CZK 60 million, and the limit of investment in regions where the unemployment rate is higher than the national average by at least 50% it is reduced to CZK 50 million.

4. At least half of the value of the investment must be funded from the investor’s own capital. The profit from this investment cannot be used for this purpose.

5. The investor must acquire machinery classified in chapters 84, 85 and 90 of the customs tariff worth at least 60% of the total value of the acquired long-term tangible and intangible assets.

6. The proposed production must comply with all Czech legislative requirements for environmental protection.

3 Problem Solution

The results of the research can be found in Table 1 and Table 2. The necessary data was received from the observed companies and according to the procedure in section 2.2 and formula (1) the efficiency of investment incentives was calculated.

This was done with the use of the model of fiscal efficiency in the six observed companies. In Table 1, there are results of the calculation.

In all instances there was the efficiency $E_f > 1$, except the company C, where the efficiency was $E_f < 1$. However, it is important to mention the fact, that this company has a very good position in the market.

On the other hand, it must be noted that in some companies, as D and E, the efficiency of investment incentives is significant. These companies decided to invest in the Czech Republic and these investments were highly effective. Usage of the investment incentives started off a successful production and influenced the suppliers and purchasers. At the same time, it is obvious the amount of the contribution to the public budget is large. The calculated outputs exceeded the inputs in the model of fiscal effectiveness. For example, in company B, this input to the state budget was 1,458 mil. CZK.

<table>
<thead>
<tr>
<th>Company</th>
<th>The amount of efficiency ($E_f$)</th>
<th>The calculation of the effect (mil. CZK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2.24</td>
<td>281</td>
</tr>
<tr>
<td>B</td>
<td>1.28</td>
<td>1,458</td>
</tr>
<tr>
<td>C</td>
<td>0.77</td>
<td>104</td>
</tr>
<tr>
<td>D</td>
<td>2.30</td>
<td>588</td>
</tr>
<tr>
<td>E</td>
<td>3.06</td>
<td>86</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>2,457</td>
</tr>
</tbody>
</table>

[Author’s own research]
The aim of the research was to find out which kind of state support company actually use. The government tries to attract foreign investors by investment incentives as described in part 2.4. The results can be found in Table 2.

Table 2, Structure of the Inputs and Outputs of the Model of Fiscal Efficiency

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Part in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amount of alleviation of income tax</td>
<td>99.1</td>
</tr>
<tr>
<td>Financial support for creation of new work places</td>
<td>0.8</td>
</tr>
<tr>
<td>Subvention for retraining of employees</td>
<td>0.1</td>
</tr>
<tr>
<td>Total inputs</td>
<td>100.0</td>
</tr>
<tr>
<td>Yield of income tax of natural person</td>
<td>51.4</td>
</tr>
<tr>
<td>Insurance on social security</td>
<td>21.8</td>
</tr>
<tr>
<td>Public health security</td>
<td>17.1</td>
</tr>
<tr>
<td>Other outputs</td>
<td>9.7</td>
</tr>
<tr>
<td>Total outputs</td>
<td>100.0</td>
</tr>
</tbody>
</table>

[Author's own research]

The researched companies identified the alleviation of the income tax as the most significant (99.1%). All of the researched companies have been operating in the Czech Republic for more than 10 years. However, this kind of state support poses a potential danger of the investor making use of this government support and moving the production into a different country. The researched companies claim that they did not consider moving into a different country because it would be very costly to move production and to start again.

The next kind of state support is financial support for creation of new work places. This subvention constituted 0.8%. One of the researched companies took advantage of this offer.

The third possible form of government subventions was the subvention for retraining of employees. This is a tiny amount of the state cost and it takes 0.1%. It was used in the new production where a special training was necessary.

On the other hand, the government will receive back the yield of the income tax of natural person (51.4%). The salaries in MNCs are above-average and, therefore, the contributions are so high. The salaries are related to the contribution to social and public health security (38.9%), which is levied from the employees and employer. Other outputs include charges.

4 Discussion

Economists who focus on investment incentives are not unanimous whether the investment incentives are efficient or not. It is obvious that the 641 projects realized in the Czech Republic created nearly 138 thousands work places. [3] It would be very costly to analyze all of the projects but, on the other hand, it would show clearly if the project was effective or not.

This research cannot agree with Brewer that it is unclear whether they are beneficial overall. According to introduced model, it is possible to prove if they are beneficial or not. At the same time, even in company C, where the result was 0.77, the company is an important supplier of parts for automotive industry. Its position in the market can be evaluated as very good. The effect of the investment incentives can still become apparent in future.

According to Seithi, the financial managers of companies confirmed that there is technological advance and skilled personnel, especially in the engineering industry. This has had a long tradition, even during the communist rule. Among other factors, the location in the heart of the Europe obviously plays an important role.

The government supports investment incentives, although the corruption increases, which destroys the good reputation of the Czech Republic among other countries. The research has shown that the good reputation still prevails but it is not possible to rely on it in the future. Margalioth’s remark directed to corruption, political instability or lack of infrastructure appears to be an objective warning for the Czech Republic.

Generally, obtaining of investment incentives contributed to a better infrastructure in the country.

The research by Morisset and Pirnia points out that the potential benefit side of investment incentives has diverted the attention from the cost side. In this research, the costs and benefits were calculated, and the contribution to the state budget is significant. It was shown that investment incentives are efficient. The author is aware of the fact that there are other costs alongside investment incentives, such as the costs of the Agency Czechinvest and staff of the government who participate on the approval procedure for each project.

The research showed that it is possible to partly agree with Morisset that the effectiveness of tax incentives is likely to vary depending on a particular firm’s activity and its motivations for investing abroad. According to the calculation it was shown that out of the four studied companies from automotive industry in three the investment incentives proved to be efficient and in one not.
The UNCTAD and OECD recommendation that investment incentives should be drafted carefully and they should achieve policy objectives with a minimum leakage of tax revenues is considered as an example which should be followed by every government. During the elaboration of the project it turned out, however, that it is not possible because some of the addressed companies on the Czechinvest list did not take advantage of investment incentives. Some of the companies moved to different countries.

5 Conclusion
The aim of this article was to calculate efficiency of investment incentives in the studied companies. It was done with the use of a model which included inputs and outputs to the state budget. The observation of the particular 5 companies showed that there are even multiplied effects of inputs. However, in one company it was proved that the financial means were not effective. Four companies are related to the automotive industry and one company was from the food industry. The investors are strongly interested in the Czech Republic because of the industry tradition. There is one of the disadvantages of the automotive industry, namely the fact that it is highly sensitive to the economical recession.

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References: