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Direct and Indirect Effects of Investment Incentives in Slovakia

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Abstract: Countries trying to attract foreign direct investment often use various tools to influence the foreign investor's allocation decision including public subsidies in the form of investment incentives. However, the effects associated with providing these incentives are often questioned, especially in light of the need to achieve at least a minimum level of attractiveness of the business environment. The primary aim of the present study was to examine the effects of investment incentives on foreign direct investment inflows (direct effect) and on selected macroeconomic variables (indirect effects) under the conditions in Slovakia. Findings showed that the preference of specific forms of investment incentives by the government of the Slovak Republic changed slightly in the observed period of 2002–2019. The results of the regression analysis further suggest that while financial incentives have a positive statistically significant direct effect on foreign direct investment inflows, in the case of fiscal incentives, this effect is the opposite. In terms of indirect effects of investment incentives, only a reduction in the unemployment rate through foreign direct investment was found. The study contributes to the literature by providing evidence on the effects of various forms of investment incentives and by offering some implications for investment promotion policy.

Keywords: investment incentives; financial incentives; fiscal incentives; economic freedom; foreign direct investment; Slovakia

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1. Introduction

Topics connected with foreign direct investment have gained significant attention in the empirical literature in the recent years, especially in the context of transforming countries aiming to sustain their economic growth through various channels including foreign investment presence (e.g., Batrancea et al. 2020). Based on this, huge attention has been paid to factors determining the inflow of foreign direct investment (FDI) into particular country, with special emphasis on the Central European countries that became attractive investment locations of western investors in the last decade (e.g., Gauselmann et al. 2011; Gorbunova et al. 2012; Wach and Wojciechowski 2016). Based on Dunning (1981) eclectic theory, FDI is influenced by three sets of advantages, of which specific location advantages are considered as home country investment determinants. Location decision-making, in turn, contributes to the formation of the economic and social landscape (Sucháček et al. 2017). A detailed investigation of the effects of these location factors, especially those forming economic advantage, on attracting FDI is subject to wide discussion in the literature. With regard to the Central and Eastern European countries, factors such as production costs (e.g., Riedl 2010; Gauselmann et al. 2011), market size, trade openness (e.g., Janicki and Wunnava 2004; Galego et al. 2004; Demirhan and Masca 2008), and other macroeconomic variables (e.g., Plikynas and Akbar 2006; Bobenič Hintošová et al. 2018) have most frequently been examined. Another stream of literature also includes institutional factors such as the infrastructure, government spending, rule of law, corruption or shadow economy (e.g., Gorbunova et al. 2012; Chanegriha et al. 2017; Tintin 2013; Wach

and Wojciechowski 2016; Bailey 2018; Bilan et al. 2019) to the models of inward FDI determinants.

With regard to the countries in transition, particularly those entering the European Union in the last few waves, special attention has been paid to the impact of this accession on the FDI flow and presence. That EU membership was an important anchor, notably for small Central European countries, was highlighted by Tintin (2013), who showed that EU membership itself significantly increased FDI inflows while reducing the impact of gross domestic product (GDP) size on these flows. Hence, EU membership can, to some extent, compensate for country size disadvantage, and consequently lead to attracting more FDI. Similar results regarding a positive association between EU membership and FDI inflows can also be found in works by Estrin and Uvalic (2014) or Tokunaga and Iwasaki (2017).

However, it is often unclear whether superior FDI inflows are the consequence of EU membership per se or higher institutional quality that is necessary for EU admission. Hence, we consider that policy stance and institutional environment, in particular factors like pro-investment policy and investment incentives and their forms, are slightly underexamined in the empirical literature. One important reason for this may be the limited availability of detailed data on the structure and amount of investment incentives. An exception in this regard is Slovakia, a Central European country that received a total FDI inflow of USD 51 billion in absolute terms in the period of 2003–2019. Many of these investments have been supported by a package of investment incentives provided by the government, the list of which is publicly available. However, there is insufficient evidence of the effects of these incentives on FDI inflows, especially when we take into account the fact that the incentive is often granted after the foreign investor´s localization decision is already adopted. Moreover, since the system of investment incentives varies across individual countries, it is reasonable to predict that the effects of investment promotion policy on the development of the particular country may also be country-specific.

Hence, we pose the following research question: How do different forms of investment incentives affect foreign direct investment inflows and macroeconomic performance in a small open economy? The present paper aims to enrich the existing literature by evaluating the effects of fiscal and financial investment incentives on inward FDI (direct effect) and on selected macroeconomic variables (indirect effects) under the conditions in Slovakia. In addition, some studies (e.g., Ruane 2008) point to the fact that investment incentives can only have visible effects if they are accompanied by an overall friendly business environment. Hence, our study also examines the role of the level of business environment in attracting inward FDI and sustaining macroeconomic performance. The analysis covers the period of 2002–2019 and regression analysis was used as the primary methodology.

The rest of the paper is organized as follows. Section 2 reviews the literature connected with the effects of investment incentives on FDI inflows and other variables; Section 3 introduces the dataset and the empirical methodology; Section 4 presents our empirical findings and their discussion, followed by the concluding remarks.

2. Literature Review

The effects brought by investment incentives in the form of public subsidies are most frequently examined directly (i.e., on the basis of their ability to attract inward FDI). Since there are several examples that investment incentives have attracted significant foreign investments, especially in the case of transition countries, this aspect is reflected in the positive findings of the empirical literature. In the Czech context, it is generally stated that the provision of investment incentives is in most cases effective (Cedidlová 2013) and positively related to the development of regions (Hlaváček and Janáček 2019). Similarly, in the Slovak context, investment incentives are considered as a basic tool to support foreign investment activities (Fabuš and Csabay 2018). However, this conclusion seems to require stronger empirical underpinning. When comparing Central European and Baltic countries, the results of the study by Šimelyté and Liučvaitienė (2012) favor the first group of countries, since their combination of fiscal incentives, together with financial ones, attract

more FDI. The combination of the two policies for attracting FDI, namely the government´s immediate and certain lump-sum cost of the subsidy and tax rate reduction, as a possibly optimal investment promotion policy under certain circumstances, was also highlighted in the study by Tian (2018). However, Sarkar (2012) points to the interesting fact that governments provide financial investment incentives to companies and at the same time imposes taxes on their profits.

When distinguishing particular forms of investment incentives, fiscal incentives, especially tax-related, are considered more important for attracting and benefiting from foreign direct investment (Edwards and Newton 2016) and thus have received significantly more attention in the literature, perhaps also due to availability of data regarding taxes. A study by Azémar and Desbordes (2010) highlighted the importance of fiscal incentives and deregulation of labor markets in attracting FDI. Results achieved by Van Van Parys and James (2010), on one hand, showed that reduced complexity of the tax system helped to attract FDI, however, the tax holidays, as one of the most popular fiscal incentives, had no robust positive relationship to FDI. More recent studies show similar ambiguities. Ślusarczyk (2018) concluded that the tax incentives provided by the Polish government are considered to be a crucial factor in influencing the decision of foreign investors to allocate their investments to Poland. On the other hand, Hsu et al. (2019) provided a rationale for the termination of the tax incentives in China, since they proved that these incentives were not a sufficient determining factor of inward FDI.

In addition to the direct effects of investment incentives associated with an increase in inward foreign direct investment, other indirect effects are also expected, leading to increased productivity and the creation of new jobs, which should in turn lead to economic welfare and prosperity. However, the findings in this regard are rather ambiguous. The estimation results obtained by Yanikkaya and Karaboga (2017) showed that investment incentives had a negative or, at best, no positive effect on the selected macroeconomic variables. Although Musil and Hedija (2020)—only on a basis of a correlation analysis—demonstrated a statistically significant positive relationship between investment incentives and GDP growth, they also pointed to a non-statistically significant relationship between investment incentives and the output gap. Thus, they generally concluded that the investment promotion policy did not react flexibly to the current needs of the Czech economy. However, similar or possibly more detailed study conducted in the Slovak context is missing in the existing literature.

Investment incentives per se are thus often questioned as an effective tool for attracting FDI. As indicated by Havránek and Iršová (2010), the governments of host countries often use investment incentives as a tool addressed to foreign investors in order to compensate for shortcomings such as the existence of a high burden of employment costs and/or insufficient labor productivity in the host country. In a similar sense, a review study by Munongo et al. (2017) concluded that most of the empirical studies that they had explored suggested a combination of incentives with other factors such as macroeconomic conditions, infrastructure, and transparent institutions in an effort to effectively attract FDI. Similarly, a meta-analytic review by Bailey (2018) concluded that "good government" attracts FDI. However, governments that successfully attract foreign direct investment provide, in addition to various forms of investment incentives, at least a stable political environment with predictable and reliable public institutions that allow foreign investors to reap country-specific benefits. Hence, investment incentives can be considered effective only in cases where the business environment of the host country is considered satisfactory.

The outlined controversies and literature gaps led us to investigate the issue in more detail by considering the direct and indirect effects of different forms of investment incentives as well as the quality level of the overall business environment, under the conditions of a small open economy. On a basis of the literature review, we hypothesize that investment incentives effect FDI inflows and macroeconomic performance, however, the magnitude and the strength of the relationship between particular forms of investment

incentives on one hand, and their direct and indirect effects on the other hand, might be different.

3. Data and Methodology

Inspired by the review study by Liou (2012), which analyzed the successes of incentive policies in attracting FDI and increasing economic growth, in our study, we evaluated similar effects of investment incentives provided by the Slovak government in the period of 2002–2019. More specifically, the aim of our research was to examine the effects of fiscal and financial investment incentives as well as the level of business environment on the inward FDI (direct effect) and on the selected macroeconomic variables (indirect effects).

To study the effects of investment incentives and other variables, we followed the approach by Agu et al. (2015) by using an ordinary least square (OLS) technique in a multiple form and decomposition of investment incentives into particular components (forms). Following this, regression models were constructed to study the direct effects of investment incentives and other variables.

$$FDI_t = \beta_0 + \beta_1 logFisII_{t-1} + \beta_2 logFinII_{t-1} + \beta_3 GDPGR_{t-1} + \beta_4 IEF_{t-1} + \varepsilon_t \quad (1)$$

$$FDI_t = \beta_0 + \beta_1 logFisII_{t-1} + \beta_2 logFinII_{t-1} + \beta_3 GDPGR_{t-1} + \varepsilon_t \quad (2)$$

As the dependent variable, the total volume of foreign direct investment inflow (*FDI*) was used. Data on FDI inflow were taken from the World Bank database. As independent variables, the total volume of fiscal investment incentives (*FisII*) as well as financial investment incentives (*FinII*) provided in individual years were used. Data on provided investment incentives in the structure of fiscal and financial incentives were calculated according to the data given in the list of entities to which investment incentives were provided, as published by the Ministry of Economy of the Slovak Republic. The level of economic growth was expressed by the growth of GDP *(GDPGR)* based on the data published by the Statistical Office of the Slovak Republic. In addition, the quality of overall business environment in the country was measured through the Index of Economic Freedom (*IEF*). When using the index, higher values are associated with a higher level of economic freedom. Data on the Index of Economic Freedom were taken from the Heritage Foundation.

Regression models were constructed to study the indirect effects of investment incentives and other variables.

$$GDP_t = \beta_0 + \beta_1 logFisII_{t-1} + \beta_2 logFinII_{t-1} + \beta_3 FDI_{t-1} + \beta_4 IEF_{t-1} + \beta_5 UR_{t-1} + \beta_6 Wage_{t-1} + \varepsilon_t \quad (3)$$

$$UR_t = \beta_0 + \beta_1 logFisII_{t-1} + \beta_2 logFinII_{t-1} + \beta_3 FDI_{t-1} + \beta_4 IEF_{t-1} + \beta_5 logGDP_{t-1} + \beta_6 Wage_{t-1} + \varepsilon_t \quad (4)$$

$$Wage_t = \beta_0 + \beta_1 logFisII_{t-1} + \beta_2 logFinII_{t-1} + \beta_3 FDI_{t-1} + \beta_4 IEF_{t-1} + \beta_5 logGDP_{t-1} + \beta_6 UR_{t-1} + \varepsilon_t \quad (5)$$

where the dependent variables used were the volume of GDP (*GDP*), unemployment rate (*UR*), and level of average nominal monthly wage (*Wage*). The input data were taken from the Statistical Office of the Slovak Republic. As independent variables, besides those in models (1) and (2), we also used the volume of inward FDI (*FDI*), the volume of GDP (*GDP*), unemployment rate (*UR*), and the level of average nominal monthly wage (*Wage*).

In models (1)–(5), all the independent variables were used with a one-year lag (similar to the study by(Bevan and Estrin 2004), since we expected a delay in the effect of independent variables on attracting foreign investors and influencing macroeconomic conditions. Since volumes of investment incentives are in absolute numbers and based on summary statistics are skewed to the right, we followed the suggestion of Osborne (2002) and applied logarithmic transformation of these data.

Descriptive statistics of the aforementioned variables are provided in Table 1, and the correlation matrix in Table 2. Pearson correlation coefficients were used in the correlation matrix. In addition to coefficients estimated in the OLS regressions, we also conducted R^2, R^2_{adj}, Durbin-Watson, and Granger tests. Calculations were conducted in IBM SPSS 22.

Table 1. Descriptive statistics.

	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
FisII	206,950,023.00	0.00	206,950,023.00	50,981,809.2778	51,962,797.98420	1.781	3.772
FinII	241,028,314.00	0.00	241,028,314.00	55,763,398.9444	68,574,438.88813	1.517	1.751
FDI	6,064,345,209.70	−362,908,482.70	5,701,436,727.00	3,061,536,539.4556	1,801,485,985.58198	−0.183	−1.181
IEF	11.00	59.00	70.00	66.6722	3.20511	−1.249	1.343
UR	12.80	5.80	18.60	12.6167	3.74468	−0.181	−0.591
Wage	643.52	448.48	1092.00	760.4989	181.31333	−0.098	−0.600
GDP	56,841.70	37,329.50	94171.20	67,787.6333	16,238.34690	−0.383	−0.581
GDPGR	16.30	−5.50	10.80	3.9722	3.42049	−0.765	3.045

The correlation matrix of the used variables is presented in Table 2.

Table 2. Correlation matrix.

	FisII	FinII	FDI	IEF	UR	Wage	GDP	GDPGR
FisII	1	0.349	0.222	0.301	0.021	−0.076	−0.031	0.240
FinII	0.349	1	0.200	−0.048	0.280	−0.369	−0.350	0.370
FDI	0.222	0.200	1	0.222	−0.042	−0.246	−0.211	0.465
IEF	0.301	−0.048	0.222	1	−0.335	0.314	0.379	−0.025
UR	0.021	0.280	−0.042	−0.335	1	−0.868 **	−0.878 **	0.157
Wage	−0.076	−0.369	−0.246	0.314	−0.868 **	1	0.993 **	−0.367
GDP	−0.031	−0.350	−0.211	0.379	−0.878 **	0.993 **	1	−0.316
GDPGR	0.240	0.370	0.465	−0.025	0.157	−0.367	−0.316	1

Note: The asterisks denote the statistical significance of coefficients at a level of 1% (**), based on *p*-values.

4. Results and Discussion

Slovakia is a small open Central European country that has undergone a process of economic transformation within which foreign investment presence is considered to play a crucial role. However, other Central European countries have also embarked on a comparable systematic economic transformation, relying on similar comparative advantages such as favorable geographic location, relatively low labor costs and high labor productivity, stable political environment, etc. Hence, an individually determined system of investment incentives has often become a decisive factor in attracting foreign investment. Examples of investment projects that initially considered all the Central European countries as appropriate locations, however, based on the provision of a generous package of investment incentives were finally allocated in Slovakia, are the investments of PSA Peugeot Citroën or KIA.

The structure and conditions for the provision of investment incentives are slightly different within Central European countries, since they can be considered as a tool of competitive struggle in attracting FDI. For Hungary, besides standard cash subsidies, tax incentives, low-interest loans, or land available for free or at reduced prices, special VIP subsidies and strategic agreements individually negotiated with the Hungarian government are typical. In addition, Poland has also established administratively separate Special Economic Zones with rich investment incentives and preferential terms designed mainly for foreign investors. However, detailed data on the volume and structure of investment incentives in these countries are not available.

The most similar investment incentive schemes are applied in the Czech Republic and Slovakia, basically distinguishing fiscal and financial incentives. Figure 1 provides a comparison of the development of the total volume of provided investment incentives in these countries for the period of 2002–2019. A more detailed comparison of the structure of investment incentives was not possible due to the unavailability of detailed data for the Czech Republic.

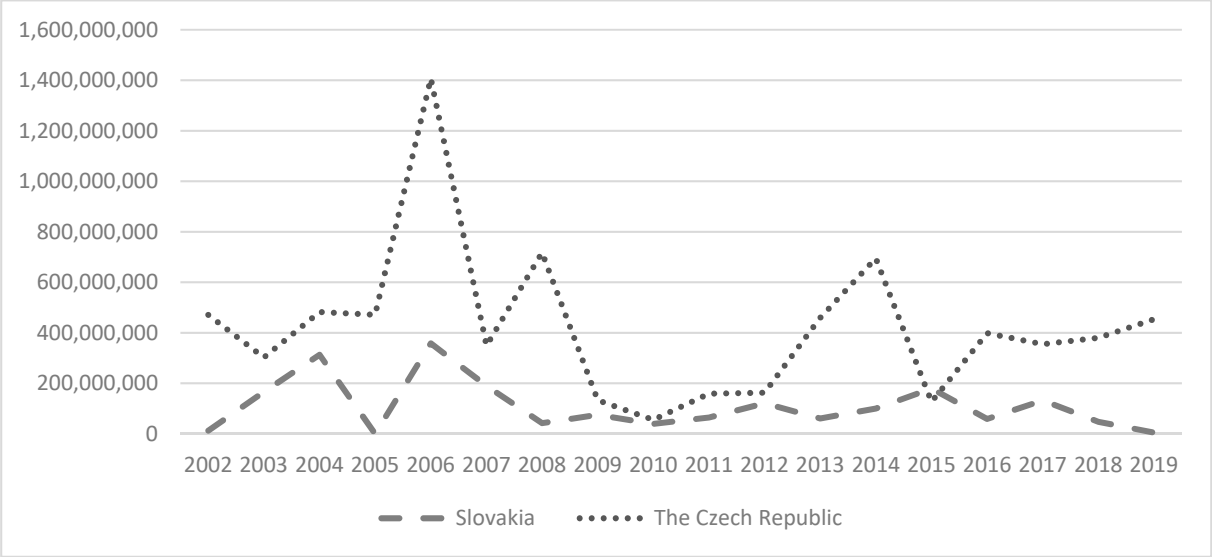

Figure 1. Development of the total volume of provided investment incentives in Slovakia and the Czech Republic. Source: Own processing based on data from Ministry of Economy of the Slovak Republic and www.czechinvest.org.

Figure 1 shows that the amount of provided investment incentives was significantly higher in the Czech Republic, especially in the first half of the reported period. Even if we take into account the fact that the Czech Republic is approximately two times bigger than Slovakia in terms of population size, the difference in the amount of provided investment incentives was still significant. While in the Czech Republic the total amount of €7.5 billion was provided for investment incentives in the observed period, in the Slovak Republic, it was less than €2 billion. A similar disparity is evident in terms of the number of supported projects as the ratio was 926 Czech projects to 213 Slovak projects. However, while more than 85% of supported projects were implemented by foreign investors in Slovakia, in the Czech Republic, it was only about 43%. Thus, it appears that Slovakia is concentrating more on supporting foreign investment compared to domestic ones.

Under the conditions of the Slovak Republic, two basic forms of investment incentives are usually provided by the government: financial incentives in the form of grants for tangible and intangible fixed assets as well as contributions for new jobs creation, and fiscal incentives in the form of corporate income tax relief. The preference of the particular form of investment incentive is not defined in the legislation; however, there are precise conditions that shall be fulfilled for provision of the particular form of incentives. In practice, the majority of investment projects (54%) receive a package of investment incentives consisting of at least two forms, combining fiscal and financial incentives. The potentially supported projects should fall into one of the defined categories, namely an industrial production, a technology center, a combination of industrial production, and a technology center and a business services center.

Figure 2 shows the development of the provided investment incentives across the whole monitored period from 2002 to 2019 including the structure as well as the number of approved applications.

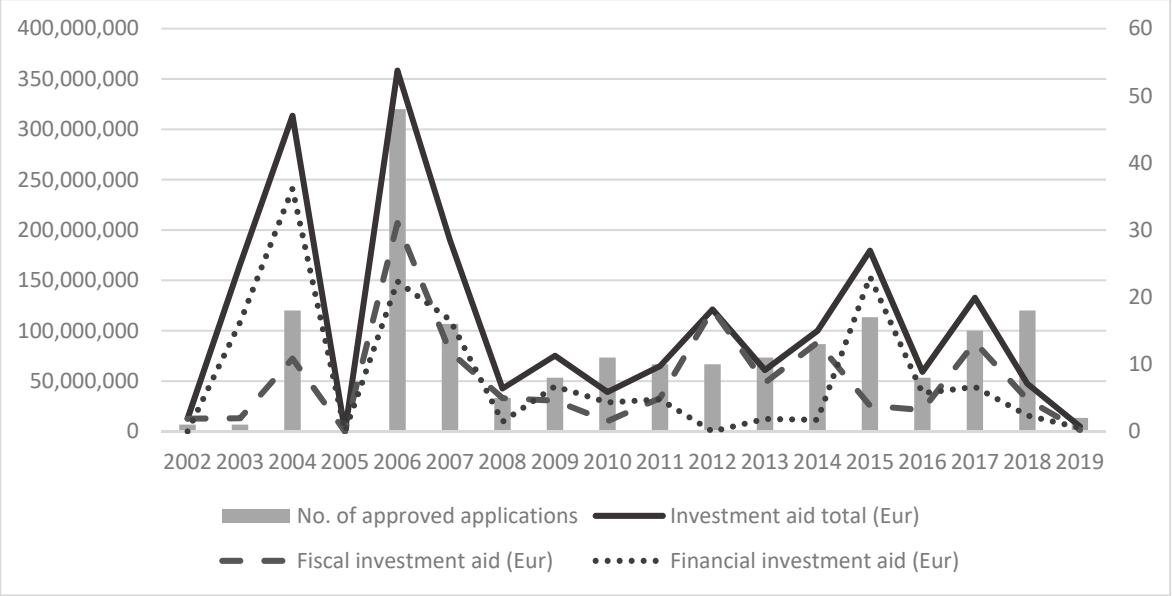

Figure 2. Development of provided investment incentives in Slovakia. Source: Own processing based on data from Ministry of Economy of the Slovak Republic.

Due to significant changes in legislation, the provision of investment incentives can be assessed in two basic periods, before and after 2007. In the first observed period (i.e., 2002–2007), a total of 84 applications for investment incentives in the total amount of €1040 million were approved. Almost 60% of this amount was provided in the form of financial incentives and the rest as corporate income tax relief. In the second observed period (i.e., 2008–2019), a total of 129 applications for investment incentives in the total amount of almost €928 million were approved. Compared to the previous period, more investment projects were supported, but the total amount of provided investment incentives was lower, which means that smaller investment projects were supported, especially in marginalized regions. In terms of the structure of investment incentives, the ratio between financial and fiscal stimuli changed significantly compared to the previous period. The government began to prefer fiscal incentives with less immediate impact on the state budget, which was reflected in the share of fiscal incentives on the total amount of investment incentives of almost 58%.

The descriptive statistics of all the variables used within our analysis is provided in Table 1. With regard to the ratio of the particular forms of investment incentives during the whole observed period, the average values showed that a slightly higher amount was provided in the form of financial investment incentives. The average inflow of FDI to Slovakia was positive and reached an amount slightly exceeding USD 3 billion. In terms of the level of economic freedom, the country reported an average score of 66.67 points and moved around the 60^{a} place in the ranking of the Heritage Foundation. From the selected macroeconomic variables point of view, Slovakia reported a relatively high unemployment rate of 12.6%, relatively low average nominal monthly wage of €760, and the GDP growth reached an average level of 3.9 percent in the observed period.

Within our research, our interest was to more deeply study the direct and indirect effects associated with the provision of particular forms of investment incentives. The empirical results of model (1) and model (2) (i.e., showing the direct effects of investment incentives and other variables including level of economic freedom in Slovakia on FDI inflows) are shown in Table 3.

Table 3. Regression results of models (1)–(2).

Variable	Model (1)	Model (2)
Constant	4,574,043,665.940 (0.620)	4,191,869,255.855 ** (2.981)
logFisII	−572,785,105.569 ** (−2.621)	−571,430,387.438 ** (−2.740)
logFinII	139,807,022.215 * (2.182)	302,838,401.426 ** (2.369)
GDPGR	242,584,136.357 ** (2.451)	242,940,018.348 ** (2.561)
IEF	−5,771,047.605 (−0.053)	
R^2	0.589	0.588
adjusted R^2	0.451	0.493
Durbin-Watson test	2.243	2.244
Granger test	0.047	0.018

Note: t-statistics in parentheses. The asterisks denote statistical significance: * at a level of 10% and ** at a level of 5%.

Fiscal and financial investment incentives and GDP growth have a significant impact on FDI inflows in the following year, though the impact of fiscal investment incentives is negative. If a bivariate analysis was performed, directions of the relationships would remain the same, but the fiscal nor financial investment incentives alone would not be significant.

The Table 4 further reports empirical results of the models (3)–(5), i.e., showing indirect effects of investment incentives and other variables on the selected macroeconomic variables.

Table 4. Regression results of models (3)–(5).

Variable	Model (3)	Model (4)	Model (5)
Constant	2622.125 (0.150)	88.457 (0.548)	−6029.378 *** (−7.515)
logFisII	−120.196 (−0.306)	0.387 (1.220)	−5.394 (−1.116)
logFinII	202.430 (0.779)	−0.234 (−1.193)	2.538 (0.803)
FDI	3.474×10^{-7} (0.815)	-7.723×10^{-10} ** (−2.716)	2.392×10^{-9} (0.454)
IEF	28.589 (0.126)	0.279 (0.861)	−13.858 *** (−4.232)
UR	−60.428 (−0.152)		−3.492 (−0.709)
Wage	86.832 *** (10.259)	−0.010 (−0.388)	
logGDP		−18.031 (−0.439)	1620.875 *** (9.212)
R^2	0.983	0.818	0.981
adjusted R^2	0.973	0.708	0.969
Durbin−Watson test	1.961	1.253	2.190
Granger test	0.501	0.627	0.220

Note: t-statistics in parentheses. The asterisks denote statistical significance: ** on a level of 5% and *** on a level of 1%.

As expected, based on the correlation matrix, wages significantly influenced GDP, and no other significant impact was identified. The unemployment rate was found to be influenced by FDI inflows, and no other significant impact was identified. The impact of FDI was negative (i.e., FDI inflows increased employment). Wages could be explained by GDP and IEF, and no other significant impact was identified.

Based on the results, FDI inflow to Slovakia seemed to be significantly and positively influenced only by the financial form of investment incentives. This finding confirms the explanation offered by Burger et al. (2012) that foreign investors value financial incentives, especially grants and subsidies, as these are usually provided at the beginning or during the investment process, not only when the investment is profitable, as in the case of fiscal incentives. However, managerial preferences of particular forms of incentives can be influenced by a set of factors such as the national, cultural, or institutional characteristics of the particular investor (Poor et al. 2019).

On the other hand, fiscal incentives seem to have had a negative statistically significant impact on inward FDI. As indicated by Azémar and Dharmapala (2019), the effectiveness of tax incentives depends mainly on the tax regime of the investor's home country, especially if it imposes worldwide taxation on income from abroad. Absence of tax sparing provisions in bilateral tax treaties can cause nullification of host country tax incentives by home country taxation. In addition, Munongo et al. (2017) pointed to other problems associated with tax incentives such as difficulties associated with the administration of tax incentives, misallocation of resources, and potential corruption, as a result of which they may be unattractive to investors.

Regarding the overall business environment assessed by the Index of Economic Freedom, we did not demonstrate its significant impact on FDI inflows. However, we used the values of the overall composite index without distinguishing specific dimensions describing different aspects of the business environment. Based on previous studies (e.g., Sambharya and Rasheed 2015), it is reasonable to assume that some of the dimensions are important determinants of FDI inflows. Part of the evidence for this is the statistically significant positive impact of GDP growth as a measure of economic progress in the country on inward FDI.

When analyzing the other effects of investment incentives on selected macroeconomic variables, like in the study by Yanikkaya and Karaboga (2017), no statistically significant relationship was identified. There was only one indirect statistically significant relationship through the inward FDI that negatively affected the unemployment rate. This finding is a consequence of the direction of FDI to labor-intensive sectors, as a result of which the unemployment rate is lowering. Similar conclusions have also been made by Táncošová (2019). With regard to other statistically significant relationships, there was a positive bi-directional relationship between wages and macroeconomic performance measured by GDP. A negative relationship between the Index of Economic Freedom and the level of average nominal monthly wage can be explained by the fact that while the development of the business environment fluctuated, nominal average wages gradually increased due to the huge pressure on the increase in the minimal wage.

Our results have some implications for investment promotion policy. Since fiscal incentives are not a sufficient determinant of FDI inflow into Slovakia, they should be subjected to promotion policy and tax reform, as in the case of China, as justified by the study of Hsu et al. (2019). Greater emphasis should be placed on financial incentives as their advantages over fiscal ones also lie in the possibility of greater impact on the incentive recipient and the related monitoring of the specific strategic goals of the incentive provider. According to Šestáková (2008), they also make it possible to compensate investors differently in the case of structural disadvantages and risks.

At the same time, we agree with the conclusions of Szent-Iványi (2017) that investment promotion policy in Visegrad countries including Slovakia is lagging behind and in this context, several fundamental changes would be appropriate. In addition to attracting more targeted foreign investment, more active post incentive cooperation with investors already

operating in the country, accompanied by the provision of various services and support for reinvestment in order to prevent the so-called stimulus tourism, would be particularly appropriate. Hence, as suggested by Barbu and Boitan (2020), it is necessary to promote good public governance, since it exerts effects on the economy in general that can also be specifically reflected in more significant indirect effects associated with the provision of investment incentives.

5. Conclusions

The present study was primarily aimed at the examination of the direct and indirect effects associated with the provision of investment incentives in Slovakia. Our descriptive analysis first showed that while more financial incentives were provided up to 2007, attracting especially significant foreign investments, however, after a change in legislation, this trend was slightly modified as the government of the Slovak Republic began to prioritize fiscal incentives in the form of corporate income tax relief with an indirect impact on the state budget. In most cases, however, investors were provided with a whole package of incentives consisting of both financial and fiscal ones.

Our subsequent regression analysis focused on examining the effects associated with the provision of investment incentives. The results showed a positive statistically significant direct effect of financial incentives on inward FDI. Financial subsidies in the form of grants for tangible fixed assets and intangible fixed assets and/or contribution for newly-created jobs are attracting foreign investors to allocate their investment in Slovakia. On the other hand, fiscal incentives seem to have rather the opposite effect on FDI inflows, which can be connected with the various tax regimes applied by the investors' home countries. Further research of tax sparing provisions within bilateral tax treaties could provide a deeper explanation of this negative association.

In addition, we also examined the impact of business environment measured by the level of the overall economic freedom in the country on FDI inflows; however, no statistically significant results were found, probably due to the consideration of the values of the overall index. It is reasonable to assume that foreign investors, when placing an investment in a particular country, assess individual partial aspects of the environment such as the level of economic growth as we have shown, which we consider important to investigate further. With regard to the other macroeconomic effects of investment incentives, we identified only one indirect effect on the lowering of unemployment rate through inward FDI.

The findings indicate the need to reconsider the change in pro-investment policy with greater emphasis on financial incentives. However, they need to be linked to the fulfillment of specific strategic objectives in the longer term and in relation to other post-incentive benefits that would more intensively connect the investor with the host country. In this respect, further research aimed at analyzing the reduction of regional disparities under the influence of provided investment incentives may be very important.

The main limitations of the study lie in covering a relatively short period of time and the focus on a single-country analysis. Extended time series data or cross-country data would probably bring more pronounced results. However, data on investment incentives in a detailed structure were only available for Slovakia, where investment incentives began to be provided from 2002.

Although these results are limited to the conditions of Slovakia, the study provides a significant contribution to the literature on the direct and indirect effects of various forms of investment incentives and also brings some implications for investment promotion policy.

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