



## ORIGINAL ARTICLE

**Citation:** Prochazka, P., & Cerna, I. (2022). Reinvestment and effective corporate income tax rates in V4 countries. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 17(3), 581–605. doi: 10.24136/eq.2022.020

Contact to corresponding author: Petr Prochazka, petr.prochazka@vse.cz

Article history: Received: 16.08.2021; Accepted: 15.07.2022; Published online: 30.09.2022

### Petr Prochazka

Prague University of Economics and Business, Czechia

 [orcid.org/0000-0002-8886-6241](https://orcid.org/0000-0002-8886-6241)

### Iveta Cerna

Prague University of Economics and Business, Czechia

 [orcid.org/0000-0003-4864-6997](https://orcid.org/0000-0003-4864-6997)

## Reinvestment and effective corporate income tax rates in V4 countries

**JEL Classification:** E22; F21; F43; H25

**Keywords:** *Visegrad Four countries; reinvested earnings; effective corporate income tax rate; foreign direct investment*

### Abstract

**Research background:** In the Visegrad Four (V4) countries (Poland, the Czech Republic, Hungary, and Slovakia), the inward foreign direct investment (FDI) shows high shares in the exports and gross domestic product (GDP). Furthermore, reinvested earnings play a significant role in the national balances of payments (BoP). Therefore, it is crucial to investigate the reinvestment rates and effective corporate income tax rates (ETRs) of transnational corporations (TNCs) and financial institutions settled in the V4 countries and compare them with the said rates in other European Union (EU) Member States. It is essential to unveil factors shaping investors' decisions to reinvest profits. Policymakers should reflect on them when cultivating the overall business climate to boost citizens' welfare.

**Purpose of the article:** We aim to identify the determinants of the FDI profit reinvestment rate in the V4 countries as host economies from 2014 to 2019 and draw a comparison with the EU–27 average. We dedicate special attention to the correlation between the reinvestment and the ETRs and other selected business climate indicators as specified in the World Bank's Ease of Doing Business (World Bank, 2020).

**Methods:** To assess the determinants of the reinvestment rates, we employ a three-stage model of multiple linear regression, where we analyse extensive datasets published by the International Monetary Fund (IMF), Eurostat, World Bank, and public and aggregate country-by-country reports (CbCR) provided by the respective financial institutions and TNCs.

Copyright © Instytut Badań Gospodarczych / Institute of Economic Research (Poland)

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Findings & value added:** Our research shows that the corporate income tax (CIT) rate and ETRs significantly correlate with the reinvestment rate. The same applies to three Ease of Doing Business sub-indicators (Starting a business, Getting credit, and Contract enforcement). Contrary to the findings of Lundan (2006), Beugelsdijk *et al.* (2010), Nguyen and Rugman (2015), and Sutherland *et al.* (2020), macroeconomic factors, the profitability of corporations, and exchange rate stability turned out to be statistically insignificant. Our research has policy implications, for it can contribute to policy discussions on enhancing business environments in the V4 countries and ways to motivate foreign investors to reinvest their profits. The added value combines macroeconomic data with the unique and relatively new CbCR databases.

## Introduction

Visegrad Four countries (V4) find themselves in a position of “dependent market economies” (Nolke & Vliegthart, 2009), which the role of foreign direct investment (FDI) can prove. They generated 3.98% of the region’s GDP between 2014 and 2019; the reinvested earnings constituted 59.7% of this amount (Eurostat, 2021).

From the policy point of view, it is vital to understand the position of V4 countries vis-à-vis their European rivals in terms of the reinvestment rate and effective corporate income tax rates (ETRs) of transnational corporations (TNCs) and financial institutions. ETRs have proven to be a valid factor in affecting the decisions of TNCs to invest in target, or host, economies (Prochazka, 2020). The V4 countries are currently at a crossroads in positioning themselves within the global value chains and appropriately investing in upgrading within them. That might be an opportunity to escape their “middle-income trap” by focusing on high-value-added economic activities and avoiding the notion of low-cost regions with a relatively skilled labour force (Bobenic Hintosova *et al.*, 2018). Alternatively, as Nolke and Vliegthart (2009) coined, it could mean to stop acting as a “dependent market” economy model. Current restructuring processes towards Industry 4.0 are magnified and accelerated by the ongoing COVID-19 “economic transformation” that can quickly result in various possible outcomes (Bic & Vlckova, 2020).

We apply the model of reinvestment determinants introduced by Lundan (2006, p. 39) to the case of V4 countries. Two research questions arise: What factors determined the proportion of the FDI profits reinvested in the host V4 countries over the period of 2014 to 2019? How does the V4 countries’ performance differ from the EU–27 average? Particular attention is paid to the role of the ETR. We investigate the extent to which banks and TNCs, in general, reinvest their profits in V4 countries. Nolke and Vliegthart (2009), Nerudova *et al.* (2019), and Schuh (2013) argue that the region is instead used for exploitation and profit shifting. However, it

can be expected that if the evolution of an impact economy is fostered, when compared to a dependent economy, it would help to drive the post-COVID-19 recovery towards the increased welfare of its inhabitants by the FDI in general or banks in particular (Gaigaliene *et al.*, 2018).

We run multiple linear regression models with the data gathered through a comparative quantitative analysis based on three data sources: country-by-country reports of financial institutions as collected by Jansky (2018) and further updated to 2019, data from the Organisation for Economic Cooperation and Development (OECD) Corporate Tax Statistics Database (OECD, 2019) indicating the ETRs and CIT rates, and BoP data (Eurostat, 2021). These datasets represent a mixture of individual micro-level reports and aggregated macro-level data. Our results suggest that the higher the CIT rate or Contract enforcement, the lower the reinvestment rate. On the other hand, higher ETR and Ease of Doing Business indicators of Starting a business and Getting credit give rise to a statistically significant increase in the reinvestment rate.

Our study is novel in several ways: It sums up the determinants of the FDI profit reinvestment rate in the banking sector of V4 countries. In addition, it analyses data based on country-by-country reports (CbCR) in one selected region (V4 countries). It is rather innovative as previous studies have focused on data from corporations globally headquartered or located within a region, yet, in all cases, only the global impact was subject to investigation. Jansky (2020) analyzed European banks, while Torslov *et al.* (2018) investigated different ways to quantify profit-shifting consequences. An analysis of US large multinational enterprises was performed by Garcia-Bernardo *et al.* (2021), while Brown *et al.* (2019) focused on the relationship between the country-by-country reporting requirement and MNEs' reporting practice. Another stream of literature has focused on the ontology of the CbCR system. Murphy *et al.* (2019) pointed out all the various drawbacks of the standard and the ways it can be misused. Wojcik (2015) measured its effectiveness. Unlike these two papers, Dutt *et al.* (2019) support the system's usage and promote its expansion.

We structured the paper in the following manner: In the literature review, we determine the position of the reinvestments in the BoP, sum up previous research on the reinvestment rate factors in general and demonstrate the profit generated from the FDI in the V4 countries and its reinvestment. Subsequently, the research methodology explains how we utilised the existing research to design a three-stage multiple regression model for fitness maximisation. In the discussion, we consider our results in the context of the literature review, while in the Conclusion, we summarise our findings, mention their limitations, and indicate future research pathways.

## Literature review

According to the BoP methodology, reinvested earnings are reported within the Direct investment account as “Reinvestment of earnings”. At the same time, they are recorded as debits in the Current account (within the Primary income account) (IMF, 2013, p. 135). Corporations that perform the FDI are not, *per se*, automatically obliged to retain earnings (profit) in the business undertaking where they were generated. At the very moment when earnings are generated, they become part of the gross operating surplus, which, in turn, counts as part of the GDP, thus constituting an essential indicator of a healthy economy. The aforesaid operating surplus can be used in many ways — paid in the form of dividends to shareholders outside the territory (factor transfer), within the territory (capital account), or reinvested (financial account — new FDI, primary income balance — reinvested earnings) (IMF, 2013). In some cases, the scale of the gross operating surplus can be reduced by the use of services with related parties via wrongly determined transfer prices, the creation of artificial services, or trade with hard-to-value intangibles, where it is complicated to determine the correct transfer price (OECD/G20, 2015).

Reinvested earnings have the following role in the BoP rebalancing mechanisms (Blanchard & Milesi-Ferretti, 2009): they contribute to the appreciation of the host economy’s currency (if floating), thus increasing the global value of the savings denominated in the said currency. That, in turn, very likely extends the purchasing power in the host economy, boosting the FDI/capital stock and reducing the cost of the capital. On the other hand, it can paradoxically bring about an increase in export prices and labour costs and weaken the attractivity of the host economy for further FDI. Generally speaking, if the GDP goes up, the overall welfare of the citizens grows as well (Hirschman, 1958). TNCs typically strive to maximise their profits. Therefore, they compare a series of variables to make their reinvestment decisions (Lundan, 2006). Indeed, shareholders primarily tend to support solutions resulting in a profit leap, contributing to the rise in the market value of the corporations that they have a stake in. Lundan (2006) explores factors that motivate TNCs to reinvest profits in host countries instead of repatriating them to the home country and identifies the following determinants: macroeconomic factors affecting investment opportunities in the host country, the profitability of the FDI, exchange rates, different corporate governance systems, the tax treatment of repatriated foreign income (intra-firm dividends), and the use of dividend policies as a mean of managerial control.

Chakravarti and Xiang (2011) indicate additional determinants based on a sample of small businesses — access to external financing, the extent of private ownership, and the firm's competitiveness. TNCs and their impact on local communities have been a focus of academic discussion for decades and have become part of regional studies research. Beugelsdijk *et al.* (2010) also mention similar factors that should influence the rate of (re)investment: the level of market development (we employ GDP/capita as a proxy), exchange-rate volatility (we utilise the (non)membership in the eurozone) and labour productivity. Nguyen and Rugman (2015) describe the subsidiaries' financial and non-financial performance as key growth factors in (re)investment levels. Furthermore, they point to the institutional environment. Accordingly, our model includes selected Ease of Doing Business index sub-indicators as independent variables. Agodo (1978) shows that the tax rate is not necessarily the determinant for (re)investment. He concludes that the profitability of the investment, GDP/capita, GDP, primary infrastructure, and the rule of law are probably important. Sutherland *et al.* (2020) state that the institutions, market openness, GDP growth, inflation, and exchange rate fluctuation are, among other things, relevant for inward investment from China.

Since the beginning of economic transformation (especially after their EU entry), the V4 countries have predominantly attracted FDI from the EU–15 countries, where market-seeking and cost-efficiency-seeking investment projects prevailed (Michalski, 2016). As for the Czech Republic, between 2000 and 2009, Cerna (2011) argues that there was a positive correlation between the FDI inward stock from 95 economies and the membership in the European Economic Area, the GDP per head in the home economy, and the time shift. Cerna and Tausser (2013) investigated the FDI inward stock in Poland from 2002 to 2009 using a statistically advanced gravity model with independent variables being the number of inhabitants, geographical proximity, the existence of a common border and common language, differential in the GDP per capita and technological advancement, and differential in corruption levels. They conclude that there is a negative influence of the difference in the Corruption Perception Index between the host economy and Poland, leading to the conclusion that direct investors in Poland preferred similar or lower corruption levels than those in their home economy.

The V4 countries' geographical and cultural proximity to the developed markets of Western Europe fostered a trend of high FDI influx. However, this has brought about the vast exploitation of the V4 countries' resources that have drained the FDI profits away. Large privatisation projects concerning banks and the heavy industry sector were carried out in the late 90s

and early 2000s. Tab. 1 demonstrates that the profit outflows have continued to strongly impact national BoPs, mainly in the form of negative balances of the primary income. In addition, Durana and Bacik (2021) emphasise the phenomenon of earnings management as a tool of business profit manipulation in the V4 countries.

Tab. 2 indicates the sizeable shares of reinvested profits in the V4 countries' inward FDI. The high proportion of debt funding in 2020 is primarily due to Hungary's debt worth 70 billion EUR. Furthermore, it is evident from the evolution of the national BoP of all the V4 countries that each country shows a highly negative balance of the net international investment position (NIIP), which is disproportionate to the FDI stock position (IMF, 2021). In addition to the V4 data, Tab. 3 involves information about Belgium, another export-oriented economy of a similar size, to highlight the gaps originating from the different historical paths. The strong attractiveness of Hungary as an FDI destination is also confirmed in the original research by Andrejovska and Konecna (2020). The relatively satisfactory result of the Czech Republic in terms of the NIIP is mainly due to the excessive foreign currency reserves, whose major portion was accumulated over the period of 2013–2017 when a managed floating regime with a one-sided exchange rate floor at 27 CZK/EUR was operated. The foreign exchange interventions performed during that time by the Czech National Bank made the current value of its reserve assets soar to 48.3% of the total NIIP assets in the 3<sup>rd</sup> quarter of 2020 (Czech National Bank, 2020).

Given the relationship between the reinvested earnings and repatriated profits in V4 countries, it is worthwhile mentioning the typical FDI life cycle, as per Dunning (1981), further applied by the Czech National Bank (2014) or Novotny (2018). In the beginning, foreign investors suffer from high entry costs, while they aim later for reinvestment to boost revenues and maximise the use of resources. Eventually, the FDI reaches maturity (after 16 years on average). By then, the foreign investor starts to pay out dividends as there are fewer reinvestment opportunities. In other words, the marginal profit rate decreases and becomes less attractive than the one in the investor's home country or elsewhere.

Nevertheless, even after reaching maturity, the overall benefit over the investment cycle is highly positive. Firstly, Szabo (2019) points to the advantages embodied in the wages, social security contributions, reinvested earnings, and paid corporate income tax. As for the V4 countries, the Czech Republic has gained the highest share of repatriated profits, hovering around 5% of the GDP between 2008 and 2016, dividends being the single most prominent reason for the gap between the GDP and the gross national income (GNI). Moreover, there are various spillover effects, such as the

process and/or functional upgrading of the TNCs' affiliates and their specialised suppliers, diffusion of know-how, and improvement in workforce skills (Pavlinek & Zizalova, 2016). That denies the notion of assembly factories with low added value, which is equivalent to the term “cathedrals in the desert” coined by Massey (1995).

The Visegrad Fund report (Gotz *et al.*, 2020) reconfirms the importance of an appropriate mix of investment flowing into the V4 countries, so they do not stay locked in the middle-income trap with assembly lines and manufacturing with low added value that requires, in general, only a semi-skilled labour force. The report acknowledges the role that TNCs and their investments play in upgrading the region towards the digitalised era of Industry 4.0. According to the report, V4 governments urgently need to formulate and adopt efficient measures and policies. Otherwise, they risk exploitation by the TNCs, led by the continuous pressure for cost reductions and productivity increases. V4 countries, as relatively passive users of technologies, performing merely lower value-added tasks within the global value chains, are faced with the risk of FDI delocalisation towards lower labour-cost regions with more attractive investment and business environments (Michalski, 2016). Similar research undertaken at the NUTS (Nomenclature of Territorial Units for Statistics) II regional level (Comotti *et al.*, 2020) shows that the majority of capital invested in the V4 countries as well as in Bulgaria and Romania in the form of inward FDI is headed for production rather than headquarter, innovation, or service activities. In addition, the research reveals that the inward FDI in the countries mentioned above was rather “backward” looking within the global value chains, only providing supplementary, fragmented tasks with a lower added value.

Similarly, Gabrielczak and Kuziemska-Pawlak (2021) found a below-average added-value in services exports of V4 countries compared to other EU countries based on their panel of 2010–2018 data. Endrődi-Kovács *et al.* (2018) and Hluskova (2019) demonstrated the upgrading potential of Hungary, Slovakia, and Poland, with limits caused by wage growth and lack of qualified workforce in Samsung company and the automotive industry, respectively. This trend was further exacerbated by Covid-19-related events (Kalotay & Sass, 2021).

Braja and Gemzik-Salwach (2020) argue that in terms of the high-tech exports share in the total national merchandise exports, Slovakia and Poland underperform compared to the EU–27 average, while the Czech Republic and Hungary exceed the average. However, unlike the rest of the V4 countries, the trend over time is negative in the Czech Republic. Nonetheless, in terms of the national high-tech exports share in the total EU high-tech exports, Poland is top of the league with over a 10% share, while Slo-

vakia plays a marginal role with less than a 1% stake. Michalski (2016) indicates negative balances of trade in high-tech products in all the V4 countries except Hungary. He concludes that there is a “...*technological dependency and structural burdens typical for the middle-income trap. It takes the form of being first- or second-tier suppliers for further stages of production*” (Michalski, 2016, p. 39). Recent research stressed a somewhat favourable tax system (Su *et al.*, 2018) and low labour costs of a relatively highly skilled workforce (Bobenic Hintosova *et al.*, 2018) as important determinants of success of V4 countries.

Our study is innovative in several ways: Firstly, it sums up the determinants of the rate of the FDI profit reinvestment in the banking sector and MNEs in general of V4 countries. Secondly, it analyses data based on the CbCR in one selected region (i.e., V4 countries), which is rather innovative. Our quantitative analysis explores the determinants of the reinvestment rate (as % of the total GDP) declared within the analysed economies. We chose the determinants as indicated by Lundan (2006), Beugelsdijk *et al.* (2010), Nguyen and Rugman (2015), Sutherland *et al.* (2020), or Agodo (1978).

## **Research methods**

To understand the investment and reinvestment flows among the V4 countries and the EU–27 countries, we employed a comparative quantitative analysis on the below-listed sources, which are heterogeneous as to the time and sectors covered, but provide us with extensive datasets:

- Publicly available country-by-country reports of financial institutions, as collected by Jansky (2018) and further updated to 2019, provide information on the turnover, profit, tax, and the number of employees in each jurisdiction where the given financial institution operates. The database is a balanced panel (banks not having full coverage were excluded). It includes reports of the largest 46 banks headquartered in the EU from 2013 to 2019. We can consider the panel to have a fixed effect selection, as it contains only banks listed within the 50 largest European banks in terms of turnover.
- Extensive data from the OECD Corporate Tax Statistics Database (OECD, 2019) with the ETR and CIT rates containing information on the same variables as the banks’ database. Although the data provided cover all sectors, they are anonymised and only cover the year 2016. The companies’ combined turnover in the database accounts for 44 trillion EUR in the respective year, almost a hundred times more than

the banks' database (covering 3.8 trillion EUR over seven years). The dataset thus has similar characteristics to a panel, yet it cannot be guaranteed that it is a balanced panel. Some corporations might have decreased their turnover below the threshold and do not report anymore. Alternatively, some corporations might have increased their turnover above the threshold and thus are obliged to provide the reports. The dataset also shows fixed effects, as only (but all) corporations with an annual turnover exceeding 750 million EUR are included.

- Balance of payments data (Eurostat, 2021), notably the variables of the reinvested profits and NIIPs.
- As control variables, we utilised the World Bank Ease of Doing Business indicators (Starting a business, Getting credit, Contract enforcement), inflation rates, GDP/capita, and eurozone membership.

The datasets constitute a blend of individual micro-level reports and aggregated macro-level data. We utilise multiple linear regression analyses.

Georgallis *et al.* (2021, p. 861) also support the use of EU data for checking investment levels and determinants for various reasons: high quality of data, more extended time series, and still quite substantial variability among the regions and EU Member States that can allow exploring exciting nuances.

Lundan (2006) built her argument on reinvestment determinants on a simple literature review. Cull and Xu (2005) applied a log-linear regression with several dummy variables on a microeconomic sample of Chinese businesses. Canh *et al.* (2020) applied the method of sequential estimation to explore the determinants of FDI inflow. The outcome (i.e., the value of foreseen FDI) resulted from the equation of selected determinants. Saini and Singhania (2018) demonstrated the influence of selected variables on FDI with the generalized methods models, which helped them to capture the endogeneity. In the CEE context, Bobenic Hintosova *et al.* (2018) applied an ordinary least square regression along with correlation analysis to investigate determinants of FDI inflows into the V4 countries. As far as the Czech Republic only is concerned, Pokorna and Sebestova (2019) performed a bibliometric analysis. As we can see, many methods are available to achieve similar objectives.

As we examined the determinants that made TNCs reinvest the profits in the host country instead of repatriating them back to the home country (i.e., the profit reinvestment as the observed phenomenon), and we are unsure which of them makes an impact, it is plausible to apply a multiple linear regression analysis with various models to find the best-fit model. We analyse the  $R^2$  measures to compare the fitness of each model.

To augment the model robustness, we extended the data from the V4 countries to all EU–27 countries and analysed the financial institutions’ dataset (Jansky, 2018). Also, Belgium was added to the descriptive statistics section to compare with an economy of a similar size and similarly high trade-to-GDP ratio, but with a different economic setup and historical background. The independent variables followed the logic outlined by Lundan (2006). Thus, we included the macroeconomic factors affecting investment opportunities in the host country (GDP/capita and Ease of Doing Business index serve as proxies in our models), the profitability of the FDI, and tax treatment of repatriated foreign income (see the dummy variables of the ETR and CIT rate in our model). Nonetheless, we added several control variables: inflation, GDP/capita, and membership in the eurozone as a proxy for the exchange rate stability.

We set up three models. The scope of the first one was limited to variables already studied in the existing literature. The second model represented the extended version of the first one. In contrast, the third model narrowed its scope to variables that had turned out to be statistically significant in the second one.

The biggest strength of our research is the extensive datasets that we applied, which allowed us to be partially independent of macroeconomic (secondary) data. The weakness of the results can be regarded in the relatively short timeframe and limitation of the scope to the EU region and financial institutions (for the banks’ dataset) or only to a single year (in the case of the OECD dataset). However, as we explored the impact on the V4 countries, non-EU banks did not necessarily significantly impact this area.

## **Results**

Between 2014 and 2019, compared to the EU-27 average, the rate of profit reinvestment for all sectors of the economy was considerably higher in the V4 countries (except for Slovakia and the Czech Republic, which are not far from the EU–27 average); see Fig. 1.

Fig. 2 reviews the individual differences among the V4 countries and the EU–27 average in terms of the ETRs for transnational corporations as taken from the OECD Tax Statistics Database (OECD, 2019), the difference between the ETR and CIT rate, ETRs for banks, profit per employee, profit per turnover as per Jansky (2018) and the rate of reinvestment (Eurostat, 2021). The OECD data showed that forward-looking ETRs for TNCs were generally higher in the EU–27 than in the V4 countries. It was primarily due to the higher average CIT rate. On the contrary, when analysing the

differential on the financial institutions' dataset (Jansky, 2018), we concluded that it is actually in the V4 countries where the ETRs, over the six years, highly exceeded the CIT rates. Quite surprisingly, namely, Hungary attained the highest differential peak. For the Czech Republic, the dataset showed an ETR of 20%, around one percentage point above the CIT rate. The profit per employee (i.e., labour productivity) in V4 countries was expectedly lower, also due to lower GDP/capita in these economies. However, the profit rates reached rather significant levels with the peak rate in the Czech Republic (equal to ca. 50% profitability). As mentioned earlier, the last criterion utilised in Fig. 1 noted the global reinvestment rate (not only limited to specific sectors), where V4 countries attained notably higher scores than the EU-27.

Our quantitative analysis explored the determinants of the reinvestment rate (as a % of the total GDP) declared within the analysed economies. To improve the model robustness, we extended the data from the V4 countries to all the EU-27 countries and analysed the financial institutions' dataset (Jansky 2018). The independent variables followed the logic outlined by Lundan (2006), while we added several control variables. We set up three models. The first offered a limited range of variables, whereas the second incorporated additional variables (selected Ease of Doing Business indicators). We built the third model to maximise the model fit when measured by individual variable significance.

### *Model 1*

The first model included variables used in previous research, as summarised in the literature review, so we could reveal whether these are also statistically significant in our datasets. The results were surprising (Tab. 4). The CIT rate represented the only statistically significant independent variable in the model that explained the reinvestment rate, which showed a negative impact. In such a case, it might seem that the repatriation of profits would help the TNCs avoid taxing profits, potentially via a series of tax deductions or tax credit measures. The rest of the independent variables in the model did not show significant results and, thus, did not deserve mentioning.  $R^2$  in the model accounted for 0.565. The multicollinearity diagnostics pointed to a risk of collinearity between the profit per employee and the GDP per capita. Such collinearity was understandable, but the pair did not demonstrate strong collinearity in the advanced analysis. Variance proportions shown in one of the dimensions were equal to 0.72 and 0.63 for this pair, respectively. Meanwhile, a value above 0.90 means strong collin-

earity. To increase the robustness of our model, we also performed ANOVA, which did not turn out to be statistically significant (p-value of 0.143).

### *Model 2*

The purpose of the second model was to increase the fitness and include some separate variables, among others, the relevant sub-indicators of the Ease of Doing Business index (Starting a business, Getting credit, Contract enforcement). Unlike the first model, it provided a statistically significant result for the ETR variable — the higher the ETR, the higher the proportion of reinvested profits; see Tab. 5. Furthermore, some of the Ease of Doing Business indicators also proved to be significant drivers, which we addressed in the subsequent model.  $R^2$  in the model amounted to 0.717. The multicollinearity diagnostics revealed that two dimensions had shown the Condition Index above 20, indicating a severe collinearity risk. However, only profit per employee and GDP/capita variables had Variance Proportion above 0.4 (0.68 and 0.57, respectively, which was less than in Model 1), so we denied the multicollinearity risk. ANOVA showed a p-value of 0.121.

### *Model 3*

Given the results of Model 2, we reduced the portfolio of variables exclusively to those that had turned out to be statistically significant (namely the Doing Business indicators and taxation variables). With the help of the  $R^2$  analysis, we built the third model with a maximum  $R^2$  of 0.390. The  $R^2$  metric attained a mediocre level. Nevertheless, due to the low amount of specific variables in our model, it can be defensible (Colton & Bower, 2002) and (Rights & Sterba, 2019); because all of them but one showed a statistically significant relationship with the reinvestment ratio. Moreover, it only included the ETR, CIT rate variables, and three selected components of the Ease of Doing Business index. Multicollinearity analysis brought very plausible results with no variable being at risk and minimal test values — Variance Inflation Factor below 1.5 in all cases, most extensive Condition Index of 12.799 and largest Variance Proportions in one pair being 0.44 (ETR) and 0.55 (Contract Enforcement). In this last model, ANOVA showed statistically significant differences between variables, with a p-value of 0.002.

To conclude, the last model (Tab. 6) involves fewer independent variables, yet most of them are statistically significant at the 0.1 level. Interestingly, the highest significance is reached in the case of the “Contract en-

forcement” variable. The worse the country scored, the higher the proportion of the reinvested profits. On the other hand, the easier to start a business or get credit, the higher the proportion of reinvested profits. As in Model 2, the ETR shows a significantly positive impact on the dependent variable. We might argue that this is because, unlike pure repatriation of profits, the ongoing reinvestment increases costs in the short term and reduces the tax base.

Nevertheless, in the case of the CIT rate, we can observe a rather negative correlation, though not statistically significant at the 0.1 level. That produces some interesting results — we can suppose that TNCs are prone to keeping their assets in jurisdictions where handling business is accessible, including situations where they want to maximise profits against weaker business partners or even employees, because the latter do not have enough bargaining power to enforce their rights.

## Discussion

In the quantitative analysis, we observed rather unexpected results. The descriptive figures show that, in contradiction to previous findings published in the referenced literature, *i.e.* (Michalski, 2016; Novotny, 2018; Szabo, 2019), the rate of reinvestment carried out by the TNCs within the V4 countries over the analysed period (2014–2019) exceeds the EU-27 average. The profit rate (profit/turnover) is considerably higher, especially in the Czech Republic. Nevertheless, the ETRs in the V4 countries somewhat exceed the CIT rate. This phenomenon is even stronger in the case of financial institutions. Such an empirical outcome can serve as a valid argument for policymakers in V4 countries to further support inward foreign investments in their territories.

Contrary to the research of Agodo (1978), Lundan (2006), Nguyen and Rugman (2015), and Georgallis *et al.* (2021), our results demonstrate that only the corporate income tax rate (either statutory or effective) and selected dimensions of the Doing Business index show a statistically robust effect on the reinvestment rate. Our findings are even more striking when faced with the conclusions of Dobrovic *et al.* (2018), who emphasise the need for a stable and predictable tax system that can motivate TNCs to consider profit reinvestment beneficial. Regarding the indicators described by Chakravarti and Xiang (2011), we can see a certain degree of alignment with the microeconomic factors related to access to external financing and the extent of private ownership. In our case, a crucial role is played by the

ease of getting credit and starting a business, for they embody stepping stones for direct investment to be either made or expanded.

In any case, the results of our research, targeted at the effect of the ETR and CIT rate on the amount of reinvested profit, reconfirm the findings of Egger *et al.* (2009), who indicate the relationship of the ETR and investment in general and argue that the home country's ETR is a powerful determinant.

The results, surprisingly, show that V4 countries have strongly negative NIIPs and considerable dividend outflows (Czech National Bank, 2020). Nevertheless, over the analysed period of 2014–2019, the TNCs invested more significant portions of the profits in the V4 countries than in the EU-27 (Eurostat, 2021). That does not necessarily contradict Dunning (1981), for it could just mean that the investments in the V4 countries have not yet reached maturity, and the TNCs are still making good use of the available resources and opportunities. This statement could be supported by the fact that the V4 countries show profit-turnover ratios and profit-per-employee rates that exceed the respective global averages. This phenomenon of the so-called “profit misalignment” is described by Jansky (2020), which is further moderated by the considerably lower CIT rates compared to the EU-27 average.

Nonetheless, our research model attains relatively low  $R^2$  levels and embodies a limited range of variables, so repeating the analysis would be worthwhile when more reliable data becomes available. These results go beyond the traditional notion of foreign investments in dependent market economies that tap and exploit the local resources and then repatriate profits away to home countries, leaving the host economies with limited benefits from the economic activity. Such argumentation is beneficial not only for V4 countries, but can be extrapolated to any country in the world that finds itself in a similar position of host or source economy.

## **Conclusions**

In the three-stage model that we provided on the extensive datasets of the CbCR, BoP data, and other macroeconomic indicators between 2014 and 2019, we demonstrated the position of the V4 countries as having dependent market economies with negative investment positions and large profit outflows. Our results suggest that the higher the CIT rate or Contract enforcement, the lower the reinvestment rate. On the other hand, higher ETR and Ease of Doing Business indicators of Starting a business and Getting credit give rise to a statistically significant increase in the reinvestment rate.

It seems that the V4 countries persist in representing attractive FDI destinations, where TNCs continue to seize investment opportunities that are more profitable than elsewhere. Given the prominent role of profit reinvestment in their national BoPs, it will be critical for the V4 countries in the post-COVID-19 era to strive to maintain this position while simultaneously trying to upgrade the local economies. Improving the welfare of citizens can be mainly achieved through an increase in the labour productivity and the cultivation of the business environment since both the former and the latter represent areas where V4 countries still lag behind.

We recognise that several factors constrain our research. Firstly, due to the limited availability of relevant data, it is impossible to thoroughly verify the validity of the results. In addition, the real causal nexus between the dependent and independent variables can be weakened by omitting other factors of importance that contribute to the evolution of the macroeconomic indicators studied in V4 countries. Given the considerable time delay in publishing statistics on high-tech exports of EU members and minimal statistics on the tech structure of the FDI inward stock in all the V4 countries being published in due time, it is hard to provide a timely analysis and overview of the V4 countries' position in terms of the technology gap and middle-income trap persistence.

The strength of our research is the analysis of the reliable and detailed country-by-country data collected on the firm-by-firm in the banking sector, complemented with the aggregate results for MNEs from all sectors. Given the six-year length of our analysis, our results are somewhat more robust than other similar research papers. We have shown how a dependent market economy with limited own capital resources can benefit from foreign direct investment and that such an inflow of FDI does not always have to lead to a net loss for the host economy. On the other hand, its main weakness consists in its limitation in its timeframe (i.e., the relatively short time of the primary data only covers six years (2014–2019)), and in geography (only TNCs headquartered in the EU are considered), and in scope (financial institutions). These hinder the replicability of the results in different contexts, yet this is partially mitigated by using data from a second database (OECD, 2019) and running three iterations of the model.

Our further research will be targeted at elaborating a specific case study. In addition, broadening the portfolio of the independent studied variables and necessary underlying data will also help improve our model's robustness. It would be worthwhile reconfirming the applicability of the gravity model as employed by Cerna and Tauser (2013) on our database, especially in any subsequent years when more data will be available. Indeed, there are considerable differences among the V4 countries. These could also be sta-

tistically tested with the help of the same variables used in this paper and/or with additional variables suggested by Lundan (2006), Agodo (1978), Beugelsdijk *et al.* (2010), Chakravarti and Xiang (2011), and others.

## References

- Agodo, O. (1978). The determinants of US private manufacturing investments in Africa. *Journal Of International Business Studies*, 9(3), 95–106. doi: 10.1057/palgrave.jibs.8490671.
- Andrejovska, A., & Konecna, V. (2020). Capital placement in the context of effective corporate taxation in the V4 countries. *Montenegrin Journal of Economics*, 16(1), 227–239. doi: 10.14254/1800-5845/2020.16-1.15.
- Beugelsdijk, S., Hennart, J., Slangen, A., & Smeets, R. (2010). Why and how FDI stocks are a biased measure of MNE affiliate activity. *Journal of International Business Studies*, 41(9), 1444–1459. doi: 10.1057/jibs.2010.29.
- Bic, J., & Vlckova, E. (2020). *Industry 4.0 and FDI: Czechia*. Project no. 21920068, “Effects of Industry 4.0 on FDI in the Visegrad countries“ financed by the Visegrad Fund. Retrieved from <https://industry40fdi.files.wordpress.com/2020/10/czechia-report.pdf>.
- Blanchard, O., & Milesi-Ferretti, G. M. (2009). Global imbalances: in midstream? *IMF Staff Position Note*, SPN/09/29.
- Bobenic Hintosova, A., Bruothova, M., Kubikova, Z., & Rucinsky, R. (2018). Determinants of foreign direct investment inflows: a case of the Visegrad countries. *Journal of International Studies*, 11(2), 222–235. doi: 10.14254/2071-8330.2018/11-2/15.
- Braja, M., & Gemzik-Salwach, A. (2020). Competitiveness of high-tech exports in the EU countries. *Journal of International Studies*, 13(1), 359–372. doi: 10.14254/2071-8330.2020/13-1/23.
- Brown, R., Jorgensen, B., & Pope, P. (2019). The interplay between mandatory country-by-country reporting, geographic segment reporting, and tax havens: Evidence from the European Union. *Journal of Accounting and Public Policy*, 38(2), 106–129. doi: 10.1016/j.jaccpubpol.2019.02.001.
- Canh, N. P., Binh, N. T., Thanh, S. D., & Schinckus, C. (2020). Determinants of foreign direct investment inflows: the role of economic policy uncertainty. *International Economics*, 161, 159–172. doi: 10.1016/j.inteco.2019.11.012.
- Cerna, I. (2011). What factors determined FDI inflow into Czech Republic in past Decade? Territorial analysis. In *Czech Republic and Slovakia in international trade and business 2011* (pp. 30–34). Bratislava: University of Economics in Bratislava.
- Cerna, I., & Tauser, J. (2013). What determined inward FDI in Poland during 2002-2009? In *Changes in governance in the context of the global crisis* (pp. 175–187). Prague: Oeconomica Publishing House.

- Chakravarti, S., & Xiang, M. (2011). Determinants of profit reinvestment by small businesses in emerging economies. *Financial Management*, 40(3), 553–590. doi: 10.1111/j.1755-053x.2011.01153.x.
- Colton, J. A., & Bower, K. M. (2002). Some misconceptions about R2. *International Society of Six Sigma Professionals, EXTRAOrdinary Sense*, 3(2), 20–22.
- Comotti, S., Crescenzi, R., & Iammarino, S. (2020). Foreign direct investment, global value chains and regional economic development in Europe - final report. Brussels: European Commission. Retrieved from [https://ec.europa.eu/regional\\_policy/sources/docgener/brochure/foreign\\_direct\\_investment\\_en.pdf](https://ec.europa.eu/regional_policy/sources/docgener/brochure/foreign_direct_investment_en.pdf).
- Cull, R., & Xu, L. C. (2005). Institutions, ownership, and finance: the determinants of profit reinvestment among Chinese firms. *Journal of Financial Economics*, 77(1), 117–146. doi: 10.1016/j.jfineco.2004.05.010.
- Czech National Bank (2014). The life cycle of foreign direct investment and its impact on the balance of payments. Retrieved from <https://www.cnb.cz/en/monetary-policy/inflation-reports/boxes-and-annexes-contained-in-inflation-reports/The-life-cycle-of-foreign-direct-investment-and-its-impact-on-the-balance-of-payments>.
- Czech National Bank (2020). *International investment position: commentary. Q3 2020*. Retrieved from [http://www.cnb.cz/en/statistics/bop\\_stat/investment\\_position/the-czech-republics-international-investment-position-and-external-debt/](http://www.cnb.cz/en/statistics/bop_stat/investment_position/the-czech-republics-international-investment-position-and-external-debt/).
- Dobrovic, J., Rajnoha, R., & Koraus, A. (2018). Effectiveness and performance of tax system in Slovak Republic in terms of its key non-macroeconomics factors. *Oeconomia Copernicana*, 9(4), 617–634. doi: 10.24136/oc.2018.030.
- Dunning, J. H. (1981). Explaining outward direct investment of developing countries: in support of the eclectic theory of international production. In K. Kumar & M. McLeod (Eds.). *Multinationals from developing countries* (pp. 1–22). San Francisco: Lexington Press.
- Durana, P., & Bacik, R. (2021). Earnings management: local or global phenomenon in the Visegrad Four? *SHS Web of Conferences*, 92, 02015. doi: 10.1051/shsconf/20219202015.
- Dutt, V., Nicolay, K., Vay, H., & Voget, J. (2019). Can European banks' country-by-country reports reveal profit shifting? An analysis of the information content of EU banks' disclosures. *SSRN Electronic Journal*. doi: 10.2139/ssrn.3472876.
- Egger, P., Loretz, S., Pfaffermayr, M., & Winner, H. (2009). Bilateral effective tax rates and foreign direct investment. *International Tax And Public Finance*, 16(6), 822–849. doi: 10.1007/s10797-008-9092-x.
- Endrődi-Kovács, V., Kutasi, G., & Magasházi, A. (2018). Visegrád group expertise and position in the Samsung global value chain: a case study of Samsung Electronics in the V4 countries. *Central European Business Review*, 7(1), 14–36.
- Eurostat (2021). *Balance of payments by country*. Retrieved from <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>.

- Gabrielczak, P., & Kuziemska-Pawlak, K. (2021). The specialisation and sophistication of services exports: the case of the Visegrad countries. *Journal of International Studies*, 14(3), 93–113. doi: 10.14254/2071-8330.2021/14-3/6.
- Gaigaliene, A., Jurakovaite, O., & Legenzova, R. (2018). Assessment of EU banking network regionalization during post-crisis period. *Oeconomia Copernicana*, 9(4), 655–675. doi: 10.24136/oc.2018.032.
- Garcia-Bernardo J., Jansky P., & Torslov T. (2021). Multinational corporations and tax havens: evidence from country-by-country reporting. *International Tax and Public Finance*, 28, 1519–1561. doi: 10.1007/s10797-020-09639-w.
- Georgallis, P., Albino-Pimentel, J., & Kondratenko, N. (2021). Jurisdiction shopping and foreign location choice: the role of market and nonmarket experience in the European solar energy industry. *Journal of International Business Studies*, 52(5), 853–877. doi: 10.1057/s41267-020-00358-2.
- Gotz, M., Elteto, A., Sass, M., Vlckova, J., Zacharova, A., & Ferencikova, S., Bič, J., & Kaczkowska-Serafińska, M. (2020). Effects of Industry 4.0 on FDI in the Visegrad countries. Retrieved from <https://industry40fdi.files.wordpress.com/2020/11/final-report.pdf>.
- Hirschman, A. O. (1958). *The strategy of economic development*. New Haven: Yale University Press.
- Hluskova, T. (2019). Competitiveness outlook of the automotive industry in the V4 countries. *Studia Commercialia Bratislavensia*, 12(41), 24–33. doi: 10.2478/scb-2019-0003.
- IMF (2013). *Balance of payments and international investment position manual*. Washington.
- IMF (2021). International investment positions. Retrieved from <https://data.imf.org/regular.aspx?key=62805745>.
- Jansky, P. (2018). EU banks' country-by-country reporting data (2013–2017). Dataset. Updated version covering 2013–2019 (authorial collection). Retrieved from [https://datahub.io/StephenAbbott/eu\\_banks\\_country\\_by\\_country\\_reporting](https://datahub.io/StephenAbbott/eu_banks_country_by_country_reporting).
- Jansky, P. (2020). European banks and tax havens: evidence from country-by-country reporting. *Applied Economics*, 52(54), 5967–5985. doi: 10.1080/00036846.2020.1781773.
- Kalotay, K., & Sass, M. (2021). Foreign direct investment in the storm of the COVID-19 pandemic and the example of Visegrad countries. *Acta Oeconomica*, 71(S1), 73–92. doi: 10.1556/032.2021.00030.
- Lundan, S. M. (2006). Reinvested earnings as a component of FDI: an analytical review of the determinants of reinvestment. *Transnational Corporations*, 15(3), 33–64.
- Massey, D. (1995). *Spatial divisions of labour: social relations and the geography of production*. Macmillan.
- Michalski, B. (2016). The comparative analysis of mid-tech and high-tech trade of the Visegrad countries and the German impact. *Unia Europejska.Pl*, 239(4), 31–40.

- Murphy, R., Jansky, P., & Shah, A. (2019). BEPS policy failure—the case of EU country-by-country reporting. *Nordic Tax Journal*, 1, 63–86. doi: 10.1515/ntaxj-2019-0005.
- Nerudova, D., Solilova, V., Dobranschi, M., & Litzman, M. (2019). Profit shifting behaviour between sisters companies: the case of Czech Republic. *International Journal of Trade and Global Markets*, 12(3/4), 300–310. doi: 10.1504/ijtgm.2019.101558.
- Nguyen, Q., & Rugman, A. (2015). Internal equity financing and the performance of multinational subsidiaries in emerging economies. *Journal of International Business Studies*, 46(4), 468–490. doi: 10.1057/jibs.2014.64.
- Nolke, A., & Vliegenthart, A. (2009). Enlarging the Varieties of capitalism: the emergence of dependent market economies in East Central Europe. *World Politics*, 61(4), 670–702. doi: 10.1017/s0043887109990098.
- Novotny, F. (2018). Profitability life cycle of foreign direct investment: application to the Czech Republic. *Emerging Markets Finance and Trade*, 54(7), 1623–1634. doi: 10.1080/1540496x.2017.1316259.
- OECD (2019). *Corporate tax statistics*. Retrieved from <https://www.oecd.org/tax/tax-policy/corporate-tax-statistics-database-first-edition.pdf>.
- OECD/G20 (2015). *Base erosion and profit shifting project*. Executive summaries. Retrieved from [https://www-oecd-ilibrary-org.zdroje.vse.cz/taxation/oecd-g20-base-erosion-and-profit-shifting-project\\_23132612](https://www-oecd-ilibrary-org.zdroje.vse.cz/taxation/oecd-g20-base-erosion-and-profit-shifting-project_23132612).
- Pavlinek, P., & Zizalova, P. (2016). Linkages and spillovers in global production networks: firm-level analysis of the Czech automotive industry. *Journal of Economic Geography*, 16(2), 331–363. doi: 10.1093/jeg/lbu041.
- Pokorna, P., & Sebestova, J. (2019). Reinvestment possibilities and evaluation: a literature review. In O. Dvouletý, M. Lukeš & J. Mísař (Eds.). *Innovation management, entrepreneurship and sustainability 2019. Conference proceedings of the 7th conference* (pp. 746–759). Prague: Vysoká škola ekonomická v Praze.
- Prochazka, P. (2020). Jurisdictions with lowest effective tax rates in the post-BEPS landscape: CbCR evidence and implications. *European Financial and Accounting Journal*, 15(1), 33–52. doi: 10.18267/j.efaj.231.
- Rights, J. D., & Sterba, S. K. (2019). Quantifying explained variance in multilevel models: an integrative framework for defining R-squared measures. *Psychological Methods*, 24(3), 309–338. doi: 10.1037/met0000184.
- Saini, N., & Singhania, M. (2018). Determinants of FDI in developed and developing countries: a quantitative analysis using GMM. *Journal of Economic Studies*, 45(2), 348–382. doi: 10.1108/JES-07-2016-0138.
- Schuh, A. (2013). Central and Eastern Europe after the boom: time for a strategy change for foreign multinational companies? *Central European Business Review*, 2(2), 25–30. doi: 10.18267/j.cebr.43.
- Su, W., Zhang, D., Zhang, C., Abrham, J., Simionescu, M., Yaroshevich, N., & Guseva, V. (2018). Determinants of foreign direct investment in the Visegrad group countries after the EU enlargement. *Technological and Economic Development of Economy*, 24(5), 1955–1978. doi: 10.3846/tede.2018.5487.

- Sutherland, D., Anderson, J., Bailey, N., & Alon, I. (2020). Policy, institutional fragility, and Chinese outward foreign direct investment: an empirical examination of the Belt and Road Initiative. *Journal of International Business Policy*, 3(3), 249–272. doi: 10.1057/s42214-020-00056-8.
- Szabo, S. (2019). *FDI in the Czech Republic: a Visegrad comparison*. Luxembourg: Publications Office of the European Union.
- Torslov, T. R., Wier, L. S., & Zucman, G. (2018). *The missing profits of nations*. St. Louis: Federal Reserve Bank of St Louis.
- Wojcik, D. (2015). Accounting for globalization: evaluating the effectiveness of country-by-country reporting. *Environment and Planning C-Government and Policy*, 33(5), 1173–1189. doi: 10.1177/0263774X15612338.
- World Bank (2020). *Doing business*. Retrieved from <https://www.doingbusiness.org/en/doingbusiness>.

## Annex

**Table 1.** Selected BoP indicators of the V4 countries over the period from 2014 to 2020 (share in the GDP)

	Metric	2014	2015	2016	2017	2018	2019	2020
Czech Rep.	current account balance	0.29%	0.50%	1.95%	1.53%	1.35%	0.40%	4.11%
	primary income (outflows)	12.70%	10.44%	10.55%	11.76%	11.32%	11.53%	8.92%
	net primary income	-8.01%	-6.11%	-5.87%	-5.77%	-5.65%	-5.63%	-3.20%
	reinvestments	1.74%	1.64%	1.78%	3.46%	2.05%	3.09%	2.22%
Hungary	current account balance	1.51%	2.60%	5.04%	2.18%	0.47%	-0.42%	0.01%
	primary income (outflows)	18.93%	14.58%	15.26%	16.49%	14.71%	13.97%	13.09%
	net primary income	-5.78%	-4.98%	-2.90%	-4.44%	-4.31%	-2.92%	-1.78%
	reinvestments	6.30%	4.08%	6.62%	8.48%	6.56%	4.26%	4.59%
Poland	current account balance	-3.48%	-1.01%	-0.87%	-0.42%	-1.51%	0.55%	3.93%
	primary income (outflows)	8.40%	6.74%	7.51%	7.44%	7.68%	6.94%	5.94%
	net primary income	-4.59%	-3.79%	-4.59%	-4.60%	-4.75%	-4.28%	-3.57%
	reinvestments	1.69%	1.63%	2.02%	1.95%	1.66%	1.91%	1.55%
Slovakia	current account balance	1.57%	-2.32%	-3.00%	-2.19%	-2.57%	-3.03%	-0.32%
	primary income (outflows)	7.75%	7.42%	7.35%	6.99%	6.99%	6.73%	6.05%
	net primary income	-1.30%	-1.90%	-3.41%	-2.45%	-2.10%	-2.29%	-1.83%
	reinvestments	-0.39%	0.89%	1.04%	0.78%	-0.27%	1.97%	1.35%
TOTAL V4	current account balance	-1.46%	-0.31%	0.39%	0.22%	-0.68%	0.04%	3.02%
	primary income (outflows)	10.73%	8.72%	9.29%	9.67%	9.46%	8.99%	7.62%
	net primary income	-5.14%	-4.27%	-4.51%	-4.63%	-4.64%	-4.20%	-3.07%
	reinvestments	2.14%	1.91%	2.54%	3.12%	2.28%	2.52%	2.11%

Source: own elaboration from IMF (2021), Eurostat (2021).

**Table 2.** Inward FDI flow structure (% of the GDP) and the GDP in the V4 countries over the period of 2014–2020

	Metric	2014	2015	2016	2017	2018	2019	2020
<b>Czech Rep.</b>	equity investment	-0.13%	0.29%	1.81%	0.95%	0.07%	1.43%	-0.69%
	reinvested earnings	1.74%	1.64%	1.78%	3.46%	2.05%	2.04%	2.22%
	debt	2.25%	-1.04%	1.93%	0.74%	1.26%	0.77%	1.05%
	GDP (bln. EUR)	157.82	169.56	177.44	194.13	210.93	225.57	215.26
<b>Hungary</b>	equity investment	0.56%	-23.76%	-19.16%	8.83%	0.69%	-13.64%	4.14%
	reinvested earnings	6.30%	4.08%	6.62%	8.48%	6.56%	5.14%	4.59%
	debt	2.69%	-5.27%	-3.47%	-2.60%	4.08%	1.89%	51.76%
	GDP (bln. EUR)	106.06	112.70	116.13	126.89	135.94	146.09	135.92
<b>Poland</b>	equity investment	0.51%	1.01%	0.36%	-0.02%	0.03%	0.18%	0.54%
	reinvested earnings	1.69%	1.63%	2.02%	1.95%	1.66%	1.91%	1.55%
	debt	1.43%	0.50%	1.51%	0.25%	0.52%	0.31%	0.30%
	GDP (bln. EUR)	408.97	430.47	427.09	467.43	497.83	533.60	523.04
<b>Slovakia</b>	equity investment	0.18%	-0.51%	1.04%	0.67%	0.56%	0.42%	0.05%
	reinvested earnings	-0.39%	0.89%	1.04%	0.78%	-0.27%	1.97%	1.35%
	debt	-0.22%	1.32%	3.26%	2.98%	1.84%	-0.20%	-1.64%
	GDP (bln. EUR)	76.27	79.77	81.05	84.49	89.36	93.90	91.56
<b>TOTAL V4</b>	equity investment	0.35%	-2.82%	-2.08%	1.55%	0.19%	-1.53%	0.72%
	reinvested earnings	2.14%	1.91%	2.54%	3.12%	2.28%	2.41%	2.11%
	debt	1.61%	-0.57%	1.06%	0.21%	1.33%	0.60%	7.52%
	GDP (bln. EUR)	749.12	792.49	801.71	872.94	934.06	999.16	965.78

Source: own elaboration from Eurostat (2021).

**Table 3.** Selected investment indicators of the V4 countries in 2019 (as % the GDP)

	Poland	Czech Rep.	Hungary	Slovakia	Belgium
<b>NIIP</b>	-50.0%	-20.7%	-47.9%	-65.5%	+50.9%
<b>Inward FDI stock</b>	48.1%	82.0%	182.4%	72.0%	105.6%
<b>FDI net position</b>	-36.2%	-51.8%	-33.7%	-55.2%	+18.7%

Source: IMF (2021).

**Table 4.** Model 1 (dependent variable: total rate of reinvestment 2014–2019)

	<b>B (non-stand.)</b>	<b>Std. Error</b>	<b>B (stand.)</b>	<b>Sig.</b>
<b>(Constant)</b>	0.593	0.367		0.118
<b>Profit per turnover</b>	0.191	0.394	0.197	0.632
<b>Profit per employee</b>	-1.305	1.511	-0.575	0.395
<b>ETR</b>	0.153	0.173	0.150	0.386
<b>CIT rate</b>	-1.471	0.560	-0.470	0.014
<b>GDP/capita</b>	0.002	0.000	0.208	0.697
<b>Doing Business index</b>	0.001	0.002	0.163	0.409
<b>Inflation</b>	-0.112	0.276	-0.069	0.688

Note: N = 27, B = beta, Std. Error = standard error of measurement, Sig. = significance, R<sup>2</sup> = 0.565

Source: own elaboration from Jansky (2018), IMF (2021), World Bank (2020), Eurostat (2021)

**Table 5.** Model 2 (dependent variable: total rate of reinvestment 2014–2019)

	<b>B (non-stand.)</b>	<b>Std. Error</b>	<b>B (stand.)</b>	<b>Sig.</b>
<b>(Constant)</b>	0.557	0.381		0.161
<b>Profit per turnover</b>	0.187	0.397	0.199	0.643
<b>Profit per employee</b>	-1.455	1.517	-0.673	0.350
<b>ETR</b>	0.312	0.175	0.325	0.091
<b>CIT rate</b>	-1.231	0.770	-0.346	0.126
<b>GDP/capita</b>	0.004	0.000	0.466	0.407
<b>Inflation</b>	-0.052	0.272	-0.034	0.849
<b>Starting a business</b>	-0.002	0.001	-0.331	0.082
<b>Getting credit</b>	-0.001	0.001	-0.198	0.449

**Table 5.** Continued

	<b>B (non-stand.)</b>	<b>Std. Error</b>	<b>B (stand.)</b>	<b>Sig.</b>
<b>Contract enforcement</b>	0.002	0.001	0.392	0.078
<b>Euro</b>	-0.057	0.091	-0.155	0.536
<b>NIP</b>	-0.038	0.054	-0.159	0.485

Note: N = 27, B = beta, Std. Error = standard error of measurement, Sig. = significance,  $R^2 = 0.717$

Source: own elaboration from Jansky (2018), IMF (2021), World Bank (2020), Eurostat (2021).

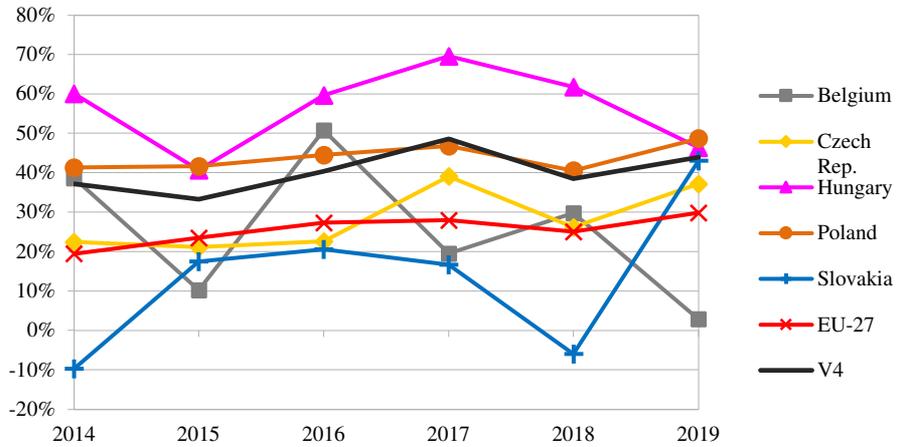
**Table 6.** Model 3 (dependent variable: total rate of reinvestment 2014–2019)

	<b>B (non-stand.)</b>	<b>Std. Error</b>	<b>B (stand.)</b>	<b>Sig.</b>
<b>(Constant)</b>	0.536	0.115		0.000
<b>ETR</b>	0.283	0.153	0.282	0.074
<b>CIT rate</b>	-.937	0.570	-0.273	0.112
<b>Starting a business</b>	-0.001	0.001	-0.300	0.046
<b>Getting credit</b>	-0.002	0.001	-0.379	0.028
<b>Contract enforcement</b>	0.002	0.001	0.425	0.008

Note: N = 27, B = beta, Std. Error = standard error of measurement, Sig. = significance,  $R^2 = 0.39$ .

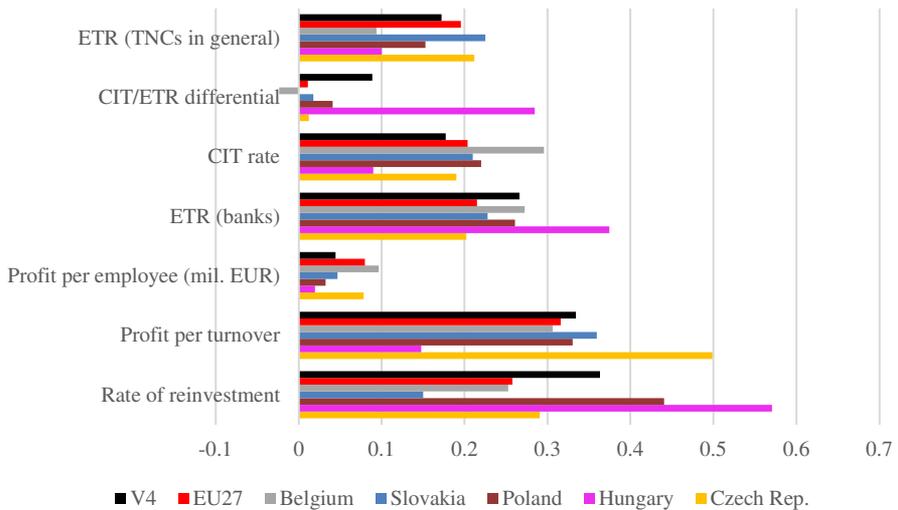
Source: own elaboration from Jansky (2018), OECD (2019), IMF (2021), World Bank (2020), Eurostat (2021).

**Figure 1. Rates of profit reinvestment (2014–2019)**



Source: own elaboration from Eurostat (2021).

**Figure 2. V4 vs. EU-27 performance in the variables used in our models (2014–2019)**



Source: own elaboration from Jansky (2018), OECD (2019), IMF (2021), Eurostat (2021).