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# INVESTMENT AID AS A GROWTH AND PERFORMANCE FACTOR

## *INVESTIČNÁ POMOC AKO FAKTOR RASTU A VÝKONNOSTI*

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**Abstract:**
*Evaluation of state support, its fairness and eligibility of criteria are quite common topics frequently investigated and discussed. Slovakia and similar after-transition countries use more or less direct aid to businesses in order to attract the attention of foreign investors or to support domestic ones. Following study focuses on effects of such aid in Slovakia, uses median values of financial indicators for description of the sample of supported businesses, indexes for analysis of dynamics in results and sources and Pearson's correlation coefficients for expressing common relations between the size of aid and generated effects. Analysis revealed that companies benefiting from aid experienced initial growth in assets, sales, and profitability but these effects later faded. The correlation between the size of aid and financial ratios was rather insignificant, only in the case of sales, share of personnel cost and depreciation on added value confirmed positive and statistically significant correlation. Regional distribution of aid proved that the least developed regions received significantly less financial contribution, and incentives are not fully motivational in order to transfer investments to such regions.*
**Keywords:** state support, investing aid, efficiency, transparency, regional disparities
**JEL Classification**: R11, L25, M21

## INTRODUCTION

Investment aid plays a crucial role in fostering economic growth and supporting the development of companies, particularly in regions with lower economic activity. By providing financial support for emerging and expanding enterprises, investment aid aims to stimulate innovation, enhance competitiveness, and create new job opportunities. Governments often use these incentives to address regional disparities, promote balanced territorial development, and attract investments to less-developed areas. Investment aid is supposed to drive the growth in high-value sectors, such as manufacturing, research and development or services with higher value, although many times it politically seems more favorable to prefer pure increase in jobs.

Despite its potential, the distribution and outcomes of investment aid are not without challenges. Regional disparities persist, with a significant portion of funding concentrated in more economically developed areas, leaving less-developed regions underfunded. This disparity raises concerns about the program's effectiveness in achieving equality and reducing economic imbalances. Furthermore, while initial results often show strong growth, sustaining these gains over the long term proves challenging for many recipients.

Following text explores the dynamics of investment aid in Slovakia in the period between 2012 - 2023, focusing on its role in supporting companies, the expected results in terms of their economic development, and its impact on their productivity. The main aim of this paper is to analyze and quantify overall effects in performance after 3 years since receiving the aid with focus given to growth and performance.

## 1 INVESTMENT AID AND ITS EFFECTS

State support in variable forms is frequently used and very famous way of attracting new investments, stabilizing existing ones or fostering their diversification, cooperation and interdisciplinarity, although the literature frequently debates about the differences between the support and aid and their investing or non-investing character.

James (2009) describes it (in the form of incentives) generally as measurable economic advantages that governments provide to specific enterprises or groups of enterprises with the goal of steering investments into favored sectors or regions. Those bring advantages to the host country afterwards, although some antagonism comes out from the argument that they support inefficiency and imbalance as well (Dreyhaupt, 2006). Cuervo-Cazurra, Silva-Rego and Figueira (2022) summarize several direct (employment, technologies, management practices, export base) or non-direct benefits (spillovers to local firms, mobility, trainings).

Thomas (2007) highlighted the necessity to investigate the role of state support/investment aid with its several crucial points, namely the lack of transparency, additional and hidden costs, legitimacy of criteria/choice, distortion of competition, lack of funds and weak or no environmental criteria. These span across literature, evolving regulations, and institutional agendas, all of which receive significant attention in research. In Slovakia the transparency of state aid was examined by Matúšová and Nováčková (2018).

State support is politically easily implemented and advocated, financially available, although difficult to prove as to its direct effects (due to multiplication, cross-effects, co-financing, etc.). Transparency is fundamental to ensuring state support to be effective and fair (OECD, 2023). It guarantees that public funds are distributed wisely, building confidence between authorities and the people, although LeRoy (2005) points out that secret negotiations make democratic accountability close to impossible and many investment incentives are provided without any post hoc evaluation of their results. Graham et all. (2018) highlight hidden/additional costs as a price to be paid for lower fairness. Well-defined rules and open

communication regarding eligibility, application procedures, and resource distribution help to deter corruption and bias while encouraging accountability. Transparency goes hand in hand with competition issues (Piechucka, Saurí-Romero, Smulders, 2023), as it supports the selection of most efficient providers, delivery of required service, spread towards third parties, it limits the influence of key players and hinders building of barriers to entry. On the other hand, government and regulators may stand in the way of competition as well, when by supporting someone, they discriminate the rest (Friederiszick, Roller, Verouden, 2006) or when direct (or other) financial support eliminates the effort to be innovative and competitive (Becker, 2010).

The idea of supporting foreign investors highlights another level of research, more focused on global and industrial conditions or governmental efficiency (Anastassopoulos, 2007), which may or may not have a link to regional disparities (Fabuš, Csabay, 2018; Saxunová, Nováčková, Paškrtová, 2018; Šafář, Tóth, 2017). Of course, FDI are attracted also with such an expectation but the negotiation power of global corporation and their preference of other factors (suppliers, markets, infrastructure, etc.) may go beyond the effort to divert investments into less developed regions and frequently leads rather to discrimination of domestic companies (Vukšić, 2013) or more intensive market position of supported entity (Alfaro, Chauvin, 2017) and less about exact effects.

In the case of efficiency of investment aid, there are two lines of research that prevail: macro (focused on system of support and its desired effects) and micro (checking the quality of target subjects and the real improvements among supported entities). They both open a rich debate over the quality of institutions as well (Castelnovo, Del Bo, Florio, 2019; Del Bo, Ferraris, Florio, 2017) and their decision-making system and measurability of overall effects (Johnson et al., 2022). Those are separately evaluated as the costs (direct and indirect) and benefits, claiming that they cannot be measured only in jobs, taxes or R&D expenditures, as also increased consumption of time and additional administration burden is expected, distortion to existing firms may arise, including illegal activities made by companies not qualified for incentives but trying to do so (James, 2013).

More specified, more detailed and very heterogeneous research outcomes have been identified in case of factors determining the effectiveness of state support/investment aid. Using top-down approach let's focus firstly on macroeconomic and institutional conditions where results intensively fluctuated. Carril-Caccia et al. (2019) find that institutions have a stronger positive effect on inflow of investments, although it contradicts the results of Asiedu and Lien (2011) revealing the importance of natural resources as a secondary independent factor next to the democracy of institutions. Overall positive effect of institutions on investments is advocated in economic theory and the research results prove the same (Bayraktar, 2013; Tunyi, Ntim, 2016). Informal institutions' influence (rules and norms regulating political and economic conditions, corruption, clientelism) is considered crucial as well, both in terms of profitability and viability (Tang, Buckley, 2020) or as a factor of risk (Hakimi, Hamdi, 2017) in investing and economic growth. Generally, investment aid is considered as a positive factor affecting the level of economic growth (Poulou, Polemis, 2023).

Clark, Kundu and Reindl (2024) revealed that return after the aid is affected by market situation (number of players) and size of incentives, thus confirming that success is partly dependable on institution/state (criteria to be specified) and on external environment (level of competition). It is assumed that companies (mostly multinational ones) often structure their cross-border activities in the most tax-efficient way and are therefore influenced by tax planning (Bolwijn et al., 2018) and authors generally find tax factors as relevant variables influencing firms' expansion (Abbas, 2023; Crivelli et al., 2016) in case of statutory and effective tax rates. Also, Pavel, Tepperová and Zídková (2024) prove that tax system plays an essential role in deciding the allocation of FDIs in EU countries, even though all mentioned sources focused on multinational corporations only and did not specify tax as an incentive for domestic companies.

Deng, Falvey and Blake (2012) researched the effect of differential tax system (for foreign and domestic companies) in China and its influence on investing and spillovers in the short-term scope. The result was restraining foreign presence which is vital for FDI productivity spillovers for local firms.

Motives and incentives are just one part of investment aid's success equation. Expected multiplicated outcome on regional/national level (spillovers, employment, growth) results in secondary indirect effects, as lowered regional disparities (Hlaváček, Janáček, 2019; Adámek, Rybková, 2015), fostered efficiency and productivity (Christiansen, Oman, Charlton, 2003). Bobenič Hintošová, Sudzina and Barlašová (2021) analyzed both direct and indirect effects in Slovakia and confirmed statistically significant relationship through the inward FDI that negatively affected the unemployment rate coming out from prevailing support of labor-intensive sectors. In case of direct impact on supported companies, Bolcha and Zemplinerová (2012) concluded that the effectiveness of investment incentives is very low. The extra investment generated due to investment incentives was at most 26 % of contracted amounts. Nugroho (2019) prefers a more specific, on financial performance-oriented approach and confirms significant correlation between received support and ROA or ROE indicator. Bayona et al. (2018) focus on financial and tax incentives and their research shows a positive relationship between receiving tax incentives and innovating in goods and services and successful positioning of goods and services in the international market. Positive correlation between incentives and innovations confirms Walter et al. as well (2022). In India high-tech firms use financial support to develop critical capabilities and to adapt or assimilate to the international technological development which result in higher productivity (Bhattacharya et al., 2021).

## 2 METHODOLOGY

The main aim of this paper is to analyze and quantify overall effects in performance after three years since receiving the aid with focus given to growth and performance. There are three consequent research questions (RQ) supporting the main aim: a) Was the investment aid distributed evenly across the regions?; b) Were the effects of support stable in time?; c) Was the size of support a significant predictor of growth in sales and profitability?.

Data was collected for the period from 2012-2023 with the intention to focus on starting period since signing the contract ($Y_0$), through following years up to 3 years after the implementation ($Y_3$). 101 companies were added to the sample, as the total list of 114 supported companies involved several of them twice. Duplicates were eliminated from the sample and just the size of the latest aid and its effects were analyzed.

For mapping of the system and size of aid the actual legislation was used and the data from Ministry of Economy (structure of aid, list of supported entities). Financial data was used from Finstat database for each year ($Y_{0-3}$) and based on them the analysis was performed. Total aid was analyzed from the point of view of its dynamics, share of individual regions (implementation), origin of capital and projected effects (jobs and cost). 19 ratios were analyzed in total, all of them according to their initial value and after-effect (later discussion focuses just on the most important ones). They aimed on liquidity (cash and current ratio), activity (turnover of assets, daily sales in payables), debt (equity-to-assets, equity-to-debt), profitability (ROA, ROE), added value (added value in sales, share of costs on added value) and indexes expressing fluctuations in time (changes in sales, consumption, assets, added value, earnings). The whole sample was evaluated through the median of above-mentioned ratios. Common relations between the amount of aid and individual ratios were examined using Pearson's correlation coefficient at the 0,05 level.

## 3 INVESTMENT AID IN SLOVAKIA

State/investment aid or more specifically regional investment aid is an incentive intended to support the competitiveness and economic development of disadvantaged regions by supporting (mostly) initial investments. The priority of the Ministry of Economy (2024) of the Slovak republic is to support investments that use intelligent industry technologies and develop research and development in the Slovak republic. In accordance with the strategy of the Government of the Slovak republic and Act on support of least developed districts (Act no. 336/2015) it is directly aimed or preferred (with privileged benefits or relieved criteria) in such lagging areas. The aid is aimed to establish a new facility, increase capacities, diversify production or radically change the production process (Act No. 57/2018).

The following map divides districts according to their economic level and points out the disparities between them and the prevailing backwardness in Eastern Slovakia.

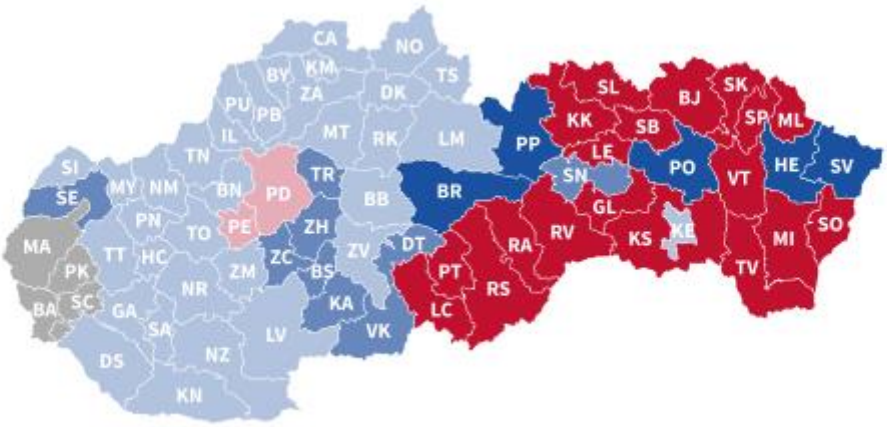


**Figure 1: Map with districts and their level of privilege in Slovakia**
Source: Ministry of Economy (2024)

Despite such differentiation and objective need to either eliminate disparities, decrease unemployment, ensure wage growth or support the innovation of production technologies, it seems that there exist just partial effects on regional level. The elimination of regional disparities in the conditions of the Slovak republic has not been successfully achieved so far and the differences between, for example, Bratislava region and other regions are deepening (Škorvánková, 2018). Also Košdy (2023) concludes that the level of support in most of these areas is insufficient, and, in some cases, it is literally zero. Unemployment grew and the only district among those considered the least developed that positively stood out, was Košice-okolie.

The maximum level of aid currently prefers so called Zone C districts and the least developed regions, which are located mostly in Eastern Slovakia, partly in southern regions of Central Slovakia. All types of aid are listed below, including their differences among regions.

**Table 1: Maximum levels of individual forms of investment aid**

| Form of Support | Western Slovakia | Central Slovakia | Eastern Slovakia |
|---|---|---|---|
| Grant for acquired assets | - | 40% | 50% |
| Income tax relief | 40% | 40% | 50% |

| Form of Support | Western Slovakia | Central Slovakia | Eastern Slovakia |
|---|---|---|---|
| Favorable transfer of real estate | 100% | 100% | 100% |
| Favorable lease of real estate | 90% | 90% | 90% |
| Contribution for new jobs created | | | |
| - Zone A | - | - | - |
| - Zone B | 40% | 40% | 50% |
| - Zone C | 40% | 40% | 50% |
| - least developed regions | 40% | 40% | 50% |

Source: Ministry of Economy (2024)

The typology of aid includes purchase of new assets, tax reliefs, transfer and lease of real estates and contribution for jobs creation or trainings. Grant for acquiring new assets in Western Slovakia is not provided, but in Central and Eastern Slovakia they might reach up to 40, resp. 50 %. Conditions in case of real estates remain equal, while income tax relief and job contributions follow the same percentages (40 % in Western and Central, 50 % in Eastern regions), slightly in favor of Eastern Slovakia. The maximum level of income tax relief increases by 20 percentage points for micro and small enterprises and by 10 percentage points for medium enterprises. Although the discussion about the size of support, its differentiation and inequalities among regions is very vital, 10 percentual point difference between less or least developed regions and the rest of Slovakia seems woefully inadequate to be motivational.

Individual forms of aid vary as to the sum provided, as is evidenced by the following table.

**Table 2: Comparison of financial and tax support**

| Country | Total support | Tax relief | Subsidy on fixed assets |
|---|---|---|---|
| GB | 129 812 750 | 0 | 129 812 750 |
| Netherland | 108 127 270 | 106 552 270 | 0 |
| Germany | 103 371 518 | 80 742 206 | 15 017 448 |
| Czechia | 60 260 000 | 59 960 000 | 300 000 |
| Austria | 55 513 792 | 49 347 167 | 946 670 |
| France | 40 461 474 | 23 526 162 | 16 025 312 |
| Switzerland | 39 180 728 | 29 105 832 | 6 338 896 |
| Slovakia | 36 854 677 | 16 758 688 | 13 045 449 |
| South Korea | 36 420 000 | 36 420 000 | 0 |
| Italy | 36 289 068 | 36 189 068 | 100 000 |
| Total | 748 955 413 | 476 588 533 | 238 803 826 |

Source: Ministry of Economy (2024)

The data in the table provides an overview of financial support for companies grouped according to the country of origin, broken down into three categories: Total Support, Tax Relief, and Subsidy on Fixed Assets. Ten most supported countries made up 88 % of all investment support given to companies between 2012 and 2023. Second column does not properly summarize tax relief and fixed assets subsidies, as several companies received also subsidies on property transfers and requalification, although those made just 3 % from total aid.

This data highlights that Great Britain leads in both Total Support and Subsidy on Fixed Assets, while the Netherlands is the front-runner in Tax Relief. Germany consistently appears in the top three across all categories, indicating substantial financial aid in multiple forms.

## 4 INVESTMENT AID AS A FACTOR FOR GROWTH AND PERFORMANCE

Regional investment aid is intended to promote investments and create jobs. Thus, its target groups are new (emerging) enterprises, developing (existing) enterprises, diversifying entities and (to put it simply) restructuring enterprises fundamentally transforming their production program or services (such as technology centres or strategic service centres). Conditions have been changing purposefully over the years, which implies that (a) smart industry technologies, research and development activities occurred now among the priorities, (b) in some respects, a period of more than ten years and changing conditions hinder full comparability in some criteria. Anyway, the industrial structure of supported entities still indicates that these changes had lower or no effect. Twenty different SK NACE industries were supported in analysed period. Sections 29,28,27 and 25 prevailed (automotive industry, engineering, manufacture of electronic equipment), making up to 45 % on total aid provided. Thus, more production-oriented projects were relevant, aiming to either increase the production capacity and/or employment, including expansion of production facilities, but with lower importance of services or research.

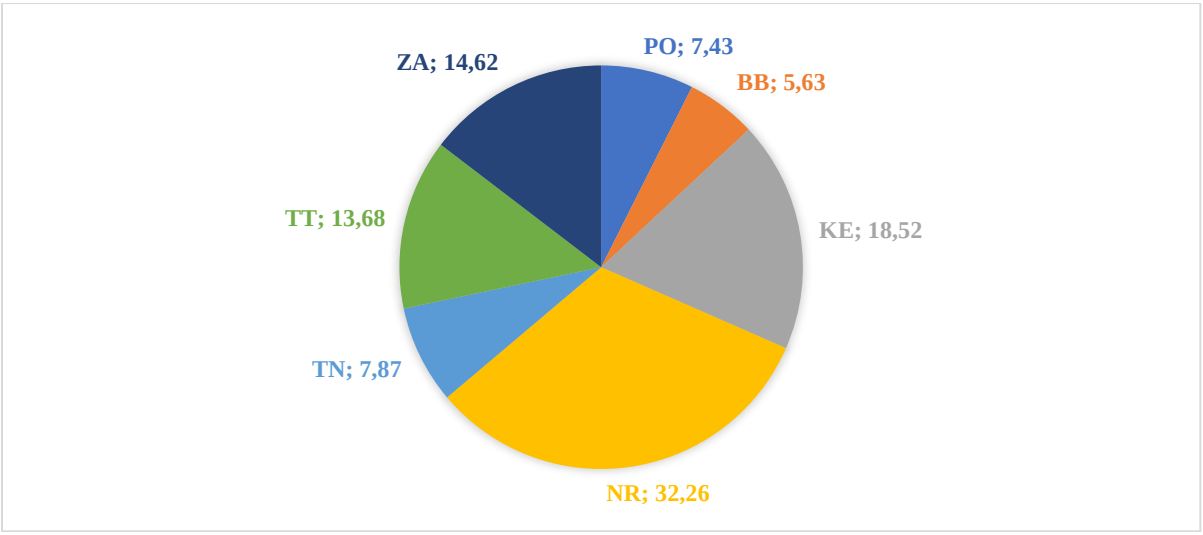


**Figure 2: Regional share on total support 2012-2023**
Source: own calculation based on Ministry of Economy data

37 projects out of 114 were implemented in so called least developed regions, which constituted a total aid in the sum of 154 216 896 € (out of a total of 718 747 839 €). It may be stated afterwards that investment aid contributed towards the reduction of regional disparities just partially (33 % as per share on number of projects and 21,46 % as per share on budget). These results answered the RQ1 and are in line with previous research (Škorvánková, 2018).

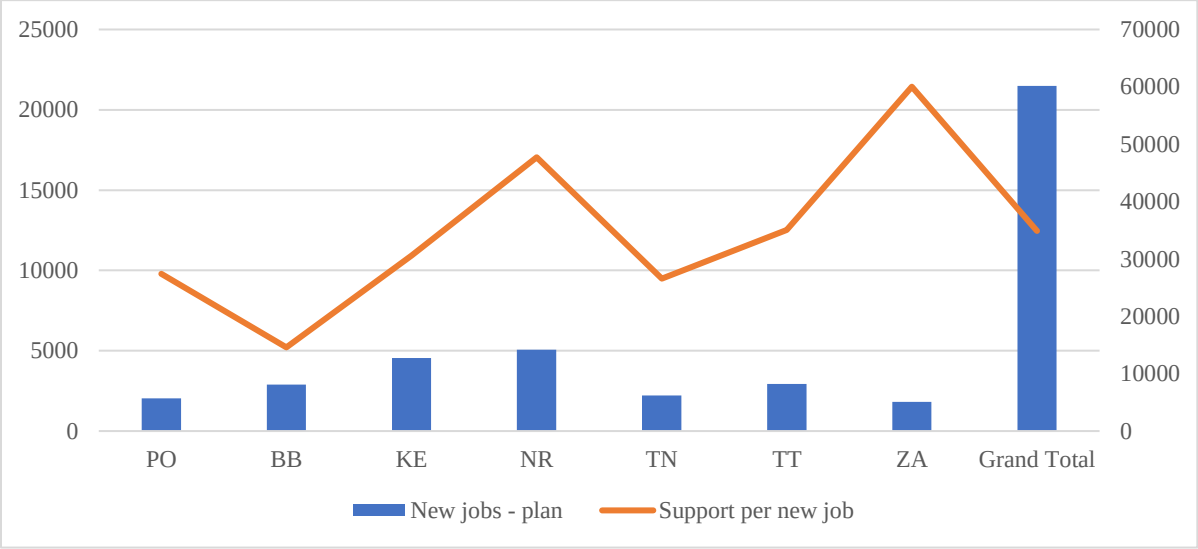


**Figure 3: Comparison of newly created jobs (plan) and their cost**
Source: own calculation based on Ministry of Economy data

After the comparison between the projected creation of jobs we may declare that 41 % fulfilled expected increase, 27 % did not fulfil their obligation (within 3 years) and 32 % officially did not declare any change (neither positive, nor negative). 38 % projects declared decrease in employment although it was supposed to grow, although 1/3 of them was somehow hit by the COVID crisis and downfall. Average increase in employment three years after the support was 14,47 %.

The criteria for providing of the aid and the final goals of aid towards which the support is aimed, give a room for several approaches through which the growth and performance of companies can be evaluated. So far, the support has provided investment aid for both new and expanding companies (which dominated), which have invested their own funds and allocated the aid mainly into industrial production, business services centres (including IT centres) or technology centres. As the priority was to support the least developed regions and projects with higher added value, the evaluation criteria are adapted to this. Even though the previous analysis showed that the least developed regions received aggregate financial support just at the level of about 21 %. Therefore, we will also divide the analysis and will focus separately on extensive and intensive changes

### *4.1 Dynamics of inputs and outputs of supported entities*

The average growth rate for assets over the four years was approximately 9,21 %. Assets growth decreased each year after the initial boost provided by the aid. This decline may indicate that companies initially invested the aid to expand their assets but then faced challenges in sustaining similar levels of reinvestment. The steady decline in assets growth suggests that while the aid initially helped companies to scale, they may need additional resources, improved operational strategies, or stronger market demand to sustain long-term expansion. Without these, growth might plateau, impacting future competitiveness and resilience. Partially it refers to a continual depreciation that has been lowering net assets value in the meantime.

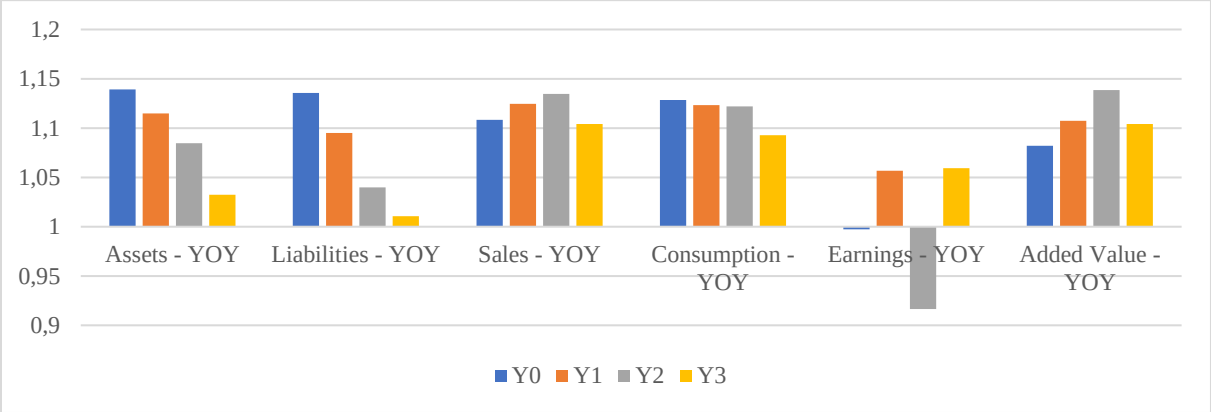


**Figure 4: Development of absolute indicators over the time**
Source: own processing of financial data

While both assets and liabilities experienced growth, assets growth outpaced liabilities growth each year, leading to a stronger asset base relative to liabilities. This trend suggests that companies were likely able to use their resources more efficiently, avoiding excessive debt as they grew. Higher assets growth compared to liabilities implies potential improvements in generation of sales and profitability, allowing companies to fund growth internally rather than through debt. A slower increase in liabilities alongside stronger assets growth can lead to a healthier balance sheet, enhancing the companies' financial stability and resilience to economic downturns.

In case of sales and consumption, there is an increase in both compared to $Y_0$. Sales continue to increase (average pace was 11,8 %), but at a slower rate compared to $Y_1$, while consumption shows a slight decrease (average 11,7 %), followed by significant decrease a year later. The initial increase in sales and consumption suggests that state support had a positive impact on the company's performance in the short term. While at the beginning the growth in sales was obviously lower than in consumption, following years proved the opposite.

Earnings showed a significant decrease after the stable beginning and slight increase in the second year, while added value continued to increase (with a little stagnation at the end). Average growth rate in earnings was 0,58 % due to almost 8 % drop in the second year, while average growth rate in added value was 10,79 %, which supports the idea of investment aid oriented on higher or increasing added value (although some of supported companies are not ranked as highly specialised, progressive or innovative). The continuing increase in added value until $Y_2$ suggests that the companies were able to create more value despite fluctuations in earnings.

The aid appears to have been moderately successful. While there's a general pattern of declining growth rates over the three years, most metrics remained positive (above 1), indicating continued growth, just at a slower pace. The companies appear to have used the aid to create sustainable growth, particularly evident in added value and sales, while managing to control the growth of liabilities. The main concern would be the volatility in earnings and the general slowdown by $Y_3$, suggesting that companies might need to focus on maintaining their competitive advantages for longer-term sustainability. Thus, the RQ2 was answered claiming that effects reached from receiving investment aid faded after approx. two years.

### *4.2 Dynamics in performance of supported entities*

Investment aid in the event of an expansion of the capacity of an existing company assumes an increase in the value or volume of production and services by 15 %. Since it is not possible to verify the volume component from public data sources, and we have dealt with the increase

in sales and added value in the previous section, in this subchapter we will look at the qualitative performance parameters of the supported entities. Especially, how the drawdown of aid has changed their liquidity, stability and profitability.

As investment aid is disbursed ex-post, its absorption may have an initial negative impact on the amount of available funds due to an increase in investment and operating expenditures. On the other hand, partial compensation (from the Ministry) in a proportional amount after the filing and submission of the report (annually) subsequently reduces this pressure on liquidity. Nevertheless, in the sample of surveyed enterprises, the cash ratio fell by 23 %, with a slight increase in the value of the ratio in the last examined year. This increase may be related to the final compensation of expenses, but also to a higher growth rate of sales and the highest growth rate of profit or loss. Either way, a decrease in liquidity during the drawing of aid is a sign of financial threat and unhealthy cash flow. In enterprises without foreign participation and with more limited sources of financing, this decline was even greater (41 %). Similar problems are not new, and in the past the European Commission or the European Investment Bank have noted similar developments and concerns about the overfinancing of projects in the case of the European Structural and Investment Funds, which have deepened during the restrictions and the pandemic (EIB, 2020). That is why some of the mechanisms have been transformed into various guarantees instead of direct support, such as the European Guarantee Fund (EGF), which provides guarantees to free up capital for national promotional banks, local banks and other financial intermediaries to make more financing available for small and medium companies, mid-caps and corporations. At a time of significant consolidation of public finances, similar schemes can serve as a model for reducing public spending, moreover, with a positive impact on the selection of projects with significant commercial success. However, since the part of the investment aid also serves for state purposes as a tool for levelling of regional differences, redistribution or covering of externalities and (also) partly as a political (marketing) tool, not all activities financed in this way could be attractive for commercial banks or other financial institutions.

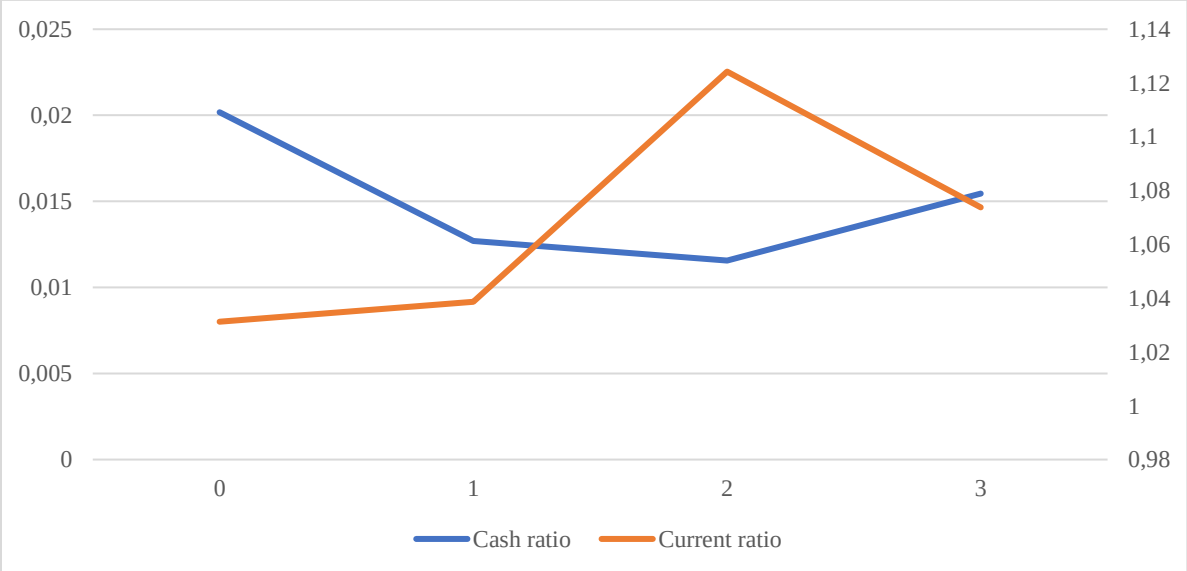


**Figure 5: Development of liquidity over the time**
Source: own processing of financial data

The essence of the aid and the effort to support progressive production or expansion of existing capacities creates pressure for the effective use of new assets, or their appropriate transformation into business outputs. The growth of assets was already visible in the previous

chapter, and we will now find out how it has manifested itself in maximizing the efficiency, whether through the turnover of total assets or the acceleration of inventory turnover.

Total asset turnover went up from initial 1,03 through significant growth (1,11) and final drop to 1,10 and 1,07. An increase in assets turnover indicates that the companies were able to generate more revenue per unit of assets, which is a sign of improved efficiency and productivity. New investments or generally the growth of a company is usually having a positive effect on assets, but similar pace in case of sales remains questionable. Rapid development in the second and third year confirmed that the increase in sales was even higher than in case of assets. As the increase in total assets may be different from more operational development, similarly the turnover period of current assets was measured with the slightly opposite conclusion. While total assets increased, current assets turnover worsened by 3 days and then fell down by two more days.

Over the four-year period, daily sales in payables showed a fluctuating trend. In the first year the value started at 36,48. It experienced a slight increase to 37,17 in the second year, indicating a minor growth in sales in payables. The third year sees a noticeable increase to 40,12, marking the peak of this period. However, in the fourth year, the value dropped slightly to 37,73, suggesting a small decline after the previous peak. It indicates that the implementation of projects had just a minor influence on debt in general and that was confirmed by two other ratios: share of short-term payables on assets (just 1,5 percentage points in four years) followed by equity-to-asset ratio (decrease just by 3,4 percentage points). The last one went down in spite of the rising profit, indicating the trend of increased long-term indebtedness.

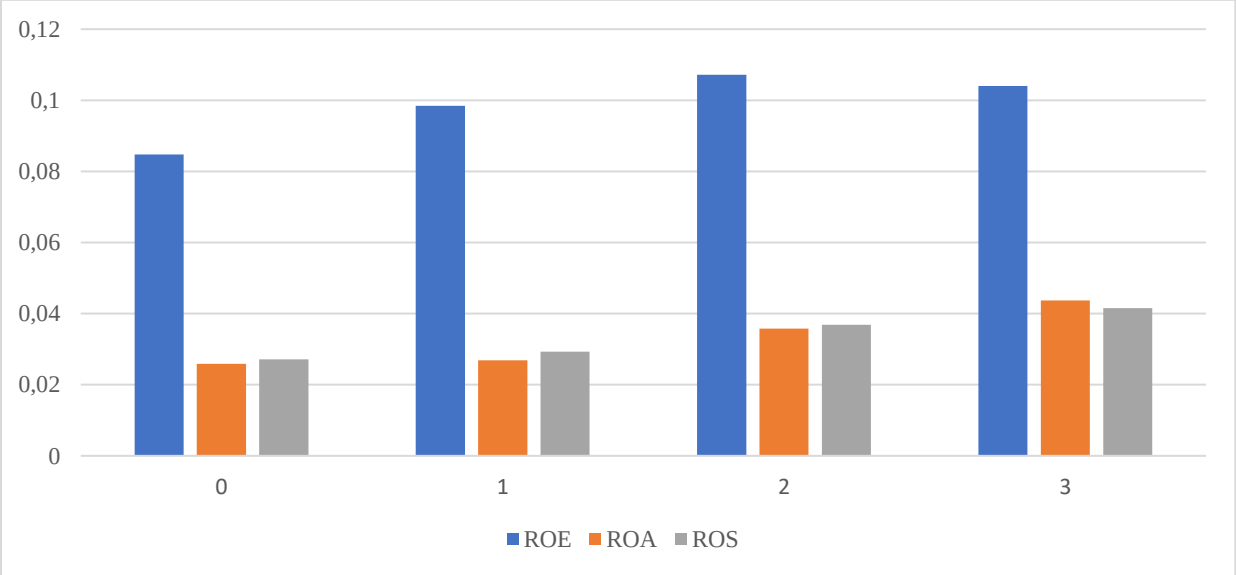


**Figure 6: Development of profitability over the time**
Source: own processing of financial data

Return on equity steadily increased from 0,08 in the first year to a peak of 0,11 in the third year, before a slight decrease to 0,10 in the fourth year. ROA followed a similar upward trend, increasing each year from 0,03 to 0,04. Improvement in ROS aligns with the rise in ROE and ROA, suggesting that increased sales efficiency contributed to the overall profitability and return improvements (similarly to Nugroho research (2019)). All three ratios declared similar trend, only ROA continued to grow even in fourth year, while remaining two ratios went down. It points to a fact that debt became more expensive (compared with the price of equity) and based on that ROE changed differently. It followed similar argument as the previous paragraph,

indicating that a long-term debt changed the structure of capital and was generally more expensive. One may consider this to be a result of new investments or the necessity to re-finance previous liabilities. The fact that investment aid was oriented on multiple forms of support, fosters many additional potential reasons, even those not related with business development.

When analyzing the relationships between the indicators, the Pearson's correlation coefficient confirmed a low negative correlation between the amount of aid and the return on assets ($r = -0,0735$) and a low positive correlation between the amount of aid and the creation of value added ($r = 0,0148$). In both cases, however, the test was not statistically significant at the significance level of 0,05. Both related to the situation at the start of the project's implementation (Year 0). If significant, they would indicate that the higher was the aid, the less successful were the companies or that the companies with slightly higher added value were funded.

The same analysis performed after the realization of project (Year 3) proved moderate positive correlation between the amount of aid and growth of sales (0,57; $p = 0,00001$), share of personnel cost (0,27; $p = 0,0224$) and depreciation on added value (0,24; $p = 0,0177$). While the latter two ratios were (partly) expected due to mostly a direct increase in employment and purchase of long-term assets, growth of sales was a positive, not so obvious outcome. A more detailed analysis would be needed to consider the structure of sales to understand the contribution of diversified or innovated products or shift towards high-added value production/services.

In the case of current ratio (-0,1), consumption (-0,01), return on assets (-0,08) and relative change in added value (-0,16) there was a very weak negative correlation but statistically not significant. So, they just symbolically confirmed that with the growing amount of aid they are about to decrease, which is not a proper outcome of whole supporting/investment policy. Therefore, we may declare, the size of investment aid is just a partial predictor of growth (RQ3), it has just a temporary effect and is no predictor of profitability.

## DISCUSSION AND CONCLUSION

Regional investment aid in Slovakia has contributed to economic development by supporting both emerging and expanding enterprises, especially in sectors with high added value. While conditions have evolved to prioritize smart industry technologies and R&D, comparability across criteria is limited due to changing guidelines. The aid aims to create and maintain jobs, complete investment plans on time, and support less-developed regions.

The distribution of aid varied by region and sector, with the production-oriented projects receiving the most funding. Although investment aid has partially addressed regional disparities, only 21 % of total funding went to the least developed areas, suggesting limited impact on reducing inequality.

Analysis indicates that supported companies initially showed strong growth in assets and sales, but sustainability remains a challenge. Though profitability ratios like ROE, ROA, and ROS improved overall, the structure of capital shifted towards more expensive long-term debt. Ultimately, while investment aid fostered growth, its long-term impact requires improved financial strategies and support alignment with regional needs in order to keep balanced development.

Although regional investment aid aims to address disparities, only 21% of funding went to the least developed regions, which highlights a gap between intent and actual impact. Future research could explore how to better align funding allocations with regional needs. This might include tailored aid packages for underdeveloped areas or incentives for high-impact projects in regions with lower economic activity to enhance overall equality and effectiveness. Although

more than 21 000 new jobs were projected, real impact is neither easy to confirm (even due to pandemic), nor specifically lead towards under-developed regions.

The analysis shows that initial growth in assets and profitability is difficult to sustain, with a slowdown or even decline in some metrics after the initial boost. This suggests that companies may need additional support beyond the initial aid to achieve lasting growth (which is easier in case of multinationals). Future research could investigate mechanisms for phased aid distribution based on performance milestones, helping companies to achieve steady, longer-term development.

The changing criteria over more than a decade make it challenging to measure the program's impact consistently, highlighting a need for more standardized metrics. This inconsistency could hinder efforts to identify which approaches are most effective in fostering growth. Currently, the aid policy appears heavily focused on economic factors, with limited attention to environmental sustainability or social impact. With global emphasis shifting towards sustainable development, future research could investigate how Slovakia's investment aid could incorporate ESG (Environmental, Social, and Governance) criteria. This might include incentives for green projects, sustainable business practices, or community-centred initiatives, potentially making the aid policy more aligned with modern sustainable development goals.

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