

Alzbeta Bielikova¹, Jana Hakalova², Yvetta Psenkova³

IMPACT OF TAX BURDEN ON THE BUSINESS ENVIRONMENT AND FOREIGN DIRECT INVESTMENT IN V4 COUNTRIES

The article assesses the impact of the tax burden on the quality of the business environment and the volume of foreign direct investment in the "Visegrad Four" countries. It is substantiated that the quality of the business environment means good conditions for free enterprise and at the same time creates the preconditions for the country's long-term competitiveness on a global scale. It is revealed that the attractiveness of the country for foreign direct investment is determined by the favorable business environment, the quality of the institutional environment, relative price and economic competitiveness, but it can also be influenced dynamically by a targeted state policy to encourage foreign investment (investment incentives). It is shown that the business environment, along with macroeconomic stability, accessible infrastructure and human capital, is one of four factors that affect the competitiveness and attractiveness of each country from the point of view of foreign investors. Thanks to the correlation analysis, the impact of the overall tax burden on investor decisions and the amount of foreign direct investment in the "Visegrad Four" (V4) countries is estimated.

Keywords: business environment; tax; tax burden; investments; foreign direct investment (FDI); region.

JEL Classification: E 62, E 22, M 42.

Peer-reviewed, approved and placed: 10.03.2018.

Алжбета Белікова, Яна Хакалова, Іветта Пшенкова

ВПЛИВ ПОДАТКОВОГО НАВАНТАЖЕННЯ НА ДІЛОВЕ СЕРЕДОВИЩЕ І ПРЯМІ ІНОЗЕМНІ ІНВЕСТИЦІЇ В КРАЇНАХ «ВИШЕГРАДСЬКОЇ ЧЕТВІРКИ»

У статті оцінено вплив податкового навантаження на якість ділового середовища і обсяг прямих іноземних інвестицій в країнах «Вишеградської четвірки». Обґрунтовано, що якість ділового середовища означає хороші умови для вільного підприємництва і в той же час створює передумови для довгострокової конкурентоспроможності країни в глобальному масштабі. Виявлено, що привабливість країни для прямих іноземних інвестицій обумовлена сприятливим діловим середовищем, якістю інституціонального середовища, відносною ціною і економічною конкурентоспроможністю, але на неї також може надавати динамічний вплив цілеспрямована державна політика щодо заохочення іноземних інвестицій (інвестиційні стимули). Показано, що бізнес-середовище, поряд з макроекономічною стабільністю, доступною інфраструктурою і людським капіталом, є одним з чотирьох чинників, які впливають на конкурентоспроможність і привабливість кожної країни з точки зору іноземних інвесторів. Завдяки кореляційному аналізу оцінено вплив загального податкового навантаження на рішення інвесторів і обсяг прямих іноземних інвестицій в країні «Вишеградської четвірки».

Ключові слова: бізнес-середовище; податок; податкове навантаження; інвестиції; прямі іноземні інвестиції (ПІІ); регіон.

Рис. 5. Табл. 5. Літ. 30.

¹ Technical University of Ostrava, Faculty of Economics, Department of Accounting and Taxes, Czech Republic.

² Technical University of Ostrava, Faculty of Economics, Department of Accounting and Taxes, Czech Republic.

³ Technical University of Ostrava, Faculty of Economics, Department of Accounting and Taxes, Czech Republic.

Алжбета Беликова, Яна Хакалова, Иветта Пшенкова

ВЛИЯНИЕ НАЛОГОВОЙ НАГРУЗКИ НА ДЕЛОВУЮ СРЕДУ И ПРЯМЫЕ ИНОСТРАННЫЕ ИНВЕСТИЦИИ В СТРАНАХ «ВЫШЕГРАДСКОЙ ЧЕТВЕРКИ»

В статье оценено влияние налоговой нагрузки на качество деловой среды и объем прямых иностранных инвестиций в странах «Вышеградской четверки». Обосновано, что качество деловой среды означает хорошие условия для свободного предпринимательства и в то же время создает предпосылки для долгосрочной конкурентоспособности страны в глобальном масштабе. Выявлено, что привлекательность страны для прямых иностранных инвестиций обусловлена благоприятной деловой средой, качеством институциональной среды, относительной ценовой и экономической конкурентоспособностью, но на нее также может оказывать динамическое влияние целенаправленная государственная политика по поощрению иностранных инвестиций (инвестиционные стимулы). Показано, что бизнес-среда, наряду с макроэкономической стабильностью, доступной инфраструктурой и человеческим капиталом, является одним из четырех факторов, которые влияют на конкурентоспособность и привлекательность каждой страны с точки зрения иностранных инвесторов. Благодаря корреляционному анализу оценено влияние общей налоговой нагрузки на решения инвесторов и объем прямых иностранных инвестиций в страны «Вышеградской четверки».

Ключевые слова: бизнес-среда; налог; налоговая нагрузка; инвестиции; прямые иностранные инвестиции (ПИИ); регион.

Introduction. The level of tax burden and tax incentives are an important factor influencing the quality of the business environment. Lower tax burden not only contributes to higher work activity but also has a significant impact on business development of domestic and foreign entities. However, there are various barriers which affect decisions of business entities to a large extent (tax, administrative, legal and other barriers). A high tax burden can be included among the tax barriers that affect business activity. Administrative barriers include bureaucratic obstacles linked to administrative demands and extensive record-keeping. Permanent changes in legal norms, especially their ambiguity, demotivate business entities.

1. Statement of a problem. The concept of the business environment is well-known and often used, yet its definition is neither simple nor unambiguous given the large number of stakeholders involved in its formation.

V. Jurickova (2006) defines the business environment as follows: “The business environment is everything that surrounds a company. It covers both economic, political, legal, institutional, ethical, cultural and technological conditions in which the entrepreneurial process is implemented”.

L. Strazovska et al. (2008) characterize it as an environment surrounding the business entity that affects its business activity. They emphasize its relationship with the competitive environment but also the governing institutions, which determine the rules and conditions of business activity. The business environment can be analysed at three levels: the macro environment – includes external influences that impact on the company, the micro-environment – includes businesses and individuals with who the company is in a direct connection, and the internal environment – it involves processes inside the company. In general, we can say that the business environment

reflects the quality of the economic conditions and the prerequisites for the economic activity of domestic and foreign entities.

M. Porter (1980) as one of the main pioneers of exploring the competitiveness of the state in an international environment, defined three stages of competitiveness. In the first stage, the country benefits from cheap labour and natural resources; in the second stage, the efficiency of standard commodity production becomes the source of competitive advantages, and the third stage is associated with the production of innovative products. The business environment, together with macroeconomic stability, available infrastructure and human capital, is one of the four factors that affect the competitiveness and attractiveness of each country from the foreign investors point of view.

1.1. Characteristics of investments. Generally speaking, investments can be defined as an economic activity in which an entity renounces current consumption with a view to increasing the production in the future. M. Lebieczik (2007) defines the foreign direct investment as “a transaction between direct investors and companies to which investments are directed to acquire significant stake in the company management outside the investor's resident economy. They are in the form of share capital, reinvested earnings and capital transactions”.

Many economic studies agree that the movement of foreign direct investment is driven by predicting future profits. When assessing potential risks, investments flow from regions with low expected earnings to regions with high expected earnings. Although the diversity of methodological approaches prevents a comprehensive understanding of the phenomenon under consideration, Nielsen, Asmussen and Weatherall agree that foreign direct investment remains an important driver of international business activities.

The attractiveness of the country for foreign direct investment is driven by a favourable business environment, the quality of the institutional environment, relative price and cost competitiveness, but it can also be dynamically influenced by targeted state policy for the promotion of foreign investments (investment incentives).

2. Methods. To achieve the goal, we used the basic methods of scientific research – abstraction, synthesis, induction, deduction, comparison and description. Through abstraction, we have been monitoring substantial and consistent information published in various literary sources so that we can define the basic concepts and categories of the problem under consideration. We realized the analysis as a step-by-step collection, sorting, evaluation and subsequent interpretation. We used the synthesis to find out the links between the delineated elements, signs and their connections, and then reproduce the studied area with their essential features and relationships. Through the correlation analysis, we have been assessing the impact of the total tax burden on investor decisions and the volume of foreign direct investment in V4 countries.

3. Problem solving. Several domestic and foreign researches deal with monitoring the level of the business environment. The role of state in shaping the business environment is not negligible. From the point of view of business entities, the tax system should respect not only the principle of tax acceptability, but also the principle of tax legality and the principle of tax stimulation. The state should therefore create long-term stable and the most favourable conditions for doing business.

According to experts, the tax rate is not the only criterion for investors to decide whether to come to the country to do business. A transparent business environment, staff costs and total tax-levy burden are also important. From the macroeconomic point of view, the total tax burden is defined through tax quotas. Based on data from the Eurostat, we have prepared Table 1, which captures the total tax burden in V4 countries for the period of 2006-2015.

Table 1. Total tax burden in V4 countries for the period of 2006-2015 in % from operating profit

	Total tax burden in % from operating profit									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
SR	48.6	48.6	48.5	49.4	50	50.2	50.2	49.3	51.8	51.7
CR	54.1	53.1	53.1	51.1	50	50	50	50	50.4	50.4
Hungary	55.7	55.3	56.6	56.6	54.6	52	49.8	49.3	48	48.4
Poland	43.2	43.4	45.1	42.2	40.6	40.1	40.3	40.1	40.1	40.3

Source: own processing in accordance with <http://ec.europa.eu/eurostat>.

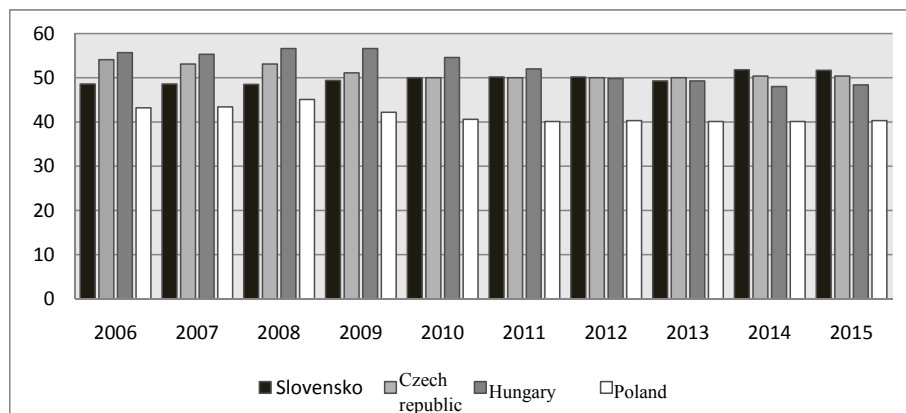


Fig. 1. Total tax burden in V4 countries for the period of 2006-2015 in % from operating profit, own processing in accordance with <http://ec.europa.eu/eurostat>

The rate of total tax burden over the period in question shows downward trend in the Czech Republic, Hungary and Poland, whereas in Slovakia the tax burden is increasing. The highest level of total tax burden in that period was recorded in Hungary in 2008 and 2009 at the amount of 56.6%.

4. Discussion. The impact of the tax burden on FDI inflows. In the next part, the impact of the tax burden on FDI inflows in V4 countries is evaluated. We put two variables in the context, namely the total tax burden (% of the trade profit) and the inflow of FDI into the country in million USD. Using the correlation analysis, we expressed the interdependence of the two variables gradually for individual V4 countries.

Slovakia. Slovakia can be ranked among countries with a higher total tax burden, as proved by the measured average tax burden at the amount of 49.83% per year. The dependence of FDI volume on the total tax burden (%) in Slovakia is shown in Figure 2.

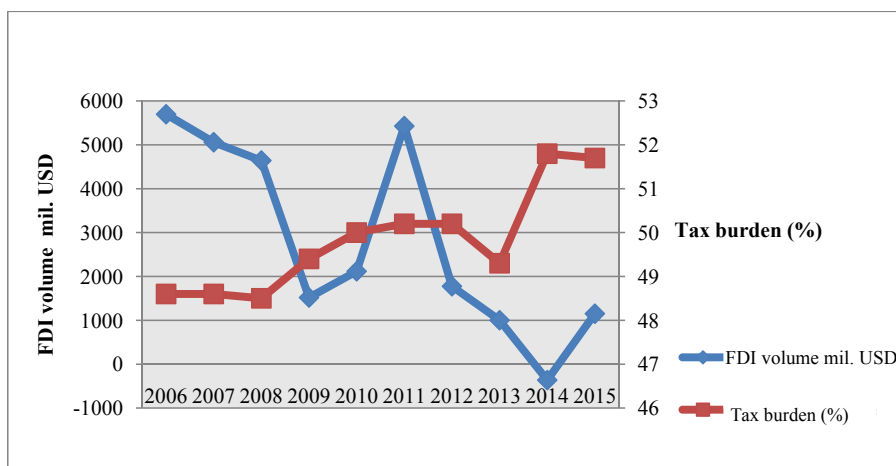


Fig. 2. Development of total tax burden and FDI volume in Slovakia for the period of 2006-2015, own processing based on the Statistical Yearbook of the Slovak Republic

Slovakia is the only country that shows the opposite dependence between the level of the tax burden and the inflow of FDI. If the total level of tax burden is reduced, the FDI inflow will grow and vice versa. In this case, the total tax burden has a large impact on the decisions of potential foreign investors. The likelihood that foreign investors will carry out their investment plans in Slovakia due to the amount of the total tax burden is up to 68%.

Table 2. Development of total tax burden (%) and FDI flows in Slovakia for the period of 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total volume of FDI (in million USD)	5,696	5,059	4,641	1,519	2,117	5,426	1,776	1,003	-362	1,151
Tax burden (%)	48.6	48.6	48.5	49.4	50	50.2	50.2	49.3	51.8	51.7

Source: own processing based on the Statistical Yearbook of the Slovak Republic

Correlation dependence: - 0.68442

The previous statement also confirms the result of the correlation analysis that reached a negative value approaching -1, which means a strong opposite dependence between the level of the tax burden and the inflow of FDI. According to the Global Competitiveness Report, tax rates in Slovakia are currently the second biggest barrier to business development. The four most common problems in survey on barriers to doing business carried out by the Business Alliance of Slovakia in 2016 are poor enforcement of law, application of the principle of equality before the law, the levy burden, instability and ambiguity of laws and corruption.

The Czech Republic. The dependence of the FDI volume on the total tax burden (%) in the Czech Republic for the period of 2006-2015 is shown in Figure 3.

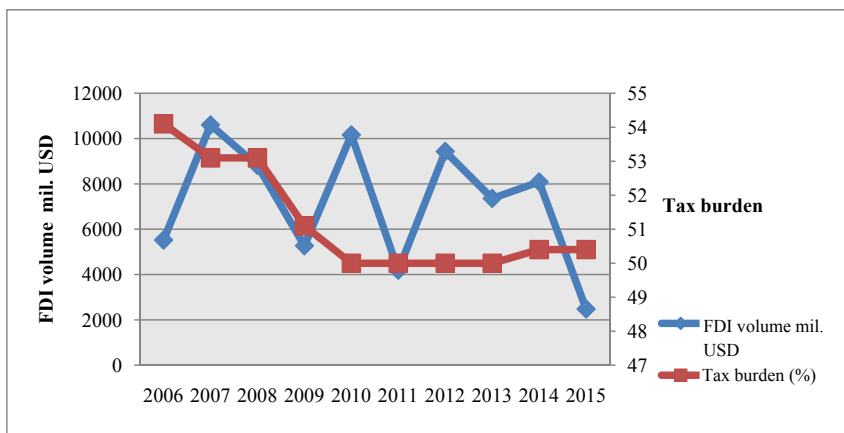


Fig. 3. Development of total tax burden and FDI volume in the Czech Republic for the period of 2006-2015, own processing in accordance with <http://ec.europa.eu/eurostat>

The volume of FDI in the Czech Republic is only partially influenced by the level of the total tax burden. FDI flows and total tax burden levels develop independently or only with a small correlation bond. On the basis of the above information, we can state that the level of the total tax burden for the monitored period in the Czech Republic only slightly influences the inflow of FDI.

Table 3. Development of the total tax burden (%) and FDI volume in the Czech Republic for the period of 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total volume of FDI (in million USD)	5,521	10,606	8,815	5,271	10,167	4,188	9,433	7,357	8,088	2,478
Tax burden (%)	54.1	53.1	53.1	51.1	50	50	50	50	50.4	50.4

Source: own processing in accordance with <http://ec.europa.eu/eurostat>

Correlation dependence: 0.13159

The resulting value of the correlation analysis shows that the inflow of FDI in the Czech Republic is very little influenced by the level of total tax burden. The positive value of the correlation analysis result means that the dependence is directly proportional. If the total tax burden falls, the inflow of FDI will decrease as well and vice versa. From the V4 countries, the Czech Republic shows the lowest FDI dependency on the total tax burden over the reference period.

Hungary. The dependence of the FDI volume on the total tax burden (%) in Hungary for the period 2006-2015 is shown in Figure 4.

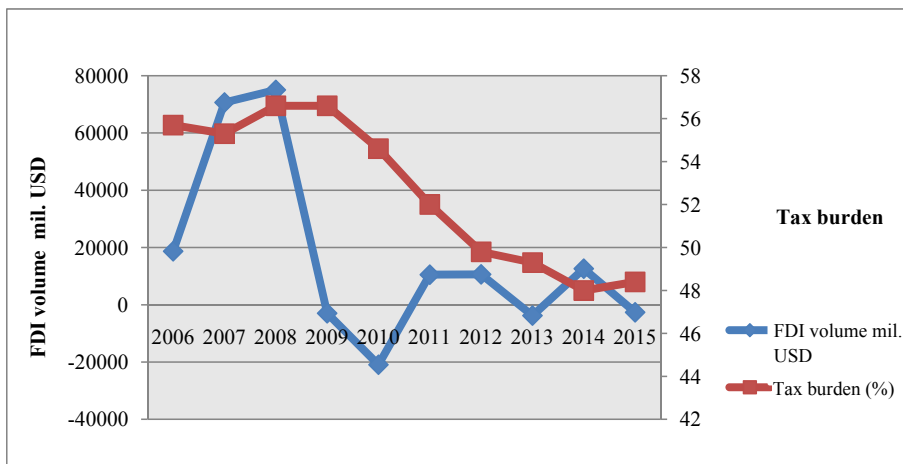


Fig. 4. Development of total tax burden and FDI volume in Hungary for the reference period of 2006-2015, own processing in accordance with <http://ec.europa.eu/eurostat>

Within the V4 countries, Hungary shows the highest FDI dependence on the total tax burden. In this case, there is only a 40% probability that if the level of total tax burden in the country increases, the inflow of FDI will increase and vice versa.

Table 4. Development of the total tax burden (%) and FDI flows in Hungary for the reference period of 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total volume of FDI (in million USD)	18,678	70,631	75,013	-2,967	-20,933	10,506	10,618	-3,772	12,596	-2,624
Tax burden (%)	55.7	55.3	56.6	56.6	54.6	52	49.8	49.3	48	48.4

Source: own processing in accordance with <http://ec.europa.eu/eurostat>.

Correlation dependence: 0.419995

The result of the correlation analysis shows the direct relationship. Even though the likelihood of the same development is relatively low, it needs to be highlighted in terms of investment placement. For example, in a situation where potential investors decide to invest in the country, the total tax burden may increase, which would ultimately have the opposite effect. Based on the above, we can state that Hungary belongs to the most vulnerable V4 countries in terms of the impact of the total tax burden.

Poland. The dependence of the FDI volume on the total tax burden (%) in Poland for the period 2006-2015 is shown in Figure 5.

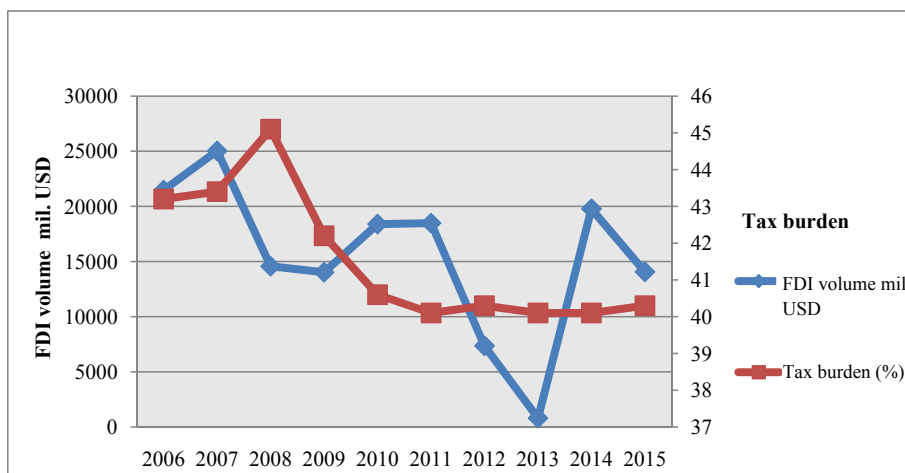


Fig. 5. Development of the total (%) and FDI volume in Poland for the period of 2006-2015, own processing in accordance with <http://ec.europa.eu/eurostat>

The total tax burden also has an impact on the volume of FDI in Poland, which is slightly better than for Hungary. Poland also has a relatively strong dependence of the investigated variables. It is quite likely that the situation will be the same as in Hungary, where lowering the total tax burden could mean reducing the volume of FDI, which could ultimately have the opposite effect. If there is an increase in the total tax burden, it is less likely that the inflow of FDI into the country would increase.

Table 5. Development of total tax burden rate (%) and FDI flows in Poland

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total volume of FDI (in million USD)	21,473	25,031	14,574	14,025	18,395	18,485	7,358	795	19,776	14,067
Tax burden (%)	43.2	43.4	45.1	42.2	40.6	40.1	40.3	40.1	40.1	40.3

Source: own processing in accordance with <http://ec.europa.eu/eurostat>.

Correlation dependence: 0.375465

Based on the results of the correlation analysis, Poland and Hungary can be included in the group of so-called risk countries because of the higher probability that the total tax burden will have worse impact on a potential investor.

Conclusion. Under the influence of globalization processes and the internationalization of economic processes, the traditional understanding of the competitiveness of the state is changing towards creating new comparative advantages and cultivating the existing ones that attract foreign investors.

Within V4, the attractiveness of Slovakia's business environment is reduced particularly by the high tax burden and frequent changes in legislation, including con-

troversial tax licenses, which have been in use since 2014 and also have a significant impact on the volume of FDI.

The space to increase FDI inflows and to increase their benefits is still relatively large for V4 economies. Therefore, the significance of competition among states in attracting foreign investment is increasing in regions with similar comparative and structural advantages and the economic level, in which regions of the Visegrád Group can be included.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., Sayek, S. (2004). FDI and economic growth: The role of local financial markets. Journal of International Economics, 64 (1), pp. 89-112.

Andrejovska, A., Hudakova, M. (2016). Classification of EU Countries in the Context of Corporate Income Tax. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, s. 1699-1708.

Balaz, P. et al. (2010). Medzinárodné podnikanie. Sprint Bratislava, 2010. 218 s. ISBN 80-967842-7-7.

Bevan, A., Estrin, S., Meyer, K. (2004). Foreign investment location and institutional development in transition economies. International Business Review, 13 (1), pp. 43-64.

Carkovic, M., et al. (2002). Does Foreign Direct Investment Accelerate Economic Growth? University of Minnesota Discussion Paper, May.

Conorato, R., Dlhopolcek, J., Kopecny, P. et al. (2014). Analýza, monitor kvality podnikateľského prostredia v SR a konkurencie schopnosť ekonomiky. Bratislava: Centrum vzdelávania MPSVR SR. 139 s. ISBN 978-80-89757-18-3.

Dunning, J. H., (2002). Theories and Paradigms of International Business Activity – the Selected Essays of John H. Dunning. Cheltenham: Edward Elgar Publishing Limited, ISBN 1 84064 7000.

Eller M., Haiss P., Steiner K. (2006). Foreign direct investment in the financial sector and economic growth in Central and Eastern Europe. The crucial role of the efficiency channel, Emerging Markets Review, 7, pp. 300-319.

Jensen, N. (2003). Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment, International Organisation, Vol. 57, No. 3, pp. 587-616.

Jurickova, V. et al. (2006). Podnikateľské prostredie a firemné stratégie. Bratislava: Ekonomický ústav SAV, 172 s. ISBN 80-7144-154-6.

Labaj, M., (2014). Strukturálne aspekty ekonomickeho rozvoja: slovenská ekonomika v globálnych súvislostiach. Bratislava: Ekonomický ústav SAV vo vydavateľstve Ekonom. 167 s. ISBN 978-80-7144-223-3.

Lebiedzki, M. et al. (2007). Svetová ekonomika. Brno: Computer Press, 2007. 280 s. ISBN 978-80-251-1510-7.

Lyrroudi K., Papanastasiou J., Vamvakidis A. (2004). Foreign Direct Investment and Economic Growth in Transition Economies. South Eastern Europe Journal of Economics, 1, pp. 97-110.

Mahutga, M.C., Bandelj, N. (2008). Foreign investment and income inequality: The natural experiment of Central and Eastern Europe. International Journal of Comparative Sociology, 49 (6), pp. 429-454.

Matkowski Z., Prochanik M. (2004). Real Economic convergence in the EU accession countries. International Journal of Applied Econometrics and Quantitative Studies, 1, pp. 5-38.

Melnyk L. et al (2014). The impact of foreign direct investment on economic growth: case of post communism transition economies. Problems and Perspectives in Management, 12(1)

Milosovicova, P., Novackova, D., (2011). Medzinárodné ekonomicke právo. Bratislava. Eurounion. ISBN 978-80-89374-12-0.

Pelinescu, E. Dulescu, M. (2009). The impact of foreign direct investment on the economic growth and countries' export potential. Romanian Journal of Economic Forecasting, 4, pp. 153-169.

Padureanu, A. et al. (2012). Models of Foreign Direct Investments Influence on Economic Growth. Evidence from Romania, International Journal of Trade, Economics and Finance.

Roubickova, M. (2012). Vliv institucionalního sektoru na vývoj vybraných ukazatelů. Scientific Paper of the University of Pardubice, 147-156. ISSN 1211-555X.

Sotnyk, I. M. Tendetsii i problemy upravlinnia dematerializatsiei vyrobnytstva i spozhivannia [Trends and problems in management of production and consumption dematerialization]. Actual Problems of Economics, 2012, 8, pp. 62-67.

Srholec, M., (2004). Prime zahraniční investice v České republice, Teorie a praxe v mezinárodním srovnání. Praha: Linde. ISBN 80-86131-52-1.

- Strazovska, L. et al.* (2008). Podnikanie formou rodinných podnikov. Bratislava: Sprint. ISBN 978-80-969927-0-6.
- Sestakova, M.* (2008). Konkurencia medzi statmi v oblasti ziskavania a udrzania zahraničných investícií. Working papers [EU SAV], c. 11, 26 s., ISSN 1337-5598.
- Sibl, D. et al.* (2002). Veľká ekonomická encyklopédia. Sprint Bratislava 2002, ISBN 80-89085-04-0.
- Statistická ročenka Slovenskej republiky (2015). Bratislava: Veda. ISBN: 978-80-224-1482-1
- Statistický úrad Európskeho spoločenstva (2017). Available at: <http://ec.europa.eu/eurostat>.
- Titarenko, D.* (2006). The Influence of Foreign Direct Investment on Domestic Investment Processes in Latvia. Transport and Telecommunication, 76-83. ISSN 1407-616.
- Jyun-Yi, Wu and Hsu Chih-Chiang* (2008). Does Foreign Direct Investment Promote Economic Growth? Evidence from a Threshold Regression Analysis, Economics Bulletin, 15 (12), pp. 1-10.
- Wei, Shang-Jin* (2000). How Taxing is Corruption on International Investors? Review of Economics and Statistics, Vol. 82, No. 1, pp. 1-11.