



**Radoslav Bajus**  
Ing., PhD (Economics), Assistant Professor,  
Faculty of Economics, Department of Finance,  
Technical University of Kosice,  
32 Nemcovej Str., Kosice, 040 01, Slovak Republic  
radoslav.bajus@tuke.sk



**Lenka Hudakova Stasova**  
Ing., PhD (Economics), Assistant Professor,  
Faculty of Economics, Department of Finance,  
Technical University of Kosice,  
32 Nemcovej Str., Kosice, 040 01, Slovak Republic  
lenka.hudakova.stasova@tuke.sk

## Venture and development capital of V4 countries in the period of 2012-2014

**Abstract.** The present paper analyses the trend of venture and development capital of the V4 countries by types and sectors of industry within the period of 2012-2014. The authors point out different ways of funding by this type of capital in particular countries. Venture and development capital is used in each of the analysed countries. However, there are specific investment features relevant to venture and development capital in all the V4 countries. They differ by the amount of financial resources, the number of supported companies, the type of investment and the proportion of investments to particular sectors of industry.

**Keywords:** Venture Capital; Associations of Venture Capital; Types of Venture and Development Capital; Funding; V4 Countries

**JEL Classification:** G15; G24; G30

**DOI:** <http://dx.doi.org/10.21003/ea.V158-02>

### Радослав Баюс

кандидат економічних наук, старший викладач, факультет економіки, кафедра фінансів,  
Технічний університет у Кошице, Словацька Республіка

### Ленка Худакова Шашова

кандидат економічних наук, старший викладач, факультет економіки, кафедра фінансів,  
Технічний університет у Кошице, Словацька Республіка

### Венчурний капітал країн Вишеградської четвірки в період 2012–2014 років

**Анотація.** У статті аналізуються тенденції використання венчурного капіталу в країнах Вишеградської четвірки за видами та галузями промисловості в період 2012–2014 років. Автори вказують на різні аспекти венчурного фінансування в окремих країнах. Венчурний капітал використовується в кожній з аналізованих країн. Проте існує ряд особливостей інвестиційної діяльності, що має відношення до венчурного капіталу в кожній з країн Вишеградської четвірки. Вони стосуються обсягу фінансових ресурсів, кількості підтримуваних компаній, типу інвестицій та їхньої частки в окремих галузях промисловості.

**Ключові слова:** асоціації венчурного капіталу; види венчурного капіталу; фінансування.

### Радослав Баюс

кандидат экономических наук, старший преподаватель, факультет экономики, кафедра финансов,  
Технический университет в Кошице, Словацкая Республика

### Ленка Худакова Шашова

кандидат экономических наук, старший преподаватель, факультет экономики, кафедра финансов,  
Технический университет в Кошице, Словацкая Республика

### Венчурный капитал стран Вышеградской четверки в период 2012–2014 годов

**Аннотация.** В статье анализируются тенденции использования венчурного капитала в странах Вышеградской четверки по видам и отраслям промышленности в период 2012–2014 годов. Авторы указывают на разные аспекты венчурного финансирования в отдельных странах. Венчурный капитал используется в каждой из анализируемых стран. Вместе с тем существует ряд особенностей инвестиционной деятельности, которая имеет отношение к венчурному капиталу в каждой из стран Вышеградской четверки. Они касаются объема финансовых ресурсов, числа поддерживаемых компаний, типа инвестиций и их доли в отдельных отраслях промышленности.

**Ключевые слова:** ассоциации венчурного капитала; виды венчурного капитала; финансирование.

### 1. Introduction

Currently, the problem of slow economic growth of underdeveloped regions is the most visible. It is important to look for new ideas and to find solutions in new approaches and more elaborate concepts of investments to venture and development capital in all the V4 countries [5]. Venture and development capital is an innovative financial instrument used as an alternative for traditional forms of funding in different activities and life phases of companies. It represents admission to the registered capital of a company. Moreover, it enables experienced managers to help the company to achieve success.

### 2. Brief Literature Review

The term «venture capital» was originally specified at Harvard Business School (Dvorak, Prochazka, 1998) [2]. It denoted the investments to companies which were not traded on the pub-

lic market and posed a risk for an investor. As an example of such investments, there were funds supporting newly founded companies or enterprises disposing innovative ideas. This definition was further expanded and adapted by professionals and specialised institutions. The definition of venture and development capital, according to Wright and Robbie (1996), is the closest in meaning to the original specification. They defined venture capital as an investment realised by experienced investors to the registered capital of newly founded firms which are not publicly traded for a long-term period. The capital supplemented by dividend yields is the main incentive for such investments. With reference to Dvorak and Prochazka (1998), venture capital is defined as an investment in a new firm without a history [2]. In their opinion, such an investment should help the firm to start their business. However, they define development capital as an investment in

firms which already exist but lack the capital. According to Truchly (2005), utilisation of venture funding saturating the needs of enterprises is insufficiently developed in Slovakia [7]. Despite the fact that the Slovak economy is basically a bank economy, i.e. there is a strong share of credit funding, there are assessments supposing that the market would be able to intake tens of billions of crowns of venture and development capital with respect to credit availability of entrepreneurs and their continual undercapitalisation. In this regard, pharmaceutical, chemical, food-processing, and machinery industries, electrical engineering regarding the development of the automobile industry in Slovakia, information technology sector and services sector appear to be perspective sectors of the economy. There are only few companies which are active in areas of venture and development capital in Slovakia. Nevertheless, the Slovak Venture Capital and Private Equity Association (SLOVCA) was founded at the end of 1995 in the form of a legal entity - a community of interest of legal entities according to the Slovak Commercial Code. Its foundation was supported by a grant of the Slovak-American Business Fund (SAPF) which was one of the constituent members. Vlachynsky (2006) defines venture capital as capital which enters small and medium-sized businesses whose aim is to participate in a company realising perspective albeit risk-bearing projects [9]. According to Strazovska (2007), the venture capital is a shared capital provided by professional investing companies, as well as managers [6]. It plays a considerable role in the growth of small and middle-sized businesses, primarily in fast-growing innovative departments of industry. Mihalisko (2005) states that venture capital is an instrument to fund the company's activities, its development, expansion or purchase of the whole company when the investor of venture capital gains a proportional share in the registered capital (generally as capital stock or equity shares) in turn of granting the required capital [4]. Bierman (2003) defines venture capital as a form of private equity [1]. This term will be used only in connection with investments in companies which are not being or are not owned or intend to be owned publicly. According to the European Venture Association (2009), venture capital is a kind of professional capital by which a newly founded company or an expanding company is co-financed. The expectation of the investor to reach high returns on his/her investment is a compensation for the enhanced risk. Veber and

Srpova (2008) review that venture capital represents an interesting fund to finance projects which include higher risk while being realised and anticipate high revenues of about 25% [8]. The principle is based on the assumption that a fund of venture capital (an investor) enters a firm by increasing its capital. In this way, the firm gains necessary funds. Several years later, the capital share is sold off and the investments return back to the fund. Dvorak and Prochazka (1998) generally distinguish several types of venture and development capital [2]. Particular types of venture and development capital are described below.

**3. Purpose**

The purpose of the present paper is to analyse the development of particular types of venture and development capital. The analysis is conducted with regard to countries, such as the Slovak Republic, the Czech Republic, Hungary and Poland, in the period of 2012-2014. Further part of the analysis is the evaluation of the development of venture and development capital by types and sectors of industry. The data obtained from the European Private Equity and Venture Capital Association (EVCA) present the main material for the analysis. The national venture capital associations of the V4 countries are members of EVCA. The analysis is based upon the methods of analysis, comparison and synthesis (see Table 1).

**4. Results**

Table 2 presents a trend of venture and development capital in the period of 2012-2014. In 2012, the total volume of investments to venture and development capital equalled EUR 38.863 million and was divided into several sectors of industry. The major share represented by EUR 10 million (26%) was used in one company dealing with services of trade and

Tab. 1: Types of venture and development capital investments

Type of Investment	Duration Period (years)	Expected yield (% p.a.)	Percentage of companies offering that type of funding	Risk rate
Seed capital	7 - 12	100%	1 - 2%	very high
Start-up capital	5 - 10	35 - 50%	5%	rather high
Start-up phase	4 - 7	30%	10%	average
Expansion phase	2 - 5	25%	50%	low
Transaction capital	2 - 4	20 - 25%	100%	very low

Source: [2]

Tab. 2: Trend of venture and development capital in V4 Countries within 2012-2014 by sectors of industry, million EUR

Country Sectors	Slovakia			Czech Republic			Hungary				Poland		
	2012	2013	2014	2012	2013	2014	2012	2013	2014	2015	2012	2013	2014
Agriculture	0	3.312	0	0	0	0	2.5	0	0	0	0	0.5	1.913
Trading and industrial goods	0	4.71	0	80.15	13.3	3.585	11.835	1.462	0.771	6.72	12.193	62.043	16.091
Chemical industry	0	0	0	6.646	0	0	0	0	0	0.06	0	7.708	0
Trading and industrial services	10	3	0	0	0	0	3.827	3.064	3.36	1.29	18.77	3.564	58.82
Communication	7.969	3.008	0.679	17.646	4.62	18.86	8.71	18.332	2.572	1.68	210.497	10.229	70.724
Computers and consumer electronics	8.132	2.158	4.119	6.652	16.126	3.74	20.409	4.415	1.41	5.17	15.325	29.268	5.405
Building industry	0	2.2	13.751	4.1	0	1.2	0	0.181	0	0	7.953	5.202	26.4
Consumer goods and retail	4.92	4.779	7.21	0	1.7	0.021	95.642	37.769	1.93	3.73	168.988	134.357	85.044
Consumer services	0	0	2.136	0	0	0	1.399	2.157	1.515	5.85	46.381	40.763	22.446
Energy and environment	7.842	0	9.957	17.5	0	0	0	28.265	35.843	0.02	16.968	32.056	14.898
Finance services	0	12.848	0	11.239	0	7.52	1.676	0	0.079	0	60.103	91.808	10.229
Social science	0	104.69	11.5	0	70	0	4.706	7.132	5.557	1.41	84.847	51.47	14.042
Real estate	0	0	0	0	0	99.413	0	0	0	0.97	0	0	0
Transportation	0	0	0	0	0	0	44.175	0.177	2.561	1.05	36.412	4.046	54.022
Other sector	0	0	0	0	0	0	0	0	1,23	0	0	0	0
<b>Total investments</b>	<b>38.863</b>	<b>140.705</b>	<b>49.352</b>	<b>143.933</b>	<b>105.746</b>	<b>134.339</b>	<b>194.84</b>	<b>102.954</b>	<b>56.828</b>	<b>27.95</b>	<b>678.437</b>	<b>473.014</b>	<b>380.034</b>

Source: Own adaptation based on EVCA

manufacturing. There were 6 companies engaged in electronics which were funded by venture and development capital at the amount of EUR 8.132 million. Those investments made up 21% of the total funds invested in 2012. The communication sector was supported with EUR 7.969 million (20%) in 4 companies. A similar amount of EUR 7.842 million (20%) funded 6 companies running their business in the fields of energy and environment. The smallest share of funds EUR 4.920 million (13%) was transferred to one company specialising in consumer goods and retail business.

As stated before, the total amount of venture and development capital in Slovakia in 2013 grew by more than EUR 100 million in comparison with the previous year. Such rapid growth was caused by the investments to 5 companies dealing with social science which represents 76% at the level of EUR 104.690 million of the total amount of venture and development capital invested during that year. The second largest share represents investments in companies operating in the field of financial services and includes EUR 12.848 million (9%). Those investments supported the sector producing and providing consumer goods at the level of EUR 4.779 million (4%), as well as trading and manufacturing services in the amount of EUR 3 million (2%). If compared to 2012, there accrued an amount of investments in the field of trade and manufacturing goods sector at the volume of EUR 4.710 million (3%), the agricultural sector EUR 3.312 million (2%), and the building industry EUR 2.200 million (2%). The smallest ratio of venture and development capital was funded in 2013 in the sector of computer and consumer electronics at the level of EUR 2.158 million (2%). The Slovak market of venture and development capital in 2014 was characterised by a decline in such investments if compared to the previous year. The main reason for the decline was a decrease in the investments by more than EUR 90 million funding social science in 3 companies. Those investments reached EUR 11.5 million, which amounted to 23% of total investments. The largest proportion (28%) was achieved by 2 building societies at the level of EUR 13.751 million. A considerable amount of capital supported the sectors of energy and environment with EUR 9.957 million (20%), as well as 3 companies related to consumer goods and retail business at the level of EUR 7.210 million (15%). The investors of venture and development capital funded 5 companies operating in the field of computer and consumer electronics production at the volume of EUR 4.119 million (8%). In 2014, the least supported were 2 companies dealing with consumer services - EUR 2.136 million (4%) and telecommunications EUR 0.679 million (2%) (see Table 2, Figure 1).

The venture and development capital in the Czech Republic in 2012 was observed in different sectors of industry. The largest part, EUR 80.15 million (55%), was invested in 3 companies operating in the field of trading and industrial goods. The sectors of communications, EUR 17.646 million (12%), and energy and environment, EUR 17.5 million (12%), represented a considerable part in the total amount of venture and development capital. The investors supported one company operating in financial services with EUR 11.239 million (8%). The remaining sectors were funded in a similar way, i.e. chemical industry - EUR 6.646 million (5%); computer technology and consumer electronics - EUR 6.652 million (5%). A lower amount, EUR 4.1 million (3%), was invested in the building industry. In 2013, the investments to trading and industrial goods did not prevail as in the previous year because that kind of investment decreased to EUR 13.3 million (13%) in the Czech market. The investments to social science, EUR 70 million (66%), covered the largest part of them and supported one company. An important part of the capital, EUR 16.126 million (15%), was invested in 2 companies running their business in the field of computers and consumer electronics. The least ratio in total investments to venture and development capital were related to the sectors of communications - EUR 4.62 million (4%); consumer goods and retail - EUR 1.7 million. In 2014, the structure of industrial sectors supported by venture and development capital changed in the Czech Republic. The largest amount, EUR 99.413 million (74%), was invested in one real estate company. The investors supported 5 communications companies at the level of EUR 18.86 million (13%) and one company dealing with financial services in the amount of EUR 7.52 million (6%). Fewer funds floated to the sectors of computer technology and consumer electronics - EUR 3.74 million (3%), trading and industrial goods - EUR 3.585 million (3%), and to the company dealing with consumer goods and retail - EUR 0.021 million (1%). The data for 2015 is currently available only for Hungary, where the largest volume of investments was in trading and industrial goods - EUR 6.72 million. The total investment reached EUR 27.95 million in Hungary in 2015.

The Hungarian market of venture and development capital varied a lot by sectors of industry. In 2012, the sector of consumer goods produced the largest portion of the funded capital which supported 3 companies with EUR 95.642 million (49%). There were 2 companies engaged in transportation which were funded by investors with EUR 44.175 million (23%). There was EUR 20.409 million (10%) invested in 10 companies dealing with computer technologies and consumer electronics. The sector of consumer and manufacturing goods was funded with EUR 11.835 million (6%) and 6 telecommunication companies gained EUR 8.671 million (5%). The venture and development capital also supported the following sectors: social science - EUR 4.706 million (2%); trade and industry services - EUR 3.827 million (2%); agriculture - EUR 2.5 million (1%); financial services - EUR 1.676 million (1%) and consumer services - EUR 1.399 million (1%).

In 2013, the investments in transportation decreased to EUR 0.177 million (1%). However, they played a significant role during the previous year. The largest amount of funds was invested in consumer and retail sector which included 11 companies. Nevertheless, the volume of capital declined to EUR 37.769 million (37%). There were 3 companies focused on energy and environment in which

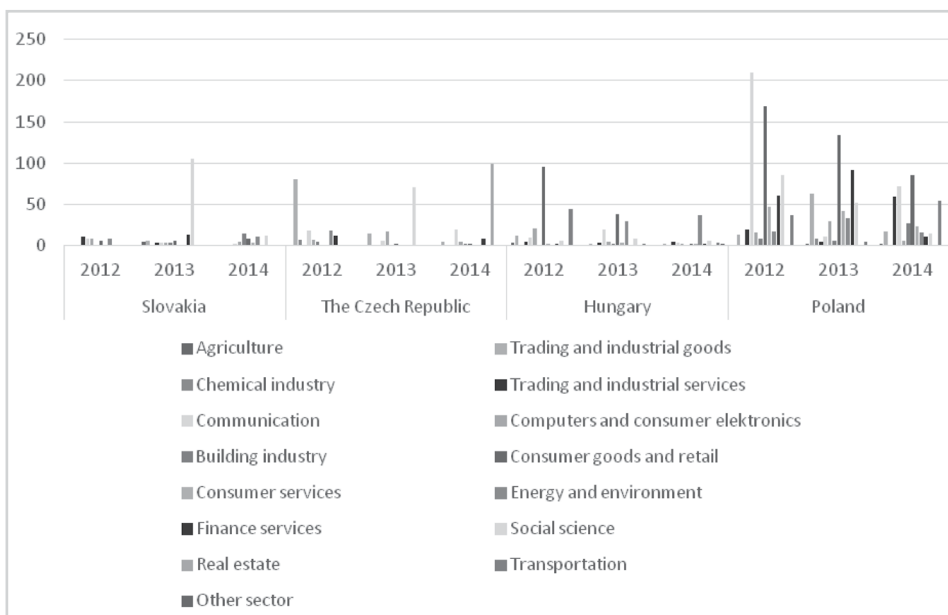


Fig. 1: Trend of venture and development capital in V4 Countries in 2012-2014 by sectors of industry, million EUR  
Source: Own adaptation based on Table 3

EUR 28.265 million (28%) was invested. The capital of EUR 18.332 million (18%) supported 7 telecommunication companies. In comparison with 2012, there emerged a considerable decline of EUR 1.462 million (1%) in trade and the manufacturing sector. A decline was also noted in computer and consumer electronics companies at the amount of EUR 4.415 million (4%). The venture and development capital was also invested in the following sectors: social science - EUR 7.132 million (7%); industrial services - EUR 3.064 million (1%); building industry - EUR 0.181 million (1%) and consumer services - EUR 2.157 million (1%).

The venture and development capital reached its highest volume (EUR 35.843 million or 63%) in 2014 and was invested in 3 companies dealing with energy and the environment. The largest amount of venture and development capital was invested in 11 companies in the field of social science - EUR 5.557 million (10%) and 8 companies focusing on consumer goods and retail - EUR 1.93 million (3%). The investors provided EUR 3.36 million (6%) to the company running trading and industrial services. They funded several companies from the following sectors: communication - EUR 2.572 million (5%), transportation - EUR 2.561 million (5%), consumer services - EUR 1.515 million (3%), trade and manufacturing goods - EUR 0.771 million (1%) and finance services - EUR 0.079 million (1%). During that year, 5 companies were supported at the level of EUR 1.23 million (2%). EVCA did not include those companies by particular sectors and they were classified as other industrial sectors (see Table 2, Figure 1).

In 2012, the Polish market of venture and development capital was mainly formed by the investments in 14 communication companies at the amount of EUR 210.497 million (31%). A significant amount of total venture and development capital was invested in 6 companies operating in the area of consumer goods and retail - EUR 168.988 million (25%). Moreover, 7 companies dealing with social science were supported with EUR 84.847 million (13%). The investors supported the other sectors in the following way: finance services - EUR 60.103 million (9%); companies providing consumer services - EUR 46.381 million (7%) and the transportation sector - EUR 36.412 million (5%). The venture and development capital funded the sectors of trade and industry services - EUR 18.770 million (3%); energy and environment - EUR 16.968 million (2%); computer and consumer electronics companies - EUR 15.325 million (2%); companies producing trade and manufacturing goods - EUR 12.193 million (2%). The smallest amount of venture and development investments was placed in 2 building societies - EUR 7.953 million (1%).

The year 2013 is characterised by a significant decline of venture and development funds in the field of communication. In comparison with 2012, it was more than EUR 200 million to the level of EUR 10.229 million (2%). The decline in investment activity was also recorded in the sectors of consumer goods and retail - EUR 134.357 million (28%); social science - EUR 51.470 million (11%); transportation - EUR 4.046 million (1%); trade and manufacturing services - EUR 3.564 million (1%); consumer services - EUR 40.763 million (9%) and the building industry - EUR 5.202 million (1%). If compared with the previous year, there was an increase in the investment activity in the sectors of trade and manufacturing - EUR 62.043 million (13%); financial services - EUR 91.808 million (19%); energy and the environment to the level - EUR 32.056 million (7%), as well as in computers and consumer electronics - EUR 29.268 million (6%). That year was characterised by the investments of venture and development capital in the fields of chemical industry - EUR 7.708 million (2%) and agriculture EUR 0.5 million (1%). In Poland, venture and development capital was placed

to different sectors in 2014. The largest part of such capital, EUR 85.044 million (22%), was delivered to 8 companies producing consumer goods and retail. The following sectors significantly participated in the total amount of venture and development capital: communications - EUR 70.724 million (19%); trading and industrial services - EUR 58.82 million (16%) and transportation - EUR 54.022 million (14%). The building industry was funded with EUR 26.4 million (7%) in one company. During that year, the venture and developing capital was also invested in the sectors of consumer services - EUR 22.446 million (6%); trade and manufacturing goods - EUR 16.091 million (4%); energy and environment - EUR 14.898 million (4%); social science EUR 14.042 million (4%) and financial services - EUR 10.229 million (3%). The smallest part of the aforementioned investments supported the companies in the sectors of computers and consumer electronics - EUR 5.405 million (1%) and agriculture - EUR 1.913 million (1%) (see Table 2, Figure 1).

As we can see in Figure 2 and Table 3, Poland is the most attractive country to use the venture and development capital among all the V4 countries. The amount of venture and development capital exceeds the amount of investments several times, if compared with the other V4 countries. Companies situated in other countries receive such investments at the maximum level of EUR 150 million. However, Hungary is an exception due to the fact that it invested EUR 194.841 million in 2012. Nevertheless, that amount significantly decreased within the period of 2013-2014. In 2013, the Slovak venture and development capital market acquired second position of the total amount of investments at the level of EUR 138.005 million. In terms of the volume of venture and development capital, the Czech Republic reached the second place in 2012, just after Poland and Hungary. In 2013, it was ranked below Poland and the Slovak Republic. The investments in the Slovak Republic reached the lowest level in 2014, if compared with all the V4 countries.

Poland was the leading country and it funded 218 companies with venture and development capital within the period observed. The number of companies rose during the time period, unlike the falling character of the investment level. It indicates that the investments were distributed among a larger number of companies but with fewer resources. In 2014, 89 companies were supported by venture and development capital in Poland, which was the highest number. Poland is followed by Hungary with 126 companies funded by venture and development

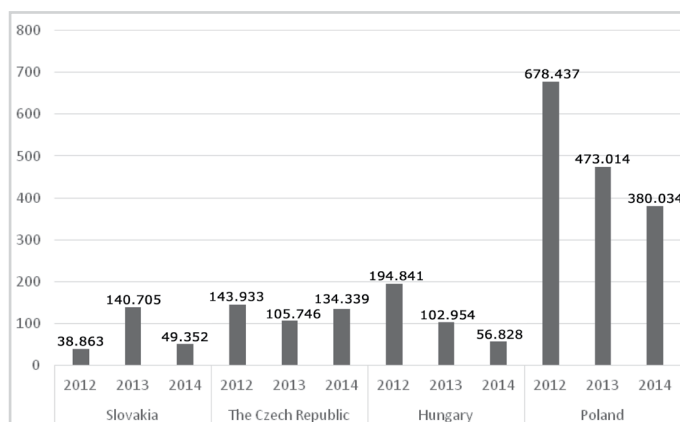


Fig. 2: Total amount of venture and development capital in V4 countries, million EUR  
Source: Own adaptation

Tab. 3: Total amount of venture and development capital in V4 countries, million EUR

	Slovakia				The Czech Republic				Hungary				Poland			
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015
<b>Total investments</b>	38.863	140.705	49.352	n/a	143.933	105.746	134.339	n/a	194.841	102.954	56.828	27.95	678.437	473.014	380.034	n/a

Source: Own adaptation

capital. According to the number of companies supported by investments in venture and development capital, Slovakia is the subsequent country. During 2012-2014, there were 53 companies supported with investments relevant to venture and development capital. Only 41 companies were funded in the Czech Republic, which was the smallest number.

Poland is currently using the venture and development capital the most. During the observed period, Poland has employed its venture and development capital in the form of investments at the highest volume with regard to the largest number of companies. The Polish market of venture and development capital invests the funds into the largest variety of industry sectors. The reason for such a positive progress is a sufficient amount of information related to investment opportunities to support business activities and the willingness of companies to cooperate with the investors of venture and development capital. The volume of venture and development capital invested in the Czech Republic is significantly lower than the amount of such capital invested in Poland. Nevertheless, it is still higher than the amount invested in the other V4 countries. The trend of investments in venture and development capital develops rather equally and the Czech Republic is one of the V4 countries which have the highest level of investment per one company in average. On the other hand, Hungary has the lowest level of investment per one company in average, for there is a low level of total investments in venture and development capital and the highest number of supported companies, if compared to all the V4 countries. Slovakia occupies the worst position because the total investments relevant to venture and development capital are the lowest within the observed period.

There are several reasons why the Hungarian, Czech and Slovak markets of venture and development capital are lagging behind the Polish market. There is a lack of programmes supporting investments and the investors of venture and development capital. Moreover, there is no legal act determining the activities of venture and development capital funds. There is insufficient interconnection of research and its application in practice for the educated population. Hence, the number of domestic professionals in investment practices is also scarce. The countries do not support the existence of modern sectors of industry. The reasons could be found in a low number of research outputs in business activities, inefficient know-how and the unwillingness to undertake a higher risk, as well as the lack of tradition in the field of venture and development capital. Despite the existence of imperfections, the V4 countries still have high growth potential in the markets of venture and development capital. Nevertheless, the assistance of the governments is essential for them to be able to accelerate the progress.

## References

1. Bierman, H., Jr. (2003). *Private equity*. Wiley Finance.
2. Dvorak, I., & Prochazka, P. (1998). *Venture and Development Capital*. Praha: Management Press.
3. European Venture Capital Association (2015). *Central and Eastern Europe Statistics 2014*. Retrieved from <http://www.investeurope.eu/media/406345/EVCA-2014-CEE-report.pdf>
4. Korab, V., & Mihalisko, M. (2005). *Establishment and Management of the Company*. Brno: Computer Press.
5. Kotulic, R., & Adamisin, P. (2012). *Economic effects of the foreign direct investments management on the development of Slovak regions*. In 15th international colloquium on regional sciences. In V. Klimova, & V. Zitek (Eds.), International Colloquium on Regional Sciences: 15. Proceedings of the contributions Valtice - 20-22nd June, 2012 (pp. 288-295). Brno, Czech Republic: Masaryk University in Brno.
6. Strazovska, H., Strazovska, L., & Pavlik, A. (2007). *Small and Medium Enterprises*. Bratislava: Sprint.
7. Truchly, P. (2005, October). *Venture and Development Capital in Slovakia*. Financial Markets. Retrieved from <http://www.derivat.sk/index.php?PageID=184> (in Slovak)
8. Veber, J., & Srpova, J. (2008). *Small and Medium Companies*. Praha: Grada.
9. Vlachynsky, K., et al. (2009). *Corporate Finance*. Bratislava: Iura Edition.
10. Wright, M., & Robbie, K. (1996a). *Venture Capitalists. Unquoted Equity Investment Appraisal and the Role of Accounting Information*. *Accounting and Business Research*, 26(2), 153-168. Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/00014788.1996.9729506> doi: 10.1080/00014788.1996.9729506
11. Wright, M., & Robbie, K. (1996b) *Venture Capital to the Next Millennium*. British Venture Capital Association: London.
12. CVCA (2015). *About us*. Retrieved from <http://www.cvca.cz/cs/o-nas>
13. EVCA (2014). *Central and Eastern Europe Statistics 2013*. Retrieved from [http://www.investeurope.eu/media/259990/\\_evca\\_bro\\_sp\\_cee2013.pdf](http://www.investeurope.eu/media/259990/_evca_bro_sp_cee2013.pdf)
14. EVCA (2015). *Central and Eastern Europe Statistics 2014*. Retrieved from <http://investeurope.eu/media/406345/EVCA-2014-CEE-report.pdf>
15. HVCA (2015). *Our members*. Retrieved from <http://www.hvca.hu/membership/members>
16. HVCA (2015). *The Association*. Retrieved from <http://www.hvca.hu/about-us/association>
17. PSIK (2015). *PSIK*. Retrieved from <http://www.psik.org.pl/psik.html>
18. SLOVCA (2015). *Membership*. Retrieved from <http://www.slovca.sk/membership>
19. SLOVCA (2015). *What is SLOVCA*. Retrieved from <http://www.slovca.sk/about-us/slovca>
20. SLOVCA (2015). *Private equity and venture capital explained*. Retrieved from <http://www.slovca.sk/pe-vc-explained>

Based on our present knowledge, we would propose the following recommendations. The governments should adapt taxation to accelerate the growth of venture and development capital. This can be achieved by providing tax benefits to developing and innovative companies or investors of venture and development capital, and also by establishing lower income tax rates for them.

The governments of the V4 countries should increase the awareness of how to use and provide the venture and development capital via courses, seminars and trainings. They should promote education related to venture and development capital at universities, which can eliminate the information barrier concerning both sides: the investors and firms searching for the investments. The governments of the V4 countries should motivate venture and development capital market participants to increase their activities through appropriate tools of financial politics. They should implement legislation to guarantee the attractive business environment, to specify the activities of venture and development capital funds and to support the willingness of the investors to raise the volume of venture and development capital in the V4 countries.

## 5. Conclusions

Venture and development capital is used in all the V4 countries. However, the relevant investments acquire particular specifics in each of them. They differ in the volume of invested funds, the number of supported companies and the ratio of the investments in particular sectors of industry. The development of venture and development capital began in each V4 country in the same period of time.

Having used the methods of comparison and analysis, we can state that the most developed market of venture and development capital is in Poland. The investors in Poland provide the largest number of companies with venture and development capital, if compared to all the V4 countries. On the contrary, Slovakia is the least developed country in the field of venture and development capital.

According to the type of investments, the transaction capital dominated in each of the V4 countries during the observed years. Poland provided the largest volumes of total investments of all types during the period of 2012-2014. The only exception was the start-up capital which was used in Hungary the most. The venture and development capital funded different sectors of industry in all the V4 countries. However, the current progress and the stage of venture and development capital are not advanced enough when compared with the rest of the world.

There are many different barriers. We advise that the V4 governments should take measures to support the growth of venture and development capital and to improve the progress of those markets.

Received 18.02.2016