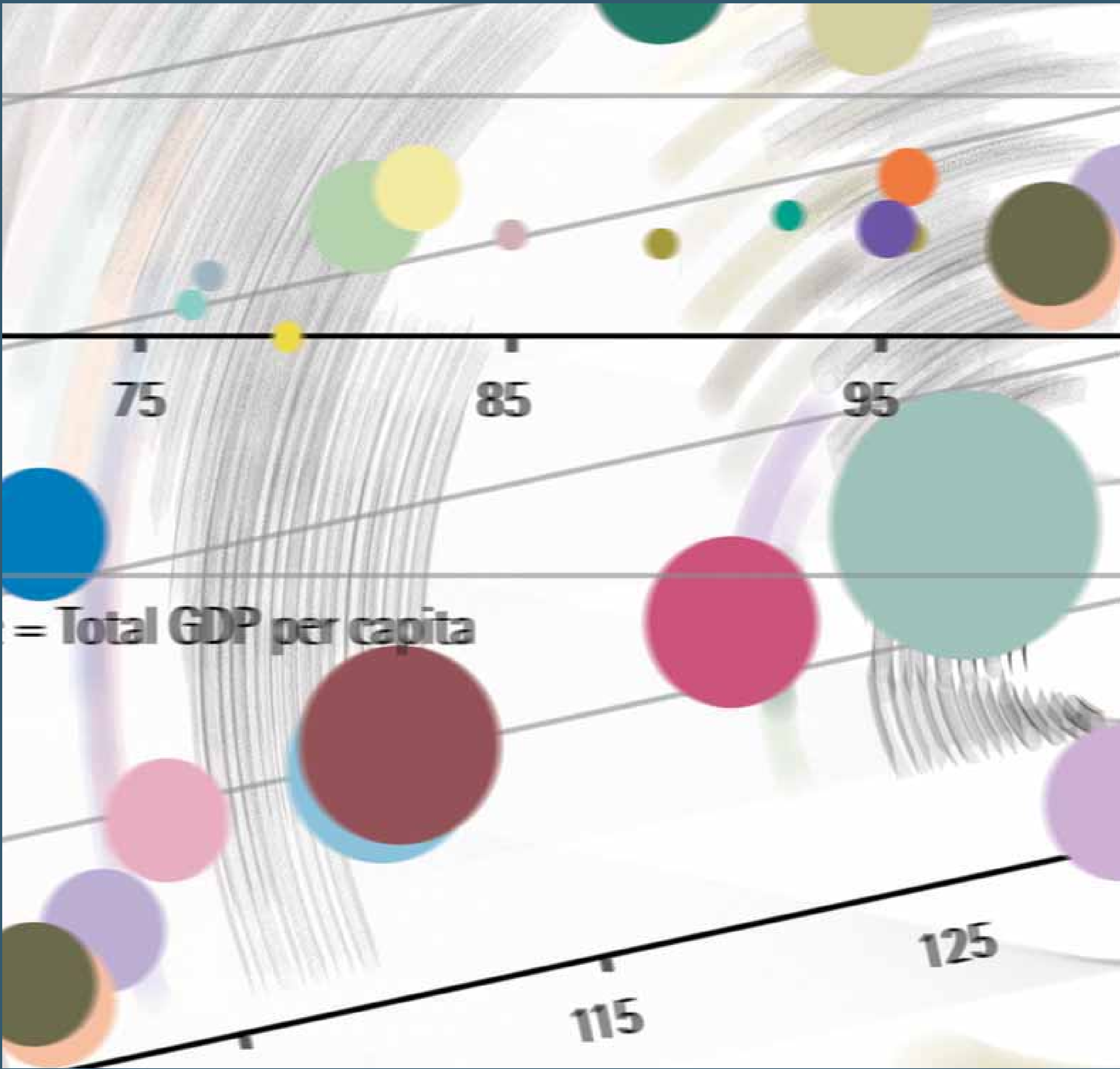

Investing in Venture Capital and Private Equity in Central Eastern Europe: A Ranking of the Most Attractive Countries

Alexander Groh, GSCM - Montpellier Business School and IESE Business School
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INVESTING IN VENTURE CAPITAL AND PRIVATE EQUITY IN CENTRAL EASTERN EUROPE: A RANKING OF THE MOST ATTRACTIVE COUNTRIES

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Research support from EBRD is very much appreciated.

Foreword

Since 2004, the European Union has welcomed 10 new neighbors. The Czech Republic, Hungary, Poland, Slovakia, Slovenia and the Baltic States of Estonia, Latvia and Lithuania came on board first, in 2004. Bulgaria and Romania followed two years later, in 2006. The accession of these Central Eastern European (CEE) nations provides fresh, untapped opportunities for venture capital and private equity investors.

Growth estimations in the CEE region are above average and are expected to sustain over the next decades. Entrepreneurial activities are on the rise and are supported by the political will to promote innovation. Though the CEE nations are still in transition, many improvements have taken place in recent years, especially in the financial sector and in the area of corporate governance. The protection of property rights is a key issue for investors and European Union accession and regulatory changes have made the CEE countries very attractive compared to other emerging regions. Hence, the institutional as well as the societal prerequisites are very favorable in the EU accession countries. The region provides an interesting combination of growth opportunities and stability caused by EU accession. Formerly state-owned enterprises have been restructured, and there is a strong demand for risk capital. The question, then, that we seek to answer is: How attractive are the CEE countries really for venture capital and private equity investment?

Our academic research paper "The Attractiveness of Central Eastern European Countries for Venture Capital and Private Equity Investors" (available at http://ssrn.com/abstract=960505) looks at each of the 10 nations and considers its appeal in light of key factors, such as the availability of investment opportunities, the size of the economy, growth expectations, the capital markets, taxation and – most importantly – the human side, the entrepreneurial spirit of the people. In this brochure, we summarize our findings.

Based on our results, we have constructed an index that measures each nation's attractiveness for venture capital and private equity investors. We highlight the strengths and weaknesses of each economy. We hope that investors, institutions and policymakers alike will benefit from our findings.

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Executive Summary

The nations of Central Eastern Europe are in a period of profound transition. While the newest members of the EU are taking steps to grow, to increase employment and to compete for the risk capital necessary to spur innovation and entrepreneurship, some nations are doing a better job than others. And it is those nations that are attracting the attention of venture capital and private equity investors.

According to our composite index, Hungary leads as the most attractive country in Central Eastern Europe. It is followed very closely by Slovenia, by the Baltic States of Estonia, Latvia and Lithuania and by Poland. Less attractive economies are Bulgaria, Romania and Slovakia.

While the analyses provide important insights into the reasons behind the position of each individual country, they also shed light on the CEE region as a whole. Overall, at the current socio-economic conditions, the CEE region is slightly less attractive to institutional investors than the EU-15 benchmark (which includes the members of the European Union before CEE accession), but offers by far greater potential. Leading the ranking are Ireland, Luxembourg, the United Kingdom, Sweden, and Denmark in that order. These nations top the index because of their economic power per capita, their corporate governance rules and practices, and their entrepreneurial spirit. However, it should be noted that Luxembourg is a negligible market for venture capital and private equity due to its absolute economic size and that activity in Ireland is surprisingly still little and mostly funded by UK players. The EU-15 countries are already well-funded and there is not much room, neither for large economic growth nor for improving socio-economic conditions. And it is exactly those two issues that make the CEE region particularly interesting.

Moreover, it is important to highlight that some CEE nations rank ahead of individual EU-15 member states. For example, both Hungary and Slovenia rank ahead of France and the CEE average even ranks before Spain and Italy. All of the CEE nations rank ahead of Greece, which ranks last.

The study reveals the strengths and weaknesses of the CEE region. Factors that are attractive to investors are the region's taxation policies. Also, due to favorable corporate governance policies, investors are as well-protected in the CEE countries as they are in the EU-15. The human and social environment also reaches Western European standards thanks to a high educational level, good labor regulations and low crime rates.

In general, weaknesses of the CEE region include high unemployment rates, small and illiquid capital markets and relatively small economies. Bribery and corruption are higher than they are in the EU-15. Entrepreneurship also lags behind: The burden for starting a business is high and R&D expenditures are scant.

A closer look at the findings for each of the 10 CEE nations and for the region as a whole provides valuable information for investors and for institutions and policymakers, which can help the countries attract more risk capital and unleash their enormous growth potential.

Investing in Venture Capital and Private Equity in Central Eastern Europe: A Ranking of the Most Attractive Countries

What Drives Investors to Invest in a Particular Place?

Venture capital and private equity (VC/PE) investors have a key objective: to perform transactions with satisfying risk and return ratios.

To find prime investment opportunities, investors generally look one to two years down the road. A greater number of investors are now exploring internationally for places to invest their risk capital. Investors tend to evaluate various economies and to choose from among them. So, what specific factors encourage an investor to allocate VC/PE funds in a particular country? What variables ultimately sway their investment decisions?

Our academic study "The Attractiveness of Central Eastern European Countries for Venture Capital and Private Equity Investors" poses these fundamental questions. It concludes that, above all, what makes a particular region attractive to institutional investors is the availability of viable investment opportunities. These opportunities depend on local entrepreneurial activities, which vary greatly depending on the nation's level of innovation, restructuring, the size of the economy, growth expectations and the commitment and openness of the people to R&D and entrepreneurship.

As a springboard for the study, we review and evaluate historic and current research regarding entrepreneurial activity and the investment allocations of institutional investors. We summarize the findings by identifying six main "drivers" that determine a nation's attractiveness to investors who are looking to allocate VC/PE funds. Following is a description of the six drivers and a review of the underlying variables at work:

1. Economic activity

The state of an economy greatly impacts VC/PE activities and potential. An economy is more attractive to entrepreneurs if it is growing quickly and can accumulate more capital for investment. Influencing economic activity are elements such as GDP, inflation rate (or general price level), the unemployment rate and net inflow of foreign direct investment.

2. Size and liquidity of capital markets

The capital market, comprised of the stock and bond market, is where companies can raise long-term funds. Risk capital flourishes in countries with deep and liquid stock markets. The liquidity of a stock market can be measured by stock market capitalization or by the number of listed firms. A more mature market tends to inspire the confidence of investors.

Banks, the dominant financial institution in most countries, are another key variable of capital markets. Banks invest in VC/PE mainly for strategic reasons: They try to build early relationships for future lending activities. A higher concentration of banks tends to promote the growth of industrial sectors with a greater need for external finance by making credit available to younger firms.

The capital markets tier group also includes the debt and credit market, observed VC/PE activity and the mergers & acquisitions (M&A) market.

3. Taxation

Taxes matter for the entry and exit of businesses. Capital gains tax rates influence VC/PE activity. Also, when tax rates are raised on wages, it raises the probability of people becoming entrepreneurs. Hence, the difference between personal income tax rates and corporate tax rates tends to be an incentive for self-employment.

4. Investor protection and corporate governance

In countries with better investor protection, there is a lower cost of capital for companies. A sound legal structure, fairness and property rights protection stimulate the growth and emergence of new enterprises. Environments in which it is easier for shareholders to take legal action against a company's officers and directors are also more attractive to investors. (This is the premise of the "Ease of Shareholder Suits Index").

Investors also look for good corporate governance practices. The "Extent of Disclosure Index" measures how transparent a company is, and whether the CEO is required by law to share information with the shareholders. The "Extent of Director Liability Index" reveals the liability of self-dealing.

5. Human and social environment

A wide range of human and social factors can affect the evolution of a VC/PE market, including education (particularly at the university level), labor market policies and crime.

Rigid labor market policies can impede the VC/PE market. When it is difficult to hire or fire workers, and there are high costs associated with doing so, employment and growth are negatively affected. Corruption, bribery and crime are other investment barriers.

6. Entrepreneurial activities

What is a nation's R&D culture? How many new enterprises are there? And what is the cost to start up a business? To get off the ground, entrepreneurs must often find backers who are willing to bear the risk, such as banks or VC/PE funds. The availability of debt financing is critical and can be a great obstacle to entrepreneurship.

Another factor that can constrain entrepreneurial activities is bureaucracy, in the form of excessive rules and procedural requirements, or the need for approvals and documents from multiple institutions. The time and money required to meet such administrative burdens may discourage new ventures.

The Composite Index: Methodology

In our study, these six key drivers -economic activity; size and liquidity of capital markets; taxation; investor protection and corporate governance; human and social environment; and entrepreneurial activities- are called "level-1 indexes." Each of them is further defined by underlying variables, or "sub-indicators," which are divided into level-2 and level-3 indexes. There are a total of 42 index items and 105 data points available for every country that ultimately determine the nation's attractiveness for VC/PE investors.

The data for the indicators and sub-indicators comes from raw data gathered from several databases and from ready-made indexes such as the "Doing Business Indexes" from the World Bank. Most of the information dates to 2005, or presents averages over certain years to control for large annual fluctuations. The complete list of indicators and sub-indicators and the list of raw data and ready-made indexes and their sources appear in Table 1 in the Appendix.

The study constructs a composite index based on the six key drivers. Information from the raw data and ready-made indexes is aggregated to the index in five different ways and then tested for "robustness," or accuracy. Technically, the statistical approach follows a factor analysis, which shall not be described here[1].

The composite index ultimately leads to a ranking of the 10 CEE countries in terms of their attractiveness for investment. As a benchmark, the indexes for the EU-15 and for the non-EU countries of Switzerland and Norway are also calculated. The report then analyzes the specific strengths and weakness of each economy.

[1] For details, we refer to the academic paper by Groh, Liechtenstein and Lieser (2007), "The Attractiveness of Central Eastern European Countries for Venture Capital and Private Equity Investors," available at http://ssrn.com/abstract=960505.

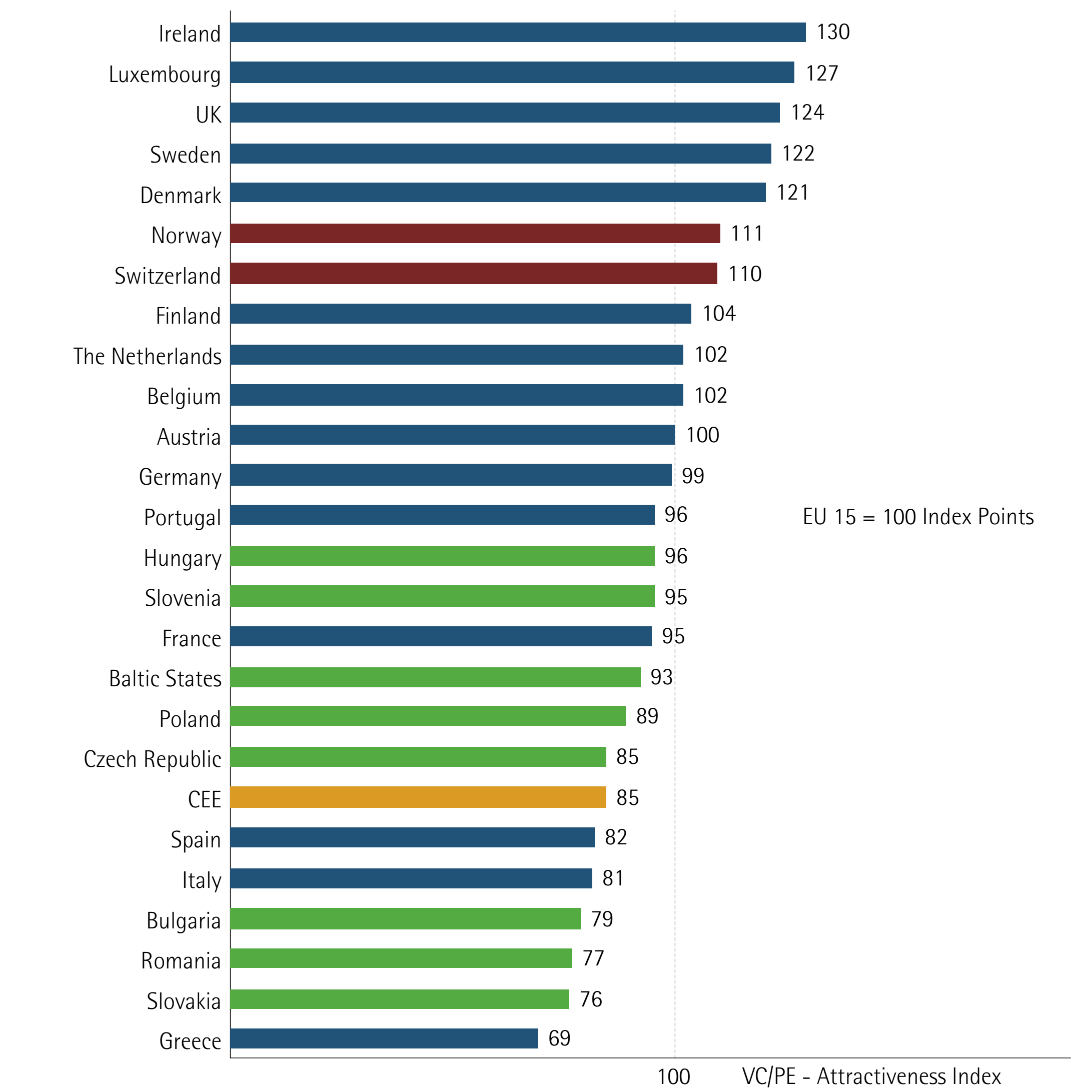
The Ranking by Country: Hungary Leads the Way

The CEE nations are still in a period of profound transition -per capita GDP is less than the level of the EU-15 member states- and it might take several decades for the region to catch up. On one side, this is bad for the attractiveness to institutional investors who tend to neglect smaller economies, but on the other side this reveals the enormous growth and catch-up potential. The level of education is high in the CEE countries and institutional structures have been converging for some time. The speed of the transition process differs greatly by country. Some nations have worked hard to implement reforms while others have moved at a slower pace, partly due to the government in power.

While the newest members of the European Union are taking steps to grow, to increase employment and to attract the risk capital necessary to spur innovation and entrepreneurship, some nations are doing a better job than others.

Figure 1 analyzes how the 10 CEE nations are meeting the challenge to be attractive to investors, alongside the EU-15 and Switzerland and Norway. Hungary leads as the most attractive country in Central Eastern Europe to institutional investors. It is followed closely by Slovenia and by the Baltic States of Estonia, Latvia and Lithuania. The least attractive CEE economies are Bulgaria, Romania and Slovakia.

Figure 1: Overall Index Scores and Ranking



Central Eastern Europe as a Whole

Before commenting on the position of each CEE nation, it is worthwhile to reflect on the study's important insights into Central Eastern Europe as a region:

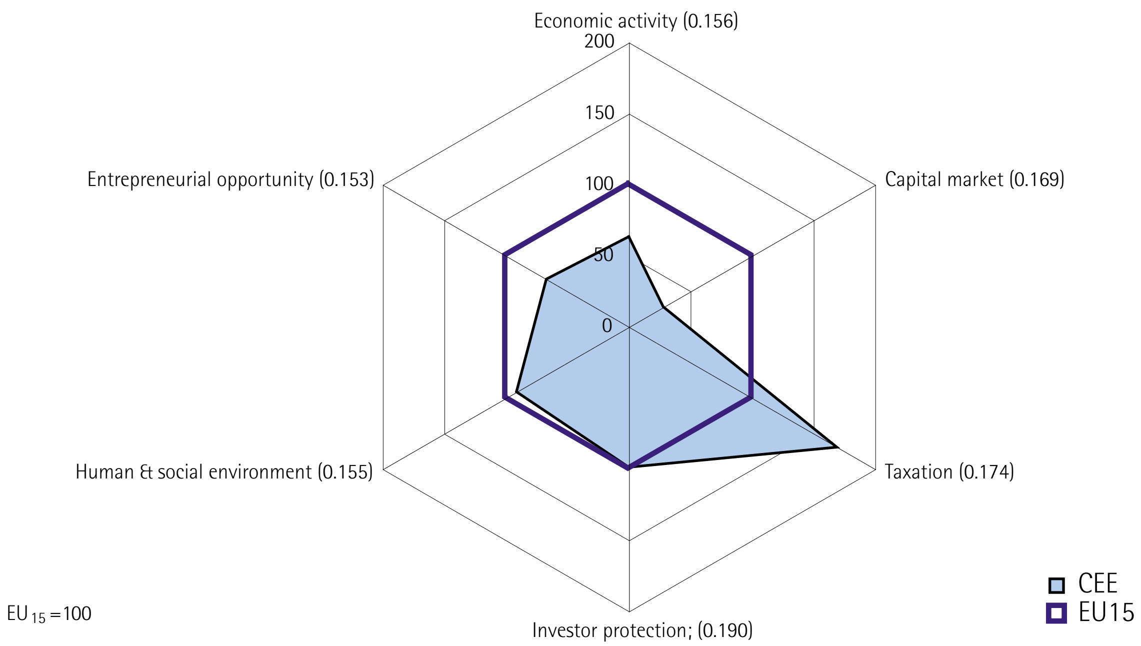
- Overall, the CEE region, with 85 points, is 15 percent less attractive than the EU-15 benchmark. Leading the ranking are EU member states Ireland, Luxembourg, the United Kingdom, Sweden, Denmark, Norway and Switzerland, in that order. These nations are all very favorable to institutional investors due to the size (per capita) of their economic power, their corporate governance rules and practices, as well as their entrepreneurial spirit.

- However, it is important to note that some CEE nations rank before individual EU-15 member states. For example, both Hungary and Slovenia rank ahead of France, and the CEE average ranks before Spain and Italy.

- All of the CEE nations rank ahead of Greece, which ranks last. There are various reasons why those EU-15 nations rank poorly. For instance, France has overall quite favorable conditions but lacks in terms of taxation. Spain and Italy show good index results in general, but suffer in terms of their (per capita) capital market activity and their tax regimes. Greece reveals disappointing corporate governance scores despite a very small capital market activity and unfavorable tax laws.

A closer look at the strengths and weaknesses of the CEE region as a whole can shed light on how institutions and policymakers can make the countries more attractive to investors. Figure 2 highlights the strengths and weaknesses of the CEE with relation to the six key drivers. The spider chart also shows the EU-15 average as the benchmark which is rescaled to 100 scores. The numbers in brackets are the weights assigned to the individual key drivers and calculated by factor analysis.

Figure 2: Central Eastern Europe - Strengths & Weaknesses (Level-1 Indexes)



Taxation shines as the strongest component of the CEE countries´ attractiveness for VC/PE investors. However, taxation depends on local legislation and can be relatively quickly and arbitrarily adapted by politicians. In 2004, the United Nations reported that CEE governments tried to attract investors with low corporate tax rates and tax incentives as part of the accession process.

Two other areas where CEE nations have caught up quickly to Western standards are investor protection and corporate governance. In general, investors are as well-protected in the CEE countries as in the average of the EU-15. The human and social environment can also keep up with the EU-15 level.

However, there are other key drivers that lag behind the EU-15 average: economic activity, entrepreneurial opportunities and, particularly, capital markets, comprising M&A activity, and stock and bond markets.

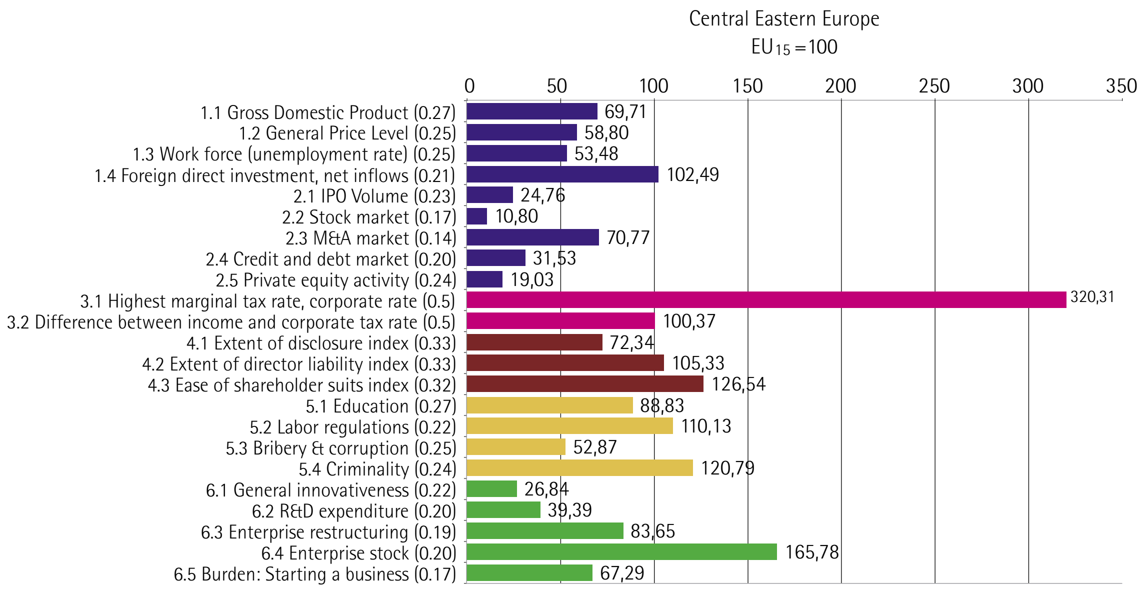
Figure 3 looks more closely at some of the "level-2" sub-indicators for the average of the CEE countries, with the EU-15 states as a benchmark.

The graph reveals that the CEE countries are relatively small economies, with high unemployment rates, and small and illiquid capital markets. The capital markets are a strong deficit compared to the EU-15 benchmark.

By contrast, the human and social environment of the CEE countries is on par with the EU-15 average. The culture of CEE shows strengths in this area: high educational standards, good labor regulations and low crime rates. However, bribery and corruption still remain higher in the CEE countries than in Western Europe.

Another weak area in the CEE is entrepreneurship. Though privatization and large enterprise restructuring processes are nearly complete, entrepreneurial opportunities are deficient. Also, the burden for starting a business is much higher than the EU-15 average. Innovation in the region ranks poorly due to the low number of patents and scant public and private R&D expenditures.

Figure 3: Central Eastern European Strengths & Weaknesses (Level-2 Indexes)



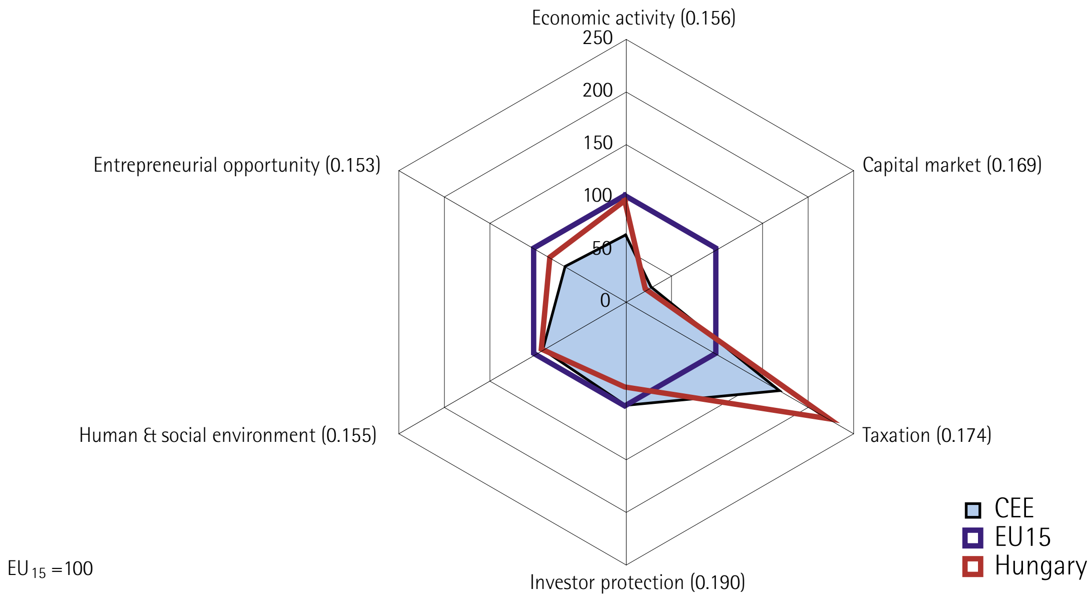
Strengths and Weaknesses of Particular CEE nations

For more insight into why each nation occupies its particular position in the ranking, here is a summary of some of the strengths and weaknesses of the 10 CEE nations, starting with Hungary, the highest scorer, and ending with Slovakia. The spider charts present the aggregated information on the level-1 indexes. Further detailed information and figures on the level-2 and level-3 indexes are available on request, but are not printed here, due to space limitations. However, the following interpretations refer to the more detailed index levels in some of the cases.

Hungary

Hungary leads the CEE ranking with 96 index points. The spider graph shows Hungary's scores regarding the six key drivers. Additionally the chart presents the CEE average (the shaded area) and the EU-15 average score which is rescaled to 100 points to allow the direct comparison. One of Hungary's great strengths is tax benefits; it offers low taxes and a favorable corporate tax rate. In the recent past, Hungary has also benefited from a robust economy, with low inflation and a healthy GDP. Entrepreneurial activity is strong: R&D expenditures are above average; there are many new enterprises; and the level of overall innovativeness is well above the CEE average.

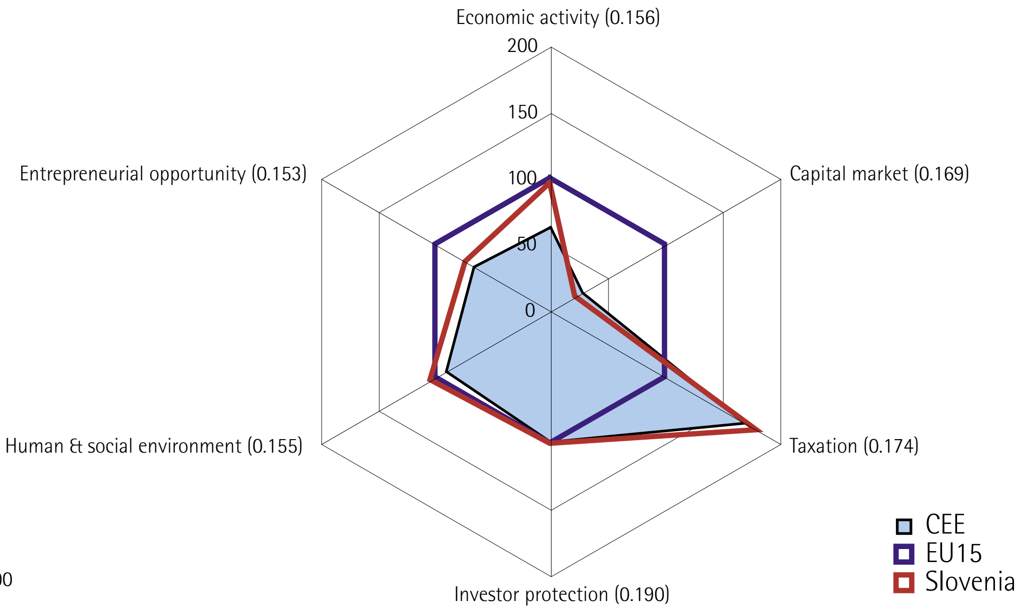
Figure 4: Hungary – Strengths & Weaknesses (Level-1 Indexes)



Slovenia

Slovenia ranks second in the index, with 95 index points, just behind Hungary. This CEE nation also has a robust economy. Taxation is another advantage, particularly the difference between income and corporate tax rates. Investor protection in Slovenia meets the EU-15 average. According to the "Extent of Director Liability Index," there is a strong liability for directors for self-dealing. The human and social environment stands out for the high level of education and the scarcity of bribery and corruption.

Figure 5: Slovenia - Strengths & Weaknesses (Level-1 Indexes)

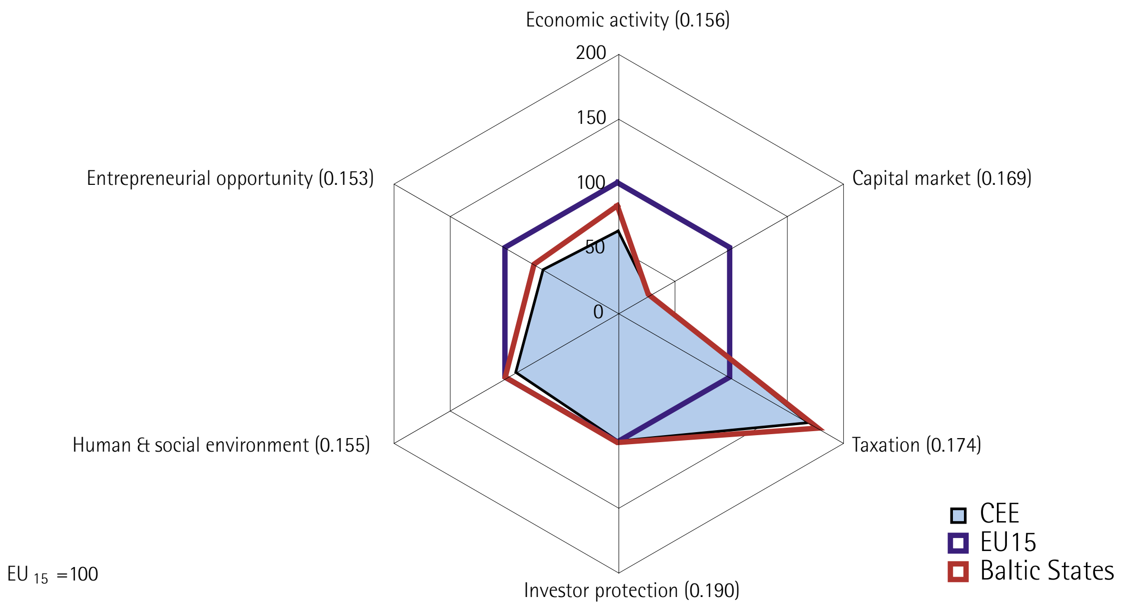


$EU_{15} = 100$

Baltic States

The former Soviet countries, the Baltic States of Estonia, Latvia and Lithuania, scored 93 index points, for a third-place ranking. Also benefiting from a healthy economy, the Baltic States provide a favorable tax situation. The level of corporate governance is boosted by the legal demands for corporate transparency. A high level of education and the low cost of starting a new business are other strengths of the Baltic States.

Figure 6: Baltic States – Strengths and Weaknesses (Level 1-Indexes)

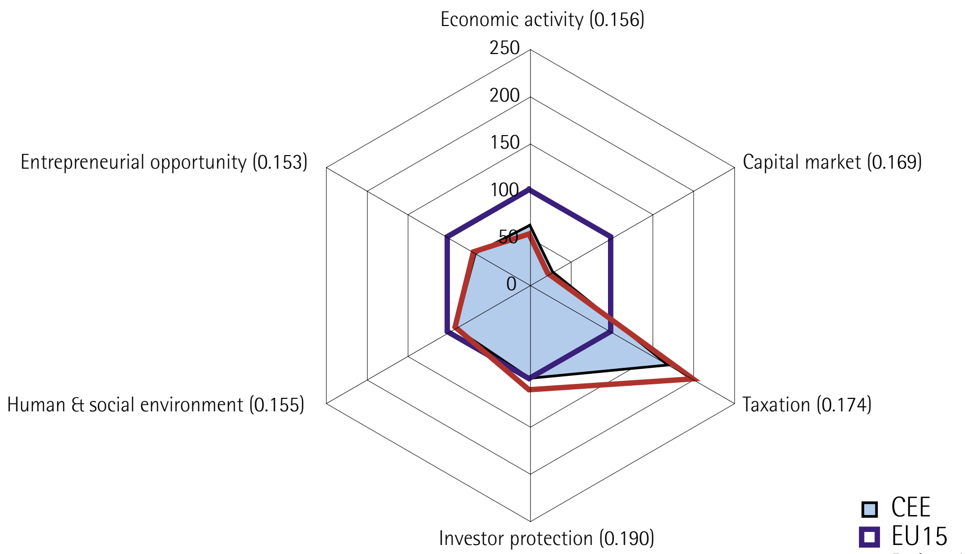


Poland

Within the CEE market, Poland, with its capital of Warsaw, is the hub for fundraising activities. In the ranking, Poland took the fourth position, with 89 index points. Though economic activity is below the CEE average due to a high unemployment rate, investor protection and corporate governance score well above the EU-15 average.

Poland's capital markets benefit from a high volume of initial public offerings (IPOs) and M&A activity and, on the entrepreneurial front, the number of new enterprises is well above the CEE average.

Figure 7: Poland - Strengths & Weaknesses (Level 1-Indexes)

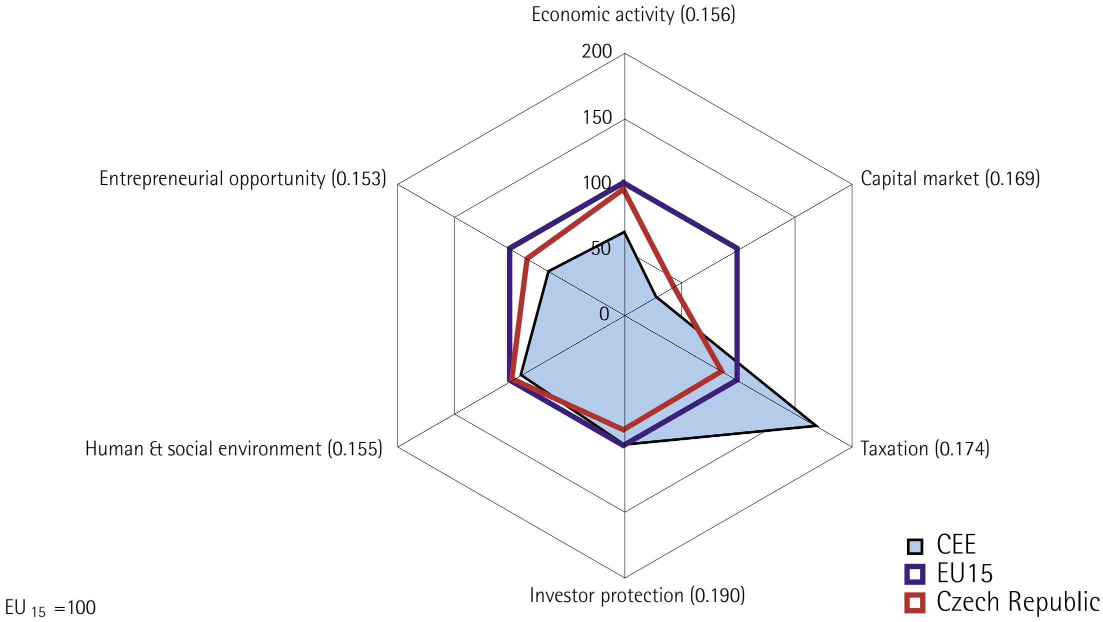


EU 15 =100

Czech Republic

The economy of the Czech Republic scored 85 index points. The Czech Republic lags behind the CEE in terms of taxation. However, it meets the EU-15 average in terms of its human and social environment due to a high level of education and fair labor market regulations. The Czech Republic enjoys a low unemployment rate and vibrant M&A and credit and debt markets.

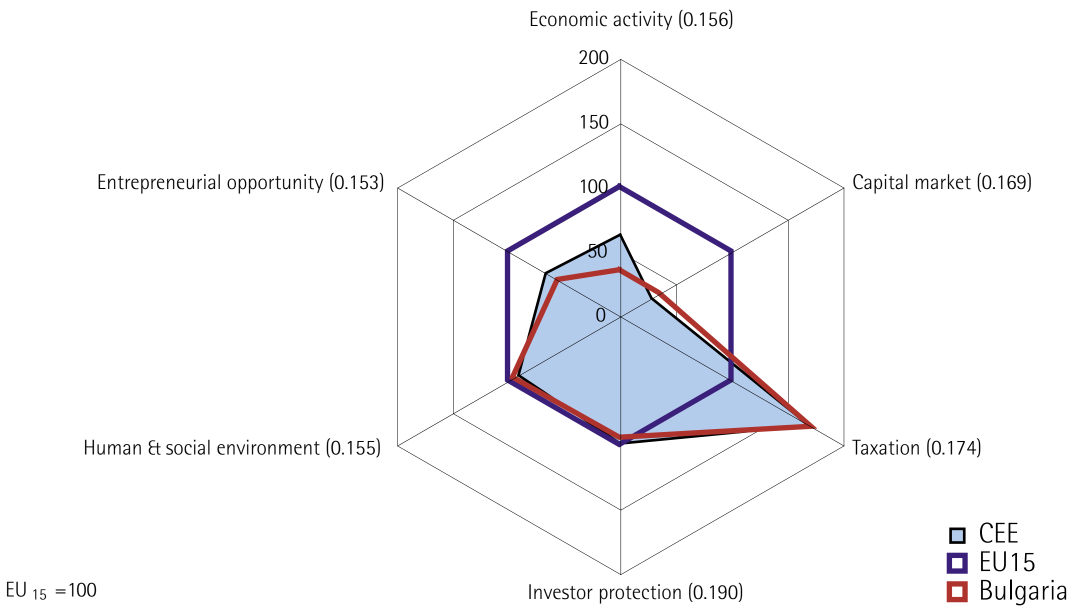
Figure 8: Czech Republic - Strengths & Weaknesses (Level-1 Indexes)



Bulgaria

Bulgaria, on the Balkan Peninsula, stands just third from last position on the ranking, with 79 index points. Bulgaria's strengths include favorable tax rates and an emphasis on transparent corporate governance practices. The human and social environment is on par with the CEE average. However, bribery and corruption rank poorly, and there is a lack of entrepreneurial opportunities: few new enterprises, very few patents and new technologies, and little spent on R&D. Bulgaria's economic situation is held back by inflation and high unemployment.

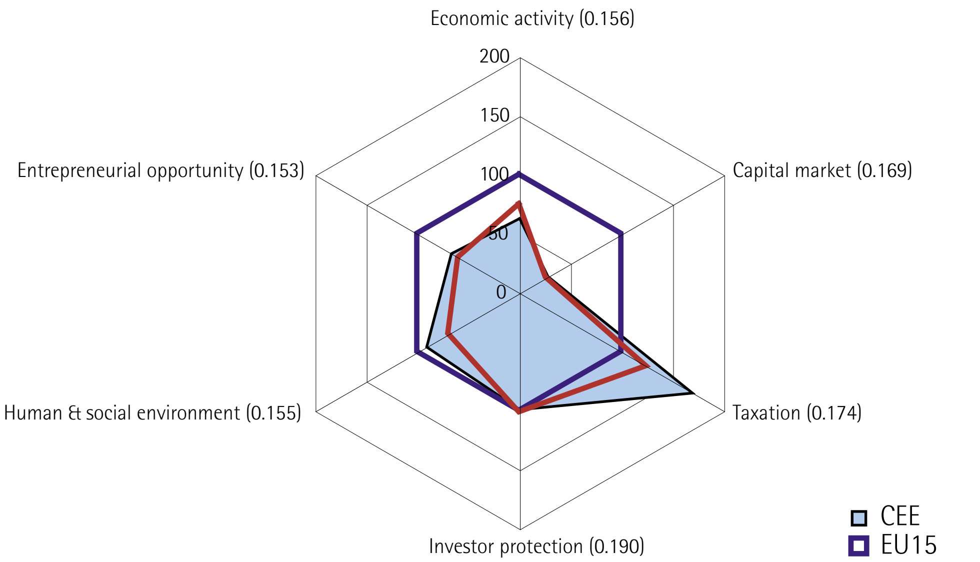
Figure 9: Bulgaria - Strengths & Weaknesses (Level-1 Indexes)



Romania

Romania, an EU member since January 1, 2007, scored 77 index points, trailing the index in second to last place. Romania has a per capita GDP that is above the CEE average. It also has a low unemployment rate, giving it a positive economic outlook. What brings Romania down is its lack of innovation. R&D expenditures are low and the burden of starting a business is high. Bribery and corruption, education, and labor regulations also warrant improvement.

Figure 10: Romania - Strengths & Weaknesses (Level-1 Indexes)

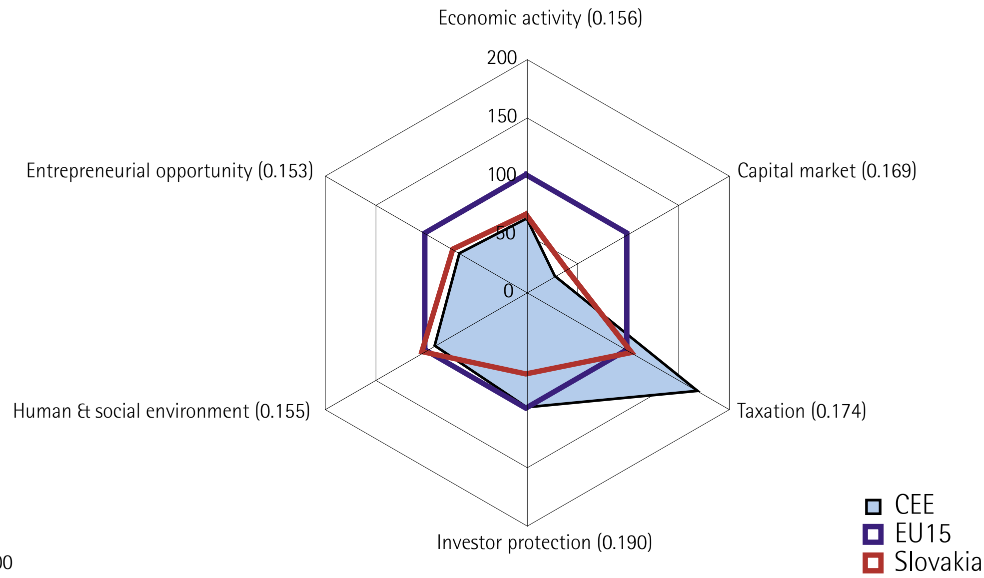


EU 15 =100

Slovakia

At the end of the ranking, with 76 index points, is Slovakia. Slovakia is stifled by its lack of transparent corporate governance practices and investor protection policies, which are assigned a high importance in the index calculations. Also, its tax situation is not as favorable as the CEE average. However, despite the low levels of general innovativeness and R&D expenditures, Slovakia has a high number of new enterprises and low burdens and costs for start-ups.

Figure 11: Slovakia - Strengths & Weaknesses (Level-1 Indexes)



EU $_{15}$ =100

Which Nations (Should) Raise the Most Funds?

In addition to studying the strengths and weaknesses of the individual CEE nations and of the region overall, another way to evaluate the attractiveness of an economy for investors is to look closely at fundraising activity. The more funds that have been raised in a particular country, the more attractive that country is obviously to foreign and domestic investors.

Figure 12 summarizes the historical VC/PE activity of the 10 CEE nations, the EU-15 original member states, and Switzerland and Norway. The size of the bubbles reflects each nation's total GDP per capita. The expected VC/PE activity is measured as the average of the ratio between raised funds and GDP for several years to correct for fluctuations.[2]

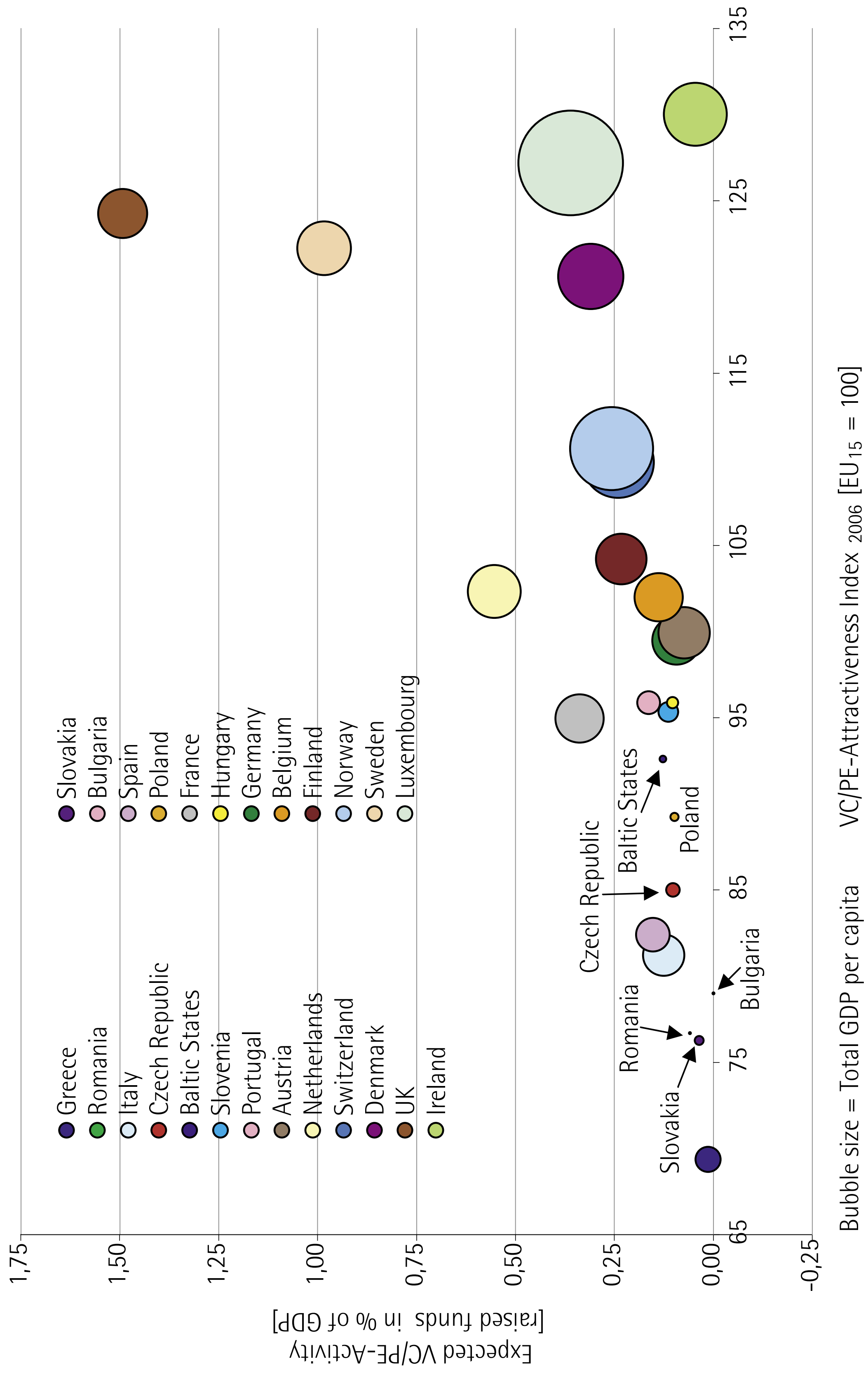
It should be emphasized that many cross-border transactions occur in some of the countries with large raised fund figures. For instance, in the United Kingdom, a certain amount of the funds raised is dedicated to other European economies. In the CEE market, Poland is such a hub for fundraising activities.

The graph reveals a strong correlation between the calculated index scores and the actual fundraising activities. It becomes obvious that the pure size of an economy also determines the fundraising volume. A likely scenario for the CEE countries is to improve the index scores first. That means that they will shift to the right in the graph. Coinciding with this is the growth of the local economies, which simultaneously demands more risk capital to maintain the raised funds per GDP figure. Hence, improved index scores and growing economies together allow an exponential funding demand. Those countries that have the largest potential to increase their index scores, like Slovakia, Romania and Bulgaria, and those countries with higher scores but still small economies (compared to the EU-15 states) like Hungary, Poland and the Baltics, will strongly benefit from that scenario and should require additional funding, relatively much more than the EU-15 states.

The data for the chart is taken from EVCA yearbooks 2003, 2004, 2005 and 2006, and a special EVCA database on CEE.

[2] The data for the chart is taken from the EVCA yearbooks 2003, 2004, 2005 and 2006, and a special EVCA database on CEE.

Figure 12: Attractiveness Index vs. Actual VC/PE-Activity



Conclusions and Outlook

It is widely believed that a vibrant venture capital and private equity culture presents a cornerstone for commercialization and innovation in an economy. A prosperous risk capital market is especially important for transition countries, such as those of Central Eastern Europe.

The European Union's newest members -the Czech Republic, Hungary, Poland, Slovakia, Slovenia, Bulgaria, Romania and the Baltic States of Estonia, Latvia and Lithuania- have made great strides. All of them have reached the level of economic, political and institutional development that made it possible to join the EU in the first place. And their economies continue to grow. Nevertheless, the supply of risk capital in CEE is still rather small compared to the rest of Europe. The first funds were raised shortly after the fall of communism. Since then, only a little more than 9 billion Euro have been raised by VC/PE funds dedicated to CEE countries.

While the newest members of the European Union are taking steps to attract investors, some are doing a better job than others. A nation appeals to investors when its economy is growing quickly; when its stock markets are deep, liquid and mature; when taxation is fair; when legal structures offer protection; when debt financing is available; and, most importantly, when there are viable, promising investment opportunities. What drives investors away, among other factors, are rigid employment laws, corruption, a large unofficial economy and bureaucratic delays.

The study "The Attractiveness of Central Eastern European Countries for Venture Capital and Private Equity Investors" presents a composite index that ranks how the 10 CEE nations are meeting the challenge to be attractive to investors. As a benchmark, the index calculates the scores for the EU-15 and for two non-EU countries, Switzerland and Norway.

According to the current ranking, Hungary, Slovenia and the Baltic States of Estonia, Latvia and Lithuania, in that order, are the more attractive nations in Central Eastern Europe to VC/PE investors. The less attractive are Bulgaria, Romania and Slovakia.

The CEE region as a whole has a lot going for it. It offers investors better tax incentives and rates than the EU-15. And, in general, investors can expect the same levels of investor protection and corporate governance as in the rest of the European Union. The human and social environment – including factors such as education, labor market regulations, number of universities and crime and corruption – also meet EU-15 standards.

Further, it should be noted that some of the CEE countries, which are still in transition, rank above certain EU-15 member states. All of the 10 CEE nations rank above Greece, and the CEE average ranks above Spain and Italy. The high level of the region's attractiveness of 85 percent of the EU-15 average signals the large effort the economies already have made in less than two decades and leads to investors' confidence.

The expected growth in CEE, the existing asset base, and the high levels of education should offer interesting investment opportunities to investors. Especially, the application of proven business concepts in the region is a tendency currently observed in practice: Proven business concepts are "moving east." The attractiveness of the CEE region is also underlined by the rising activity of large and well-known international players that are setting up offices there. Competition among the VC/PE funds is not yet considered strong, and market players appreciate valuations on a moderate level. Some of the CEE markets with still very low VC/PE activity can offer significant first-mover opportunities.

What lags behind in Central Eastern Europe is often the pure size of the economies and entrepreneurial opportunities. The burden for starting a business is relatively high, the number of patents is low, and public and private R&D expenditures are not as plentiful as they could be. The capital markets, too, lack maturity and liquidity. However, it should be stressed that most recently, CEE capital markets have been booming. For example, IPO activity at the Warsaw Stock Exchange has increased to a very high level internationally.

By analyzing the strengths and weakness of the individual economies and for the CEE region as a whole, the report provides investors with the data they need to make sound investment decisions. It also gives institutions and policymakers valuable information needed to react to the political and economic landscape of the region. A limitation of the study is certainly that the index calculation is based on historical and current data. For future editions of the index, we must wait for the publication of the desired data. Index updates will be available in the future and present an ongoing IESE research project. Within the statistical calculations, it is impossible and also undesirable to include expectations and outlooks of individuals or institutions. The index is based on publicly available, reliable and commonly appreciated sources only. Consultants with local expertise, investors and politicians consider the aggregated information and evaluate the economies according to our research results and their own future expectations. From that perspective, they will be able to give advice, decide on investments or evaluate the need for policy changes. By making the VC/PE investment conditions more transparent, our report aims to spur innovation, new enterprises, employment and growth in Central Eastern Europe.

Appendix: Table 1: VC/PE Attractiveness Index – List of raw data and ready-made indexes and their sources

The table presents all raw data and ready-made data series used to aggregate it to our Venture Capital and Private Equity Attractiveness Index. Three-digit order (level-3) criteria are aggregated on the two-digit level. Then, those level-2 indexes are aggregated to level-1 indexes, which finally convert into the overall index. The statistical method for the index aggregation is factor analysis.

1	**Economic activity**	
1.1	Gross Domestic Product	
1.1.1	Total GDP [/capita]*	Global Market Inform. Database
1.1.2	Total GDP y-o-y growth [%]**	Global Market Inform. Database
1.2	General Price Level [Index=1995]***	Global Market Inform. Database
1.3	Working force (unemployment rate) [%]*	Global Market Inform. Database
1.4	Foreign direct investment, net inflows [% of GDP]***	Global Market Inform. Database
2	**Capital market**	
2.1	IPO [IPO volume in % of GDP]****	Thomson Financial Data
2.2	Stock market	
2.2.1	Stock market capitalization [% of GDP]*	Worldbank Data
2.2.2	Stock Market Total Value Traded / GDP [% of GDP]*	Worldbank Data
2.3	M&A market [sales % of GDP]*	Global Market Inform. Database
2.4	Debt & Credit market	
2.4.1	Central bank discount rate [%]*	IMF
2.4.2	Private Credit by Deposit Money Banks and Other Financial Institutions [% of GDP]*	Worldbank Data
2.4.3	Number of Banks [per Capita]	EBRD, EUROSTAT Database
2.5	Private equity activity [funds invested in % of GDP]****	Thomson Financial Data
3	**Taxation**	
3.1	Highest marginal tax rate, corporate rate (%)	Worldbank Data
3.2	Difference between income and corporate tax rate [%]	The Heritage Foundation
4	**Investor protection and corporate governance**	
4.1	Extent of disclosure index	Worldbank Data
4.2	Extent of director liability index	Worldbank Data
4.3	Ease of shareholder suits index	Worldbank Data

5	**Human & social environment**	
5.1	Education	
5.1.1	Government expenditure on education, total [% of GDP]*	Global Market Inform. Database
5.1.2	Amount employes as researcher in the university sector [per capita]	EUROSTAT
5.1.3	Amount university students [per capita]*	Global Market Inform. Database
5.1.4	Amount university establishements [per capita]	Global Market Inform. Database
5.2	Labor regulations	
5.2.1	Rigidity of employment	
5.2.1.1	Difficulty of hiring index	Worldbank Data
5.2.1.2	Rigidity of hours index	Worldbank Data
5.2.1.3	Difficulty of firing index	Worldbank Data
5.2.2	Hiring cost [% of salary]	Worldbank Data
5.2.3	Firing costs [weeks of wages]	Worldbank Data
5.3	Bribing & corruption index	Transparency
5.4	Crime	
5.4.1	Juvenile offenders [per capita]*	Global Market Inform. Database
5.4.2	Offences [per 100,000 habitants]*	Global Market Inform. Database
6	**Entrepreneurial opportunities**	
6.1	General Innovativeness Index	TrendChart.Cordis
6.2	R&D expenditure	
6.2.1	Public R&D expenditures [% of GDP]	EUROSTAT, OECD
6.2.2	Business R&D expenditures [% of GDP]	EUROSTAT, OECD
6.3	Enterprise restructuring	
6.3.1	Small-scale privatisation index	EBRD
6.3.2	Large-scale privatisation index	EBRD
6.3.3	Governance and enterprise restructuring index	EBRD
6.4	Enterprise stock activity	
6.4.1	Number of enterprises [per capita]	World Bank, EUROSTAT, OECD
6.4.2	Enterprise foundation rate [%]*	World Bank, EUROSTAT, OECD
6.5	Burden: Starting a Business	
6.5.1	Procedures [numbers]	Worldbank Data
6.5.2	Time [days]	Worldbank Data
6.5.3	Cost of business start-up procedures [% GNI per capita]	Worldbank Data
6.5.4	Min. capital [% of income per capita]	Worldbank Data

* = arithmetic average of annual data from 2000 to 2005,
** = geometric average of annual data from 2000 to 2005,
*** = log of arithmetic average of annual data from 2000 to 2005,
**** = arithmetic average of annual data since coverage in the database for CEE countries, arithmetic average of annual data from 2003 to 2005 for the other countries

Otherwise: 2005 data record

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