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Development of the Hungarian Venture Capital and Private Equity Industry over the Past Two Decades

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Abstract:

In Hungary, the previously non-existing venture capital and private equity industry has strengthened over the past two decades, and it has become one of the leaders of the CEE region. Approximately 90% of the capital allocated to investments overall were raised from private sector investors. The volume of VC & PE fluctuated cyclically following international capital market cycles and the changes of domestic economic policy. The Hungarian market became a preferred area for foreign capital investors in the last third of the 1990s. Later on its position became even more favourable due to Hungary's accession to the EU. Between 2007 and 2008 the Hungarian market, similarly to the whole region, earned also profit from a transitory situation at the beginning of the crisis when the investment problems in Western Europe did not extend to the CEE region for some time. From 2009 on, however, the crisis in CEE also resulted in a very serious drop in investments, in spite of the significant amount of uninvested capital accumulated in recent years. In addition, the crisis affected the already weakened Hungarian economy more seriously than the other parts of the region, which was reflected by the drop in investments in 2010.

Keywords: Hungary, Central and Eastern Europe, Economics in transition, Emerging markets, Venture Capital, Private Equity

JEL classification: G23, G24, M13, O16, P34

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A kockázati tőkeipar két évtizedes fejlődése Magyarországon

Karsai Judit

Összefoglaló:

Magyarországon a korábban nem létező kockázatitőke-ipar az elmúlt húsz év során megerősödött, s regionális összehasonlításban élvonalba került. A vizsgált két évtized folyamán a befektetésekre rendelkezésre bocsátott tőke közel 90%-a magánszektorbeli tőketulajdonosoktól érkezett a piacra. A kockázati tőkebefektetési céllal a magyar piacon megjelenő alapok által gyűjtött tőke volumene a nemzetközi tőkepiaci ciklusokat, valamint a hazai gazdaság növekedési ütemének változását követve ciklikusan ingadozott. A piacgazdasági fejlődésben a régióban élenjáró magyar piac már a 90-es évtized utolsó harmadában a külföldi tőkebefektetők kedvelt terepévé vált, majd az EU-csatlakozás kapcsán különösen kedvező helyzetbe került. A kétezres évek második felétől a válság kétezres évek végi begyűrűzéséig a befektetők által a régióbeli befektetésekre allokált tőke a magyar piac számára is nagyságrendileg megnövekedett befektetésekre adott módot. A befektetések növekedése 2007 és 2009 között rendkívül felgyorsult, amikor a magyar piac – a régió egészéhez hasonlóan – elsősorban abból profitált, hogy a válság kitörése nyomán a nyugat-európai befektetések megtorpantak, ám a válság a régió kockázati tőkepiacára ekkor még nem terjedt át. 2009-től azonban a válság Kelet-Közép-Európában a korábbi években felhalmozódott jelentős összegű, még be nem fektetett tőke ellenére ugyancsak nagyon súlyos visszaesést okozott. A válság az egyébként is meggyengült magyar gazdaságot a régió egészéhez képest is erőteljesebben sújtotta, a befektetések 2010. évi megtorpanása ezt a helyzetet tükrözi.

Tárgyszavak: kockázati tőke, magántőke, Magyarország, Kelet-Közép-Európa, átalakuló gazdaságok, feltörekvő piacok

JEL kódok: G23, G24, M13, O16, P34

SURVEY OF THE HUNGARIAN VENTURE CAPITAL AND PRIVATE EQUITY SECTOR

Due to the specificity of the Hungarian venture capital and private equity (VC & PE) industry, it is relatively *difficult to document* its development with exact data. Similarly to other countries of the CEE region, there was no systematic data collection in the first decade after the change of the political system in Hungary.[1] In 2004 a comprehensive *survey* on VC & PE investments and exits in Hungary covering the period of 1989-2004 was prepared *(Karsai and Baranyai, 2005)*, which represented a major step forward in better understanding the processes taking place in the region.[2] In 2011, in the course of a new survey the existing database was completed up to the year of 2010 *(Karsai, 2011)*. Data collection relied on two sources: reports from investors and news from business journals. The survey covered three groups of issues: the *sources of capital* available for investments, the *amount and functions of investments*, and the *exit techniques*.[3] As a similar survey was made only for the Polish VC & PE market covering the period between 1990-2003 *(Klonowski, 2005)*, the results of the Hungarian survey covering twenty years can be useful for both theoretical and practical professionals interested in the development of the CEE VC & PE market.

The data collection, spanning for more than *two decades* between 1989 and 2010, took into account the investments of 126 VC & PE funds with interests in the Hungarian market. These funds (based on current price data) were *managing capital totalling more than USD20bn*. Out of the USD8bn capital theoretically available for investment in Hungary, they *invested USD3.2bn* into companies based in Hungary in about 420 separate transactions. The number of domestic firms affected by the VC & PE investments and the total capital they received were

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[1] Between 2000 and 2007 data collection in Hungary, urged by the members of the venture capital sector as well, was prepared by the Hungarian Venture Capital and Private Equity Association (HVCA), while from 2008 on this function has been overtaken by the European Venture Capital and Private Equity Association (EVCA), representing investors all over Europe. As data collection of both organizations has been based on *voluntary data disclosure* of investors, its correctness and completeness has been difficult to control. Since 2007 the Hungarian association, following the European practice, has only promoted and monitored the provision of capital accumulation, investment and exit data of Hungarian investors and their firms for the European database. The association has access to other investment data in the database depending on the decision of data providers. Thus, the European database is not available on transaction level, only in aggregate form.

[2] The survey reviewed the investments of 73 funds in the Hungarian market. These funds managed a total of USD6.2bn capital, out of which they allocated nearly USD2.6bn for investments in Hungary. According to the survey, in the 16 years analysed close to USD1.1bn were invested of the above amount in firms registered in Hungary in 269 transactions. The survey includes data of 143 exits with a book value of approximately USD0.5bn *(Karsai and Baranyai, 2005)*.

[3] The update of data for 2005-2007 was based on the annual surveys of the Hungarian Venture Capital and Private Equity Association, whereas the update for 2008-2010 was based on the European Venture Capital and Private Equity Association's PEREP_Analytics database.

obviously higher. On one hand, only transactions with known data could be included into the database, on the other hand, not each player of the industry was a member of the HVCA. Nevertheless, the survey is suitable to give a realistic picture of the processes taking place in the industry, due to the relatively broad publicity received by bigger transactions. According to the estimation of industry players, the survey reviewing twenty years of development of the sector covered 100% of the capital allocated for investments, approximately two thirds of the capital invested and around half of the number of transactions. Accordingly, during the twenty years reviewed the total VC & PE invested in Hungarian firms reached nearly *USD5bn*, and the number of *transactions ranged between 800-900*. The survey data recorded more than 180 exits with a book value of approximately USD900m. However, as the data reported by the investors was incomplete, the exits were only partially included and it should only be considered as a guide.[4]

THE IMPORTANCE OF THE HUNGARIAN VENTURE CAPITAL AND PRIVATE EQUITY INDUSTRY

The evaluation of the importance of VC & PE industry in Hungary can be uncertain. In order to make a comparison to European data, the market share of the Hungarian VC & PE market is measured by the *annual rate of the value of investments into companies headquartered in Hungary as a proportion of the country's GDP*. Hungary ranks *in a distinguished position* not only within the CEE region but also among other EU member states.[5] The value of VC & PE investments in the Hungarian market compared to the GDP, between 2002 and 2009,

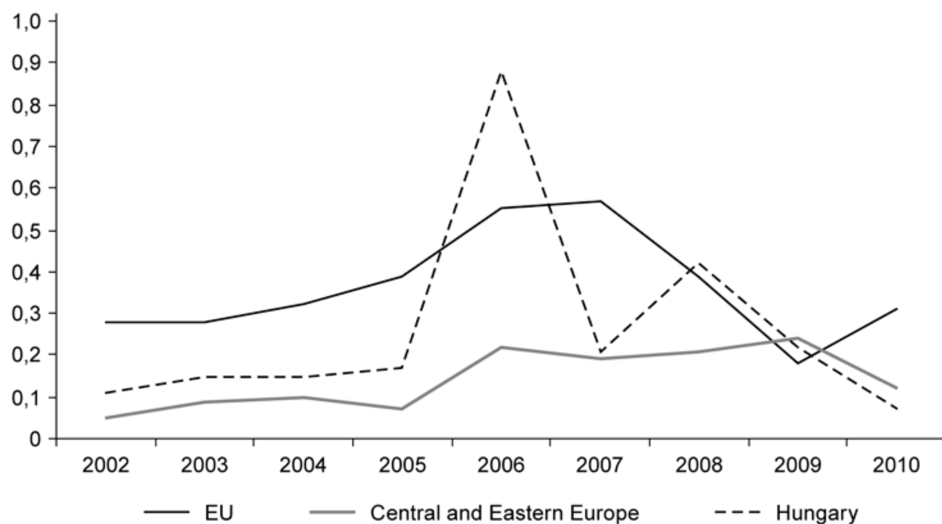
[4] The database of the survey made by HVCA was based on information collected from investors and from the news of business journals using definitions of EVCA. The Association registered the capital of all VC & PE funds and investment companies that intended to invest in Hungarian firms. Investors' capital was recorded by the year it appeared on the market, while new funds generated by the same investor were recorded as separate ones. Capital available for investments was registered by the geographical focus of the investments and by the ownership structure of the funds. Funds were classified in three categories based on their geographical focus: global funds, regional funds and country funds. In the case of global funds the survey took into account only the actual investments only. In the case of regional funds the survey calculated with one fourth of the capital managed. (The 2004 survey used the estimation of industry experts, according to which regional investors usually allocated one quarter of their investments to the Hungarian market. Although this rate decreased by the end of the 2000s, the authors of the survey didn't change this assumption.) In the case of country funds, the survey took into account the total capital managed.

[5] There have been several studies analysing the development of the VC & PE markets of the transition countries, with a special attention to the CEE region, since the early 1990s (see, for example, *Karsai and Wright, 1994, Filatotchev et al., 1996, Karsai et al., 1998, 1999, Bliss, 1999, Wright et al., 1999, Chu and Hirsich, 2001, Farag et al. 2004, Klonowski, 2005, 2006, Iliev, 2006, Campbell and Kreussl, 2007, Groh et al., 2009, Karsai, 2010, Groh and Liechtenstein, 2011*).

continuously exceeded the ratio measured throughout the region, and in addition, due to some outstanding investments the ratio surpassed by far the EU equivalent in 2006 and in 2008 (*see Figure 1*). Regarding the GDP/investment ratio the Hungarian market ranked fifth in Europe in 2006, ninth in 2007, sixth in 2008, and tenth in 2009. As a result of the crisis reaching Hungary in 2010, when the country was already in a very unfavourable economic situation, the shrinking volume of investments was only sufficient for the 22nd place in ranking. However, in evaluating these high rankings, it has to be taken into account that individual high value buyouts substantially influence the aggregated value of annual investments while it has no similar effect on the change of GDP. This may be due not only to the significant difference in the orders of magnitude, but also to the fact that the owners of the companies receiving investment were not necessarily based in Hungary.

Figure 1

Value of invested venture capital and private equity compared to GDP in the European Union, in Central and Eastern Europe (CEE) and in Hungary in 2002-2010 (%)



Source: EVCA Central and Eastern Europe Statistics

The controversial assessment is caused by the fact that by its size the *classical venture capital financing* market in Hungary usually was ranked among the *last* in Europe. According to the survey of Eurostat, the proportion of Hungarian venture capital investments (without buyouts) to GDP between 1998 and 2009 exceeded half of the total European share only in 2001, during the time of the dotcom fever. Otherwise, it typically was below ten per cent of it.[6]

[6] Concerning informal venture capital investments, the gap between the Hungarian and European markets is even bigger than in the case of institutional investments. Given that informal capital investments serve basically the needs of newly established companies, this gap may also be due to financial problems coming to surface at later stages of development *(Szerb, 2006)*. The number of active business angels in Hungary is approximately 2000 *(Kosztopulosz and Makra, 2007)*.

The EVCA Central and Eastern Europe Task Force estimates that between 1989 and 2004 some 900 enterprises received VC & PE in Central and Eastern Europe *(EVCA, 2005)*. Since then the number of companies receiving funding in the region grew by almost 1,000, thus by the end of 2010 this number was close to 2000 *(EVCA, 2007-2011)*.[7] Based on this, it can be assumed that *one quarter* of the total investments in the region during the twenty years were implemented in Hungary.

Despite the prominent ranking of the country in regional terms, *in European comparison* the number of Hungarian companies receiving VC & PE is *lagging* behind the average. Given the sector's relatively late start and the less developed Hungarian capital market, it is not surprising that while in the EU VC & PE injections affected 6% of SMEs *(European Commission, 2005)*, the same ratio concerning Hungarian SMEs with double-entry bookkeeping was hardly 0.2%. Consequently, *the proportion of companies with access to VC & PE is insignificant* in Hungary. (It is due also to the fact that the majority of SMEs in Hungary are micro enterprises, in many cases forced self-employed.)

A survey reviewing the period 2001-2004 *(Szerb et al., 2007)* pointed out that there were *significant differences* between Hungary and other European countries, as well as the world as a whole, in terms of accessing VC & PE. According to experts making their judgement on a scale of 1 to 5 with regard to accessing venture capital in Hungary, in Europe and in a world as a whole, the result was as follows: 2 for Hungary, 3 for Europe and 2,9 for the world.

In fact, the importance of VC & PE for the economy is much higher than it is indicated by the number of firms involved, as it is available only for companies with a *high perspective of growth*, producing competitive or potentially competitive products, providing high-level services and having excellent management teams. The role of classical venture capital financing in the development of the economy is manifested mostly in innovation start-up companies, whereas financing buyouts helps restructuring and regional expansion in connection with the change of ownership in mature companies usually with significant economic strength.

Actually, the question is the following: *to what extent was the demand of the Hungarian market for venture capital satisfied* by the investments? A survey *(Szerb, 2009)* prepared in 2008, found that only 0.25% of Hungarian SME companies are suitable to become a partner of venture capital investors. Accordingly, *Szerb, 2009* assumed that the potential market of SMEs for institutional venture capital investors and business angels includes around 400-600 firms.[8]

[7] EVCA did not publish the number of companies receiving funding in the region in 2005. Between 2006 and 2010 the number of firms receiving VC & PE were the following: 147 (2006), 203 (2007), 196 (2008), 123 (2009) and 161 (2010) *(EVCA, 2007-2011)*.

[8] A representative of a global fund specializing in the acquisition of SMEs and seeking investment opportunities in Hungary estimated the number of potential Hungarian companies around a thousand *(Vidovszky, 2010)*.

Experts examining venture capital issues basically agree that the access for Hungarian firms to venture capital is hampered primarily *not by supply but by demand factors (Karsai, 2003, 2009a; Szerb 2006, 2009).*[9] The broader spread of venture capital in Hungary is hampered not only by its low awareness in the market, by the lack of organizations promoting contacts between parties, by the immaturity of potential companies for receiving investments but it is hampered by the poor competitiveness of the majority of firms seeking for external capital injections, their insufficient level of innovation[10], as well as the low level of knowledge of their managers.[11]

Until now two surveys have been made on the effects of VC & PE investments on Hungarian firms. The first analysis at the turn of the new millennium *(Karsai, 2000)* found, based on the review of more than 70 venture capital investments, that the number of employees at firms financed by venture capital decreased, whereas the total number of firms with double-entry bookkeeping grew. Obviously this was not independent of the fact that the *turnover per employee improved much more* at companies receiving venture capital compared to the average of companies with double-entry bookkeeping. Concerning the further development of these companies, 10% of them proved to be extremely successful and were admitted to domestic or foreign stock exchanges, 20% of them was sold successfully to strategic investors with favourable conditions, and the future of a further 20% of them was promising at the time of review. However, almost half of the companies went practically or legally bankrupt.

According to the other survey, which reviewed the impact of venture capital among 680 firms in 2008 *(Szerb, 2009)*, financing by business angels or institutional VC investors affected slightly more than one-fifth of the companies. The survey showed that the competitiveness of companies receiving venture capital was significantly *better* compared to those without venture capital financing. Concerning the increase in the number of employees, practically there was no difference between firms having received venture capital or not. As far as the increase in turnover was concerned, the proportion of firms *in the highest growth rate category* was more than *double* than those in the other group. Firms receiving venture capital had the advantages in the strongest factors of competitiveness like uniqueness of products, development of technology, and continuous innovation.

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[9] *Campbell and Kraeussl (2007)* also came to the same conclusion, that it, the bottleneck is caused not by the lack of supply of venture capital in the region but by the lack of entrepreneurial spirit and appropriate *demand* for venture capital.

[10] For more information on the proportion of innovative companies in Hungary see *Havas, 2009.*

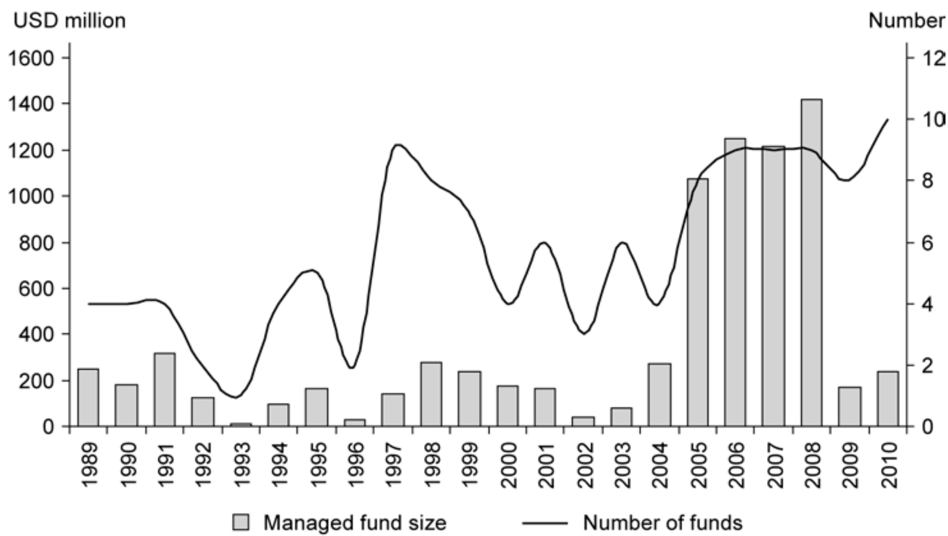
[11] According to experts analysing the market until the start of the 2000s, the main obstacle of investments in the region was the *lack of qualified management teams* at the financed companies. The conclusion of the analysis was that most of the failures had been caused by management problems (see, for example, *Karsai et al.,1998, Bliss,1999, Chu and Hisrich, 2001*).

CAPITAL AVAILABLE FOR INVESTMENTS IN HUNGARY

During the more than two decades reviewed by the survey, potential VC & PE investors raised an average of USD360m per year for their Hungarian investments. The total amount was *nearly USD8bn*, although this was *not evenly spread* during the said period (*see Figure 2*).

Figure 2

The number and the size of raised venture capital and private equity funds showing interest in investments in Hungary in 1989-2010 (mUSD, pcs)



Source: HVCA

As about 90% of the sources of Hungarian VC & PE came from foreign capital markets, *the capital supply of the Hungarian market was more vulnerable* compared to more self-supplying markets, *due to its high exposure to foreign capital.* As capital accumulation started to develop in Hungary only after the change of political regime, *foreign capital* did necessarily play a *key role* in providing funds for the Hungarian VC & PE market. VC & PE investments originating from abroad made up *6% of foreign direct investments* (FDI) in Hungary between 1990 and 2010 on average. It was obviously not possible to accumulate a significant volume of capital in the young Hungarian market economy in this short time, and only foreign investors could achieve economies of size.

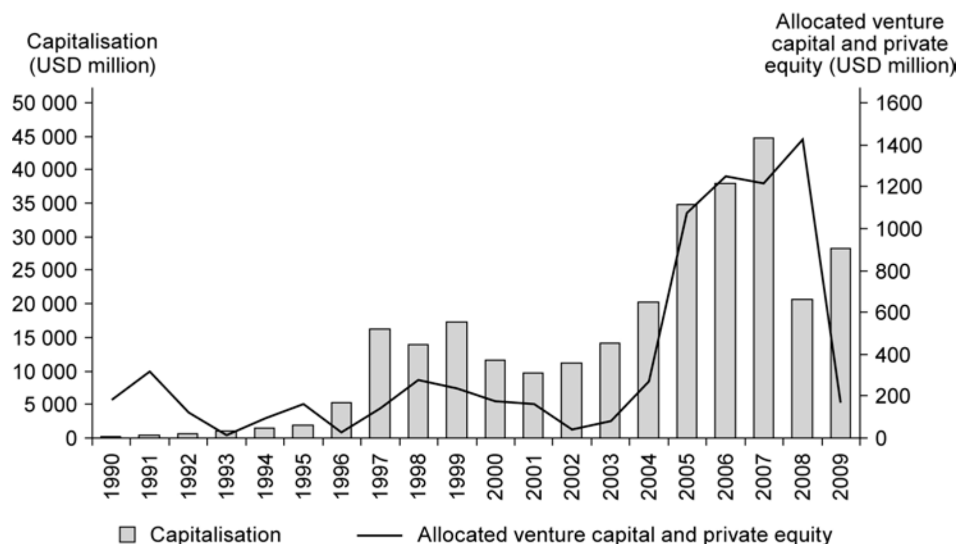
The volume of VC & PE raised for the Hungarian market *fluctuated cyclically following international capital market cycles and changes in the rate of growth of the domestic*

economy.[12] The Hungarian market, ranking high within the CEE region for the development of market economy, became a preferred area for foreign capital investors in the last third of the 1990s. Later on its position became even more favourable due to Hungary's accession to the EU. From the second half of the previous decade, until the 2008 crisis, the capital allocated by investors in the region allowed investments to the Hungarian market to increase significantly.

Figure 3 shows the annual changes in the value of stock exchange capitalisation along with the capital allocated for VC & PE investments between 1990-2010. It accurately reflects the annual changes in the volume of *the capital allocated to VC & PE investments* for the Hungarian market *determined by the general capital market sentiment, reflected also in public market capitalisation trends.* This is indicated by the fact that nearly two-thirds of the invested capital arrived to the market after 2005, when the Hungarian market became a favourite target for VC & PE funds, until the crisis reached the region.

Figure 3

The capitalization of the Budapest Stock Exchange and the raised capital by those venture capital and private equity fundswhich show interest to invest to Hungary-based companies in 1990-2009 (mUSD)



Source: Budapest Stock Exchange and HVCA

The changes in volume of capital available for investment in Hungary were reflected in *the changes in the types of funds.* As the capital strength of the various geographically-focused funds considerably varied at the beginning of the survey period, the expansion of certain groups in itself indicated changes in the capital allocated for investment. While the average size of the country funds wishing to make investments *only in the Hungarian market* did not reach

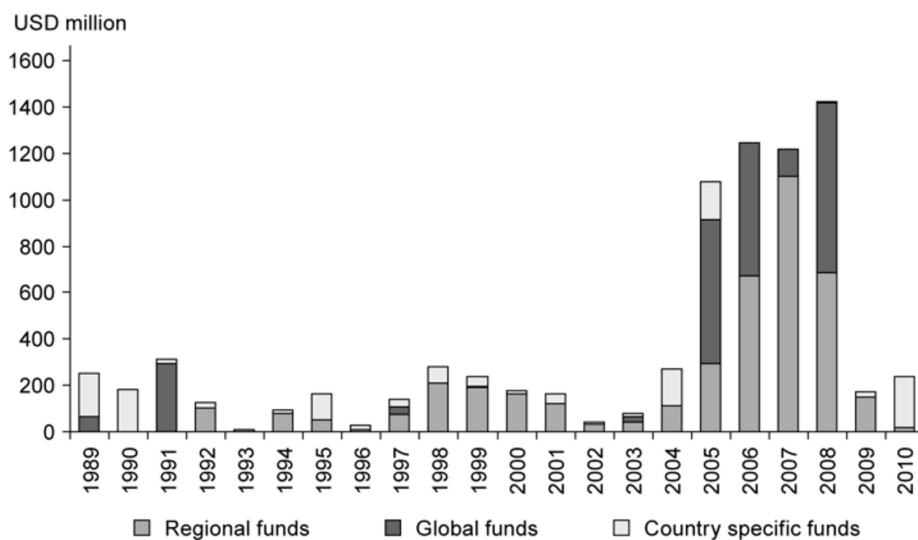
[12] *Klonowski (2005)*, analyzing Polish VC & PE investments between 1998 and 2003, reached a similar conclusion by finding that the Polish venture capital industry was following western venture capital cycles.

USD30m during the twenty years under review, the average value of capital allocated by *regional funds* exceeded double that amount. The capital from *globally operating funds* allocated to the Hungarian market was USD200m on average, considerably surpassing the former amount.

At the beginning of the period under review mainly those country funds entered the Hungarian market that specialised in investments only in Hungary. After the change of political regime and at the start of privatisation the role of the multilateral (inter-governmental) funds became more important. *Regional funds* emerged in the Hungarian market relatively *early* within the region, in 1992, and these funds have played a key role in supplying capital. Increased confidence in relation to the accession to the EU resulted in the *further expansion of the regional funds (see Figure 4)*. The brief "golden age" of the VC & PE sector in the second half of the 2000's also witnessed the appearance of some global funds *(Karsai, 2009b, 2010a)*. At the end of the last decade, the significance of country funds increased again due to the drop in international interest caused by the crisis reaching Hungary in 2008.

Figure 4

The value of the venture capital and private equity raised by those funds which show interest in Hungary-based companies in 1989-2010 by the geographical focus of the funds (mUSD)



Source: HVCA

The origin of the allocated capital, that is, its owners' composition affects investment organizations' motivations, their size, their willingness to risk and their return requirements.[13] The increase of state participation among the fund owners reflects a motivation for market building and strengthening confidence for the elections, while its decrease indicates a mature market and shifting towards clear profit considerations.

State participation was significant in the middle of the first decade in the 2000s, when the industry was emerging, and later, when EU community funds became available in 2009. In the initial period the capital of investors coming into the Hungarian market derived mainly from government resources. The presence of these institutions strengthened the confidence of foreign private investors. Half of the state funds was received at the beginning of the period under review, and one quarter of it arrived after the ending of the information technology boom, that is, in the first half of the first decade in the 2000s. The supply of resources deriving from the Hungarian state budget increased significantly during 2004-2005, following measures aimed at boosting venture capital financing of SMEs. Finally, in 2010, a new wave of state resources reached the venture capital market when Jeremy funds were set up, financed jointly by the private and public sector, the latest providing more than one-fifth of all state resources.

The level of development in the Hungarian VC & PE sector, and the role the sector played in the building of the market economy, is clearly indicated by the fact that in the course of the two decades under review *87% of the capital allocated to investments overall were raised from private sector sources.*

International experience shows that the availability of funds in the VC & PE market primarily depends on institutional savings in the private sector, mainly those of pension funds.[14]The investment potential of Hungary is highly determined by the activity of these market players as well. The importance of *local institutional investors* lies in their better knowledge of the features and current market position of their country, thus their participation in VC & PE financing *may reduce the exposure of the domestic market* to the cycles of international capital markets. Channelling local savings into the venture capital industry is important also because the funding of promising start-up and early stage companies is provided by domestic venture capital investors *(Karsai, 2009c).*[15]

There are *no data* on the composition of institutional private sector (end)investors of VC & PE funds targeting Hungary. However, EVCA figures show that regarding the region as a whole

[13] The survey, when examining the funds according to their capital ownership structure, distinguished investors managing capital of private and of public sources. Investors managing capital of public sources included the transnational international organizations (EBRD, IFC) and those foreign and domestic investors whose capital derived exclusively from budgetary resources. In the case of hybrid funds in Hungary the survey took into account capital share committed by the government.
[14] Cf. *Meerkatt and Liechtenstein (2009).*
[15] Cf. *Mayer, Schoors and Yafeh (2005), Tykvova and Schertler (2009).*

the largest part of VC & PE, about 25-30%, was received from pension funds, either directly or via umbrella funds. The role of these institutions decreased under 10% by the end of the first decade in the new millennium, as a consequence of the crisis.[16] It can be assumed also that *the proportion of local pension funds was very low* among pension funds investing in the region, given that only 1-3% of the total capital to be invested in the region came from sources within the region.

Based on above, it is also likely that *the proportion of domestic institutional investors was extremely low* in the total VC & PE allocated for the Hungarian market. It was due not only to the time consuming character of capital accumulation and development of the financial culture but also to a gap in domestic capital market legislation. Only following a change in the law became possible for these institutions to invest in the VC & PE market after the beginning 2006.[17] Earlier, the statutory requirements in Hungary excluded that savings of domestic institutional investors be placed in VC & PE funds.[18] According to a survey *(Karsai, 2010b,c)* made in the summer of 2009, the assessment of VC & PE among Hungarian voluntary and private pension funds was clearly *positive*. Two private pension funds already possessed this type of investment and in the medium term two-thirds of the pension funds planned to invest around 1-3% of their assets in this asset class. This would have made possible a *fresh capital inflow of about USD720m* into the VC & PE industry. By 2011, however, *this potential source of funding Hungarian venture capital investments ceased to exist* after the regulation of private pension funds was changed in a way that the majority of the members of private pension funds were forced to return to the public social security pension system.[19]

CAPITAL INVESTED IN HUNGARY-BASED FIRMS

According to a survey *(Karsai, 2011)*, reviewing the Hungarian VC & PE market between 1989 and 2010 and examining 126 investment institutions, these institutions invested about 50% of their potentially available capital of USD8bn. As a result, during the more than 20 years reviewed *Hungary-based companies received USD3.7bn venture capital in about 420 transactions.*[20]

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[16] Cf. *EVCA (2011).*

[17] This was the first time in Hungary when the voluntary and private pension funds were allowed to invest up to 5 per cent of their assets in funds registered either in Hungary or in a foreign country as venture capital funds.

[18] The most important state actor of the Hungarian VC & PE market, the Hungarian Development Bank has been allowed by law to purchase venture capital fund certificates only from the summer of 2007.

[19] Only 8,4 per cent of their former HUF2,800bn assets remained at the private pension funds.

[20] The survey followed a *market principle* approach, that is, only those companies receiving VC & PE were taken into account that were registered in Hungary, regardless of the location of investors.

The difference between the volume of raised and invested capital can be explained by several factors. It is *difficult* to quantify raised capital as the survey reviewing twenty years assumed that only a quarter of raised capital was potentially available for the Hungarian market in the case of regional funds representing the largest source of capital. Regional funds *do not have pre-determined quotas* for the target countries of their investments but make their decisions based on the competition of current investment offers. At the time of the *1989-2004 survey (Karsai and Baranyai, 2005)*, a precursor for the next survey reviewing twenty years, *the 25% threshold was still reasonable*, that is, the Hungarian market attracted a capital share exceeding much more than what should have been expected based on its geographical size. Despite the sound development of domestic VC & PE industry infrastructure and the greater skill of fund managers, *the regional significance of the Hungarian market was gradually declining*. Losing the previous leadership position was caused partly by mistakes in economic policy and partly by the inevitable losing of positions caused by the exhaustion of privatization opportunities, the small number of medium-sized companies suitable for regional takeovers, and the relatively small size of the market. On the other hand, the unused capital is explained by the fact that the biggest capital accumulation of regional funds took place preceding the crisis, in the "golden age". Thus, *there are still many years ahead* for utilizing the huge capital of ten-year funds even if this period includes the exits from investments as well.

In addition to international trends and changes in the perception of the region, the volume of VC & PE investments in Hungary is influenced by the changes in investment opportunities in Hungary and by the supporting or hampering domestic *economic environment*. The latter is manifested in the position of Hungary compared to the post-socialist countries and in the changes of economic performance. The attractiveness of a country is largely determined by its economic mechanism, legislation and compliance, corporate culture and last but not least the *economic policy* of the government shaping the future. While until 1989 the centrally planned economic system in Hungary excluded any possibility for utilizing VC & PE, the transition to market economy provided good opportunities in a number of areas like privatization, the technological and/or market restructuring of companies, or the establishment of new companies. This possibility became even more stronger and promising by the fact that the transition in Hungary was associated immediately by an opening towards the world economy and by its growing global integration.[21]

Hungary's transformation into a market economy was completed by the EU accession of the country in 2004. During the two decades until 2010, the *establishment and development of*

Investment transactions affecting the same firm in different years, representing the second or further round of investments, were registered as separate transactions.

[21] The market privatization in Hungary was an economic obligation caused by the dependence on sales revenues, and it was also fostered by the relative adaptability of companies acquired during the socialist reform process.

market economy followed a cyclical, not a smooth, path. The market, production and ownership structures were radically changed. The years under review can be clearly divided into periods according to the economic processes and the economic policies followed. In essence, prior to parliamentary elections the government's economic policy stimulates expansion, avoids conflicts and seeks popularity in the short term. This generally results in economic imbalances, forcing the introduction of economic adjustments after the elections. Thus the cyclical nature of the economy, the periodical acceleration and deceleration of the economy and privatization, is partly caused by domestic political reasons *(Karsai, G., 2006).*

Economic policy in election years usually increases expenditures and raises the budget deficit due to a reduction of taxes. This is followed by an unavoidable consolidation. The budget deficit was the highest in election years (1994, 1998, 2002 and 2006), followed by corrections in the following years. In 2010 the budget deficit was not extremely high, and it was even lower than in the previous year.[22][23]

The cyclic nature is manifested well in VC & PE investments, too. The volume of VC & PE investments received by Hungary-based companies reached their low points in election years, except in 2006, namely in 1994, 1998, 2002 and 2010. Election years were always followed by an increase in investments. This cyclic nature can be detected in both the number and the average value of investments. While the changes in investments are closely related to election years, the allocation of capital to VC & PE funds is *not showing such relationship.* This is understandable as global and regional factors play a greater role in raising capital, while particular investments are determined mainly by domestic factors. Measures taken in election years deteriorating economic balance, intervening in corporate decisions, hindering export opportunities by the revaluation of domestic currency, slowing down of privatization and the offensive rhetoric of the government against foreign capital, make potential investors uncertain. However, the post-election stabilization and reform programs[24] specifically fostered equity investments, including VC & PE investments.

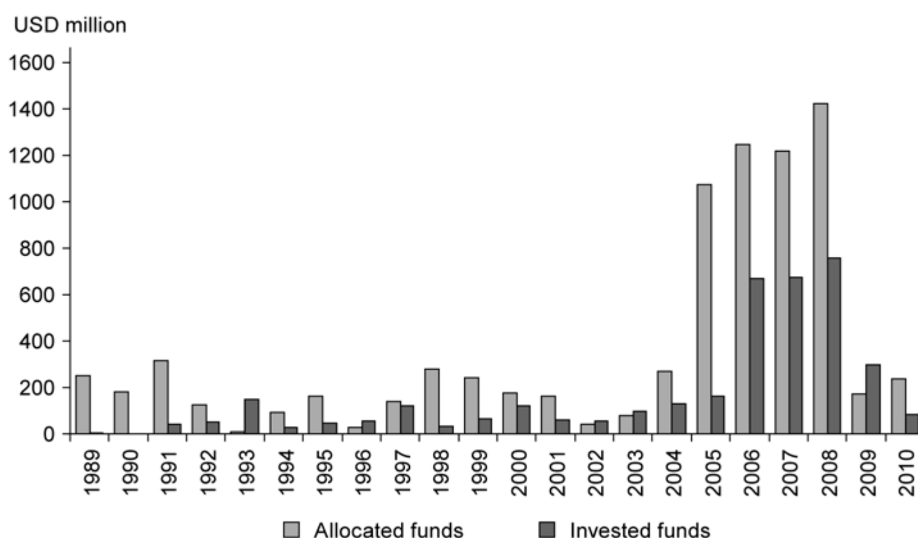
After raising a substantial amount of capital after the change of political regime, investments started after a three-year *delay* as preparation took time, then in 1993, when fresh capital was scarce, they reached their peak *(see Figure 5).* As a result of increasing capital

[22] The cyclical nature of privatization also fall into line with elections. Prior to elections the role of the state is valued more, as well as the throwing a lifebelt to firms and the possibility of preferential or free transfer of state property. Elections are followed by measures aimed to improve international competitiveness and market assessment of the country, for example, by stopping the costly mitigation of conflicts and increasing privatization revenues. These steps lead to the acceleration of privatization, improving the position of VC & PE investors.
[23] The successful crisis management of the incumbent government in 2010 offered an opportunity to dampen political cycles in economic policy. However, the so-called "unorthodox" economic policy of the new government did not take advantage of it. As a result, the Szell Kalman Plan announced in 2011, together with the 2012 budget plan, included the usual restrictions.
[24] The Kupa program in 1991, the Bokros package in 1995, the adjustment package of the second Gyurcsány government in 2006.

collection once again, in 1994 (the year of the change of government), the amount of investments started to increase and in 1997 it reached an outstanding high. Despite the dynamics of the growth of capital allocation up to 1998, investments dropped sharply thereafter partly due to the uncertainty related to the change of government and partly to the Russian crisis. From 1999 and with the returning investor confidence along with the evolving IT-boom, capital investments sharply increased. As the IT-boom lost momentum they again decreased in 2001-2002 and eventually stagnated to a low level. This process turned around once again in 2003, principally due to Hungary's expected accession to the EU. The growth of investments accelerated tremendously between 2007 and 2009, increasing several-fold compared to previous years. The Hungarian market – similarly to the whole region – earned also profit from a transitory situation at the beginning of the crisis when the investment problems in Western Europe did not extend to the CEE region for some time. In 2009, however, when the crisis was felt strongly by the countries within the region, the willingness to raise funds and to make investments dropped. In addition, the crisis affected the already weakened Hungarian economy more so than it did the other parts of the region, which is reflected by the significant drop in investments in 2010.

Figure 5

Volume of allocated and invested capital by those venture capital and private equity funds which show interest in Hungary-based companies in 1989-2010 (mUSD)



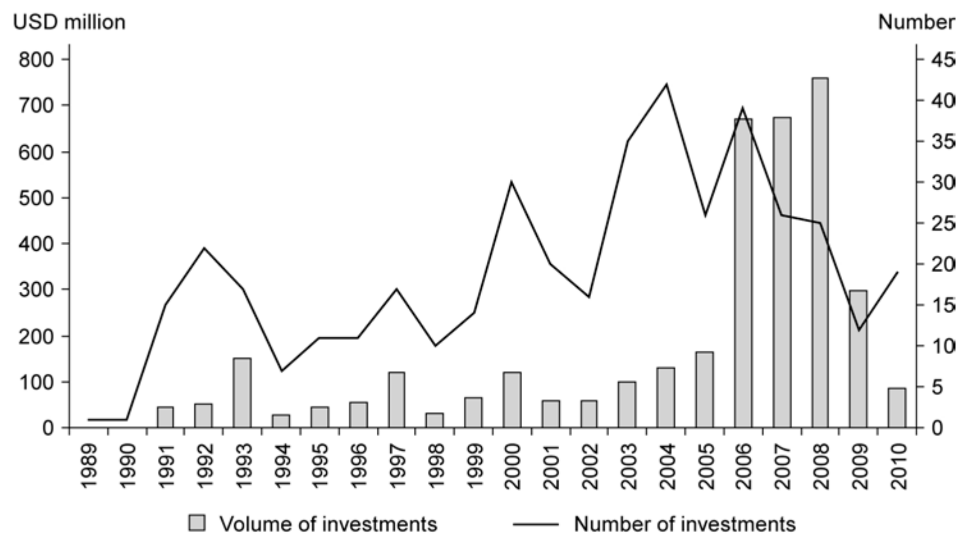
Source: HVCA

The *surge* in the value of investments and in the number of investment transactions was first apparent *in the years preceding the elections (see Figure 6)*. Only the *technological bubble* at the turn of the century, the *investment boom* during the last third of the first decade

of the 21st century and the *economic crisis* broke this upward trend. In the 1990s the highest-value investment transactions related to *privatisation*. At the time of the IT-boom, the value of investments increased due to the accumulated effect of a growing number of smaller *technological deals*. In the second half of the last decade, generally some high value *buyout deals* involving internationally active, mature companies usually in need of reorganization, caused a significant increase in the value of investments, while the number of transactions decreased. In 2010, when the investments of the Jeremie funds were launched, the number of investments started to grow again. However, the value of investments still remained low as high value buyouts did not materialise due to the crisis. The highest VC & PE value (USD670m) came to the Hungarian market immediately before the crisis, in 2008, while the most investment deals (42) were made in 2004, following the revival of the investments of public VC organizations.

Figure 6

Number and volume of venture capital and private equity investments in Hungary in 1989-2010 (mUSD, pcs)



Source: HVCA

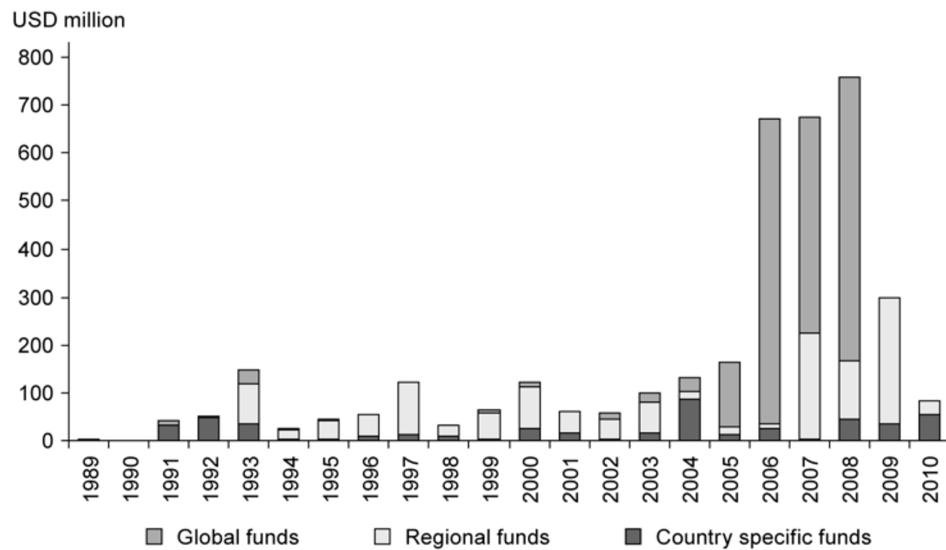
During the last two decades, among Hungary-based enterprises, an *average of 19 companies received VC & PE investments*. The average value of VC & PE invested into Hungary-based companies amounted to about USD170m per year, with an average of USD9m invested per transaction. However, the average investment value for the first 15 years was significantly different compared with the following 7 years; as *after the accession of Hungary to the EU the average VC & PE amount invested increased considerably*. During the period between the change of political regime and the accession to the EU, i.e., between 1989 and 2004, the average capital value invested through the individual transactions barely reached

USD4m per year, whereas the average investments in the years following amounted to 4.5 times that, i.e., USD18m. While between 1989 and 2004 an annual average of 17 companies received VC & PE, between 2005 and 2010 the annual number of investments rose to 24.5.

The changes in the average investment volumes in the individual years are also indicated by the structural changes of the funds that made the investments. The largest investments were made by *global* funds, whose role increased massively from 2006, until their exits at the end of the 2000s. At virtually all times since 1993 almost until the end, *regional* funds exercised a decisive role in the development of investments. The significance of *Hungary-only* funds increased at the beginning of the period under review, in 2004, and later again during the last three years *(see Figure 7)*.

Figure 7

Volume of venture capital and private equity investments in Hungary by geographical focus of the funds in 1989-2010 (mUSD)



Source: HVCA

Most of the deals, approximately 270, *were made by organisations that invested only in the Hungarian market*, where they represented approximately two thirds of the total number of deals. The value of the investments of organisations, focussing only on the Hungarian market, amounted to almost half a billion US dollars during the period under review, which made up 13% of the total value of investments made during 20 years. The 120 transactions carried out by the *funds making regional investments* represented approximately 30% of all investment actions. These organisations invested capital, totalling cca.USD1.3bn, into Hungary-based companies, which *represents more than one third of the total investment value*. The number of deals of globally investing funds, i.e., making investments across Europe or the world, made in the Hungarian market did not reach 30, i.e., 10% of all transactions,

while the investments of these funds of approximately USD2bn made up *more than half of the value of all investments made in Hungary*. It is apparent, therefore, that the order of magnitude of individual deals made by investors with larger geographical focus also differed. The average of the investments made by organisations focusing only on the Hungarian market did not even reach USD2m, while that of regional funds exceeded USD10m, and in the case of global funds it amounted to almost USD70m. The *average value of almost 500 transactions* made by all investors *in Hungary amounted to approximately USD9m (see Table 1)*.

Table 1

Number and volume of venture capital and private equity investments in Hungary in 1989-2010 by geographical focus of funds (pcs, mUSD, %)

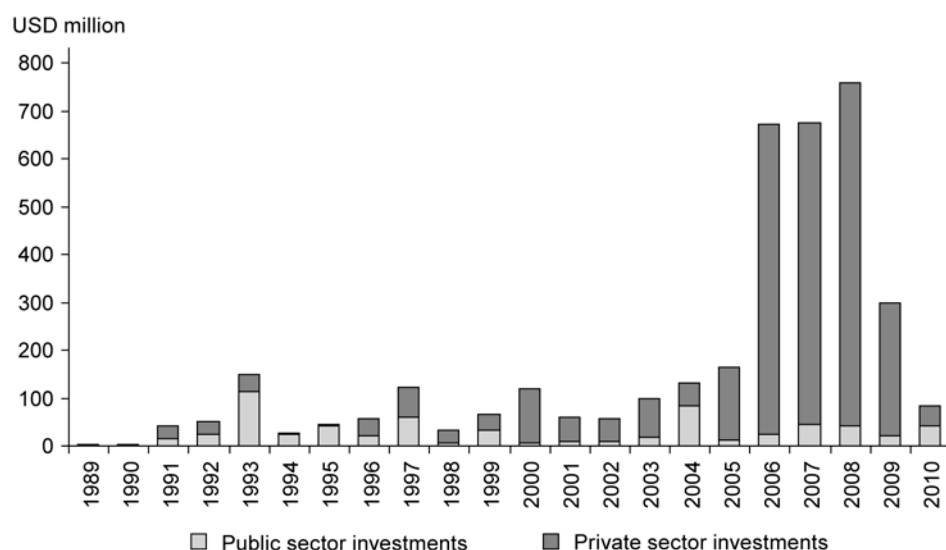
Investor	Investments				
	Number (pcs)	Number (%)	Value (mUSD)	Value (%)	Average value (mUSD)
Country funds	268	64.4	484.5	13.1	1.8
Regional funds	120	28.8	1281.7	34.6	10.7
Global funds	28	6.7	1940.4	52.3	69.3
Total	416	100	3706.6	100	8.9

Source: HVCA

In the Hungarian VC & PE market the investor *organisations financed by governmental and private sectors fulfilled different* but similarly important *functions*. Due to the nature of their respective activities, the average size of their respective investments also differed. The governmental organisations invested an average of USD3m per transaction, while private-sector funds averaged five times as much, above USD15m. In the course of the twenty years analysed, *funds with governmental backing financed every second deal*. As organisations with government links operated only in *classical* venture capital investments, these transactions mobilised significantly fewer funds than the buyouts. The USD650m funds of organisations investing government equity on the Hungarian market *represented 18% of the value of total investments in Hungary*, which is low when compared to their frequency *(see Figure 8)*.

Figure 8

Value of venture capital and private equity investments in Hungary by ownership background of the investors in 1989-2010 (mUSD)



Source: HVCA

The private sector VC & PE funds accounted for cca.83% of the total value of investments made, which accounted for approximately half of all deals during the two decades under review. The VC & PE of private sector funds became significant in the Hungarian market mainly after the turn of the millennium, except in the years of 2004 and 2010. The expansion of capital from private resources reflects the development of the Hungarian VC & PE market, i.e., this segment of the capital market developed with the establishment of the market economy, and became similar to other more developed markets (see Table 2).

Table 2

Number, volume and average value of venture capital and private equity investments in Hungary in 1989-2010 by ownership background of the fund investors (pcs, mUSD, %)

(End) Investor	Investments				
	Number (pcs)	Number (%)	Value (mUSD)	Value (%)	Average value (mUSD)
Public sector	218	52.4	648.7	17.5	3.0
Private sector	198	47.6	3058.0	82.5	15.4
Total	416	100	3706.7	100	8.9

Source: HVCA

Realizing the difficulties of start-up and early stage companies in accessing venture capital funds in Hungary, the government has established a number of venture capital firms using budgetary sources since 2002. Following the increased activity of state-owned investor organizations, from 2004 on the *role of the state in the Hungarian venture capital market has strengthened* in financing smaller companies. In this segment of the market venture capital from private sources was hardly present after the end of the technological boom. Thus smaller venture capital projects have been financed by state-owned investment companies. That is, in Hungary venture capital from public sources not merely completed, but *substituted* private investors *(Karsai, 2003,2007)*. Public funds usually financed the most expansive development phases of firms, preferring the traditional sectors. As a result, the *state did not play a venture financing role in the high-tech sectors (Karsai, 2006)*[25].

Until the last third of the first decade of the 2000s Hungarian government applied an internationally *exceptional* practice in financing venture capital projects from budgetary sources. The wholly state-owned investment companies, venture capital funds and institutions were allowed to make investments *directly* based on the decision of their managements. The *yield requirements* of investors with state background *were different from the usual market expectations*. Similarly, the exits were executed not in the way it was usual in the venture capital market. In fact, capital investments were practically *changed to giving loan* to companies financed. This was *quite different* from the usual international practice of players in the private sector or even state-owned venture capital institutions. In Hungary, public investors showed no interest in participating in the management of the companies they funded, they only wished to control them.[26]

In 2010, the *Jeremie funds* were launched[27] and the state, in addition to its direct capital investments, intended to indirectly participate in venture capital investments *via hybrid funds*, a proved scheme in international markets. In their first year of operation Jeremie funds reached a similar proportion in the market as private sector investments. Due to the crisis and the increasing uncertainties in the economy, the interest of private sector market players in Hungarian projects dropped. Through the Jeremie funds the Hungarian government tried for

[25] Cf. *Hirsch and Walz (2006)*.

[26] As a result, the start-up innovative companies receiving venture capital funds from the state were deprived of a very important form of support, namely, the support from investors in developing a company strategy, acquiring additional financing, developing a network of business relationships and helping in building up a proper management team *(Karsai, 2003, Kosztopulosz and Makra, 2007, Szerb, 2006)*.

[27] At the end of 2009 eight VC fund managers received a total of HUF31.5bn community resources to be invested until 2013 in the framework of the JEREMIE Programme (Joint European Resources for Micro to Medium Enterprises). This was increased by 30% (HUF13.4bn) by private sector investors resulting in a total of HUF44.9bn. The Jeremie funds managing a capital between HUF4bn and HUF7.4bn must place their resources until 2013.

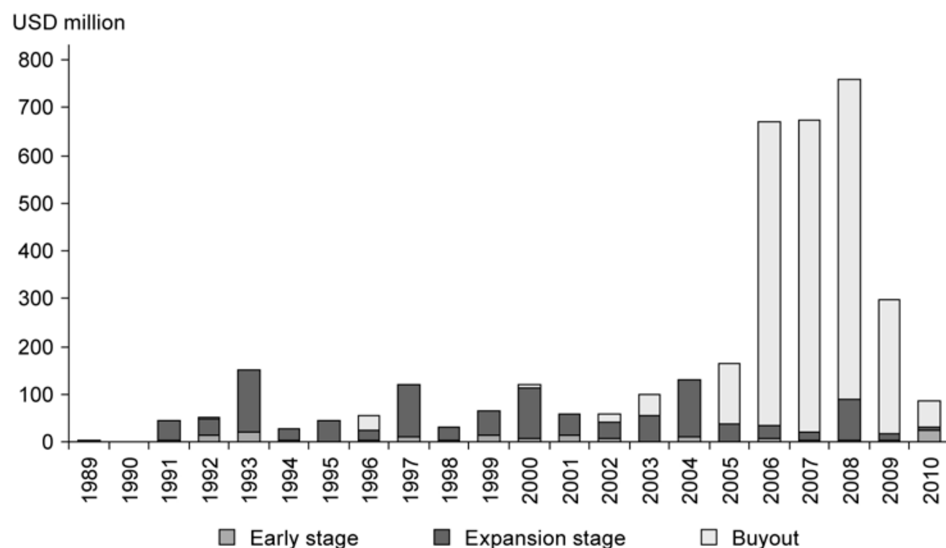
the first time to *turn private-sector venture capital funds towards enterprises preferred by the state.*[28] The main purpose of the new funds was to *finance innovative, small start-up companies*, which had been neglected by both private and public sector investors until then. In order to achieve its goals, the government motivated private investors also by financial incentives, i.e., by sharing the expenses and the yields of investments unproportionally.

Venture capital investments utilizing joint public and private resources represent a significant *change* compared to investments of funds established using public funds and managed exclusively by state-owned organizations. This does not mean, however, that the previous practice ceased to exist in Hungary. Two examples: the *Széchenyi Capital Investment Fund* was established in 2011 from exclusively budgetary resources, with a capital of HUF14bn *(Privátbankár, 2011)* and after a three year break the state-owned *MFB Invest Plc* also plans to place HUF5bn in the market *(Napi Gazdaság, 2011)*.

The function of the VC & PE investments within the economy is determined by the phase of development in which the financed enterprises receive the investing funds' capital. The capital received by ventures in Hungary from VC & PE fulfilled *different functions* during the period under review *(see Figure 9)*. It provided capital for start-up companies and for their development at an early stage and also facilitated the expansion of companies, i.e., helped their growth and development. For mature and established companies capital was utilised to help them become international businesses, reorganise themselves or change ownership.

Figure 9

Value of venture capital and private equity investments in Hungary by function of the financing in 1989-2010 (mUSD)



Source: HVCA

[28] The eight Jeremie funds started their operations in 2010. In addition, in 2008 a special fund was established jointly by the state-owned Hungarian Development Bank and a Japanese private-sector investor, with a total capital of EUR100m.

While, in relation to other European markets the proportion of capital provided at the *early phase* was relatively low, the proportion of financing *buyouts* to the total amount of investments became *more significant* than in Europe. The weight of the individual functions considerably changed during the two decades analysed, i.e., Hungary did not see even growth among the various types of investments *(see Table 3)*.

Table 3

Number, value and average value of the venture capital and private equity investments in Hungary in 1989-2010 by function of the financing (pcs, mUSD, %)

Function	Investments				
	Number (pcs)	Number (%)	Value (mUSD)	Value (%)	Average value (mUSD)
Early stage	132	31.7	147.0	4.0	1.1
Expansion stage	246	59.1	1037.3	28.0	4.2
Buyout stage	38	9.1	2521.8	68.0	66.4
Total	416	100	3706.1	100	8.9

Source: HVCA

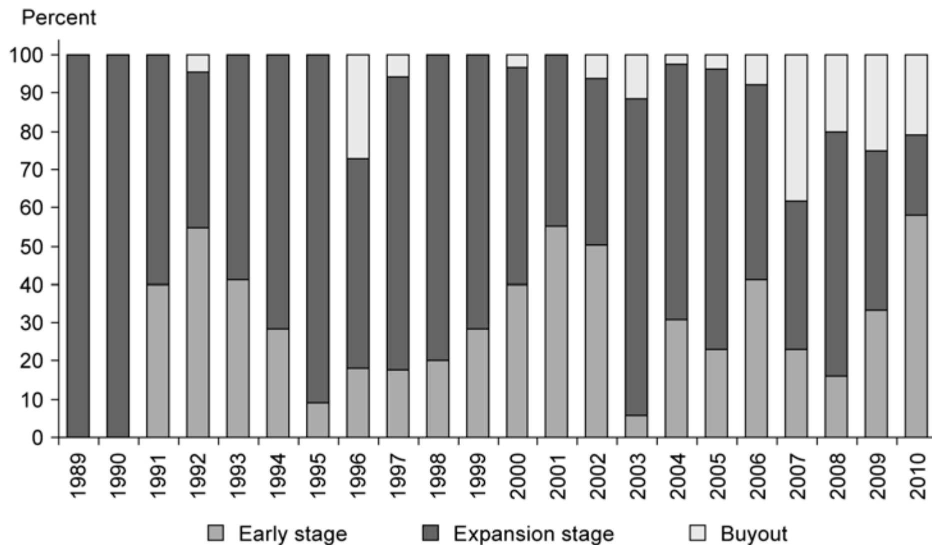
All this meant that companies in Hungary did not have equal *opportunities to receive capital investment* due to their various life-cycles. Regarding the respective life cycles of the financed Hungary-based companies – similar to their peers in the CEE region – *investments in the expansive phase were the most frequent.* This is supported by the fact that expansion phase investments represented approximately 60% of the number of investment deals in Hungary, and approximately 30% of their value. Thus, *the value of investments serving the nurturing of businesses was insignificant compared to the capital provided to* 10% of *the companies for financing buyouts, which*, over the twenty years, *represented more than two thirds of the investment volumes*, i.e., USD2.5bn.

The proportion of companies aided through *venture capital in the early phase of their lives* represented almost a third of the businesses that received financing. However, investors used a proportionately low amount of capital to fulfil this function, which explains why the capital provided to start-up companies *did not even reach 5% of the total invested capital.* Start-up

enterprises typically received USD1m from their investors in a transaction, while those in their expansive phase received more than USD4m on average. Buyouts represented a significantly higher volume than classical venture capital investments, as the average value of these deals were higher than USD66m on the Hungarian market, still regarded as relatively low in Europe *(see Figures 10, 11)*.

Figure 10

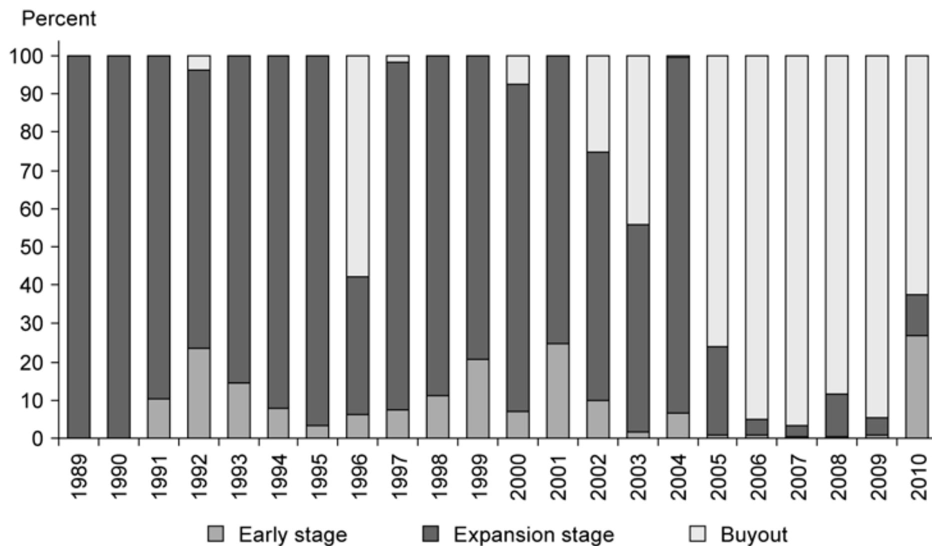
Proportion of number of venture capital and private equity investments in Hungary by function of financing in 1989-2010 (%)



Source: HVCA

Figure 11

Proportion of the value of venture capital and private equity investments in Hungary by function of financing in 1989-2010 (%)



Source: HVCA

Early stage investments were made predominantly in 1992, 2001 and 2010, while investments in the *expansive* phase dominated almost continuously until 2004. From then on, although these transactions continued to be the most numerous, the focus of investments shifted to *buyouts* because of the high-value individual buyout transactions.

The effect of the VC & PE *investments was that the sectors that received the highest amounts of capital experienced the strongest economic growth.* The VC & PE investments made over the last twenty years in Hungary were *strongly concentrated* in specific sectors, both in terms of frequency and volume.

In Hungary, over the course of the last two decades, the *highest number* of VC & PE investments made were in the *communication sector* and in the *sectors related to the manufacturing and services of consumer goods* (around 20% each). Approximately 40% of all investment transactions were channelled into these two areas. With regard to the value of investments, an even higher level of concentration can be observed. *Almost half of the value of the deals carried out in the course of the last twenty years in Hungary have been made up by investments in two sectors: chemical industry and medical/healthcare (see Table 4).*

Table 4

Number, volume and average investment value of the venture capital and private equity investments in Hungary in 1989-2010 by sector of the investee company (pcs, MUSD, %)

Sector	Investments				
	Number (pcs)	Number (%)	Value (mUSD)	Value (%)	Average value (mUSD)
Communications	82	19.7	718.5	19.7	8.8
Computer related	40	9.6	65.8	9.6	1.6
Other electronics	6	1.4	7.7	1.4	1.3
Biotechnology	6	1.4	19.6	1.4	3.3
Medical and health care	35	8.4	868.9	23.4	24.8
Energy	11	2.6	38.5	1.0	3.5
Consumer goods	76	18.3	293.5	7.9	3.9
Industrial products and services	22	5.3	29.9	0.8	1.4
Chemicals and materials	8	1.9	946.9	25.5	118.4
Industrial automation	1	0.2	0.6	0.0	0.6
Other processing industry	29	7.0	108.5	2.9	3.7
Transportation	12	2.9	197.6	5.3	16.5
Financial services	28	6.7	289.6	7.8	10.3
Other services	36	8.7	81.1	2.2	2.3
Agriculture	8	1.9	13.0	0.4	1.7
Construction	4	1.0	1.5	0.1	0.4
Other	12	2.9	25.1	0.7	2.1
Total	416	100.0	3706.4	100.0	8.9

Source: HVCA

The average value of capital investment was above the average of the total investment in those sectors where buyout transactions took place. The average value of investments was significantly lower in sectors where enterprises received venture capital mainly for starting up or at an early phase of their lives. During the two decades under review, the chemical industry received cca.USD950m in eight deals, meaning that the average investment value was an *outstanding* USD118m. The companies operating in the *healthcare sector* received investments of approximately USD870m in 35 transactions, thus the average investment reached USD25m. In terms of transaction value, the third highest market sector has been *communication*. This sector received more than USD700m in over 80 transactions, thus the average investment size was approximately USD9m. Hungarian companies active in *consumer goods manufacturing* and in the *financial services* sectors received about USD300m from VC & PE funds. However, consumer goods manufactures were granted more investments of the two sectors; approximately 80 enterprises received capital in this sector and were provided with investments of cca.USD4m per transaction. Meanwhile, approximately 30 financial services firms received higher value investments per transaction, more than USD10m. The *shipping and transportation* sector also experienced relatively high value individual deals, where 12 companies received investments of USD200m, over USD16m per deal.

Considering the life cycles and sectors of companies getting VC & PE between 1989 and 2004, we can see *the role of VC & PE in Hungary and the sectors where it was mostly used.*[29] The majority of *early-stage* companies financed by venture capital belonged to communications and IT sectors. Early-stage companies operating in consumer goods, communications and other manufacturing industries received the most capital. The majority of companies financed in their *expansive stage* also belonged to the communications and consumer goods sectors. Considering the total value of investments, communications firms and financial services received the most, followed by producers of consumer goods. *Buyout transactions* financed by private equity were most frequent in consumer goods and communications sectors. Concerning the value of buyouts the ranking of industries was the same *(Karsai, 2006)*.

Regarding the regional distribution of investments, VC & PE venture capital contributed mostly to the development of firms *based in the capital of the country*. Between 1989 and 2004, 77% of the number and value of investments were received by firms based in the capital *(Karsai, 2006)*. This means that the *regional concentration* of venture capital investments, which was typical all over the world, *prevailed in Hungary as well*. In fact, only one cluster of

[29] Only the survey reviewing the period of 1989-2004 examined the life cycles and the sectors of firms receiving VC & PE together. The lack of access to specific data on transactions in the EVCA database did not make possible a similar analysation.

investors and their support organizations (law firms, consulting firms and financial intermediaries) was formed.

CAPITAL DIVESTED FROM HUNGARY-BASED FIRMS

VC & PE investors participate in the financing of selected companies for only a *temporary period*. Investors usually sell their stake when the predefined period of time expires. The capital divested from companies and the profit realized on transactions are paid to investors by investment fund managers after deducting their management fees and interests. The size of the profit realized by funds is to a great extent determined *by the methods and the timing* of the exit, apart from the careful selection of companies to be included in the portfolio. Due to the fact that profits realized during exits has a basic influence on the future fund raising potential of investors, the relevant figures are less publicized. Even this survey, tracking the development of the Hungarian VC & PE market for over twenty years, was unable to gain access to data related to *investors' return.*[30]

Over the period of this analysis, the venture capital funds investing in Hungary exited from approximately 200 investments. The value of these transactions *at investment cost* amounted to USD900m.[31] The changes in the value of raised, invested and divested capital generally followed one another with a one or two-year shift, i.e., the increase or stop of capital allocation had a delayed effect on the changes of investments *(see Figure 12)*. The favourable or deteriorating investment environment also had a similar effect on delayed exits. The successfulness of the exits would, in turn, affect raising capital in the next cycle.

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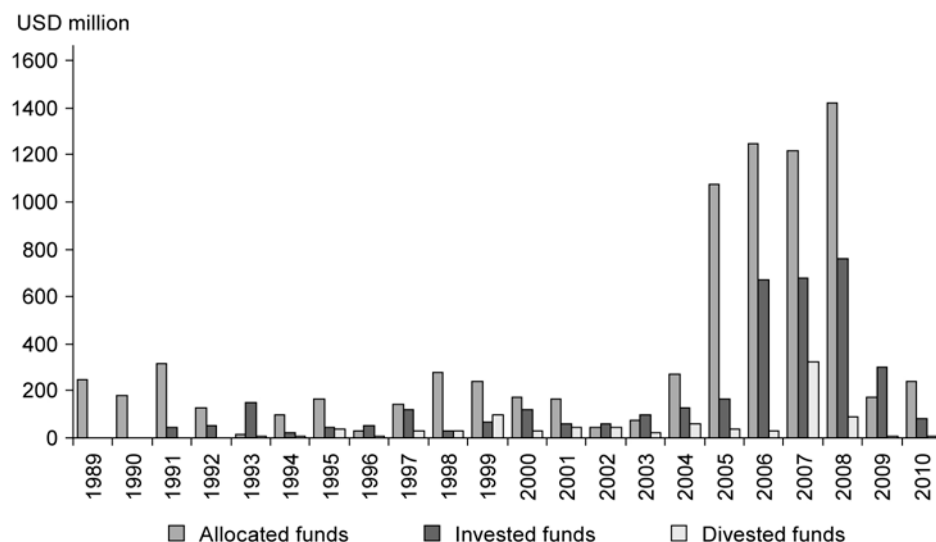
[30] The survey originally planned to include exit ratings in three categories (successful, neutral, unsuccessful); however, the investors did not provide sufficient information even for such classification.

[31] When registrating the method of exits, the survey used the categories applied by the EVCA (sale to professional investors, public offerings, write-off, other exit methods). As the actual value of exit sales was usually treated as a business secret, the survey, following the practice of the EVCA, used the initial acquisition cost when registering exit values.

Figure 12

Volume of raised, invested and divested capital in Hungary of those venture capital and private equity funds which show interest in Hungarian companies in 1989-2010 (mUSD)

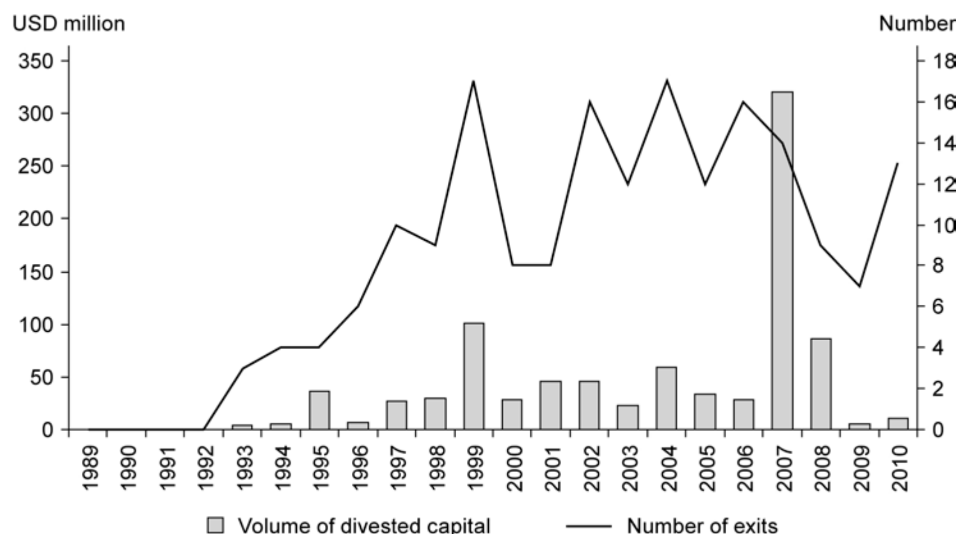


Source: HVCA

Annually, there were, on average, 10 exits by VC & PE organisations investing in Hungary-based companies, and the investors sold stocks in the average of USD50m per year, calculated by the cost of investment. Exits did not take place at even intervals. In the first few years reviewed, no exit was made. Subsequently, the number of exits increased continuously, and stalled only in 2000 at the time the dotcom bubble burst. The value of divestments, in general, significantly exceeded the annual average of USD50m in the years preceding the break out of the crises (1999 and 2007-2008) *(see Figure 13)*.

Figure 13

Number of exits from Hungary-based companies and volume of divested venture capital and private equity in 1989-2010 (pcs, mUSD)



Source: HVCA

In Hungary, on average, approximately USD5m of capital was divested during an exit. However, substantial differences were apparent on closer inspection of the individual *exit modes (see Table 5)*. Similarly to the entire CEE market, *the most frequent and highest value exits were trade sale exits*, averaging at USD9m over the period reviewed, which represented more than one-third of the number of exits in the Hungarian market, and approximately two thirds in value. Secondary sales were made predominantly by investors specialized in financing buyouts, where funds sold their shares to each other, reaching a similar average exit value (USD8.5m). Since these transactions covered leveraged buyout deals, they occurred a lot less frequently, than trade sales, until the latter half of the last decade, and made up only 5% of exits. Consequently, secondary sales made up only about 9% of the total value of exits. The value of exits by *public offering* represented a similar level in the Hungarian market, reaching USD5m on average, occurring in approximately 10% of the exits. In one fifth of the deals, registered in this analysis, were equity shares *bought back* from venture capital investors by *the owner-managers of the concerned companies*, this type of exit was typically applied by government backed investment organisations. This particular mode of exit only represented about 5% of the total value of divestments due to the lower individual value of the deals, not even reaching USD1m.

Table 5

Number, volume and average value of venture capital and private equity divestments in Hungary by the exit routes in 1989-2010 (pcs, mUSD, %)

Exit route	Exits				
	Number (pcs)	Number (%)	Value (mUSD)	Value (%)	Average value (mUSD)
Divestment by trade sale	63	34.0	569.4	63.4	9.0
Divestment by public offering	17	9.2	80.0	8.9	4.7
Divestment by write-off	13	7.0	27.8	3.1	2.1
Repayment of the loan	5	2.7	21.9	2.4	4.3
Sale to another PE house	9	4.9	76.1	8.5	8.5
Sale to financial investors	4	2.2	27.5	3.0	6.9
Sale to management (MBO)	36	19.4	43.4	4.8	1.2
Divestment by other means	9	4.9	6.0	0.7	0.7
Unknown	29	15.7	46.5	5.2	1.6
Total	185	100.0	898.7	100.0	4.9

Source: HVCA

The proportion of individual types of exit mode varied significantly over the period reviewed, typically depending on the international capital market cycles. In the case of *trade sales, which played a dominant role in virtually all times*, mostly the offer price varied, not the solution to exit. Public offerings were most prevalent in 1999, during the dotcom bubble. Secondary sales to other private equity funds and sales to financial organisations played a greater role in 2008. It can be assumed that the role of MBOs, that is, the sale of shares to the managers of the concerned companies, which were most common in 2007-2008, dominated also in exits whose method was unknown. VC & PE investors are generally reluctant to admit failures, thus they avoid announcing the writing off of the value of the given investment, and solve the problem by selling it in several parts. Similarly to the region as a whole, the proportion of writing off as an exit method does not reflect the truth in Hungary either.

Conclusion

A retrospective analysis of two decades has confirmed that following the change of political regime, in regional comparison, an advanced VC & PE industry has developed in Hungary. By the turn of the millennium, Hungary became *the centre of the VC & PE industry in Central and Eastern Europe*, and although this role was taken over by the Polish market in the next decade, the Hungarian VC & PE market remained a dominant player in the region's venture capital industry. The players, operation mechanism, function and efficiency of the Hungarian VC & PE market *have grown to be comparable to the VC & PE industry in Western Europe*. The similarity has manifested in the legal and regulatory environment, with the availability and experience of the investors, as well as the type and structures used in transactions.

In the last twenty years, opportunities for companies in Hungary to access VC & PE have explicitly improved. Virtually all global and regional VC & PE funds interested in the region are present in the Hungarian market. In the second half of the 90s *regional fund investors dominated* the domestic supply of VC & PE, and Hungary joined the international flow of VC & PE. The positive impact of EU accession prevailed in the long run, resulting in a rise in the capital raising cycle and improving the availability of necessary loans for buyout transactions. The revival in exits also improved the liquidity in the Hungarian market and the attractiveness of new investments. The *record worth of buyouts* in the second half of the first decade of the 2000s showed a positive perspective for leveraged buyout deals in Central and Eastern Europe.

The presence of many investors in the VC & PE market strongly improved the chances of Hungarian enterprises, but by no means meant that their access to VC & PE has been resolved. While larger companies having appropriate projects could choose among financiers, *smaller start-up companies found it difficult to find investors*. Especially those that did not want to appear in the international market with their products, and promised yields lower than the institutional venture capital market investors generally expected. In particular, the situation of companies looking for business angels providing relatively small amounts was very difficult. Since private investors followed a regional strategy in financing expansive companies, financing those companies that were at the early stages of their life cycle and were looking for smaller investments mostly remained a task for *public investors*. Unfortunately, government funds usually avoided financing technological and/or knowledge-intensive ventures that came with significant risks. Consequently, *financing innovation* in the Hungarian market, apart from the time of the technology boom, *was less dominant*. In this context, an improvement can be expected from the Jeremie funds combining EU resources with private funds. The Jeremie funds' activities started in 2010.

Recent changes lead to a decrease of international importance of the Hungarian VC & PE market and to a shift in current trends. The financial and economic *crisis* shaking the whole world economy *battered* the Hungarian VC & PE market by the end of the first decade of the 2000s. The crisis, which started in 2008, caused a serious setback in Hungary, like in other countries in the region, but the rate of the decline of VC & PE investments also reflected the fact that the position of the Hungarian market *in the CEE region also deteriorated*. The first impact of the crisis appeared in the fields of investments and exits, and it was felt longest in the raising of new sources.

The prospects of the Hungarian VC & PE market have been affected by the aftermath of the world economy recession and the position of the Hungarian market within the CEE region. Potential investors consider the following factors unfavourable: the small size of the country, the exhaustion of the privatisation opportunities, the high-level of indebtedness, the slow increase of GDP and domestic demand, and the uncertainties felt in economic policy. The market recovered somewhat in the first half of 2011, but the second wave of crisis may again break the upward trend. Inappropriate domestic economic policies would make economic actors, including those in the VC & PE market, unsure. The slowdown in economic growth and the deterioration of predictability of the business environment may discourage international investors. Reviving the state's direct involvement, which has already proved to be ineffective, will not be able to compensate for this.

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