EXITS OF BRAZILIAN PE AND VC DEALS

Insper-Spectra Analysis – August 2016

Exit is a very important aspect of the PE/VC industry. Only when the deal is liquidated it is possible to observe its performance and the return for investors. Many publications consider IPOs and sales to strategic buyers synonymous of successful exits, but how often is it the opposite? How about secondary sales and sales to owners, that are considered not very profitable exits? How often are they successful? Exits in emerging markets often raise concern, because of the very volatile economic environment. How are exits in emerging market related to the stock market activity?

This paper addresses these questions for Brazil, an emerging market that received a significant amount of international investment for PE and VC, and has been famous for a very volatile environment. We analyze a sample of 242 deals originated between 1982 and 2013 with exits between 1984 and 2014.

Our analysis is based on the Spectra Insper database. This private dataset has been built through a partnership between Spectra Investments, a Brazilian investor in PE and VC funds and Insper Institute of Education and Research, a leading Brazilian Business and Economics School. In order to protect firms, funds and deals identities, Spectra Investments sanitizes the data before filling it in the database. Main source of information are Private Placement Memoranda in possession of Spectra, although some data were hand collected from CVM (Comissão de Valores Mobiliarios - Brazilian Security Exchange Commission) and other sources like Thomson TRAA.

Main highlights:

- The most frequent type of exit in Brazil during the last 30 years is sale to strategic buyers, followed closely by IPOs.
- Write-offs are more frequent in earlier stage investments, as expected.
- The most profitable sale is IPO, highlighting the importance of the stock market for the high performance in the analyzed period. We observe a high percentage of exceptional performance in sales to IPOs, and there is no losses in this type of exit.
- Although we observe some negative performers in trade sales, the average return is high, and there are many cases of extraordinary returns.
- Sponsor to sponsor exits have been relatively rare in the last 30 years. We do not observe either losses nor extraordinary performance, and most observations have a fair return.
- Sales to owners more frequently represent losses or mediocre returns, although there are some exceptions of successful outputs.
- MoM (Multiple of money or cash on cash) increases as holding period increases, but IRR decreases as funds keep the company more time in their portfolio. Therefore, whenever there is a very good offer for the company, funds sell it, increasing the IRR.
- We confirm that funds prefer to sell as the relative market valuation increase. There is a high correlation between the stock market price/earnings index and the number of exits and the performance measured by MoM.

Sample information

Our sample contains 242 deals, originated between January 1982 and July 2013, and liquidated between January1984 until April 2014. Exit types are sale to strategic buyer (trade sale), IPO (capital market), secondary sale (sponsor to sponsor), sale to owners and other. Other includes mezzanine and dividend recapitalization.

See in Figure 1 that 91% of the deals in our sample were originated between 1994 and 2011. Before 1994, PE/VC industry was incipient, with few players. As our sample contains only deals with exits, and there are only few exits from deals that received investment after 2011,the number of observations in 2013 and 2014 drop substantially.

Figure 1. Deals according to year of investment

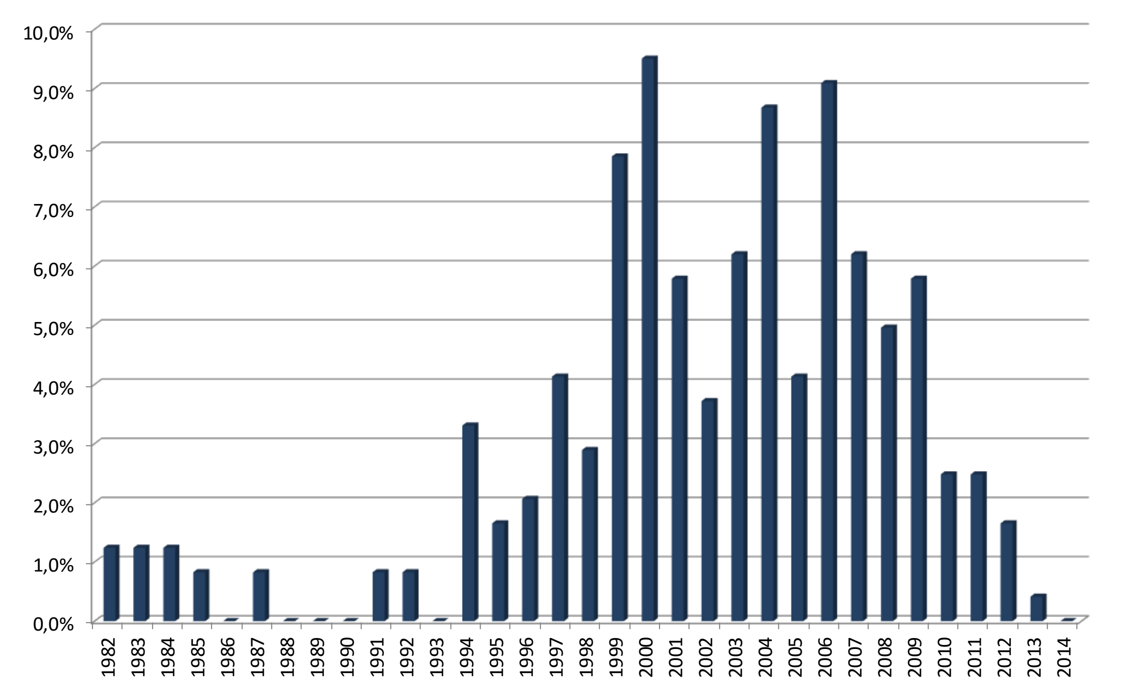


Figure 2 groups the deals according to the type of exit. More than 1/3 of the deals were written off. As expected, the majority of the write-offs (63%) are of early stage companies, which face a higher risk. We classified as VC a deal in a company that had not yet reached breakeven by the time of investment.

The most frequent type of exit is sale to strategic buyers (28%), followed closely by IPO (21%). The number of sales to the public market is relatively high because of the stock market boom between 2004 and 2013, and funds benefited from this window (see Figure 3 for the evolution in the number of IPOs and follow-ons).

Only 6% of the exits are secondary sales. We expect to find a higher percentage in future analysis, since the IPO window has been closed since 2014, and as the industry becomes more mature, there are more active funds specialized in different stages of companies' life cycles.

Figure 2. Percentage of deals by exit type

Write-offs according to portfolio company stage	Exit type

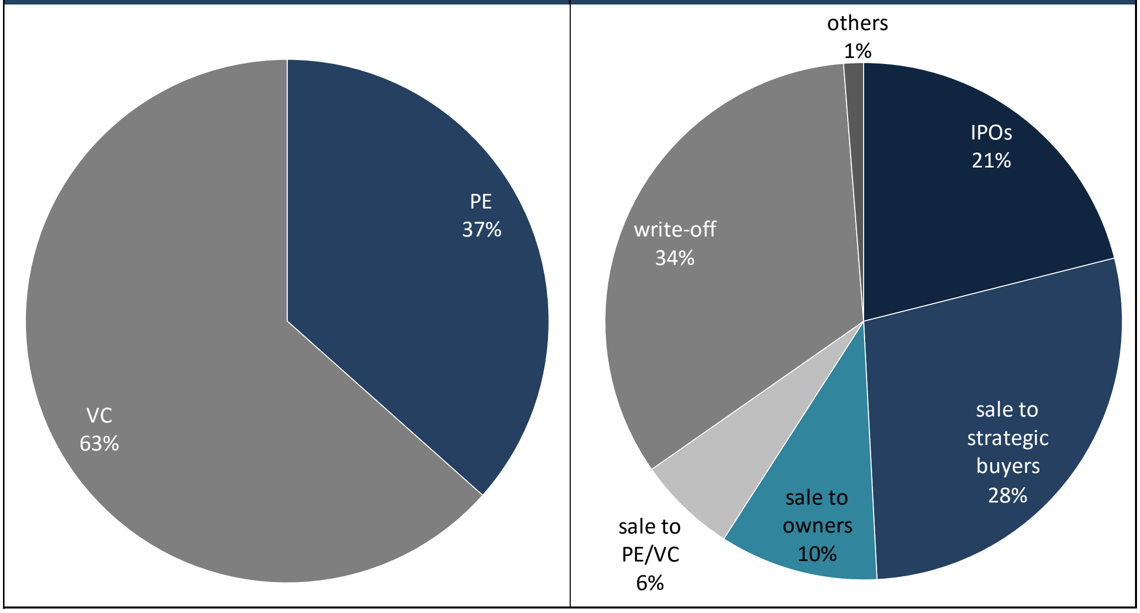
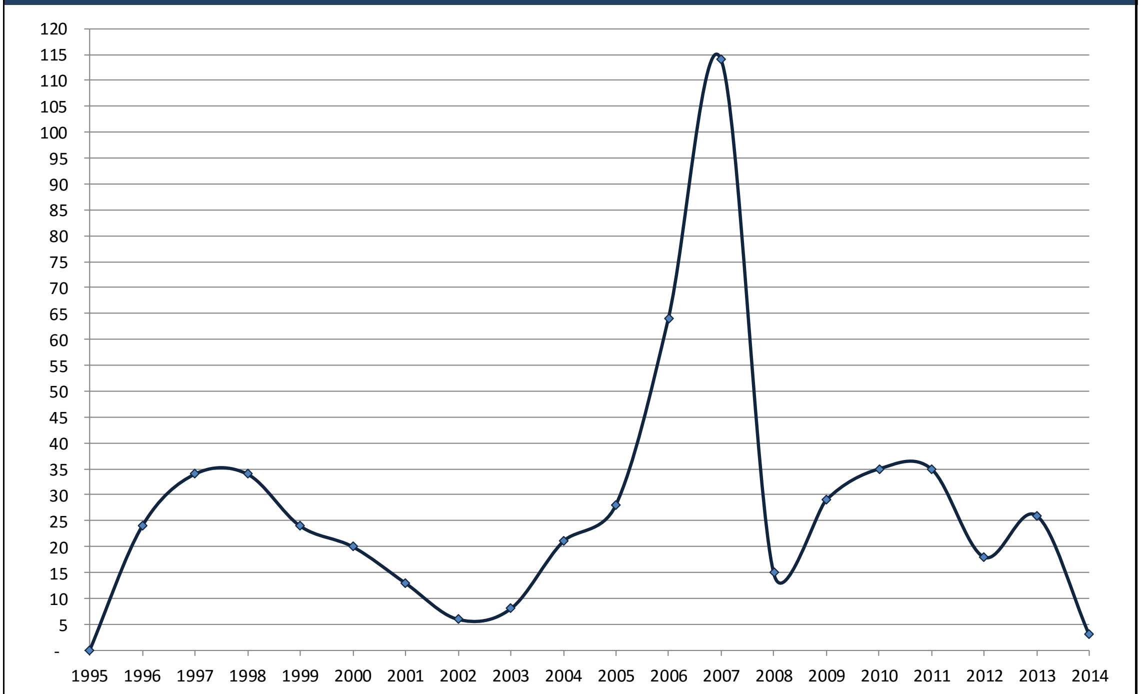


Figure 3. Evolution of the number of IPOs and Follow-ons in the Brazilian Stock Market



Performance consolidated by exit type

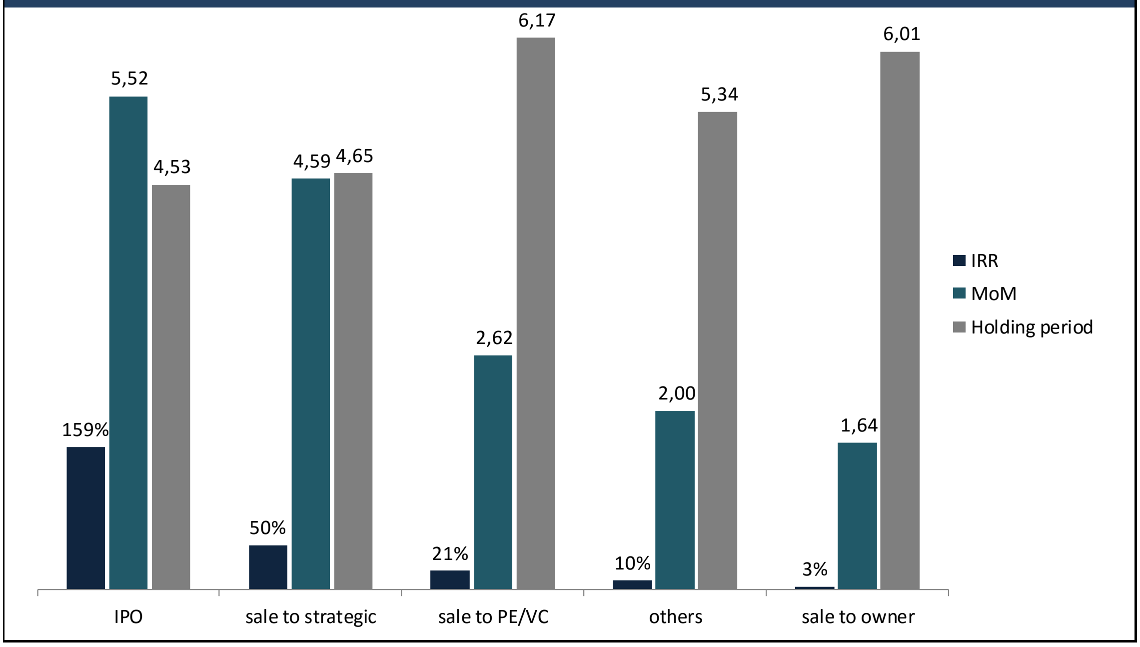
We have information about gross MoM (Multiple of Money)[1] and gross IRR. We report in this whitepaper only performance dominated in USD. Whenever our information was presented in BRL, we converted the data to USD using the exchange rate of the investment and divestment dates[2]. Our sample with performance information was reduced to 212 deals.

In the estimation of IRR mean, we excluded one sale to strategic, because we considered it a clear outlier. It yields more than 10.000% and had a holding period shorter than one year.

We do not analyze average performance of write-offs, since most of the deals had missing value, and we assumed total loss, that is, a MoM equal to 0 and a IRR equal to -100%.

Figure 4 contains information about average performance according to exit type. IPO was the type of exit with highest performance, followed by sale to strategic and then by sale to PE/VC. This pattern is consistent either for IRR or MoM.

Figure 4. Performance and holding period by exit type



Although sale to PE/VC has had a very satisfactory mean IRR (21%) and mean MoM (2.6), we observe a higher average holding period when compared to the most profitable types of exits. This may reflect that PE/VC funds resist to sell to other fund if there is the possibility to exit for a strategic or IPO.

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[1] MoM – multiple of money, also known as cash on cash. Represents the amount of money generated by USD 1.00 of investment. For example, a MoM of 2.00 means that US$1.00 was transformed in US$2.00, considering all cash flows received

[2] $MoM_{USD} = MoM_{BRL} * (\text{Ptax investment day} / \text{Ptax divestment date})$ and $IRR_{USD} = MoM_{BRL}^{(365/\text{holding period days})} - 1$, where Ptax is the Central Bank official exchange rate for BRL to USD.

Type “others” correspond to mezzanine and structures deals, which are traditionally less risky and yield lower, but consistent performance (IRR of 10% or MoM of 2 times invested money).

Sales to owner had an average MoM of 1.6 times invested capital, but a TIR of only 3%.

There are a few negative performers in sale to strategic. Figure 5 shows that 13% of the trade sales had negative IRR or MoM lower than 1. But the percentage of observations with extraordinary performance is higher. There are 35% of the deals with IRR greater than 50% per annum, and 19% with MoM greater than 5.0. The difference in the number of deals classified as extraordiry performers when using IRR and when using MoM is probably due to the fact that some funds decide to anticipate selling deals to benefit from the bull market. This reduces the holding period, increases the IRR, but not the MoM.

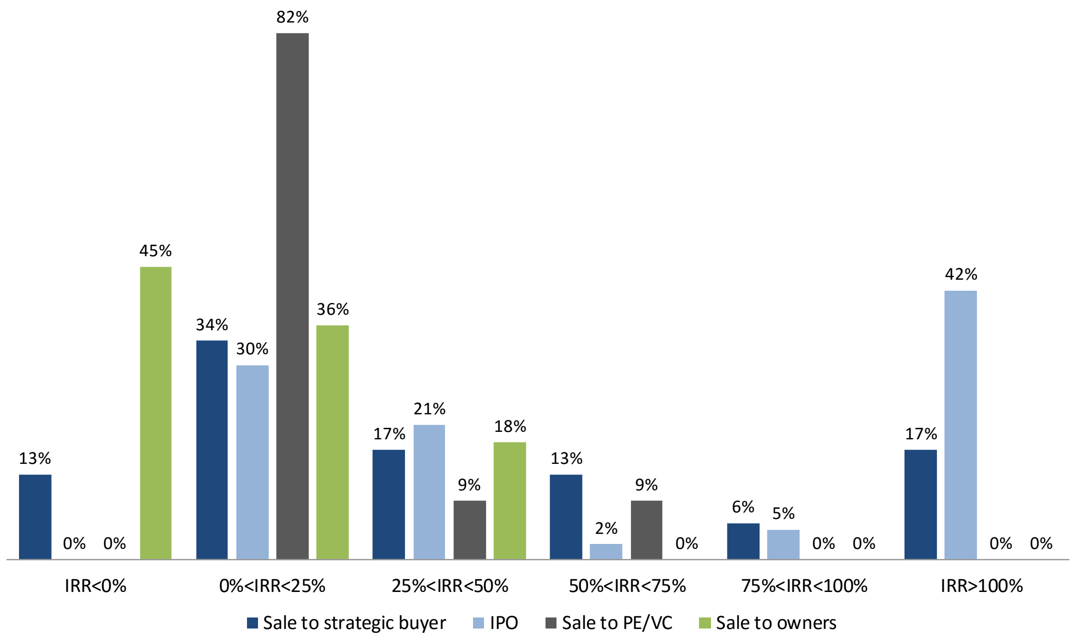
Exits on the public market (IPOs) had higher average returns than trade sale. Figure 5 shows that there are no losses in exits through IPOs: all of them had IRR higher than 0% or MoM higher than 1. The percentage of high performers is also higher than in trade sale: 49% of the deals had IRR superior than 50% per year (42% of this type of exit had IRR higher than 100%), and 33% with MoM higher than 5 (12% with MoM higher than 10).

Secondary sales show a more stable performance: no losses, and practically no exceptional performance. PE/ VC funds avoid paying a very high price, but at the same time they are only interested in portfolio companies of a good quality, and therefore the acquisition still generates a fair return to the previous fund. We observed that 9% of the sale to PE/VC had IRR higher than 50%. As there are no deal with MoM higher than 5 times invested money, the high IRR is probably explained by a short holding period.

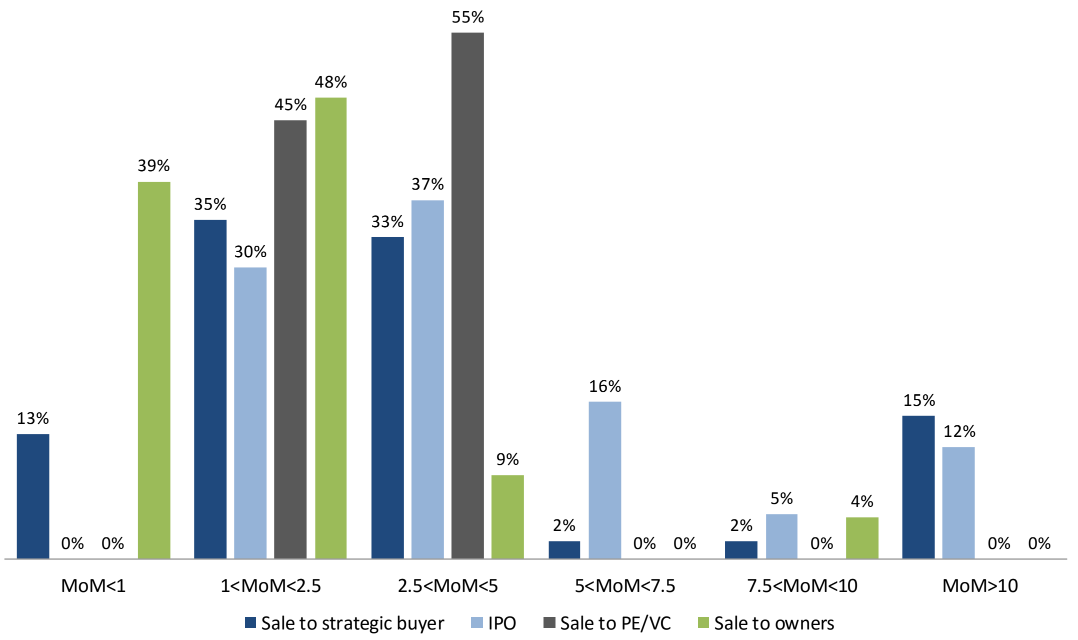
Sales to owner in most cases are unsuccessful: more than 45% with negative IRR. But there are exceptions: 4% of this type of sale had exceptionally good returns, that is, a MoM between 7.5 and 10 times invested money.

Figure 5. Distribution of each exit type according to performance range

Distribution of Deals acording to performance in IRR range



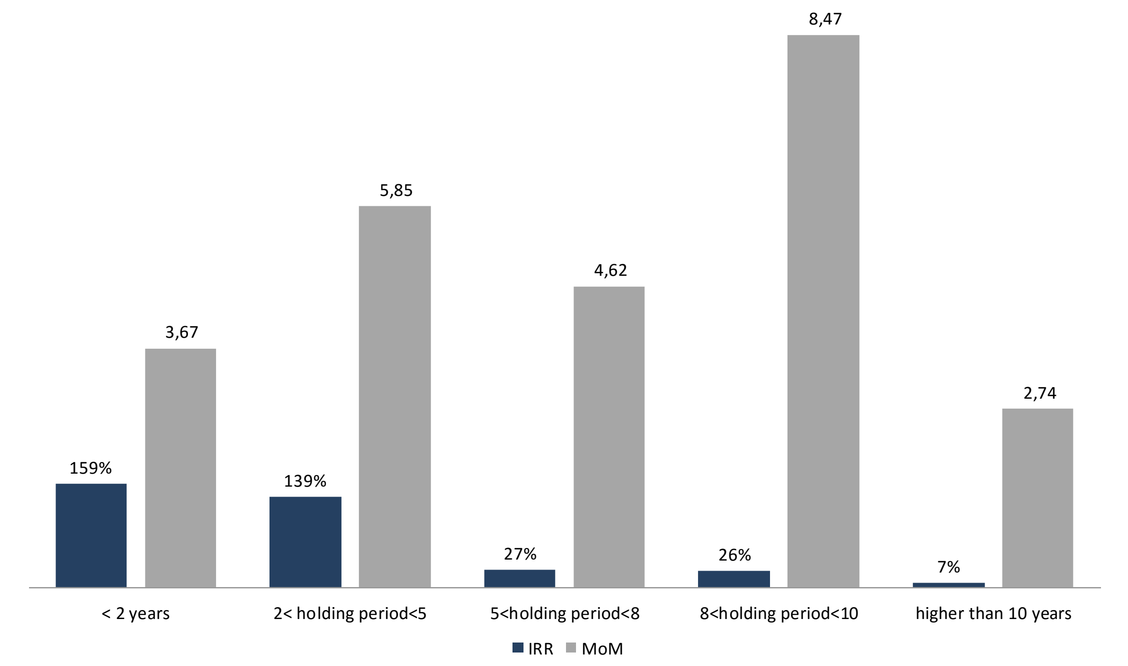
Distribution of Deals according to MoM range



Holding period, exit type and performance

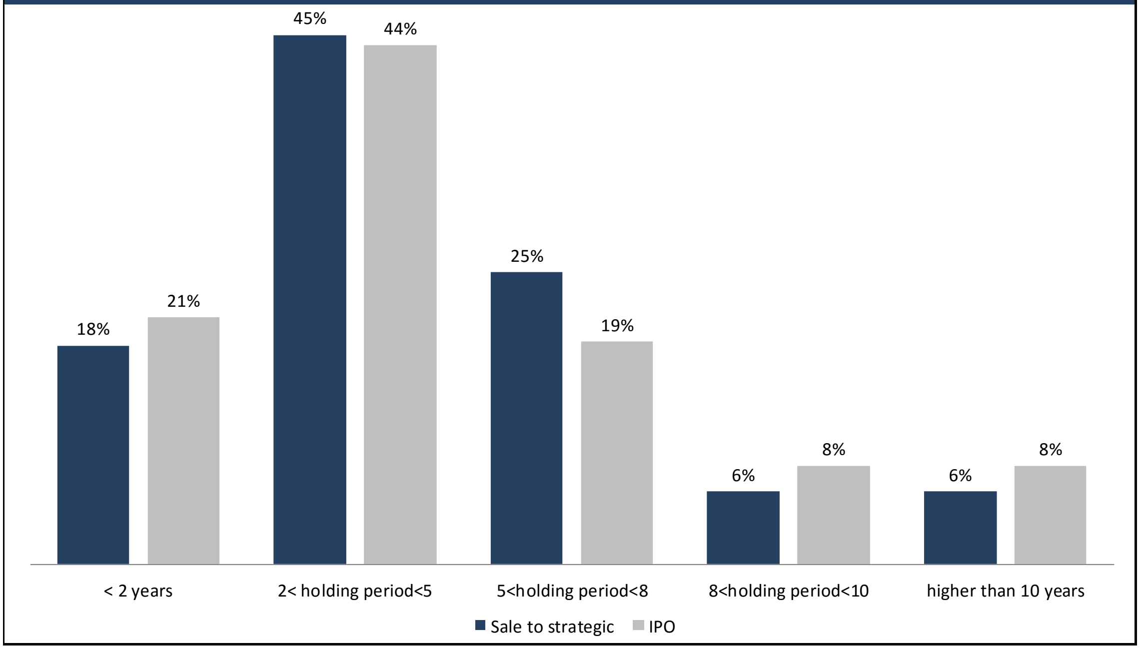
Apparently PE/VC funds increase investee companies' value as they keep them in the portfolio for a longer period: MoM increases with the holding period (see Figure 6). But as IRR decreases with the holding period, the pressure for anticipating the exit in face of a sufficiently high bid is real, even though the value of the company could increase if the fund kept it for a longer time.

Figure 6. Average performance of each profitable exit according to holding period



We then analyzed deals looking at only exits to strategic or IPO. Figure 7 shows that those deals have the most frequently holding period between 2 and 5 years, but that the number of exits with a holding period shorter than 2 years is not insignificant: around 20% either for strategic sale or IPO. Funds do benefit of high valuation opportunities and boom market windows to sell their assets and generate high IRR. Deals with holding periods longer than 10 years are much less frequent, and probably indicates difficulties to sell.

Figure 7. Distribution of each successful exit according to holding period



Stock Market Activity and Performance

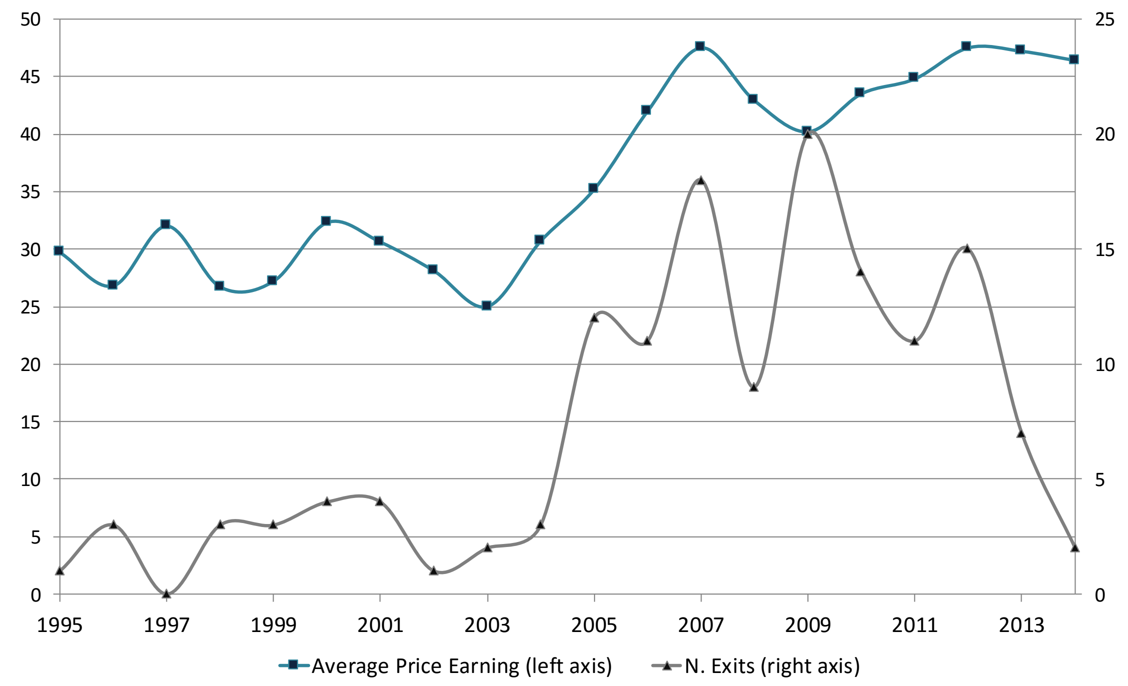
In order to analyze the effect of the stock market activity level in number of PE/VC exits and performance, we built a year Price/Earnings ratio for the Brazilian stock market[3].

There is a significant increase in Price/Earnings Ratio since 2004, and this persists until 2014 (see Figure 8). The number of deals apparently follows this pattern[4], indicating that funds benefited from stock market activity and higher valuation to sell their stakes in portfolio companies. We estimate a correlation of 0.7 between the number of exits and the average Price/Earnings ratio.

[3] We built a monthly series of Price/Earnings ratio for each stock traded in the BMF&BOVESPA. We exclude all the observations with missing information (not traded in that month), and that had negative Earnings. Brazilian Stock Market Price/Earnings ratio in month t is the average of all individual stock Price Earning ration in month t. Brazilian Stock Market Price/Earnings in year n is the average of the twelve Brazilian Stock Market Price/Earnings in month t of year n.

[4] Our sample has information of exits only until April 2014. The comparison between four months of exits with twelve months of exits for the other years explain the drop in the 2014 number of exits in Figure 8.

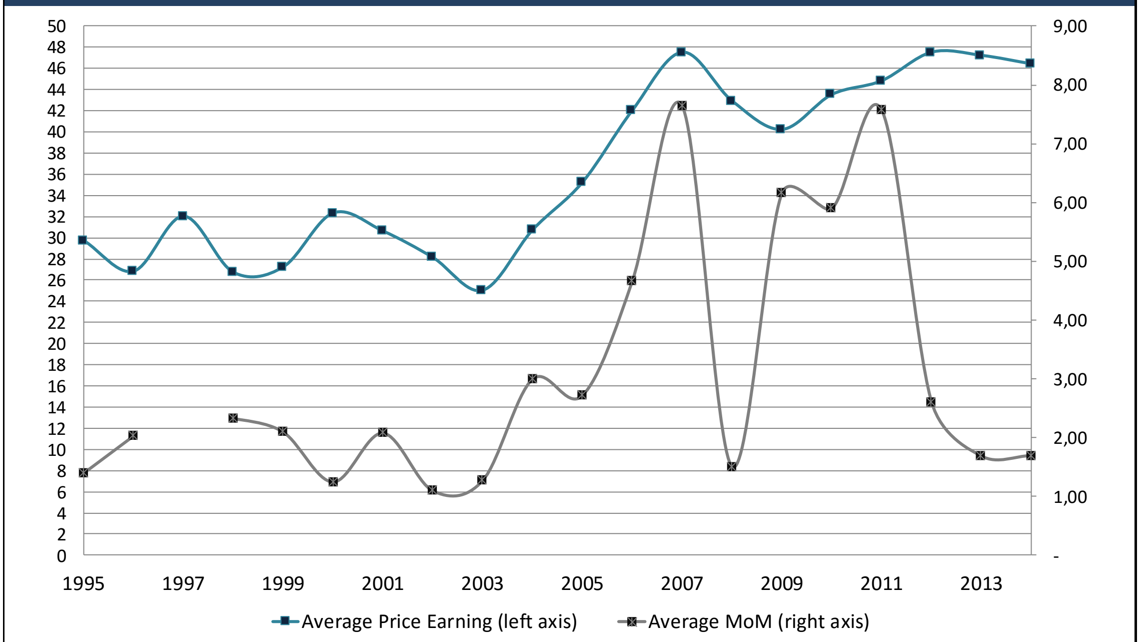
Figure 8. Evolution of Brazilian Stock Market Price/Earnings Ratio and Number of Exits



The correlation between the Price/Earnings ratio in the exit year and the average MoM of all deals that exit that year is 0.5. Figure 9 illustrates this relation. Therefore, the higher the Price/Earnings ratio in the stock market, the higher is the performance measured in MoM.

We do not analyze the effect of stock market activity in IRR, since this performance measure is very influenced by the holding period.

Figure 9. Evolution of Brazilian Stock Market Price Earning Ratio and average MoM in the exit year



Concluding remarks

There was an IPO window between 2004 and 2013. The relative valuation measured by Price/earnings ratio in the Brazilian stock market increased significantly and stayed high in this period. PE/VC funds took advantage of the bull markets and sold their positions at high prices either to public markets (IPOs) or to strategic buyers.

We observe a relative high percentage (20%) of deals sold to public markets or strategic buyers that stayed for less than two years in the fund's portfolios. The number of extraordinary performance according to IRR is also much higher than the number of extraordinary performance according to MoM. We conclude that in the presence of a good window and a good bid, funds do not wait to sell their companies, and this pushes IRR up.

The stock market boom was determinant for high performance of PE/VC exits. Considering that the window will be closed for a while, we expect that:

- The percentage of exits to public markets will decrease significantly, and the number of sponsor to sponsor sales will increase.
- The average holding period will also increase, because funds will keep companies for longer periods in their portfolios waiting for better opportunities to sell.
- The number of extraordinary performers will drop, and there will be a higher concentration of exits with IRR between 0% and 50% and MoM between 1 and 5.

Spectra-Insper Database

Spectra-Insper database contains information about PE and VC organization, funds, deals and people. The information used in this report is based mainly on data from Spectra Investments. This data is collected through PPMs and in interviews with organizations and is updated up to March 2015. Confidential information from Spectra is sanitized before being uploaded into the database.

The partnership between the Center for Finance of Insper and Spectra Investments, has the objective of continually maintaining and upgrading this database.

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