

PERFORMANCE OF THE PRIVATE EQUITY AND VENTURE CAPITAL INDUSTRY IN BRAZIL

Insper, Spectra and ABVCAP Analysis – September 2018

This report presents an overview of the Brazilian Private Equity (PE) and Venture Capital (VC) Industry between 1994 and 2017.

It was prepared in partnership between Insper, a leading Brazilian Education and Research Institute, Spectra Investments, a Brazilian PE and VC fund investor and ABVCAP, the Brazilian Private Equity and Venture Capital Association. It updates and extends the analyses exposed in the Insper-Spectra whitepapers about the performance of funds and deals published in 2013¹ and 2014² respectively.

This analyses was conducted using the Spectra Insper database, a comprehensive set of information about private equity managers, funds, deals and professionals in Latin America. In order to protect the identity of the firms, funds and deals in the database, Spectra sanitizes the data before filling it into the database. Main source of information for the inputs are Private Placement Memorandums provided by a variety of fund managers.

Main highlights

- The Private Equity and Venture Capital fundraising in Brazil has intensified after 2007. Similar to the international industry, fundraising has a cyclical behavior, with peaks and valleys, and the investment cycle lags the fundraising cycle.
- The Brazilian PE/VC industry is still very dependent on international investors: two-thirds of the funds raised between 1994 and March 2018 were in US Dollars. Domestic investors have not established a policy to invest in Private Equity yet. If the falling interest rate scenario continues in the future, we expect investors such as pension funds to start investing more constantly in PE and VC.
- Despite the Brazilian PE/VC industry being relatively young, there are many experienced fund managers in the country: 72% of the PE/VC firms in our sample are 6 or more years old, 40% were founded more than 10 years ago, 59% of them raised two or more funds, and 34% raised three or more funds.
- The Brazilian PE/VC industry has been going through a natural renewal cycle, and investors are learning to be more selective in choosing a fund manager.

¹ Insper and Spectra (2013). Brazilian Private Equity and Venture Capital Funds Performance. Whitepaper. Available at <https://www.insper.edu.br/wp-content/uploads/2015/04/Brazilian-Private-Equity-Venture-Capital-Funds-Performance-nov-2013-versao13-04-15.pdf>

² Insper and Spectra (2014). An analysis of the Private Equity and Venture Capital Investments in Brazilian Companies in the Last 30 Years. Available at <https://www.insper.edu.br/wp-content/uploads/2015/04/Analysis-Private-Equity-Venture-Capital-investments-in-Brazilian-companies-versao13-04-15.pdf>

- Brazilian Private Equity and Venture Capital deals invested between 1994 and March 2018 performed well on average. The mean gross MOIC in USD was 2.6x, and the median was 1.3. The maximum MOIC for PE was 34 and for VC was 60.
- The recent economic crisis negatively impacted the PE industry mainly due to the Brazilian currency devaluation. The mean gross MOIC in USD of the deals exited between 1994 and 2014 was 2.8x, but dropped to 1.8x for the deals exited during the crisis. The impact in the MOIC in BRL was much smaller: it drops from 3.2x to 2.9x.
- The crisis and currency devaluation did not obfuscate the improvement in the VC performance. The mean MOIC in USD for exits until 2014 was 2x and it more than doubled to 4.8x for the deals exited in 2015 or after. The maximum MOIC in USD also increased from 33x to 60x.
- At the fund level, the mean gross IRR in USD is 22%, while the mean gross MOIC in USD is 2.6x. Similar to the international industry, there is a high dispersion among the top and worst performers, with a maximum IRR equaling 159% and the minimum -100%. The Brazilian first and second quartile funds would be ranked the same or higher in the global industry.
- Exits do not seem to be a problem in Brazil relative to the international industry. The percentage of active and realized deals according to the year of investments are in line with international industry.
- PE fund managers aggressively exploit hot market windows, and the percentage of quick flippers (deals with holding period shorter than 3 years) is more than the double of the international percentage.
- 44% of VC deals were held for more than 5 years, showing that funds are committing additional capital for new rounds and growing the company. This partially explains the improvement in the VC industry performance.

Sample information

We use two samples for our analyses: funds and deals.

The sample of funds includes only funds dedicated to Brazil or Latin America with investments in Brazil. Therefore, it excludes PE/VC funds that invest globally, as well as sovereign and pension funds that invest directly in companies. It contains information on 413 funds, of which 401 were raised between 1994 and March 2018, representing 48% of the 865 funds mapped by Spectra Investments.

The sample of deals is composed by all investments made in Brazilian companies, including deals realized by global, sovereign and pension funds. It has information about 2061 deals invested between 1994 and March 2018.

Fundraising and Investments

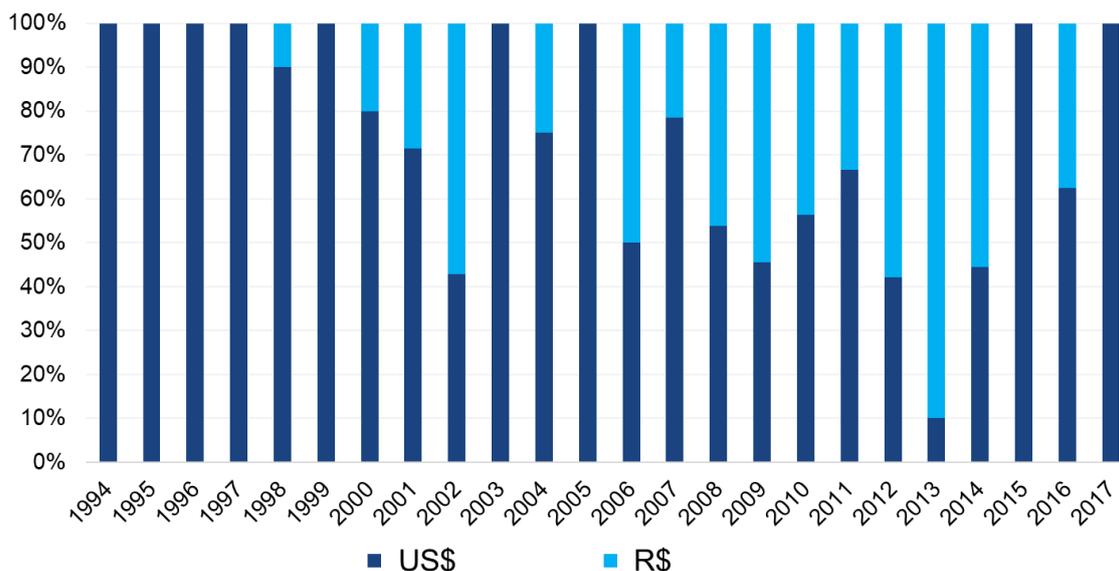
International investors in PE/VC have a policy to invest in this asset class. Every year they commit capital to funds raised by a selected number of managers. By doing so, they diversify by vintage and by fund managers. They are able to better match capital calls from funds in the investment period with capital distributions from funds in the divestment period. Through developing relationship with fund managers they are able to gather more information about the PE/VC industry. Relationship with fund managers and information about the industry open the doors for allocating capital with top managers, as well as for interesting co-investment opportunities. Note in Exhibit 1 that the vast majority of the Brazilian funds are raised in USD (2/3 of the funds), mainly from international LPs. Without exception, in every year from 1994 to 2017 PE/VC local managers were able to raise capital from international investors in USD.

The percentage of funds raised in BRL has been increasing since 2002. However, the Brazilian LPs participation in the PE industry has been erratic. We did not identify any fund raised in BRL in 2003, 2005, 2013 and 2017. This indicates that Brazilian institutional investors have not developed a policy to invest consistently in Private Equity yet, and hence do not represent a recurrent and reliable funding for the industry.

Exhibit 2 shows that, similar to the global industry, the PE/VC industry in Brazil is cyclical, and that the fundraising activity has intensified after 2007 (71% of the committed capital in USD and 82% of the total committed capital in BRL).

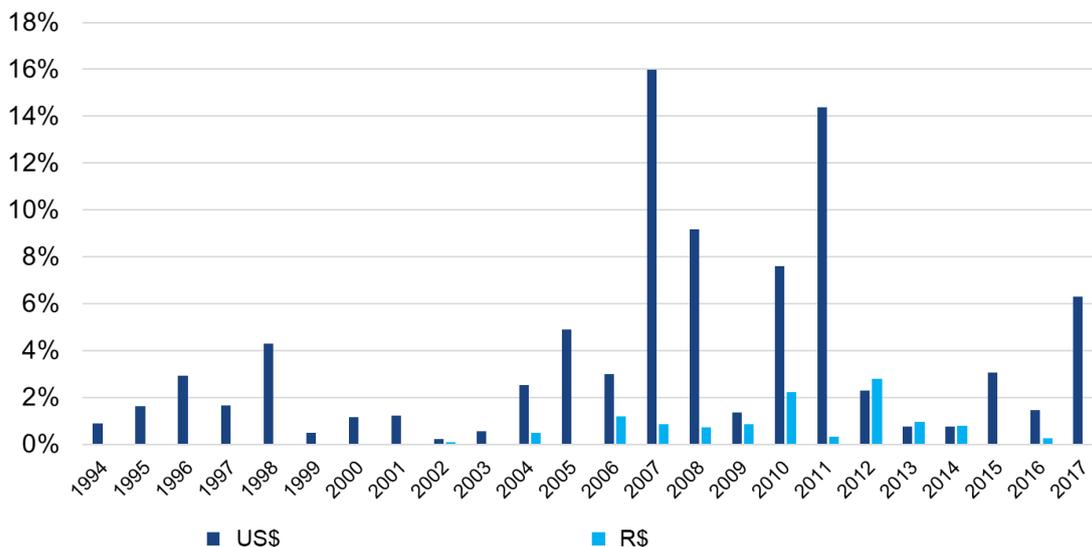
We expect that Brazilian institutional investors will develop policies of investing in PE/VC in the future, and that they will become a more constant and reliable source of funding for the industry. If local interest rates keep falling, institutional investors like pension funds will probably allocate more capital to PE/VC, increasing the demand for the asset class. As the industry grows, experienced fund managers will raise funds more often, increasing the supply of funds raised by year, and making it possible for institutional investors to invest constantly in funds raised by experienced fund managers.

Exhibit 1. Percentage of funds dedicated to Brazil or Latin America raised in USD and in BRL



224 observations of funds raised between 1994 and 2017 with information about committed capital.

Exhibit 2. Capital raised by vintage as percentage of the total capital raised for PE/VC between 1994 and 2017

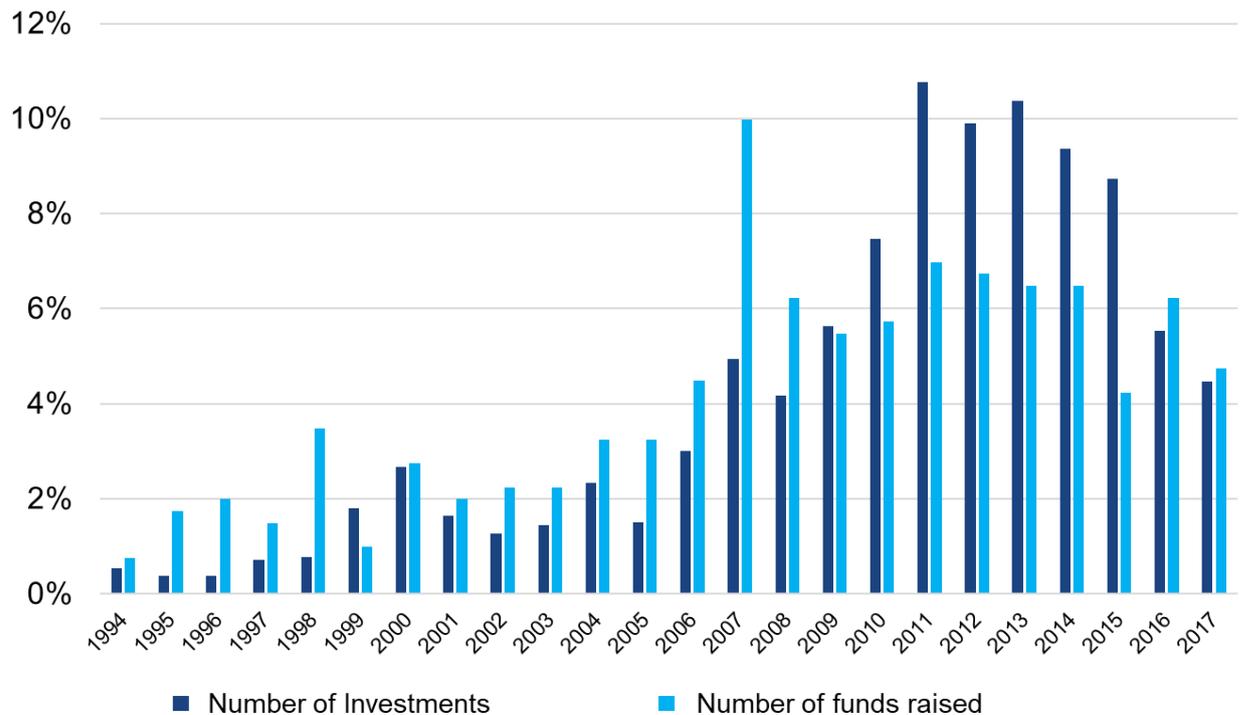


Total committed capital from 1994 until 2017: USD 59.5 bn (149 funds) and BRL 15.8 bn (75 funds)

PE/VC investments are cyclical, but given the investment period takes 3 to 5 years, investment cycles lags the fundraising cycle (see Exhibit 3). Similar to fundraising, PE investments also intensified after 2007: 81% of the 2,061 deals were invested between 2007 and 2017.

We have information about the amount invested in 61% of the deals. Those deals total USD 49.2 billion (BRL 99.7 billion)³ in investments in Brazilian companies between 1994 and 2017. This figure illustrates the importance of the Private Equity and Venture Capital industry for the Brazilian economy.

Exhibit 3. Percentage of funds raised and deals invested in each year in relation to the total number of funds and deals



Experience of the Brazilian PE/VC fund managers

The activity of the PE/VC industry in Brazil gained relevancy only after 1994, following the economic stabilization brought by the Brazilian Real Plan. Despite being a young industry, there are a relevant number of experienced fund managers in the industry.

Spectra Insper database has information about 161 PE/VC firms that raised 413 Brazil-focused funds between 1981 and 2017. Of those firms, 72% are 6 or more years old, while 40% were founded more than 10 years ago (see Exhibit 4). We observed that 59% of those firms raised two or more funds, and 34% raised three or more funds (see Exhibit 5).

This is consistent with the findings in The Profile of the Private Equity Professional in Brazil, a whitepaper conducted in 2016 using LinkedIn and private information provided by Spectra Investments and 2 Get, an executive search firm⁴. In that study, we mapped

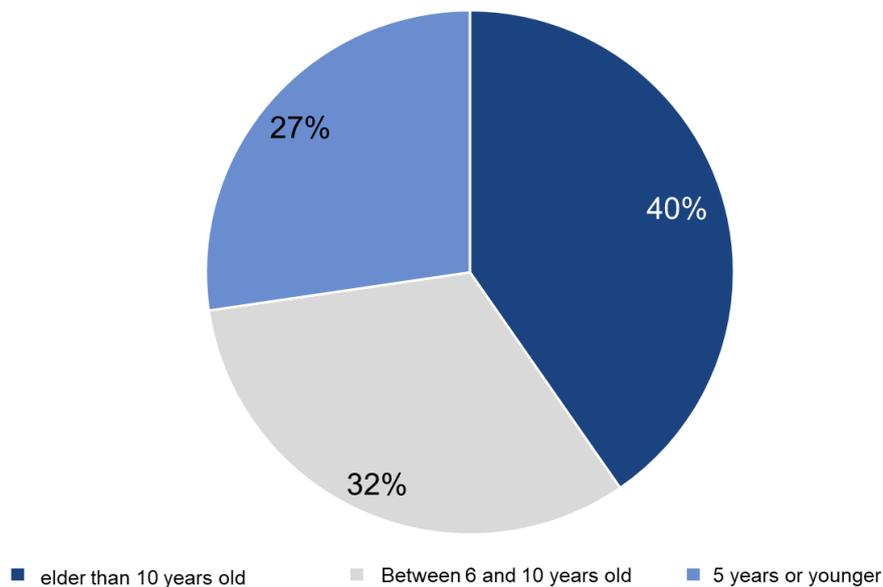
³ We converted the investments declared in BRL in USD by the exchange rate of the day of the investment and vice-versa.

⁴ Insper, Spectra, 2Get (2016). The Profile of the Private Equity Professional in Brazil. Whitepaper. Available at <https://www.insper.edu.br/wp-content/uploads/2016/09/Profile-of-Private-Equity-professional-Brazil-Insper-Spectra-2EGT-Analysis.pdf>

more than 700 PE/VC senior partners that on average have been working for 10.5 years in the industry. More than 200 senior partners have been working in the industry for 12 years or more.

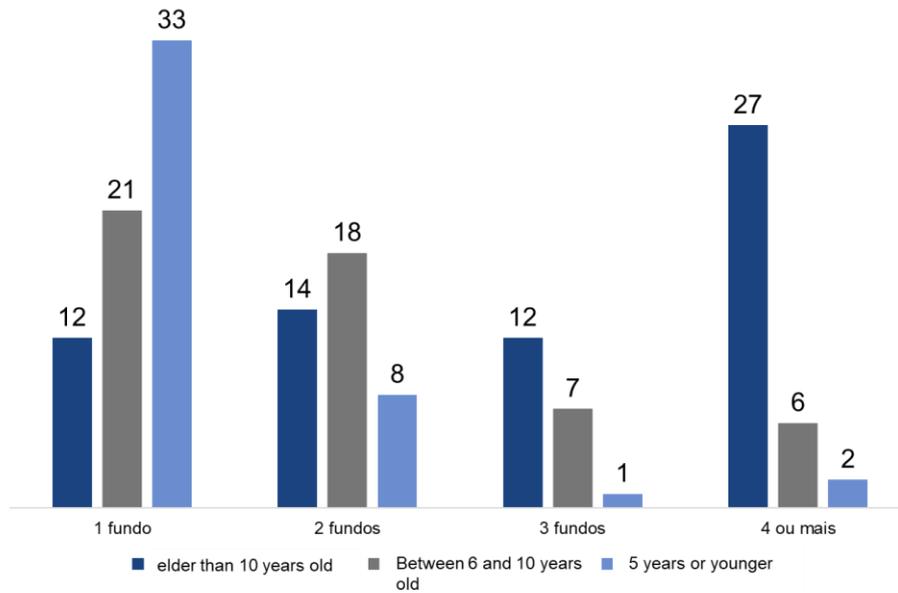
We also observe a healthy renewable cycle in the Private Equity firms (see Exhibit 5). Twenty-one PE firms (13%) has not launched any fund in the last ten years, and therefore we can consider them either inactive or liquidated. There are twenty-one (13%) PE/VC firms that are between 6 and 10 years old and that have not raised the second fund yet, indicating that they are having difficulties to survive in the industry. On the other hand, forty four (27%) PE firms exist for more than 10 years old and are active in the market, and we can consider them as consolidated in the market. New PE managers also emerge. Forty four (27%) PE/VC firms are 5 years old or younger.

Exhibit 4. PE firm by age



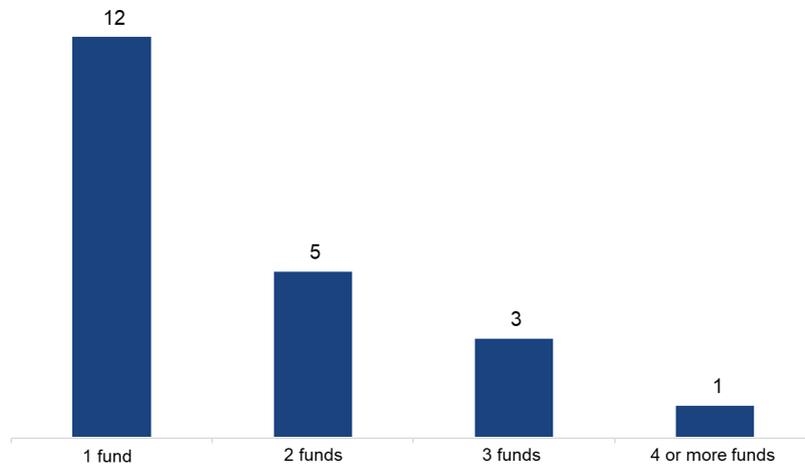
PE/VC investors are becoming more selective when deciding to invest in a fund manager. Of the twenty-one inactive PE firms, 57% raised only one fund, and 81% could not go beyond the second fund (see Exhibit 6).

Exhibit 5. Number of funds raised by a PE/VC firm versus the age of the firm



Four out of fifty-five PE/VC firms that raised three or more funds are inactive, that is they did not raised a fund in the last ten years.

Exhibit 6. Number of inactive PE/VC firms versus number of funds raised



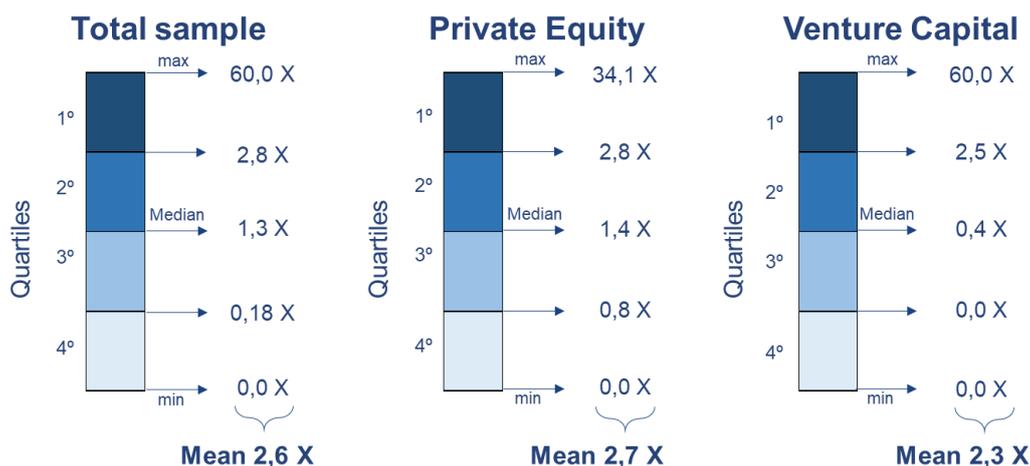
Performance of PE and VC deals in Brazil

We analyzed the performance of 492 deals invested and exited between 1994 and March 2018. In the sample there are 325 PE deals (buyout and growth), 144 VC deals (investments in early stage companies, that did not reached breakeven yet), and 23 deals of other theses like infrastructure, mezzanine, distress, real estate.

Brazilian GDP grew on average 3.4% per year between 2000 and 2014, due to the commodity super cycle and increase in domestic consumption fueled by credit. Brazil was also relatively insulated from the Global Financial Crisis: GDP fell 0.1% in 2009, compared to a 2% drop in the USA. However, by 2015 the economic and political condition deteriorated. Inflation rate grew to 9% in 2015, interest rate doubled to 14.25% in July 2015, commodity price plunged, BRL depreciated and GDP dropped 3.8% in 2015 and 3.6% in 2016⁵. In 2016, President Dilma Rouseff was impeached.

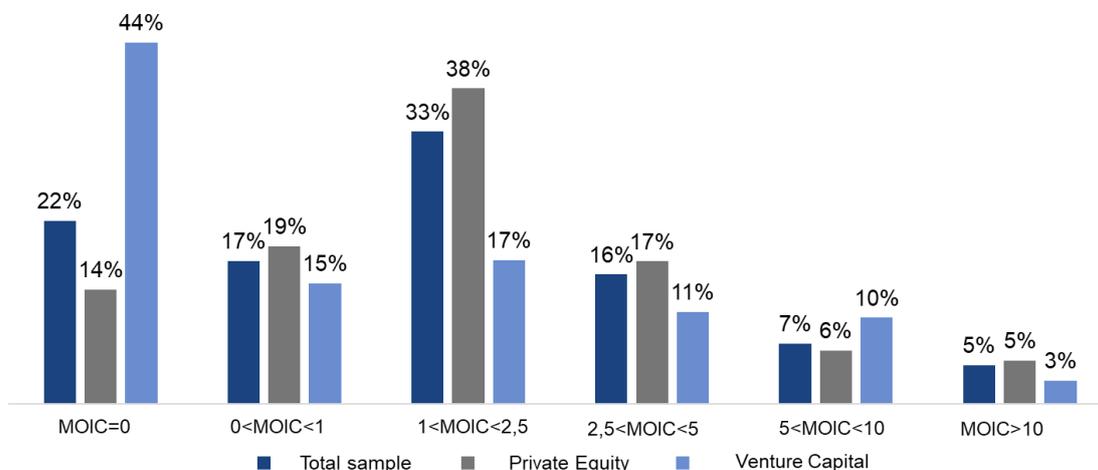
Despite the recent crises, the PE/VC deals performed well overall in the period between 1994 and March 2018. The average gross MOIC in USD (multiple of invested capital) was 2.6x and the median was 1.3x. The maximum MOIC for PE was 34x and for VC was 60x (see Exhibit 7). More than 60% of the deals had positive return (MOIC higher than 1.0x), and near 30% returned more than 2.5x invested capital (see Exhibit 8). VC deals, as in the global industry, had a high write-off percentage of 44%, but the 13% of deals with outstanding returns drove the mean MOIC to 2.3x for VC deals.

Exhibit 7. Performance of PE/VC deals in USD between 1994 and March 2018



⁵ EMPEA 2018. The Shifting Landscape for Private Equity in Brazil. Empea Brief.

Exhibit 8. Histogram of PE/VC gross MOIC in Brazil in USD – 1994 until March 2018



In order to analyze the effect of the deterioration of the Brazilian economic condition after 2015, we split the PE and VC samples in two: deals that were not affected by the deterioration, that is, invested and divested between 1994 and 2014, and deals affected by the crises, that is, with exits in 2015 or after.

We observe that the PE industry was negatively affected by the crisis, mainly due to the currency devaluation. The mean gross MOIC in USD, which was 2.8x for deals exited between 1994 and 2014, dropped to 1.8x for the deals exited from 2015 onwards. The impact on the MOIC in BRL was much smaller, falling from 3.2x to 2.9x (see Exhibit 9). We also observed that, despite the fact that 85% of the deals impacted by the crisis had a MOIC higher than 1.0x in BRL, only 58% had positive returns in USD, (see Exhibit 10).

Although the currency devaluation also negatively impacted the performance of the top VC investments in USD, it did not obfuscate the sector’s triumph. The mean MOIC in USD for exits until 2014 was 2x and it more than doubled to 4.8x for the deals exited in 2015 or after. The maximum MOIC in USD also increased from 33x to 60x (see Exhibits 11 and 12). This is mainly explained by the fact that the VC activity in Brazil intensified after 2010, with the increase in the number of domestic VC and foreign VC funds co-investing in Brazil, as well as more angel capital, accelerators, incubators and co-working spaces. In 2018, Brazilian VC industry presented its first unicorn: 99 Taxi.

Exhibit 9. Gross MOIC of Private Equity deals not impacted versus deals impacted by the economic deterioration after 2015

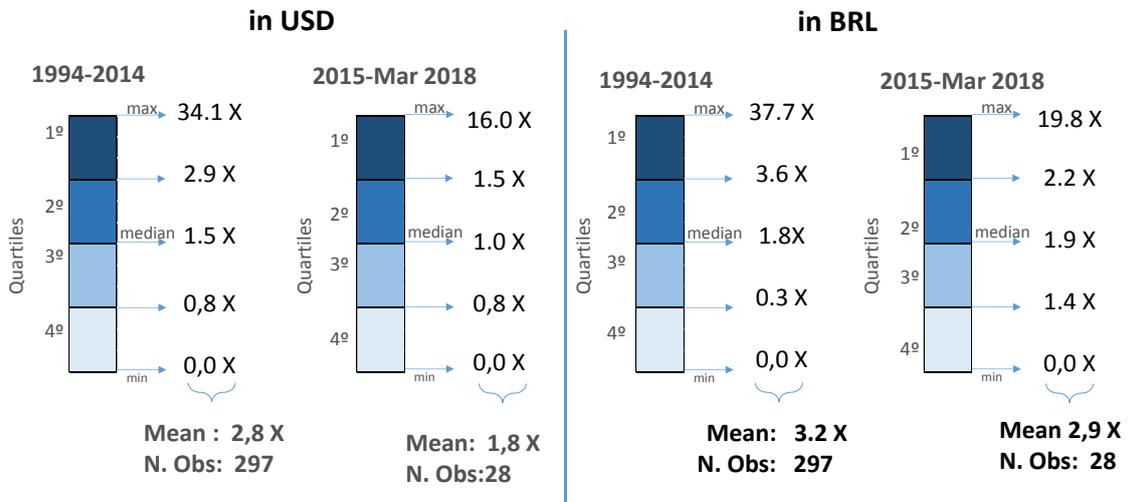


Exhibit 10. Histogram of MOIC of Private Equity Deals impacted by the economic deterioration after 2015

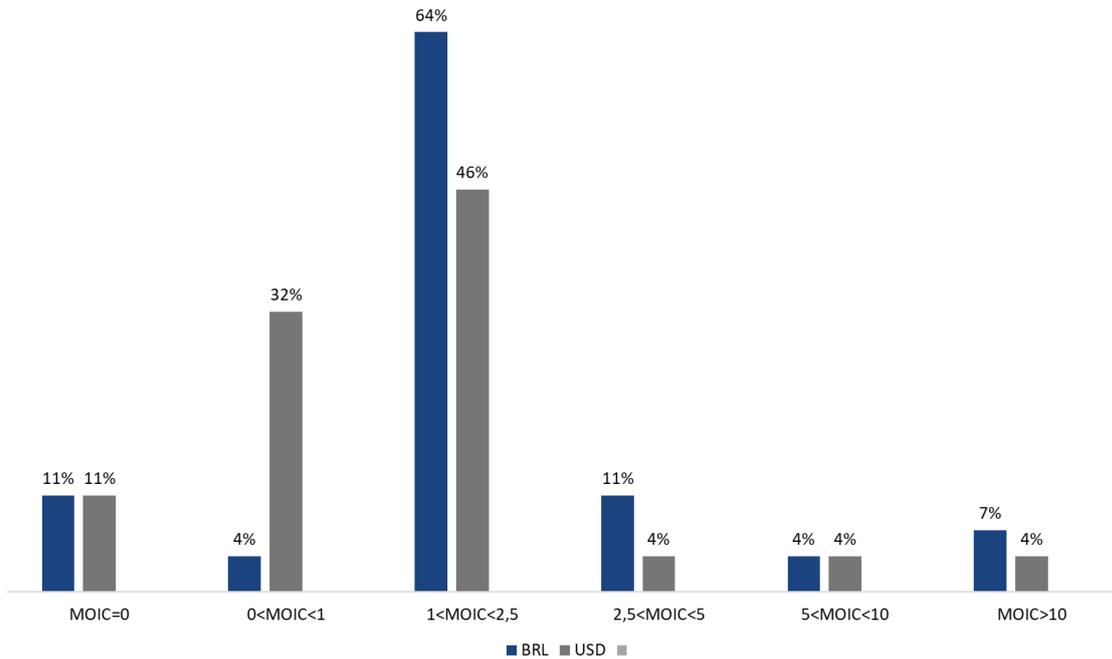


Exhibit 11. Gross MOIC of Venture Capital deals not affected versus deals impacted by the economic deterioration after 2015

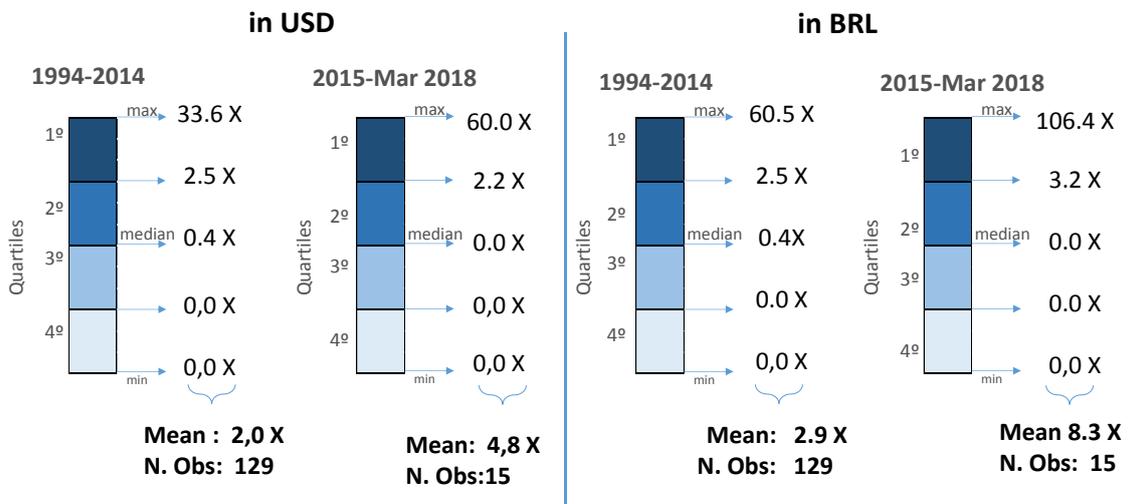
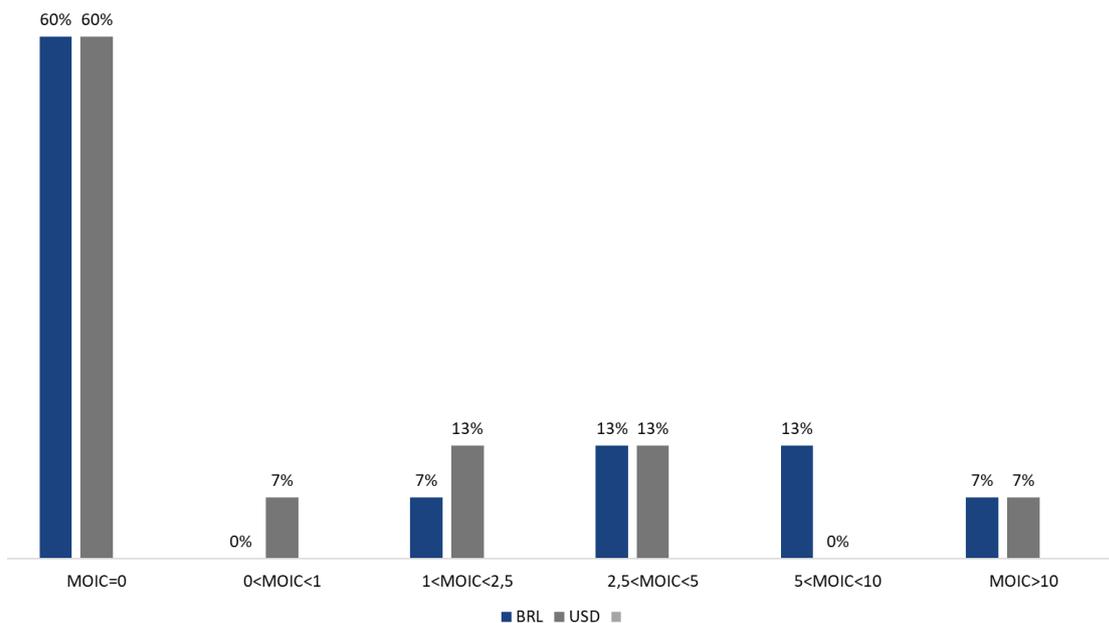


Exhibit 12. Histogram of MOIC of Venture Capital deals impacted by the economic deterioration after 2015



⁶ The mean MOIC of those excluded funds is 1.5, the maximum is 2.8 and the minimum 0.1.

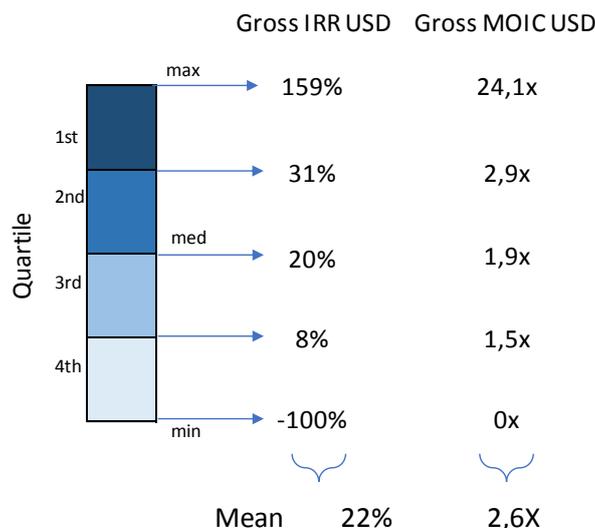
Performance of PE and VC funds in Brazil

We only analyzed the performance of funds with focus in Brazil which divested more than 70% of its portfolio. Therefore, we excluded all funds raised after 2010. We also excluded 9 funds that disclosed performance in BRL, but not in USD. Our final sample had 88 funds raised in BRL or in USD.

The Brazilian PE funds raised between 1981 and 2010 performed well in USD on average. The mean gross IRR in USD is 22%, and the mean gross MOIC in USD is 2.6x. Like the international industry, there is a high dispersion among the top and worst performers, with a maximum IRR equal to 159% and a minimum of -100% (see Exhibit 13). The median gross IRR across vintages is reasonably stable around 20%, oscillating between 16% and 23%. We notice an improvement in IRR of the top performers raised after 2002, as well as the worst performers. The minimum IRR stabilized at a level above -20%. (see Exhibit 14).

The Brazilian first and second quartile funds in the domestic industry would be ranked the same or higher in the global industry (see Exhibit 15). As we have only gross performance, we made a conservative estimation of the net IRR by multiplying the positive ones by 70% and the negative ones by 125%.

Exhibit 13. Performance of Brazilian PE/VC funds raised between 1982 and 2010



Exit and Holding Period

Despite the volatility of the local capital market, exiting does not seem to be a problem for PE managers in Brazil. Note that the percentage of Brazilian PE active deals (in the portfolio) according to the year of investment is similar or even lower than the percentage of global PE deals⁷. For instance, observe in Exhibit 16, Panel A, that in March 2018,

⁷ In this analysis we only include PE deals (growth and buyout, excluding VC and other strategy investments), because Previn analyses is based only on PE deals. This comparison gives a rough idea about the relative exit profile of Brazilian PE deals. As we are not comparing the same year of investment in Brazil versus world, we ignored year effect.

61% of the Brazilian deals invested in 2009 (9 years before) were realized (sold), and 39% were active (in the portfolio). Panel B has a similar analysis realized by Preqin⁸ in 2015, which shows that, in 2015, 52% of the global deals invested in 2006 (9 years before) were realized and 48% were active.

Exhibit 14. Gross IRR of Brazilian PE/VC funds according to vintage

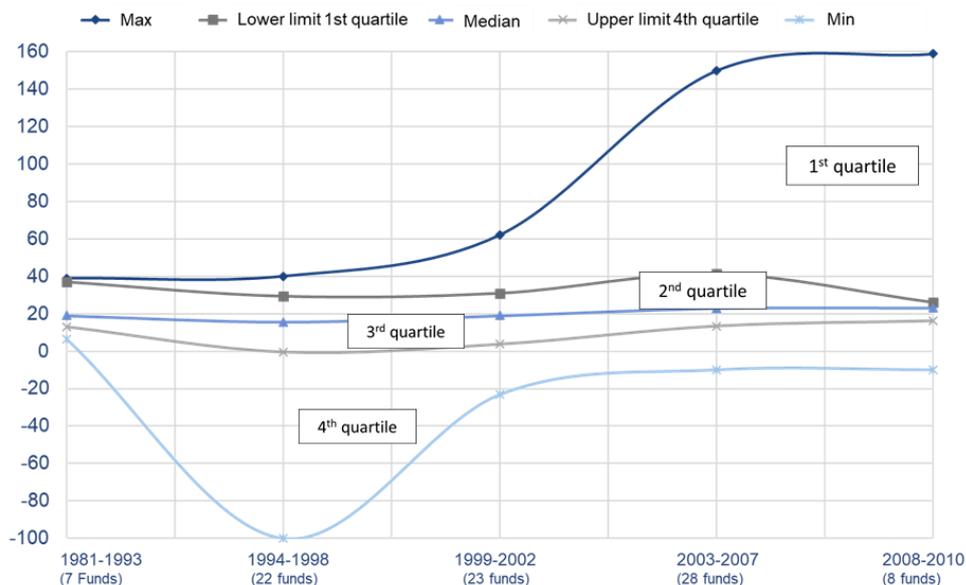
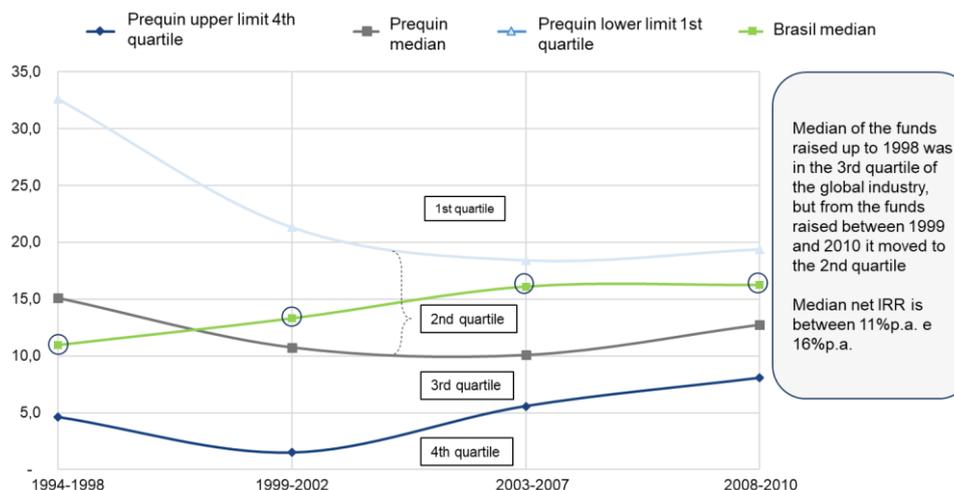


Exhibit 15. Brazilian median net IRR⁹ in USD versus Global median net IRR



The mean holding period of Brazilian VC/PE deals is 4.4 years, lower than the current international mean, which is around 5 to 6 years. Three quarter of the Brazilian deals

⁸ Preqin 2015. Buyout Holding Period. Available at <http://docs.preqin.com/newsletters/pe/Preqin-PESL-May-15-Buyout-Holding-Periods.pdf>

⁹ Estimated as 75% of gross IRR if positive and 125% of gross IRR if negative

invested and exited between 1994 and March 2018 had a holding period of less than 6 years. The maximum holding period was close to 14 years, and the minimum around 1 month (see Exhibit 17).

Exhibit 18 shows the evolution of the average holding period of Brazilian and international Private Equity deals, according to the year of exit.¹⁰ The holding period of international PE deals was below 4 years and has increased after 2008, reaching a peak of 6 years in 2014, and stabilized around 5 years after that. The increase in the holding period reflects in the first moment the difficulty in exiting deals during economic recession, forcing the funds to stay invested for longer periods. After the economy recovered, the long holding period is a consequence of the higher competition in the private equity environment. Bain & Co.¹¹ argues that in 2017 there were USD 1.7 trillion of dry powder in the PE industry, which has increased average acquisition multiples. Consequently, fund managers must hold the deals for longer period in the portfolio to implement more aggressive value creation actions to compensate the drop in the arbitrage opportunities.

The holding period of Brazilian deals followed an opposite path. See in Exhibit 18 that the average holding period was around 6 years until 2008, and it has decreased since then to a low of 3.6 years in 2014. After 2015, it has increased again to around 5 years, pairing with the international average. The longer holding period until 2008 is explained by the fact that Brazilian fund managers sold deals that were in the portfolio for a longer period, in order to benefit from the hot market between 2005 and 2008. The shorter holding period until 2014 also reflects fund managers benefiting from hot market windows from 2010 until 2012, but this time they were divesting deals that weren't in the portfolio for that long. As the economic condition deteriorated after 2015, the average holding period increased again.

See in Exhibit 19 that one third of the PE deals invested and divested between 1994 and March 2018 are flippers (holding period shorter than 3 years), one third had holding periods between 3 and 5 years and the remaining third higher than 5 years. PE fund managers time their exits according to the market. They benefit from hot market windows to sell deals that were waiting for better economic conditions, and therefore were invested a long time ago. PE fund managers also flip deals in hot market windows, since it is uncertain for how long they will remain hot. In a previous report¹², we found that in high price earnings ratio periods, the probability that a PE fund will sell a deal increases five times when compared to periods with low price earning ratios.

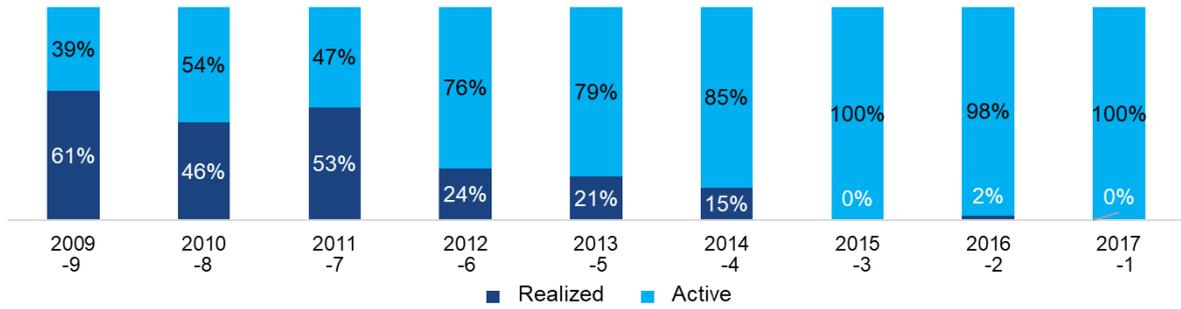
¹⁰ This analysis considers only Private Equity deals, excluding VC and other theses.

¹¹ Bain & Co., 2018. Global Private Equity Report. Available at <https://www.bain.com/insights/global-private-equity-report-2018/>

¹² Insper and Spectra, 2017. Hot Market in Brazil and the Exit Rate of Brazilian Private Equity Deals. Available at <https://www.insper.edu.br/wp-content/uploads/2017/10/Hot-market-Brazil-exit-rate-Brazilian-private-equity-deals.pdf>

Figure 16. Percentage of PE deals realized and active according to investment year

Panel A. Brazilian Deals



Panel B. Global Deals (Preqin)

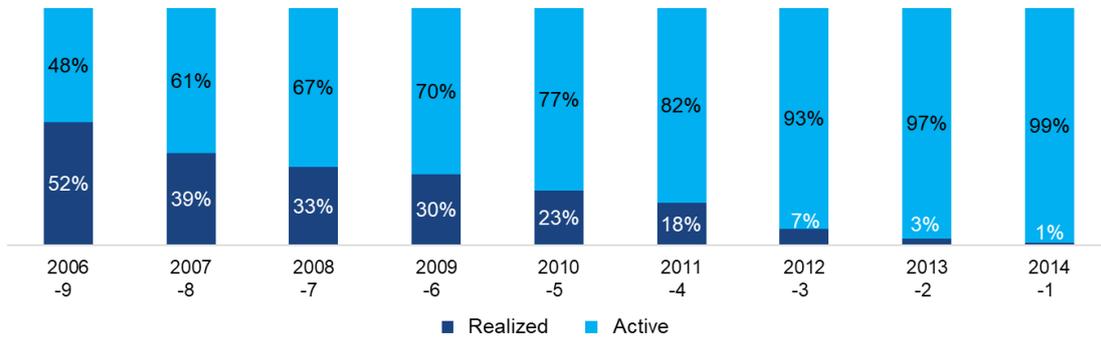


Exhibit 17. Average Holding Period of Brazilian PE/VC deals (invested and divested between 1994 and March 2018)

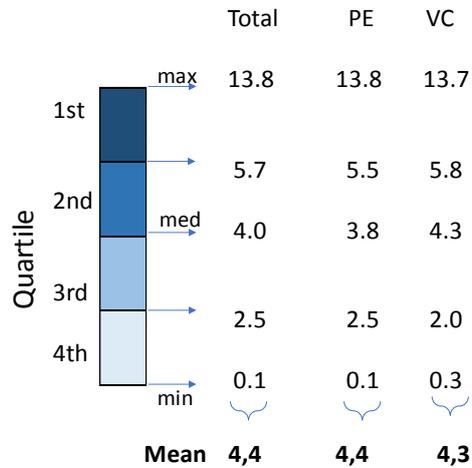


Exhibit 18. Average holding period per year of exit of Brazilian PE deals versus Global Private Equity Deals

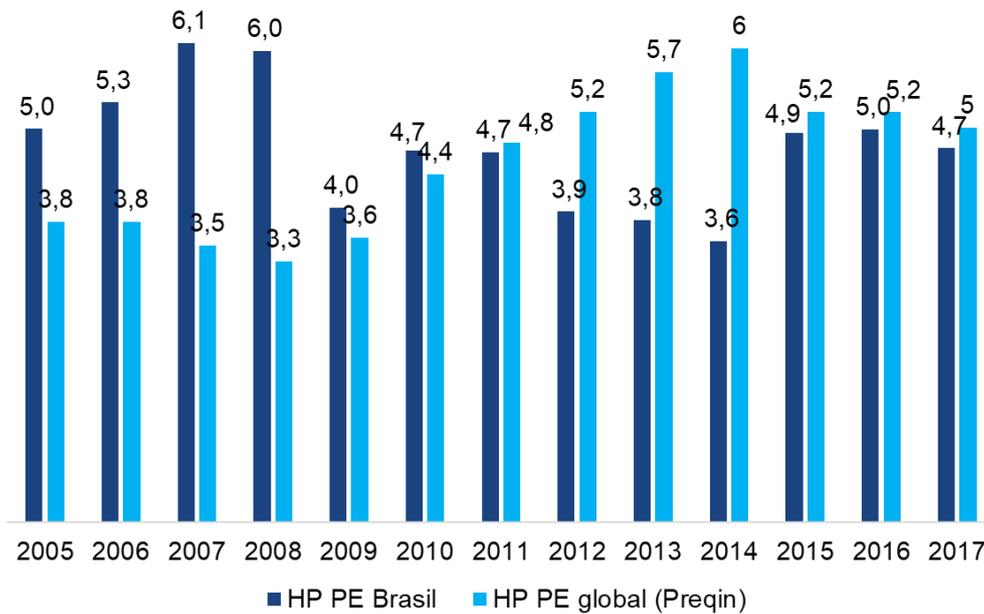


Exhibit 20 compares the distribution of the holding period according to the year of exit of international PE deals to Brazilian PE deals. Observe in Panel B that the percentage of flippers are decreasing in the international PE market. It started at 40% in 2005 and decreased to around 15% in 2017, reflecting the need to hold deals for a longer period to implement more value creation initiatives. The percentage of flippers in Brazil, on the contrary, has increased. It remains high, in the 30% to 40% range, reflecting the fact that Brazilian PE fund managers time their exits to exploit hot market windows and increase the return of their portfolio, decreasing the Brazilian currency risk.

Note in Exhibit 19 that 33% of Venture Capital deals exited and invested between 1994 and March 2018 stay less than 3 years in fund portfolio, 26% stay between 3 to 5 years and 41% have holding periods superior than 5 years. The higher percentage of deals held for more than 5 years is proves the development of the Brazilian early stage ecosystem, with VC funds financing further rounds of successful deals, consequently growing the business and achieving higher returns. The 33% of exits which took place in less than 3 years are probably deals that were not going well, and that were written-off or sold to avoid distraction or inefficient use of capital and human resources.

Exhibit 19. Distribution of the holding period of Brazilian PE/VC deals

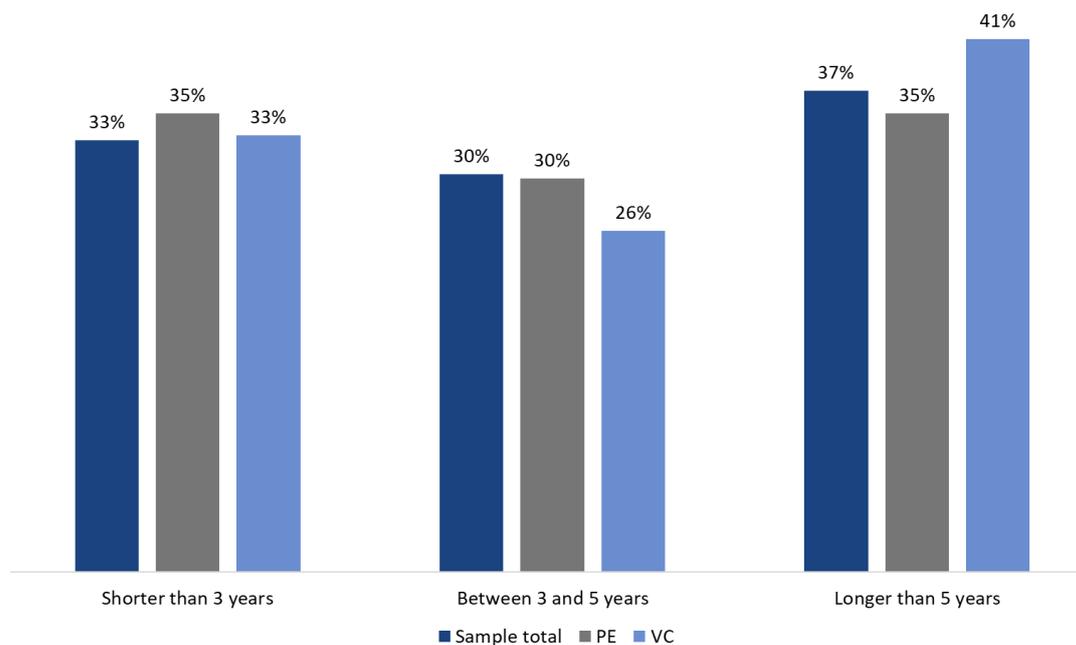
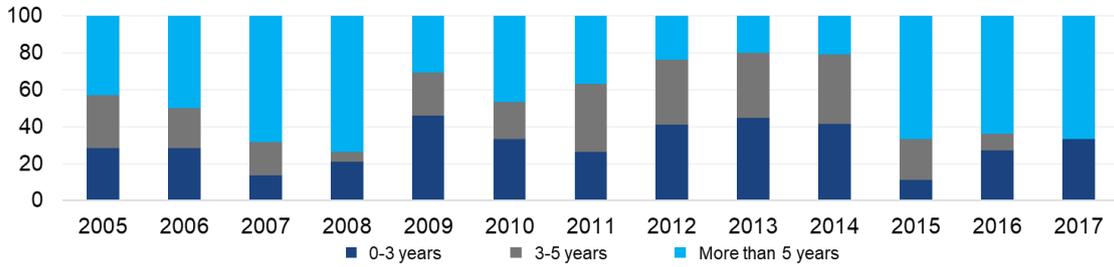
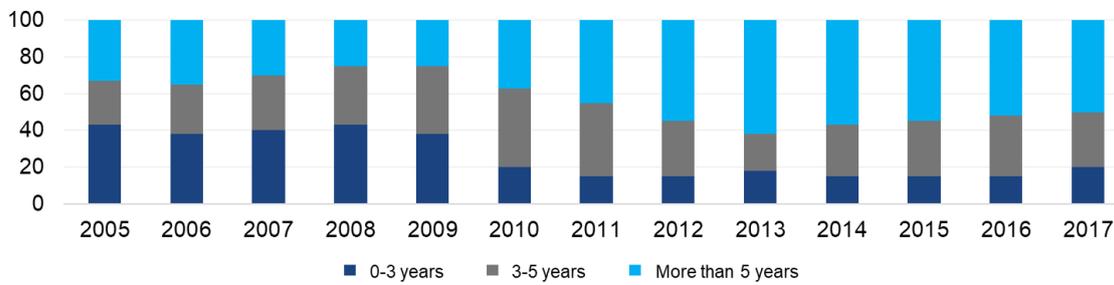


Exhibit 20. Distribution of the holding period of PE deals according to the year of the exit

Panel A. Brazilian PE deals



Panel B. International PE deals (Preqin)



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