ICADE BUSINESS SCHOOL

Private Equity: The Essence

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In order to break the rules,
you must first master them.

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ABSTRACT

The objective of this paper is to unveil the Private Equity industry. The main goal of this paper is to provide the reader with a new perspective about Private Equity, so he/she can move from the typical analytical perspective, which will be of course present, to a more practical viewpoint. Ultimately, this paper is intended to enable the reader to picture the practical and strategic approaches and day to day operations that Private Equity funds experience. This paper firstly covers the investment categories, from where PE Funds usually operate, to then go through the natural steps that any Private Equity fund would need to take in order to start investing. Once this has been done, I will walk through the origin and evolution of the Private Equity Industry and I will assess the drivers that have pushed PE along the two main waves it has experiences. After this, and in order to contextualise this paper, I will recognise the potential threats the measures of PE performance may face nowadays, whilst assessing the different measures of performance that are particular to this industry. To continue, I will illustrate the different purchase strategies that PE Funds follow when investing and, in order to conclude, I will explain the different exits that are available to PE Funds when divesting assets.

I. INTRODUCTION

A lot has been written about the Private Equity Industry, an industry that first emerged in the early 1980s, period when it evolved rapidly, particularly in the U.S. Since then, private equity funds have increased exponentially from $0.2 billion under management in 1980 (according to figures given by Kaplan and Strömberg, 2008)[1] to over $2.4 trillion in 2015, according to Preqin.[2]

It seems like it is always a good time to talk about Private Equity (henceforth referred to as PE), but maybe today there are bigger and better reasons than before, as numbers suggest. In 2015 we saw an increase of $288 Bn. In the aggregate capital raised by Private Equity funds, which was accompanied by a 9% increase dry powder[3] compared to the year 2014. As in June 2015, there were $2.4 trillion. of assets under PE Fund's management, which led to $189 billion of capital distributions in the first half of the year 2015.

But not only numbers have encouraged me to choose PE as my Master's Final dissertation, but also literature.

During the last years of the last century (especially in the late 80s and 90s) some authors evaluated the impact if Private equity ownership on firm's performance encouraged by the first

[1] Kaplan, S.N. and Strömberg, P. "Leverage Buyouts and Private Equity". NBER Working Paper No. 14207, 2008

[2] 2016 Preqin Global Private Equity & Venture Capital Report.

[3] Dry powder is a term that refers to the amount of cash reserves or liquid assets available to deploy, when needed.

Private Equity wave". Kaplan (1289); Smith (1990); Lichtenberg and Siegel (1990). All these authors found wealth gains (alpha if you will) in the portfolios of PE Funds, but those studies seem a bit far in time.

Nevertheless, the most recent PE wave (2000s) prompted more studies regarding performance, abnormal returns. In this period, unlike in the previous one where all studies turned out consistent among the others, findings differ between researches. Neither Leslie and Oyer (2008) nor Guo, Hotchkiss and Song (2009) found evidence of abnormal returns in LBOs operations, challenging the status quo stablished in the 90s. These studies were inconsistent with the ones performed by Nikoskelainen and Wright (2005), where they assessed that PE deals generated 22%return in Enterprise Value and 70% in Equity Value In the same year, Harris, Siegel and Wright (2005) found solid evidence of abnormal performance in MBOs.

Kaplan and Schoar (2007) jumped into researching abnormal performance as well, but from a different perspective, and they were successful in finding a correlation between the human capital conforming PE funds and performance, concluding that General Partners do add value to the portfolio of companies managed by the PE Fund.

All these studies are quite consistent with another one performed by Acharya et al. (2011) where they successfully identified operational improvement with PE ownership. According to them, operational ratios improved under the light of Pes and the PE Partners where core for this improvement, as they found correlations between the background of the partner (operational or financial) and the later improvement of the company.

And all of these studies are also consistent with the latest one of its kind, which was done by Harris, Jenkinson and Kaplan in 2013 and that might have been the most extensive one, as it assessed the performance of 1.400 PE Funds focused on Buy-outs and Venture Capital. They found that Funds focused on LBO had a positive performance of 3% a year from the 1980s to the 2000s, net of fees. Regarding the latest funds, they assessed a "substantial" outperformance net of fees. In the Venture Capital side, this same study found that VC Found did outperform the market until the late 1990s but that the history has changed, as they determined that VC Funds underperform the market in about 5% since 2000.

All of these studies regarding performance are widely explained in the next chapters, but this paper will not only focus on performance. I intended this paper to offer the most practical picture of Private Equity, going from the different strategies Private Equity Funds can choose to then give a clear idea of the structure of a PE funds and the steps that every GP would need to take in order to stablish as a Fund. I go over the economics of PE funds and I identify the essential concerns both parties will have regarding this point. I try to contextualise the PE industry within a framework plotted 30 years ago and I brliefely identify the main drivers of the PE industry, even though they will be affected different depending on the strategy.

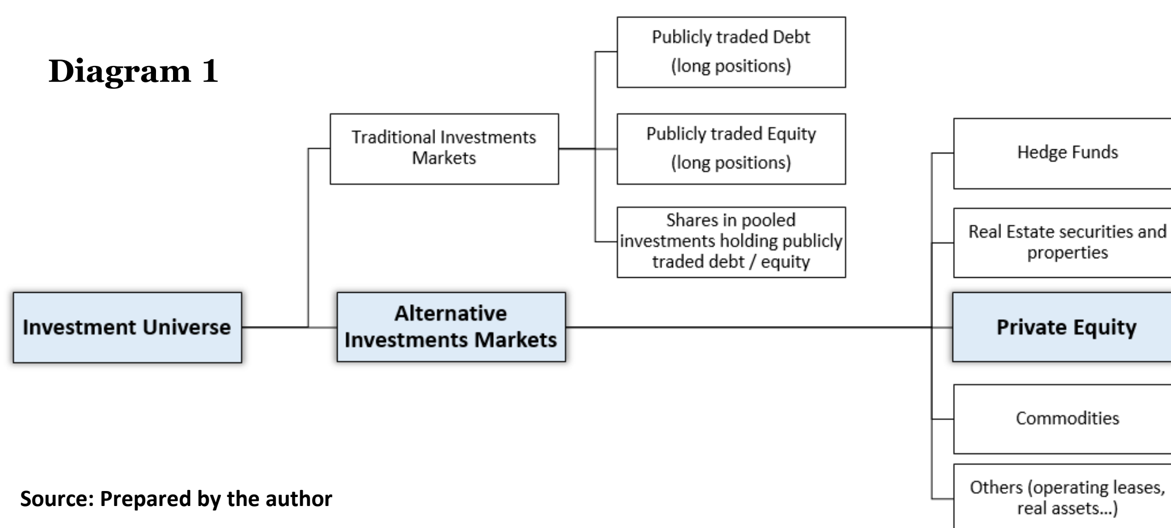
An analysis of the performance particular of this industry is of course due, but this alone would not differentiate this paper, unlike the analysis of purchase and exit strategies that will follow this assessment of performance.

Overall, this could be considered a guide to the rules that govern Private Equity. I honestly hope after reading them you will be interested in playing.

II. WHAT IS PRIVATE EQUITY

Even though some authors have been using "private equity" and "leverage buyout" interchangeably in the last years, the current private equity landscape urges me to clarify the differences between concepts such as Private Equity, Leverage Buyouts and Venture Capital, to name but a few.

In order to pinpoint where Private Equity stands within the extensive investment universe, I will like to summarise its position with the help of the following diagram:



Within the world of Alternative Investments, Private Equity (henceforth referred to as PE) mainly addresses investments in privately owned companies, meaning they trade directly between investors rather than through organised markets (Ang, A. and M. Soresn, 2012[4]). However, in some occasions PE investments can be done over public companies with the intent of making them private[5]. PE investments can range from leverage buyouts (where the PE Fund finances the operation with leverage) to Mezzanine or special situation's investments, as we will see.

As Private Equity investments are undertaken in private markets, PE firms face one extra challenge inherent to these markets: opacity (or asymmetric information). As private companies are not subject to public regulations, they do not have, for instance, transparency or publicity requirements particular of public markets, making every potential valuation far more challenging. By the same token, this opacity sets a "barrier of entrance" to investors as many investors are not willing to take the risk. This implies that the PE positions do not have an active market, which inevitably comes along with a lack of liquidity in those positions.

Before submerging more in depth into Private Equity, I will introduce and briefly describe some of the different categories we can find within PE investments in the following lines.

[4] Ang, A. and Soresen, M. 2012 "Risks, Returns, and Optimal Holdings of Private Equity: A Survey of Existing Approaches".
[5] Bain Capital, founded by the latter presidential candidate Mitt Romney, invested in both private and public equity, the latter one with the intention of making them private.

1. Leverage Buyouts (LBO): in an LBO a company is acquired by a PE fund using a relatively small portion of equity and a relatively large proportion of outside debt financing, this is from 60 to 90 percent debt (Kaplan and Strömberg, 2008[6]). Since the debt portion in the buy-out is quite large, funds will separate its issuance in two main portions: senior secured debt (which will range from loans to bonds, including Collateralised Loan Obligations[7] or "CLO") and junior, unsecured debt (extending from "mezzanine debt" to "High Yield Bonds"). LBO strategies are generally undertaken by poorly run public firms with the purpose of making them public and, once they have been improved, making them public once again.

   We can differentiate between four types of LBO's:

   a. Management Buy-outs (MBO's), where the current management team is involved in the acquisition. As an examples, after the failed acquisition of O2 by Hutchison due to regulators blocking the operation, O2's CEO Ronan Dunne, planned what would be the greatest UK management buy-out since the 2007 financial crisis.
   b. Management Buy-ins (MBI's), where the current management is replaced and the acquirer gets involved in the company management. The new owner will therefore be the new management team. This actions will be, in most cases, a response to a company appearing undervalued (or with a poor management team not delivering the value the company is able to attain). As I will explain in further chapters, PE Funds are experts in achieving high returns not only through the improvements done over the portfolio company, but also due to their ability to buy low and sell high.
   c. Leverage buy-ins are quite popular among PE Funds as they give the GPs both leverage (to enhance returns) and control over the company (through the management).
   d. Buy-In Management Buyout or "BIMBO" is nothing more than a combined operation between existing (MBO) and outside (MBI) management. This alternative has the best of the two options in one, as the existing management will most likely ease the transition by bringing to the table its knowhow and experience within the company, while the outside management adds new expertise unknown by the existing management. But even though the potential benefits are clear, tension may arise between the two managements, ultimately affecting the company's performance.

Due to the wave of PE transactions that both Europe and the U.S. experienced between 2001 and 2007, extensive literature has been written about LBOs (as they were the stars during this booming period). Much of the literature was focused on assessing whether or not LBO transactions do increase value for the companies

[6] Kaplan, S.N. and Strömberg, P. "Leverage Buyouts and Private Equity". NBER Working Paper No. 14207, 2008

[7] For more detailed information regarding CLO, please see "Risk and Valuation of Collateralized Debt Obligations", by Duffie, D., and Gârleanu, N. 2001. Financial Analyst Journal.

they acquire, and after having gone over a few papers, the findings differ between authors.

While Guo, Hotchkiss and Song (2009), Leslie and Oyer (2008), Siegel and Wright (2007) find weak or no evidence of enhanced performance over target companies, Lerner, Sorensen and Strömberg (2008) provide evidence of not only enhanced performance, but improved innovation. To sum up, Cumming, Siegel and Wright (2007) state that "there is a general consensus that across different methodologies, measures and time periods regarding a key stylized fact: LBOs and especially MBOs enhance performance and have salient effect on work practices"[8]. This study is complemented by the one undertook by Cao and Lerner (2007) where they found positive stock performance in those companies who decided to go through an IPO.

2. Venture Capital (VC)**:** consists in undertaking investments aimed at young or emerging companies with high growth expectations where the "acquirer", despite investing via equity, does not take majority control of the target company (unlike in LBO's). This type of investing differs from all the others mentioned in this section (besides Angel finance) in the sense that VC investments are aimed towards smaller companies, hence a higher degree of informational opacity. Despite distressed investing or development capital eventually being invested in smaller companies, VC and small companies are consubstantial of each other.

   Due to the nature of VC, Venture Capitalists will not only need to perform the screening, contracting and monitoring, but will also need to define the exit strategies. In order to perform these functions efficiently and effectively, the nature of the investments undertaken by VC demands from the GP´s to become involved in the strategic planning and sometimes even in the operational decision making.

But these strategies are not undertaken just by individuals, or General Partners. Many large companies also created VC funds as a subsidiary to nurture and bring externally developed new ideas to the market. Even though these companies could perfectly develop these ideas internally they decided to do so externally in order to create an "independent" company not subject to restrictions and limitations that the parent might have had regarding investments or R&D for instance.

This would mean freedom for the parent company through its subsidiary, but it also carries (and carried, as I will develop in upcoming paragraphs) drawbacks.

First, both the parent company and its subsidiary(ies) might come across conflicts of interest such as self-dealing, corporate opportunities and disclosure[9]. On top of this, Corporate VC Funds usually require a rather wide time horizon in order to cash out initial investments, but this time horizon might be too long for

[8]Cumming, D., Siegel D., and Wright M. "Private Equity, Leveraged Buyouts and Governance." *Journal of Corporate Finance* 13 (March 2007): 17

[9] Zenichi Shishido, Conflicts of Interest and Fiduciary Duties in the Operation of a Joint Venture, 39 Hastings (1987)

the parent (as shareholders would require the parent company to have performing assets).

Moreover, the natural founders of Corporate VC funds are tech companies, and even though the update is quite clear (potentially achieving a break-through within the tech industry), this does not help parent companies in diversifying their operation, in diminishing idiosyncratic risk. Quite illustrative is the example of the Corporate VC fund Dell established in 1999 called “Dell Ventures”. This VC fund focused on the Internet economy and, even though this fund is still alive, Dell lost about $200 Million in 2001 just on “Dell Ventures” in addition to $1 Billion on its general investment portfolio.

With that being said, Corporate Venture Capital Funds are more than present in our economy and the most interesting part of this is that they are not only established by corporations anymore: Endowment funds and other players have come into the arena of VC and have had established their own Corporate VC Fund. Some other examples are Intel, Microsoft, the MIT, Stanford, HP and Xerox among others.

3. Development Capital (or minority equity investing): aims to invest in mature companies that have capital needs for expansion, restructuring, undertaking acquisitions or an intention to enter in new markets. They range from PIPE transactions (Private Investment in Public Equity) to pre-IPO (Initial Public Offering) strategies.

   PIPE’s were particularly popular in the 1980s and still are today, despite the 15 to 20% premium that PE firms usually need to pay for them[10]. As Grossman and Hart originally stated in 1980[11], this premium can be attributed to the fact that the shareholders of the targeted firm will not sell unless they gain more than the intrinsic gain linked with the merge.

4. Distressed Investing**:** very broadly, distressed investing consists in buying a company’s distressed securities (either debt or equity) at a discount due to some financial difficulty the company might be suffering. Within this ground both Hedge and Private Equity Funds operate, but while the first one will mainly focus on distressed equities, the second one will usually trade on distressed debt.

   Despite the lack of consensus regarding the definition of distressed debt, a commonly accepted view defines distressed debt as a security trading with a yield to maturity of 1.000 basis points (BPS) greater than the comparable treasury security. Of course the 1.000 spread is mentioned for illustrative purposes since both the spread as well as the benchmark are subject to variability depending on the market and the conditions within it.[12]

   The companies who issue these securities are companies (i) in default, (ii) under bankruptcy protection or (iii) in distress and heading towards default, so by

[10] Grossman, S.J., and O.D., Hart. “Takeover Bids, the Free-Rider Problem, and the Theory of the Corporation” *The Bell Journal of Economics* 11 (1980).

[11] Ibid., p6

[12] In 2008, for instance, the spread necessary to consider a security in distressed raised up to 1.200 BPS.

purchasing distressed securities, "turnaround" investors (PE Funds) become active in either the management (if the company does not default) or in the restructuring process (if the company ends up defaulting).

General Partners within PE Funds typically use two categories of indicators when identifying distressed investment opportunities: Market indicators[13] (convenient to assess the timing of the investment) and Company indicators[14] (suitable to determine which opportunities there are in the market).

5. Special Situation Investments**:** are made upon the attempt to profit from a change in a company's valuation due to the occurrence of a potential event, such as spin-offs, mergers or acquisitions, or tender offers. It is an all-encompassing strategy, and I would say it increases every day thanks to the new possibilities brought by financial engineering. Despite the broadness of the term, there seems to be an understanding upon the time horizon in "special situation" strategies since PE funds undertaking them will have short-term investment horizons.

6. Angel Finance**:** even though these type of investments are not undertaken by private equities; I would like to briefly touch upon them as it turns out to be a category tightly linked with venture capital. In this line of argument, Berger and Udell (1998) state that, in most cases, VC and Angel finance complement each other in the first rounds of finance carried out by small and adolescent firms[15].

   Business angels, by definition and by SEC regulation, are high net worth individuals who directly invest in small companies through equity (typically common stock). The angel finance market differs from other sorts of external finance in that this market is not intermediated. In short, both the Angel Capital Association and papers like (i) "Angel finance: the other venture capital" (Wong, Bhatia and Freeman); (ii) "Angel financing and public policy: An overview" (Lerner) and (iii) "Angels and informal Risk Capital" (Wetzel Jr.) will shed some light over the angel finance world.

Regardless of the playing field for Private Equity Firms (LBO and VC), they all share the same essence: firms will use industry and operational knowledge (their own or the one acquired through consulting firms) in order to detect attractive investments to later develop and implement a value creation plan. This might sometimes mean cost-cutting, improvement in productivity or strategic changes.

[13] Overall economic conditions, proportion and quantity of lower rated debt, default rates, capital market indexes like the iTraxx and the Crossover

[14] Debt ratings, Credit risk Models (specifically the Z/Score model developed by Edward Altman) and debt market prices relative to equity.

[15] The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. Berger N., B and Udell, G.F. Journal of Banking ¬ Finance (1998).

III. THE PROTAGONISTS: PRIVATE EQUITY FUNDS

PE Funds are the instruments or vehicles through which Private Equity investments are undertaken by PE Firms. These funds are generally[16] set up through a Limited Partnership Agreement (LPA) between a General Partner (GP's, which will be the PE firm) and Limited Partners (LP's, the investors) like university endowment funds, insurance companies, and pension funds. Even though Limited Partners account for roughly 99%[17] of the fund's total capital, they usually receive 80% of the fund's profits while GP's will obtain 20% of those profits plus management fees.

A very natural concern at this point would regard committed capital. LPs commit almost 99% of the total capital, capital that will be managed by a manager with only a 1% or 2% stake on it. LPs would therefore seek to protect their investment in different ways, not only pursuing a higher commitment from the GP's side, but also establishing a range of restrictive clauses (negative covenants) and effective obligations (positive covenants) that GPs would need to pledge to, if they were to raise capital from LPs. This set of positive and negative clauses will be further discussed in this same chapter.

Also, like in any two (or more) parties' agreement, there will be agency problems which could lead to agency costs. Some of the agency problems that could potentially arise in the PE Industry are the following:

- Risk shifting: as I mention in section "b" of this chapter, the PE Fund's fee structure encourages GPs to assume excessive risks in order to achieve higher returns, but since they do not participate in the Fund's losses, they would be willing to take more risks, therefore shifting the risk towards investors. A more detailed explanation is given in future pages.
- In case of young PE Funds, they will be more likely to invest in riskier and more profitable projects as they would not bare the loss or "reputational capital".
- Empire building: GPs could be more interested in growing big (since the management fee would be greater) rather than focused on the actual fund's performance.

In order to avoid (or at least diminish) these potential problems, GPs can offer (or LPs can ask) for certain securities. Smart security designs can indeed alleviate some agency problems because they can be designed to be either debt or equity, meaning that the holders of these securities (LPs, lenders) would be able to enter into the Fund's equity - were they to realise the performance for GPs is greater than for them, LPs. Preferred shares, convertible preferred shares and convertible debentures are all part of these securities.

a) Structure: How are they established?

What is characteristic of these LPA's is that the risk borne by the two parties is completely different, while the LA's are only liable up to the maximum amount of its investment, the GA's

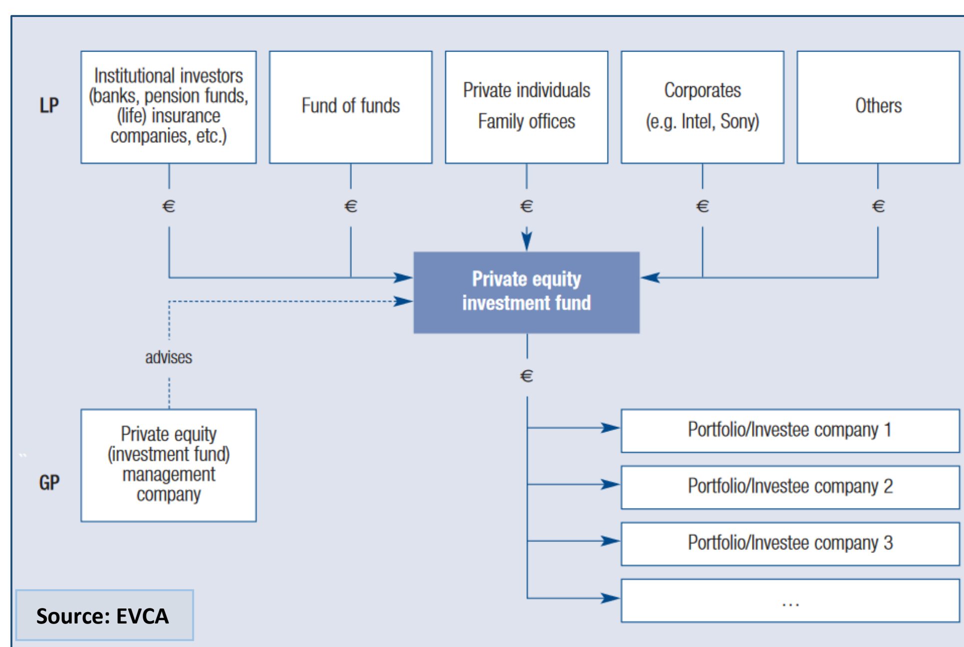
[16] According to Hongda Zhong,Corporate Finance professor at the London School of Economics, 80% of funds are limited partnerships, being the remaining 20% corporates.
[17] Kapplan, S. K., and Strömberg, P. "Leverage Buyout and Private Equity" (2008).

are fully liable "to the market", meaning that they have to bear any debt and obligations linked to the investment.

Once the LP's sign to be part of the fund, they do not make payments associated with the "signing", like other funds do. LP's make capital commitments (capital pledges by investors in private equity funds[18]) which are fulfilled upon request by GP's, who will use this money to either invest in portfolio companies or pay the fund's ordinary expenses. General Partners, will therefore make "capital calls" or drawdowns whenever they find a company to invest in. These capital calls generate the so called "commitment risk".

Besides suffering from "commitment risk", these investments are considered to be quite illiquid as they will be tied up for a predetermined amount of time (generally until divestment). Of course, LP's invested on PE funds will demand a better performance of them, making it necessary for me to address the performance of the PE industry, which I will cover in Chapter 4. Upon portfolio realizations (sale of the investments within the portfolio), both the principle and the return generated by the GP's will be returned to the investors as soon as feasible, as long as the fund does not have "reinvestment" provisions, which would require the gains to be reinvested in future investment opportunities.

Diagram 2

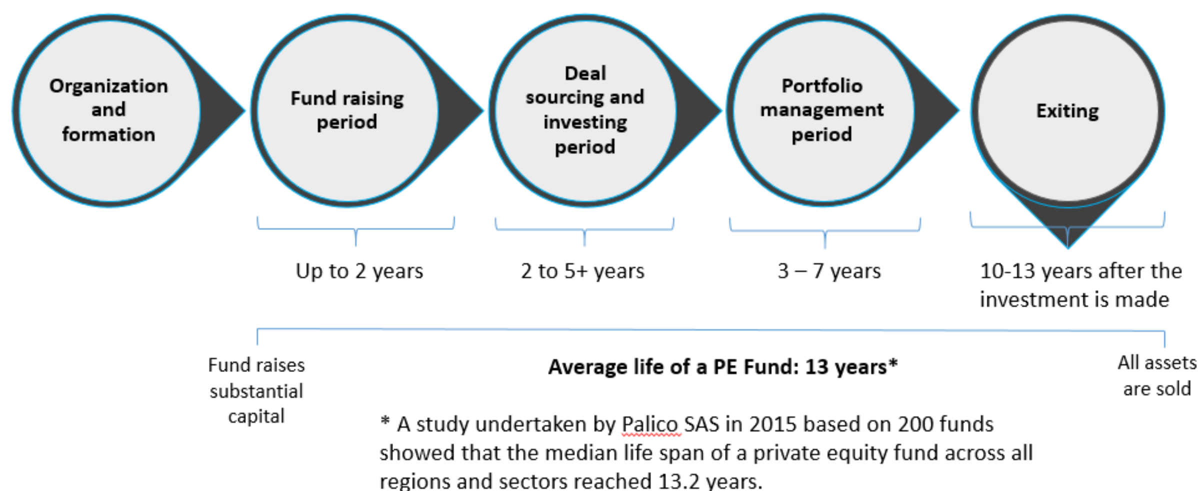


It is important to note that while GP will manage the fund by deciding in which projects to invest, LP's will have no influence in investment decisions, although they will have the right to provide no additional capital to the fund in the case they become disappointed with the management of the fund.

[18] CAIA Association (Chartered Alternative Investment Analyst).

The following diagram illustrates the different timings and phases in the creation of a PE fund. Even though I have shown a set time range, this can vary significantly among funds.

Diagram 3



Source: Prepared by the author

Organization and formation**:** Private Equity Funds are usually designed as Limited Partnerships (LPs) or Limited Liability Companies (LLCs) due to:

a. *Tax benefits*: both of these entities are "pass-through" entities, which implies that the income achieved will not be subject to taxation. Gains, losses, deductions and credits are taxed only once at investor's level.
b. *Flexible structure*: of the status that conforms the entity.
c. *Limited liability*: where the investors in the fund benefit from a limited liability, as opposed to the GP, who are personally accountable for the liabilities of the LPs and/or LLCs. This implies that the investor´s responsibilities and liabilities amount, as maximum, to the committed capital to the fund.

Almost all PE funds are "closed funds", which obliges investors to stay invested in the fund until it is liquidated. For LP's this results in quite illiquid investments, as mentioned before, but for GP's this illiquidity implies stability of funds.

In this first step (formally and legally constituting the LP), and after having obtained the "green light" from the controlling authorities, a "Fund agreement" is underwritten between the parties where a set of covenants are included in order to protect investors (LP's). Some of the covenants typically include the following. (Kaplan and Strömberg, 2008)

- Set a limit over the amount that can be invested in a single company.
- Limit the use of debt to prevent too much leverage.

- Approval regarding the potential reinvestments of profits: LPs will generally seek to establish this covenant in order to decide whether they want the profits to be reinvested of distributed upon liquidation.
- Delimit the types of investments that GPs will be legitimate to undertake. This clause is intended to focus the GPs efforts in areas he/she know and has promised to invest in.
- Industry or strategy restrictions: restrictions on investing in LBOs, VC, or even certain industries.
- Set a limit on the personal funds the GP can invest in order to avoid conflicts of interest. This measure is also intended to avoid the so-called "tunnelling", an illegal activity which basically consists in the GP creating a shell company where he/she invests all the capital from the PE fund to then pay himself the PE fund capital in form of dividends through the shell company.

Regarding covenants, a fairly interesting finding by Gompers and Lerner (2001)[19], who regressed the number of covenants on various characteristics, found that managers with high pay performance sensitivity (this is with a higher increase in GP's pay per dollar earned by the Fund) face fewer covenants than GPs with lower returns.

Also, Gompers and Lerner found that there is a negative direct correlation between the popularity of PE funds and the number of covenants included in the LPA's; meaning that it is very likely that when PE Funds are attractive to investors, as a demanded asset, the GPs have a higher bargaining power, by not needing to pledge to as many covenants to achieve the required fundraising amount.

Fundraising period**:** after establishing the legal fund's framework, the governing documents generally allow the fund to raise capital for a limited amount of time (typically ranges from 12 to 18 months[20]). After this period the fund will usually stop accepting new investors.

The success of the fundraising process will depend on different factors such as the general economic outlook, the track record of the sponsor or the strength of its relationship with its clients (S. W. Naidech, Chadbourne & Parke LLP). Most fundraising processes for PE funds are underwritten through Private Placement of securities (aimed to institutional investors and high-net-worth individuals only), and in order to raise the highest amount of capital possible the GP's attend one-on-one meetings where they distribute marketing materials, and most importantly, hand to potential investors the Private Placement Memorandum (PPM).

This memorandum explains:

i. The fund and its structure
ii. The GP investment team and its track record

[19] Gompers, P. and Lerner, J The Venture Capital Revolution. The Journal of economic perspectives, Vol 15 no 2 (2001)
[20] Scott W. Naidech, Chadlourme & Parke LLP. *"Private Equity Fund Formation"*.

iii. The investment objectives, strategy and legal terms

Throughout this relatively long process, the GP seeks for investors to fill this pure pool of capital - the PE Fund – by achieving "capital commitments" to the fund. This is, investors will not hand the money in the beginning, but they will effectively contribute to the PE fund in "as-needed" basis. Therefore, whenever the fund finds a new opportunity to invest in or needs capital to pay fees, investors will honour the commitment they made on the fundraising period by transferring the required amount of capital.

Deal sourcing and investing period**:** during this period funds will seek for potential investments to be made under the conditions established in the Fund Operating Agreement (FOA). Covenants included in these FOA generally allow investments to be made until 6 to 7 years after the fundraising. After this period, funds will only be able to undertake investments if the predetermined limits set in the FOA allows it.

When people think about PE investments they usually think of PE firms *(KKR, Carlyle and Bain&Co*) being contacted by smaller companies in need of a change, and while this is sometimes true regarding big PE Firms, this is not how GPs usually look for attractive, potential investments: GPs play a very active role searching for opportunities by analysing different companies' financial statements, strategy and management.

Portfolio management period**:** once an investment is undertaken, the PE team needs to perform exceptionally well, and they need to do so on a monthly basis since potential buyers, those whom the GP's will try to sell the investment to in the exiting phase, will look at the medium-term historic performance.

Divestment and Exiting**:** Even though I have placed the exiting stage at the end, this step is evaluated from the very beginning because regardless of how much added value the PE thinks it can achieve with a particular investment, they need to have an exit strategy to realize the operation. The different exit strategies will be explained in greater detail in later pages.

When it comes to liquidating, the fund is not usually cashed all at once, but rather progressively. When exiting an investment, the fund needs to divest and exit through different strategies, and in this process GP's will always seek for an effective and early exit once they have decided to divest. By the same token, the longer an investment remains in the GP's portfolio, the higher the exit price will need to be in order to meet the targeted IRR.

b) Economics within Private Equity Funds

General Partners are usually compensated in three ways (Yasuda, A. and Metrick, A.)[21] while committing to deliver certain returns.

[21] Yasuda, A. and Metrick, A. "*The economics of Private Equity Funds*". 2007. University of Pennsylvania. The Wharton School.

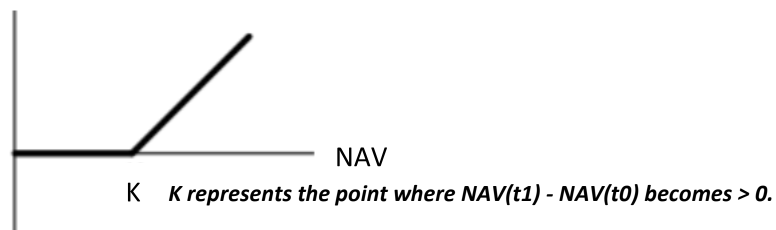
i. Management Fees: a charge levied by the GPs for managing the committed capital within the PE fund. It usually ranges from 1.5 to 2.5% annually and its purpose is to compensate the managers for their time and know-how. This means that the payment of these fees will be satisfied regardless the fund's performance even though they will decrease over time as the fund exits some of its investments.

ii. Carried Interests (also referred to as incentive fees): is a percentage of the fund's profits that GPs receive as compensation for the fund's performance (also called Performance fees or Internal Rate of Return). This fee is the true incentive that motivates managers as the carried interest usually accounts for 20% (but some other times 30%, 40% or even 50%) of the fund's annual profits.

It is interesting to note that incentive fees have a non-linear payoff structure for the Fund manager, just like options. Expanding on this idea, if the Fund manager were to suffer losses on his or her Fund, he or she would not suffer themselves, they would not face a loss personally as they would just get 0 from incentive fees. In this sense, the Fund manager would get $\max\{Y*(NAV(t1)-NAV(t0)),0\}$, where Y is the incentive fee and NAV (t) is the Net Asset Value in time t.

Therefore, the payoff of the manager has a non-linear shape, just like the non-linear payoff structure of an option, illustrated below.

Diagram 4



Source: Prepared by the author

When the Fund achieves negative or 0 returns, the manager will not gain any incentive fees, while when achieving gains, the fund manager will get profit through his/her incentive fee.

Bringing this to an "option-like" vocabulary, the Fund manager will have a free[22] option over his own performance, meaning that *IF* NAV(t1) - NAV(t0) > 0 he will exercise his free option while *IF* NAV(t1) - NAV(t0) < 0 he will not exercise it.

[22] The manager does not pay for his option, hence the term "free".

Having said this, and having identified the manager's incentive structure as an option-like pay-off structure we can then assess the value of the manager's option through formulas particular of option theory. Here the Black & Scholes formula comes into play as it helps price the value of any option, which is why I will rely on the B&S fundamentals to explain why incentive fee structures incentivise managers to engage in risk taking behaviours.

Strike price (K), maturity (M), current price (So) of the underlying asset and volatility of the underlying (V; in this case how volatile the strategy of the manager is) are all inputs for the Black-Scholes formula. Building upon this, K and So will be givens, while M and V will depend on the manager. By convention, Maturity (M) will range from 8 to 12 years so there is not much the manager can do, which leads to the only variable the manager can play with in order to alter the value of the option: volatility. All else constant, and according to Black & Scholes, the value of the option increases with volatility. In this particular case the manager controls for volatility, meaning that this fees' structure compensation incentivizes managers to push volatility as high as possible in order to get the highest possible option value.

For years, investors have been aware of this fact, which is why the market has been developing provisions and rates as to mitigate this excessive risk. Water mark provision[23], Hurdle rate (also referred to as preferred return provision) and clawback provisions all protect investors from the risk taking behaviour of any manager. More often than not, the incentive fee would only kick in after specific provisions have been surpassed.

The Hurdle rate is the minimum rate that investors will require in order to cover for both the risk and illiquidity[24] of the investment. As the average hurdle rate in Private Equity funds usually accounts for 8%, fund managers, throughout the life of the fund, will need to achieve returns higher than 8% in order to start collecting their incentive fees, these are carried interests and monitoring fees.

The water mark provision is also a quite known provision which intends to reduce the incentives for managers to undertake volatile strategies as once a performance level has been achieved, the managers would need to pass that last performance peak in order to start collecting incentive fees again.

Lastly, there are other provisions and agreements such as the "clawback provision" (grants LP's the right to get the carried interest fees paid back from the GP's, were the fund to either bear too many losses or even fail to achieve a "promised" return) and the "escrow agreement" (by which the incentive fees are not paid directly to the GP's, but instead to another separate account until

[23] Precisely because of the water mark, there might be the cases were funds close in relatively short periods of time because manager have achieved such a high mark that they will not go back to achieving that mark, making it impossible for them to get more incentive fees, hence they close down and start new ones.

[24] Ang, Papanikolaou and Westerfield (2011) found that the illiquidity premium constituting the Hurdle rate range from 1% when the portfolio can be rebalanced once a year (fairly liquid) to 4% when it can be rebalancing once every 5 years.

the fund is liquidated) which, as the ones mentioned above, intend to decrease the incentive of managers to risk swift, to increase volatility.

iii. Transaction fees are particular of Buy-Out funds[25], and unlike the prior two, these fees are correlated to the deal size. Transaction fees (also called deal or success fees) are charges levied by the Private Equity Firm *"in connection with the completion of the acquisition for typically unspecified advisory services"* (as defined by Dechert LLP and Prequin in their paper already referenced). These fees vary from 0.03% to 4% depending on the deal, with an average of 1% charged as transaction fees[26]. According to Kaplan and Strömberg, these fees end up being shared between General and Limited Partners.

Let me illustrate this with an example:

If a private equity firm called "A Partners" sets a new PE fund and raises €1 Billion of committed capital. "A Partners" will receive €20 Million in management fees per year (these €20 Million will decrease over the years as the committed capital decreases due to divestments) which means that they will invest the remaining capital once the management fees have been subtracted.

Let's now assume that the fund realized €4 Billion of investments, which would imply €3 Billion of profits. From these €3 Billion, "A Partners" would get 20%, or €600 Million, in concept of carried interests. "A Partners" would also have the right to charge a fee for every transaction undertaken in the form of transaction fees.

But even though fees are somehow similar among PE funds, the economics are different between them. On these grounds, we can see clear differences between the two main categories that compose the Private Equity industry[27]: Buy-out (BO) funds and Venture Capital (VC) funds. BO funds generally earn lower revenues per dollar managed than VC funds. However, the latter have significantly higher Net Present Value per professional compared to the former one due to the fact that BO managers, if successful, build their funds over their personal reputation and experience.[28]

This difference in the fees' structure, added to fact that VC funds usually manage less money (despite undertaking more investment projects[29]) make Buy Out funds more attractive for managers to work on, although not more efficiently managed.[30] As a side note, all the fees mentioned above will be subject to taxation by the fiscal authority, of course, and depending on the fees we are referring to there will be different tax treatments for investors.

[25] "Transaction and Monitoring Feeds: on the rebound?" A joint investigation by Decherty and Prequin. November 2011
[26] Scott W. Naidech, Chadlourme & Parke LLP. *"Private Equity Fund Formation"*.
[27] Ibid., p12
[28] Kaplan, S.N. and Strömberg, P. "Leverage Buyouts and Private Equity". NBER Working Paper No. 14207, 2008
[29] 5 investments are made by every VC partner, against 2.4 investments made per BO partner, but while VC funds invest in smaller firms (with valuation around $25 to 50 Million), BO funds can invest up to Billions per project.
[30] Kaplan, S.N. and Strömberg, P. "Leverage Buyouts and Private Equity". NBER Working Paper No. 14207, 2008

IV. ORIGIN AND EVOLUTION IN THE PRIVATE EQUITY INDUSTRY

a) Appearance and evolution

Private Equity funds first appeared in the late 1970s early 80s, and since then the Private Equity sector has experienced exponential growth. According to Kaplan and Stromberg (2008), PE funds only had $0.2 Billion of capital under management in the 80s as opposed to $4.2 Trillion of assets under management that Preqin[31] assessed in June 2015.

Interestingly enough, this increase in the capital committed to PE Funds has been far from linear: Smit and Van den Berg (2006), Kaplan and Strömberg (2008) and Rau and Stouraitis (2010), aside from other authors agree on the fact that PE commitments are cyclical, this is: they come in waves.

The first PE wave (which at the time constituted only of buyouts) took place in the late 1980s, in 3 countries mainly: U.S., Canada and the U.K. These 3 countries accounted for 89 % of the worldwide LBOs (and 93% of the worldwide value of these transactions) between 1985 and 1989[32]. This period is not illustrated in the graph included below, but it is most definitely the first wave that shook the PE industry.

To this first wave measured in terms of committed capital followed a few more, all accounted by Kaplan and Strömberg (2008), which state that after the peak in 1988, PE Funds experienced a *"decline in the early 1990s, (followed by) an increase through the late 1990s, peak in 1998, decline again in the early 2000s and then begin climbing in 2003."*[33]. The authors were able to assess the incredible growth this industry experienced between 2006 and 2007, according to their research in that same paper, it was stated that "*private equity commitments (…) exceeded one percent of the total value of the U.S. stock market"*. Their findings are consistent with those coming from the European Venture Capital Association (EVCA), who assessed that private equity peaked in 2006 with EUR 74.3 Billion of capital raised (out of which 68.6 Billion were pumped into equity investments) only in Europe. For a worldwide picture, nevertheless, we can use Diagram 4 to help depict how the capital raised in 2006 amounted close to 181 Billion globally.

From 2003 to 2008 it is safe to say that the PE Industry was the start: it multiplied the capital raised by almost 7 times in 6 years, a spectacular growth period that came to an end in 2007 with the collapse of the financial markets, a collapse that dried up transactions (and therefore liquidity) and steered to the bankruptcy of many portfolio companies held by Private Equity Funds. Ultimately, these conditions led to a much more modest and discreet period after 2007 where the challenging economic conditions that pressed prices lower along with the unveiling of structural inefficiencies required time to prevail over the short supply of credit and the uneasy operational environment.

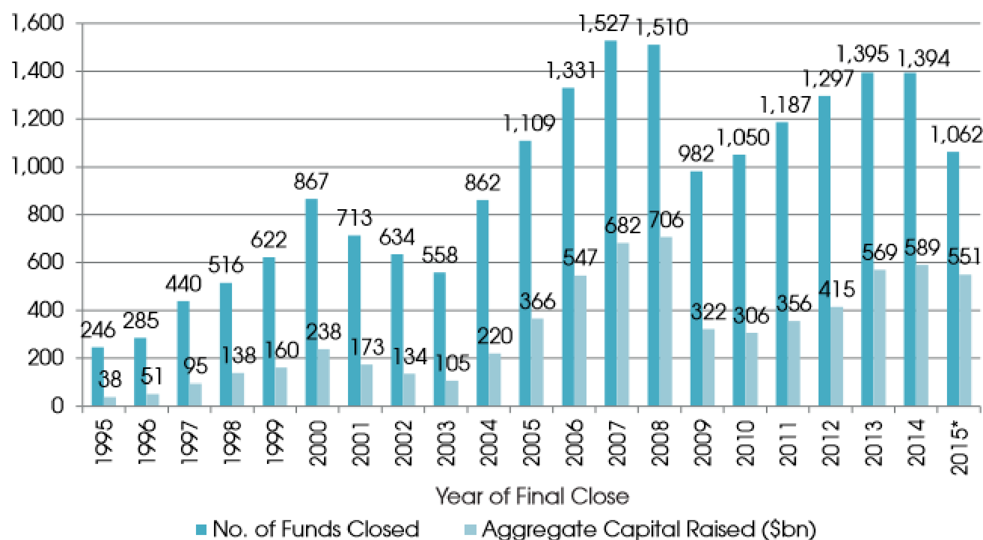
[31] The 2016 Preqin Global Private Equity & Venture Capital Report

[32] Kaplan, S.N. and Strömberg, P. "Leverage Buyouts and Private Equity". NBER Working Paper No. 14207, 2008

[33] Ibid. p7

In the following diagram we can see how the aggregate capital raised has been changing over time, further supporting the studies performed by Smit and Van den Berg (2006), Kaplan and Strömberg (2008) or Rau and Stouraitis (2010) a few years ago.

Diagram 5



Source: Preqin (2016)

The graph suggests an upper trend that will likely continue in the near future according to a survey of 142 professionals conducted by ACG New York. That being said, if we were to assess the evolution of this industry since 1995 we can see how looking aside from these figures, the PE industry rose above other asset classes worldwide; it was able to consolidate itself as not only a permanent, but also as an influential asset class as Chew and Kaplan reckoned in 2009.

In order to later on understand the drivers that might be pulling the Private Equity Industry I think it is insightful to go back to the origin and try to assess the reasons why PE was born in the 80s, and not during another time.

When going over diverse literature, 2 seems to have been the reasons why PE arose at this particular point in time:

1. What started as another wave of M&A transactions became the perfect breeding ground for what was later known as Private Equity. Back in the 70s and 80s, diversification was quite popular as it was (and still is) a form of risk management that eliminates idiosyncratic risks although it does not add value. Companies were generally conglomerates back then, but in the mid-80s this changed: strategic buyers came into play[34]. We are now in 1985 and the diversified approach has been

[34] In a sample of 62 hostile takeovers between 1984 and 1986, 72% of the target companies were sold to strategic buyers

substituted by the strategic focus, where companies aim to achieve corporate specialization and seek for opportunities to grow.

2. During the 1980s financial innovation flourished and the financial renaissance took place as the world witnessed how the industry would forever change with the use of debt to finance transactions and the creation of tax engineering (Armour and Cheffins 2008)[35]. This new reality was perfectly assessed by former S.E.C. commissioner Joseph Grundfest, who said in the mid1990s of KKR that "some of the most fundamental ideas consistently deployed through twenty years of KKR transactions are today so well accepted in modern corporate America that it may be hard to remember how radical these principles seemed when practiced by KKR in the 1970s and 1980s."[36]

Once we know why PE might have emerged when it did, I consider it essential to analyse the main PE waves (1980 and 2000) that shook the industry in order to better understand the investment cycles particular of Private Equity.

As mentioned before, there have been 2 waves that have driven the PE Industry, the first one in the 80s and the last one in the early 2000s. Extensive research has been done over both waves and it seems that a wide range of factors were responsible for both waves. As in any boost cycle, interest rates were key: low interest rates in both periods had a double effect, on one side there was a widespread availability of both easy and cheap credit, and on the other, investors were desperate for returns (Acharya et al., 2007 [37]; Cheffins and Armor, 2008[38]). Of course investors were seeking for yields anywhere, which might have led to an increase in transactions nurtured by high capital inflows towards the PE industry.

Both waves also had their differences, as the deals in the 80's wave were quite hostile. One of the reasons why the hostility decreased was the defensive mechanisms and tactics developed by companies, making potential hostile takeovers not only more expensive, but also more difficult to execute (Holmstrom and Kaplan, 2001)[39]. For more information about the different takeover defence strategies please see "An Overview of Takeover Defences", by Ruback. For a quantitative approach on the effects that takeovers have over a targeted company, please see "Takeover Bids, the Free-Rider Problem and the Theory of the Corporation", by Grossman and Hart. Finally, another differentiating factor between PE waves has been the leverage used in each of them: while the operations typical from the 80's accounted for roughly 80-90% of leverage, in the most recent wave, leverage fell to 70-80% according to Kaplan and Holmstrom (2001)[40] and Chew and Kaplan (2007)[41].

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[35] Armour, J. and Cheffins, B. "The Eclipse of Private Equity". *Deleware Journal of Corporate Law, Vol 33.* 2008

[36] Quoted in Baker and Smith.

[37] Acharya, V., Gujral, I., Kulkarni, N. and Song Shin, H. "Dividends and Bank Capital in the Financial Crisis of 2007-2009" *National Bureau of Economic Research.* 2011

[38] Cheffinds, B. and Armour, J. "The eclipse of Private Equity". ECGI Working Paper nº 82/2007, 2007.

[39] Holmstrom, B and Kaplan, S. "Corporate Governance and Merger Activity in the United States: Making sense of the 1980s and 1990s". *Journal of Economic Perspectives*. Volume 15, nº 2. 2001

[40] Ibid

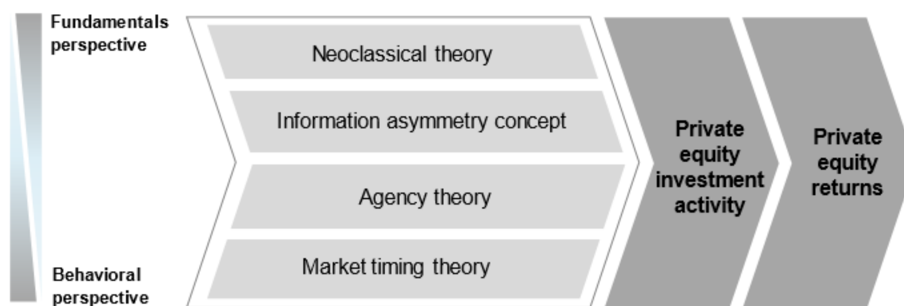
[41] Chew, D. and Kaplan, S. "Private Equity: Past, Present, and Future". *Journal of Applied Corporate Finance.* 2007

Those were roughly the reasons that lead to the rise of the PE industry, but one has to wonder: What elements and drivers keep this industry alive and moving? And in the end, what are the PE Industry drivers?

b) Private Equity drivers

From a theoretical perspective, the academy approaches this issue from different "market-efficiency perspectives", meaning that some of the fundamental theories that intend to explain the drivers of the PE Industry are dependent on the Efficient Market Hypothesis (EMH) assumed. For example, the neoclassical theory assumes a strong form of EMH when presuming the availability of full and relevant information for people to act upon, (Rumelt, 1997)[42] while market timing theory assumes a weak form of EMH in the sense that this theory's core idea relies on the belief that mispricing does exist, and that the different firms (and not the markets) will be the ones which will be better at detecting them. These two theories can be considered to be the main starting points every time the literature has come to assess the different PE industry drivers, but I would like to introduce two additional theories into play with the diagram below:

Diagram 6



Source: Sommer, C. (2012)

In the above diagram, the different theories are ordered according to their particular standpoint regarding the EMH. Starting from the neoclassical theory on the top, which as explained before assumes a strong form of EMH, the graph moves down to the Information asymmetry concepts (which by definition challenges the strong form of EMH as it assumes lack of transparency and incomplete information regarding the value or a potential target) to then arrive to the Agency Theory, an immediate step before Market Timing Theory which "discounts" for the potential arising problems particular of agents and intermediaries (agency problems have already been addressed up to some extent in the beginning of Chapter 3). Of course, the Market Timing Theory will be the one assuming a weaker form of EMH for the reasons mentioned above.

Moreover, it is interesting to note that while the first theories assume the market does behave rationally, the last one is more closely related to market irrationality (Butler, A. *et al*,

[42] Rumelt, R. "Towards a strategic theory of the Firm", 1997.

2011)[43]. It is important to be aware of all these differences between theories to later on better understand the drivers that govern the PE industry according to their particular perspective.

Neoclassical theory

In what comes to the neoclassical approach, private equity cycles are thought to be mainly caused by economic fundamentals (more specifically, variations in liquidity in debt markets) and business cycle variables in both aggregate and industry level.[44] As briefly mentioned before, this theory stands upon 3 main assumptions: (i) individuals and organizations (and of course the market) act rationally while (ii) seeking to maximise benefits (iii) acting independently of the basis of full information (Hart, O, 1989)[45].

That being said, Sommer established two main Neoclassical Drivers of Private Equity Investments: capital demand and capital supply, dependent on the changes in investment opportunities, as Gompers *et al.*, 2008 also reckoned in 2008[46]. Hence, private Equity investment activity will be driven by the aggregate capital demand in context with the supply of capital particular of debt markets.

At first, assessing just two drivers (capital supply and capital demand) might seem insufficient, but the truth is that attending to the nature of the Neoclassical Theory it could not be otherwise: the assumptions particular of the neoclassical theory are both rather intensive and extensive, not leaving much room for margin.

I would like to break down the two drivers already mentioned:

1. Capital Demand**:** demand of capital increases when companies foresee positive NPV investments, which will most likely happen in an environment of growing economies. In regards to this, past studies have been performed and it seems like both GDP growth (Leachman, Kumar and Orleck, 2002)[47] and the "Tobin's q" (Gompers et al, 2008) are good proxies for growing economies. Since GDP growth seems to be an intuitive driver, I will not further develop on it, and focus now on "Tobin's q" concept, also called the Market to Book Value ratio.
   Tobin's q is nothing more than the ratio of the market value of a firm over the book value of its assets. As this ratio assesses the value of the company over its "replacement cost" it is reasonable to think that higher Tobin's q implies value, which is derived from potential. Therefore, it will be also logical to believe that higher Tobin's q should accompany higher capital demand, and subsequently higher PE investments.

[43] Butler, A.., Cornaggia, J., Grullon, G. and Weston, J. "Corporate Financing Decisions and Managerial Market" *Journal of Financial Economics*, Vol 101 nº 3. 2011.
[44] Sommer, C. (2012) "Private Equity Investments: Drivers and Performance Implications of Investment Cycles"
[45] Hart, O. "An Economist's perspective on the Theory of the Firm". *Columbia Law Review*, Vol 89, No. 7. 1989
[46] Gompers, P., Kovner, A., Lerner, J. and Scharfstein, D. "Venture Capital Investment Cycles: The Impact of Public Markets". Journal of Financial Economics. Vol 87. 2008.
[47] Leachman, L., Kumar, V. and Orleck, S. (2002). "Explaining Variations in Private Equity: A Panel Approach". Working Paper No. 02-14

2. Capital Supply**:** Several authors have noticed a positive correlation between PE markets and Debt Capital Markets (Achayra *et al.*, 2007; Axelson *et al.*, 2007; Cheffins and Armour, 2008; Chew and Kaplan, 2009). It was most likely the appearance of Junk Bonds (also called HY Bonds) back in the 80s that triggered the Private Equity wave, same as it was the expansion of the syndicated debt market the one that generated the early 2000s wave.

   But why does debt affect Private Equity Investments so much? The Private Equity industry is mainly divided in 2 strategies, LBOs and VC as explained in previous chapters. LBOs, nonetheless, account for much more capital being invested, so there will be a tight relation between the leverage that PE Funds may be able to get and the potential PE Fund activity, meaning that whenever cheap credit is available PE Funds will be more active since they will be able raise enough debt to achieve their required ROE.

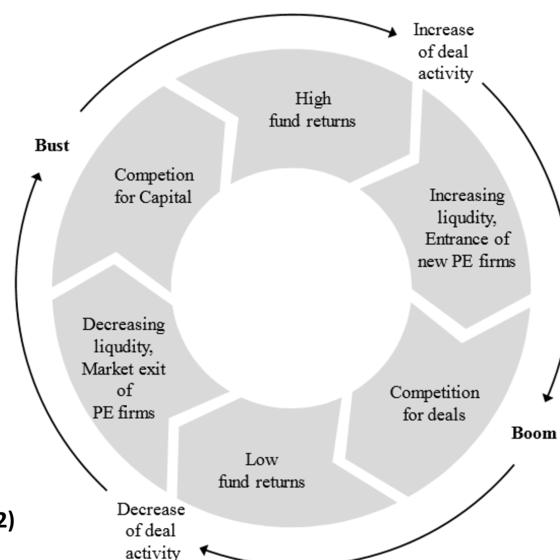
Market Timing Theory (MTT)

MTT assumes an irrational behaviour in the market when driving prices up and down, but as we will see there is more into this.

Market timing theory states that investors extrapolate, not very rationally, observed past performance in order to use that data to forecast returns, creating overvaluation. In other words, if the returns given by PE Funds have been positive in previous years, investors will be willing to pay higher prices for investments (because they assume they would be still better off) which leads to overvaluations. This is also true the other way around: if PE performance has been poor in previous years, they will undervalue potential acquisitions in order to "play safe", which would ultimately lead to a liquidity dry up because while targets know how much they are worth, potential acquires will usually disagree with the target's valuation as they will try to pay less.

Thus, led by previous market movements investors will jump in the general market direction, sharpening the trends and creating the so called "Boom and Bust cycles", illustrated in Diagram 6. But these trends are not infinite, they stop, they switch, they drop, so one has to wonder: What are the key drivers that start a new movement? What are the key drivers that create turning points?

Diagram 7



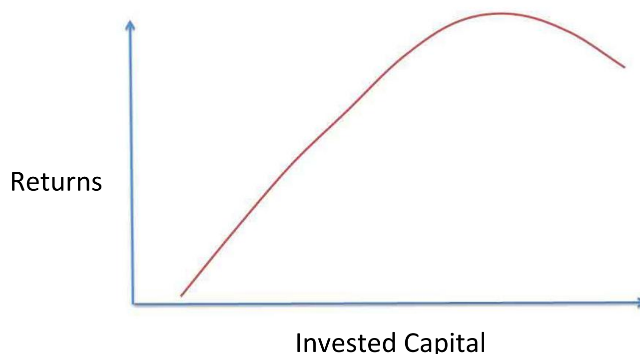
Source: Sommer, C. (2012)

In the upcoming paragraphs I will try to answer these questions beyond the simple explanation that a bust cycle after a boom cycle is nothing more than a market overreaction followed by a market under reaction.

Assuming a weak form of EMH, a regression performed by Sommer over more than 40.000 deals between 1990 and 2009 indicated that *"changing levels of information asymmetries and agency conflicts between GPs and LPs have supplementary explanatory power in explaining the fluctuations in deal activity"*[48], so we could say there are two main causes, from the behavioural finance theory, that affect the PE Industry.

a) Information asymmetry: it seems like reducing the asymmetry of information between LPs and GPs is a key value driver in the sense that there is a positive correlation between information asymmetries and deal activity, meaning that the more the information asymmetries between parties, the lower the deal activity (and the greater the subsequent performance) and vice versa. In this sense, it seems like there will be less investors willing to put their money in a fund with higher asymmetry of information, which would lead to less committed capital, hence less investments. This is perfectly consistent with a higher return on funds as the return on both PE and Hedge funds follow the diminishing marginal utility function illustrated below.

Diagram 8



Source: Prepared by the author

b) Agency Theory: far from the agency problems already identified previously in Chapter III, the agency theory comes to say that when agents, intermediaries (PE Funds in our particular case) start earning fees and making profit out of their investments, this will attract other players into the PE arena, leading to an increase in PE activity.

[48] Hart, O. "An Economist's perspective on the Theory of the Firm". Columbia Law Review, Vol 89, No. 7. 1989

V. PERFORMANCE IN THE PRIVATE EQUITY INDUSTRY

a) Data risks: PE Bias

In what comes to general assessment of PE Fund, it is quite important to recognise some data risk in the form of bias due to lack of transparency and reporting in the measurement of such performance. There are 3 data biases:

1. Survivorship Bias: arises when a database includes only surviving PE Funds. Since we can only track the funds that survived, we would get an above average representation of performance. The amount of upward bias that returns will show ranges from 2 to 3%.
2. Selection Bias: as all the studies are performed only over the funds that willingly participate in them, we will come across both upward and downward selection bias. Since PE Funds can decide whether or not to report their returns we will fail to measure the rest, which might have obtained very good returns (but decided to not disclose them in order to avoid attracting attention from both regulators and potential investors who could make the pool of capital inefficiently big) or very bad ones (in which case they are most likely ashamed so they will not report anything). It has been estimated than there seems to be a net upward bias of 1.4%.
3. Liquidation or Catastrophe Bias: PE Funds that are performing poorly may cease to exist and thus stop reporting their performance even before liquidating. This has been calculated at an upward bias of 0.70%

Adding all these up, studies suggest that the upward bias in reported PE Funds performance is 4.5%, so we will need to bear this in mind when interpreting reported performance.

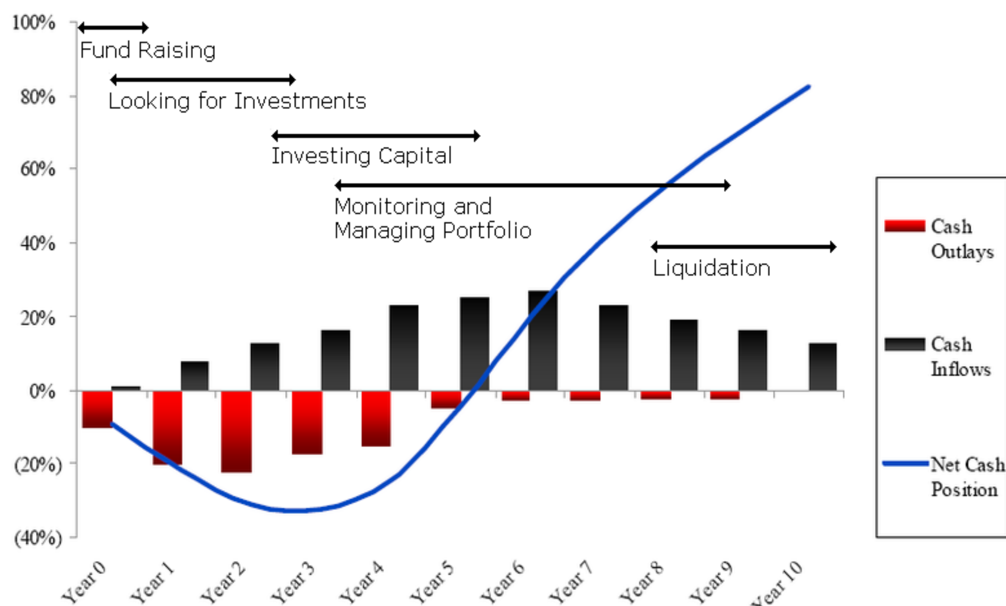
But in what comes to specific assessment of PE Funds, investors need to interpret the fund's performance in the light of the J-Curve, especially in the early stages of the Fund.

b) The J-Curve

The J-Curve is not a measure of performance of the PE Fund, but more "*an attribute of the investment at a certain point in its life cycle*" (Murphy, D. 2006, p. 1)[49]. Since Private Equity investments are relatively particular due to their differentiating features (against public investments) like illiquidity, steep negative cash flows in the early stages of the fund, valuation constraints and management fees solely dependent on committed capital, the market requires a way of measuring and assessing these investments, and this will be the J-Curve.

[49] Murphy, D. "Understanding the J-Curve: A Prime on Interim Performance of Private Equity Investments". *Strategic Research*. 2006.

Diagram 9



Source: LSE (2016)

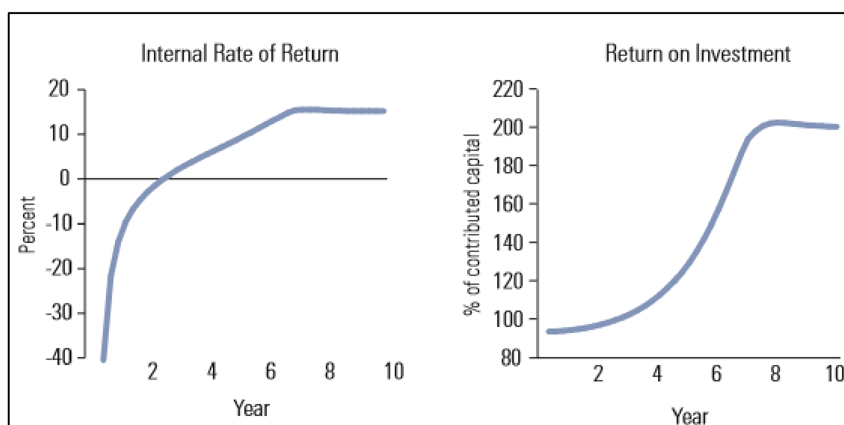
In the above graph we can see how the net cash position changes as the Fund develops and reaches certain milestones. Since PE Funds draw down capital in the early stages, investing long-term and also charging the established management fee, it is normal to witness a decrease in the net cash position in the beginning. Apart from this, it will be in the early stages of the fund where GPs might take notice of underperforming portfolio companies and decide to write them down, sharpening the negative cash flow position.

For investors (LPs), this simply means that they would be fulfilling capital calls for several years.

With the underlying investments evolving, though, the fund will eventually see a turning point in the CNCF curve as investments are cashed out, (hopefully) leading to a positive net position around 6 or 7. Overall, the CNCF J-Curve is influenced by both the investment activity and the time that the PE Fund takes to liquidate and cash out.

Even though the CNCF is the most illustrative and widely spread J-Curve, there are other forms of J-Curve that give investors different information. These two curves illustrated below, the IRR and the ROI J-Curves respectively, are mostly determined by the GP's valuation technique, but the fee's structure will be also influential in shaping them. This means that while the end results (values) in the curves will represent the performance of the portfolio companies, the shape of such curves will give investors information regarding the fund's managerial structure.

Diagram 10



Source: Goldman Sachs Asset Management (GSAM) (2006)

There are 4 elements that significantly influence the J-Curve:

1. Returns: even though returns will be quite important when shaping the J-Curve, apparent returns in early years will be a poor indicator to assess expected returns.

2. Accounting methodology: this factor will only be accounted in the IRR and ROI J-Curves as it is a matter of accountability. GPs will need to assess the fair value (market value) of the underlying investments in order to internally control for the on-going performance. In this sense, there are some funds that keep the underlying investment at (purchased) cost while others try to assess the Market Value of the portfolio company. This is something investors need to look at as the values of the same underlying company will be different depending on the accounting methodology the Funds. Furthermore, it is worth noting that when the GPs account the underlying at fair value, the value of the investment will drop since the GP did not subtract fees while calculating such fair value.

3. Drawdown rate: the drawdown rate of a fund is the velocity at which GPs call for capital. In this sense, a faster drawdown rate will make the slopes steeper and deeper while reducing the time until the capital is returned.[50]

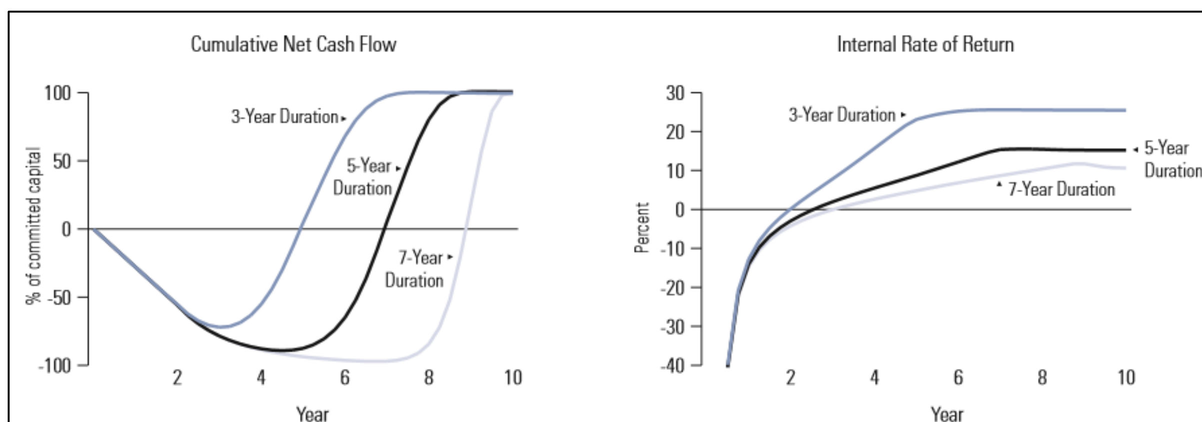
4. Duration (for the Fund, not for the investor): If we were to assess the Duration for the investor (LP), Duration would be equal to Maturity since the LP cannot liquidate his/her position. In PE, nevertheless, we refer to duration as the Fund`s duration, which will be (almost always) different from maturity. In this sense, the longer the duration, the lengthier the CNCF curve and the flatter the IRR curve.

   The investor in this case must be aware of the nature and strategy of the fund, as a shorter duration might falsely indicate a better performance, when what it is

[50] Murphy, D. "Understanding the J-Curve: A Prime on Interim Performance of Private Equity Investments". *Strategic Research*. 2006.

actually happening is the exact same fund might take longer time to redeem its investments. This is illustrated in Diagram 9.

Diagram 11



Source: Goldman Sachs Asset Management (GSAM) (2006)

c) Performance measures

The Global Investment Performance Standards (GIPS) require the use of 4 ratios whenever PE firms present their performance to potential investors.

- Investment Multiple ratio (TVPI): (Cumulative Distributions + Residual Value)/ Paid-in Capital, which does not take into account the time value of money.
- Realization multiple: Cumulative Distributions/Paid-in-Capital provides insight about how much of the Fund`s returns have been paid out to investors.
- RVPI multiple: Residual Value/Paid-in Capital provides a measure of how much (in percentage) of a fund's investments is still unrealised.
- PIC multiple: Paid-in Capital/Committed Capital, which accounts for the amount (in percentage) of committed capital that has been invested.

But the most commonly used measures to track PE Investments according to Daniel Murphy, VP of Goldman Sachs Private Equity[51], are the following:

- Cumulative Net Cash Flow (CNCF): are nothing more than the sum of the different cash flows, both negative and positive.
- Internal Rate of Return (IRR): is the discount rate that makes the NPV 0. The higher the IRR, the higher the margin the Fund will get over their Required Rate of Return.

[51] Murphy, D. "Understanding the J-Curve: A Prime on Interim Performance of Private Equity Investments". *Strategic Research*. 2006.

- Return on Investment (ROI): calculated as (Gain from Investments – Investment Cost)/Investment Cost, it serves as a measure of efficiency.

Another fundamental variable used to measure performance is alpha, which could be defined as the excess return over a previously set benchmark (beta). Alpha will be dependent on the risk model used, which I would say is why it is not a popular measure in the PE industry (unlike in Hedge Funds, where Alpha is core). Expanding more on the process of measuring alpha, different risk models will find different alphas, depending on how good your explanatory variables are. Different risk models will be CAPM, Fama French or the 4 factor model, which also accounts for volatility, but neither this risk models (nor the alpha variable) would be tailored enough for the PE industry. The applicability of the risk models in the assessment of the expected returns within the PE industry would be, in this sense, a rather interesting topic upon which to develop future papers.

Nevertheless, when assessing the performance achieved by PE funds over the years, scholars have long agreed on using a different performance measure[52], a worldwide one: the Internal Rate of Return (IRR). In order to better interpret this measure, Kaplan and Schoar (2005) developed the Public Market Equivalent (PME) method, which compares the PE fund investor's returns[53] against the returns that investor could have gained if he/she had invested in the public market. They found that this measure has a superior explanatory power than the IRR.

This "monopoly" of the IRR being the only measure used by scholars to assess the performance of PE funds came to an end with Harris, Jenkinson and Kaplan (2013), who used the Investment multiple as well as the IRR in a study that covered over 200 investment programs[54]

Even though a lot of literature has been written on Private Equity performance, the PE industry has changed and evolved enough for me to not feel comfortable with the findings in some of them, as they might misrepresent the current Private Equity landscape. Having said this, Acharya, A. *et al.* (2011)[55] not only found evidence of abnormal returns in the PE Industry, but were able to link the causalities to such performance.

Through a study of 37 large, mature PE houses, they found that PE firms achieved between 1991 to 2007, on average, 56.1% IRR, where *"19.8% out of 56.1% comes from abnormal performance[56], 27.9% is due to higher financial leverage and the remaining portion (16% out of 56.1%) is due to exposure to the quoted sector itself"*. (Acharya, A. et al. p 3. 2011)[57].It is noteworthy to point that these findings were consistent with the ones of Kaplan and Schoar in 2005 regarding IRRs and Public Market Equivalent (PME).

[52] Harris (2010), Stucke (2011), Kaplan and Schoar (2005), Phalippou and Gottschalg (2009), Robinson and Sensoy (2011a), Phalippou (2012), Higson and Stucke (2012)
[53] The investor's returns are calculated net of fees.
[54] that represented over $1 trillion of committee capital for nearly 1400 U.S. funds, both Buy-out and Venture Capital.
[55] Acharya, C., Gottschalg, O., Hahn, M. and Kehoe, C. "Corporate Governance and Value Creation: Evidence from Private Equity" 2011.
[56] Abnormal performance defined as a measure of enterprise-level outperformance of the relative to its quoted peers after removing the effects of financial leverage. It will effectively account for the return associated with changes in operating performance of the portfolio company and human capital factors such as del partner skills.
[57] Acharya, C., Gottschalg, O., Hahn, M. and Kehoe, C. "Corporate Governance and Value Creation: Evidence from Private Equity" 2011.

But as I said, not only did these study find abnormal performance on the PE activity, but were also able to establish causalities.

First, during PE ownerships the portfolio companies increased in deal margin (EBITDA/Sales) around 0.4% and in deal multiple (EBITDA/Enterprise Value) in 16% above the sector median. It is estimated by the authors that such operational improvements are due to the intervention of the PE as they believed that nothing inherent in the targeted companies would have caused any improvement regardless the intervention of the PE.

It seems, therefore, that the PE activity does genuinely increase value, as this study provides evidence that the abnormal performances (associated with operational improvement) are due to an increase in sales and in the EBITDA margin.

Secondly, this study finds that human capital does matter, the partners managing the funds do make a difference. It was assessed that deal partners with operational background generated significantly higher outperformance in organic deals, while partners with strong financial background performed better than the peers in inorganic strategies.

Another paper with wider scope than Archaria *et. A.* (2011) was done by Harris, Jenkinson and Kaplan in 2013, where they analysed 1400 Private Equity Funds from two different sets of data to find positive performance, abnormal returns, in the investments made by those PE Funds.

They differentiated between Venture Capital (VC) and Buy out (BO) Funds, which I believe was due to the lack of enough data regarding other PE Funds, and they found that VC *"outperformed public equities in the 1990s, but have underperformed public equities in the most recent decade"* (Harris, Jenkinson and Kaplan. 2013, p.2) while BO Funds outperformed the public markets even net of fees until the year 2000, year where the assessment of performance turned out more complex due to the amount of companies that those funds had on their portfolios. Nevertheless, the authors managed to forecast the returns of those funds and determined that BO Funds outperformed the public markets in 20% at least, with 3.7% of yearly return.

These authors also found a negative correlation between the amount of capital committed and the return of the fund, which is consistent with the results obtained by Kaplan and Stromberg (2009) and Robinson and Sensoy (2011), whose findings meet the logic in the sense that at some point in time the committed capital will surpass the amount of good investment opportunities[58]. In this sense, the PE fund's size will not be important.

But how do they manage to achieve such performance?

[58] In line with the diminishing marginal utility theory.

VI. PRIVATE EQUITY PURCHASE STRATEGIES

Several years ago PE firms discovered that they could also benefit from economies of larger scale in order to enhance the value of their portfolio companies. Strategic players were not the only ones fighting for synergies in the arena of acquisitions anymore.

When considering acquiring a company, PE Funds need to assess how and why a target company could enhance the value of its portfolio. Nowadays, mainly two factors motivate PE Funds to undertake an investment: either they want to enter an industry where they are not yet involved, or they want to strengthen their power in an industry where they are already present (through one or many portfolio companies). Both of these things will be achieved through inorganic growth, that is Mergers and Acquisitions.

Depending on what situation the Fund is in, they will undertake different strategies:

- Platform strategy: this strategy will be the one undertaken in the first case, when a PE Fund wants to enter an industry they are not yet in. As the Fund acquires a specific company in a new industry, this business will serve as a “platform” to develop either “add-on” or “tuck-in” strategies in the future.

- Add-on strategy: like strategic purchases, these purchases are aimed at achieving synergies (or savings) as well as a reinforced position in the market due to a bigger market share, a more diversified client/supplier base or an improved bargaining power. Add-on strategies are mostly linked to horizontal acquisitions (acquisitions of competitors).

- Tuck-in strategy: are essentially the same as “Add-on” strategies, they also seek for economies of scale, geographical and product diversification. However, there is one difference: while “add-on” strategies might be aimed towards larger companies, this strategy is intended to be performed at smaller companies, in most cases this allows for vertical integration (acquisition of a customer or supplier). These strategies are undertaken with the sole purpose of merging into a division of the acquirer - sometimes referred to as "bolt-on acquisitions."

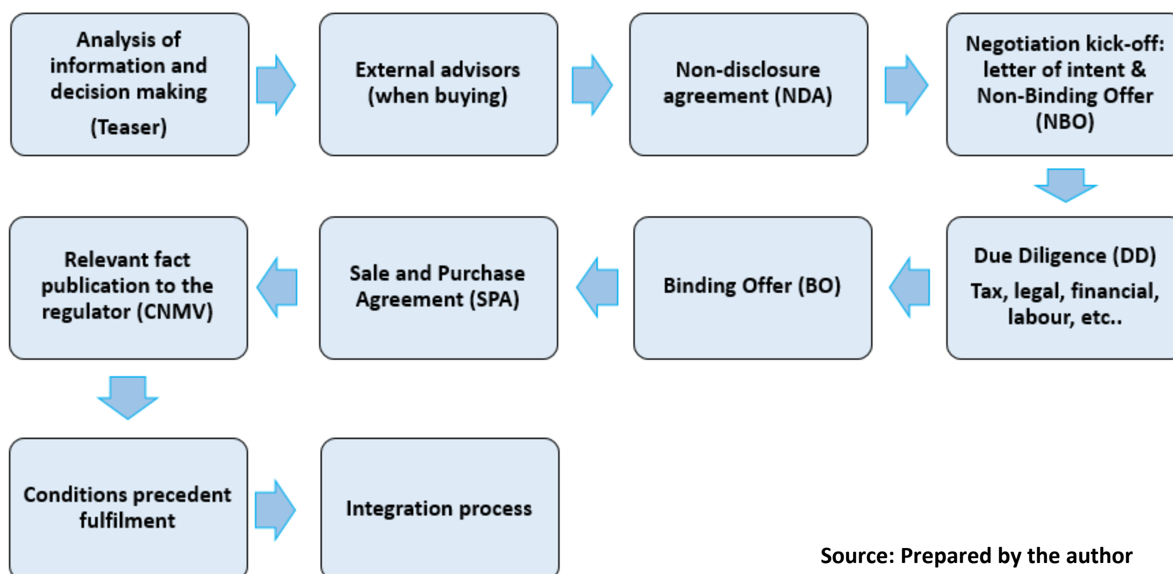
a) Acquisition process

The upcoming paragraphs explain both the acquisition process that the PE Fund would need to go through (in the purchase of the portfolio-company-to-be) and the selling process after 5 to 7 years, when the Fund will divest and hopefully sell the company.

The acquisition process that I will describe is very much similar to the processes particular of M&A transactions, since that is exactly what they are in the end.

The next flow diagram follows the process:

Diagram 12



Source: Prepared by the author

1) Analysis of information and decision making: once the seller has decided, both the exit strategy he wants to follow[59] and the type of buyer being targeted, he will either contact potential buyers individually or set an auction process. In any case, and according to a PwC paper aimed to Private Company Services[60], "most sellers will try to focus their efforts on 25 or fewer potential buyers".

   With that said, being the seller the one looking to sell, he will make the company's information available to the buyer through a "teaser"[61] that will elaborate and later send them in order to attract their attention.

   Alternatively, the seller might not be the one seeking for the operation, and it would be the buyer triggering the process by first analysing any information available in the market to later approach the seller and hopefully reach an agreement.

2) External advisors**:** at this point, if the PE Fund is not familiar with the industry where the potential purchase would take place they will usually hire strategic consultancy firms who can shed some light on the forthcoming path. Buyers also hire Investment Banks and External Lawyers.

   Sellers (specially the targeted companies which are usually family owned with little to no experience regarding selling processes) hire a larger amount

[59] Exit strategies are detailed more in depth in Chapter IX.
[60] PwC. Exit Strategies: The deal process. Page 6
[61] A document circulated to potential buyers of a regarding the company that may be offered for sale in the future. The document, often prepared by the investment bank, represents the company and details information (multiples and performance indicators) that is designed to entice potential buyers to buy the company.

of external advisors in fields such as legal, Corporate finance/valuation analysis, process management support, Broker/dealer services, accounting, tax or environmental risk.

3) Non-Disclosure Agreement (NDA): the NDA's objective is to protect the information that is (at some point) delivered to the other parties within the sale process. The delivery of such information will be subject to the signing of this agreement. Of course, a seller must make sure that the NDA has been extended to any external parts involved in the transaction.

   Once the NDA has been signed, it becomes crucial knowing how to manage the flow of information: how much information to provide and when to provide it. Here, "data room" will play a big role as they will enable the seller to manage the flow and extend of the company's information. Data rooms are online information hubs that bring together "comprehensive information covering financial results, key business drivers, legal affairs, organizational structure, contracts, information systems, insurance coverage, environmental matters, and human resource issues such as employment agreements and pension plans"[62].

4) Negotiation Kick-off**:** prior to this stage, a seller might have performed a "sell-side due diligence" in order to understand the issues of the company and fully understand what may be a source of concern to potential buyers. By doing so, the seller can address these issues, therefore keeping control over the deal process.

   The seller can then knowledgeably balance the flow of information enough to enable buyers to determine the fair value of the business while limiting the amount of "sensitive" or competitive information. In this line of argument, the seller has to always bear in mind the number of potential buyers that remain in the pool[63] in order to reach the next steps as efficiently as possible.

   a. *Letter of intent*: simply put is a document where parties declare their commitment or intention to initiate negotiations for the signing of a formal Sales and Purchase Agreement (SPA). This document would also describe the "basic matters on which they would negotiate and reach an agreement"[64] while re-assuring the agreements already reached.

      It is also customary to determine the price to be paid (or, alternatively, the formula for its calculation) and the time limit for the termination of negotiations.

[62]PwC. Exit strategies. Preparing the business for sale. Pag 13

[63] If the pool of prospective buyers has narrowed down to 1 or two, the seller would generally give all the information requested by them. If in the pool remain a fair amount of potential buyers, making an auction necessary, the seller will manage the same information more tightly.

[64] Azagra, P. M&A Transactions. ICADE Business School. 2016

If the seller is somehow satisfied by the direction in which the deal is heading, at this point he/she will grant the buyer an exclusivity period to negotiate[65]. Nevertheless, extensive literature advices not to grant such exclusivity period until the process has moved forward because the conditions and price (NBO) upon which the exclusivity period was granted might differ from the ones ultimately offered after a more extensive DD.

b. *Non-Binding Offer (NBO):* the LOI previously mentioned is an NBO. NBOs are nothing more than propositions made by the seller with no strict obligations, but despite not generating legal obligations they present the price the buyer would like to pay if the figures offered by the seller were true. Even though it is a *de jure* NBO, the buyer will most likely honour it if his DD corresponds to the information offered by the seller.

5) Due Diligence (DD)**:** can be defined as an investigation process regarding areas such as financial, legal, tax, commercial, etc... As mentioned before there might be a seller-side DD as well as a "regular" DD, undertaken by the buyer. The main objective of the DD is to assess the key elements of the target company so the buyer can knowledgeably make a decision. In this sense, the main features that influence most investment decisions are usually strategy, price, structure and financing of the operation and risk hedging.

   Ultimately, the DD provides (i) analysis and corroboration of the information, (ii) added value to the decision-making, (iii) support for valuation and (iv) assessment of legal, labour and tax risks along its possible hedging.

6) Binding Offer (BO): once the buyer has assessed on its own the value of the company, after an ideally extensive and intensive Due Diligence process, it will offer a price for the company which will be either accepted or rejected by the seller. If accepted, we can then proceed to the following step.

7) Sale & Purchase Agreement (SPA): is nothing more than a sophisticated sales contract. Evidently, it includes the signatories of the parties involved as well as the applicable background and intentions of the parties, like in any other contract. Also, like in many contracts, the SPA will include clauses regarding definitions, the object of the contract, price and payment, warranties, responsibility of the parties, applicable law and conflict resolution procedures. But, more specifically, and this is particular of M&A transactions, SPA's include the so called "Conditions to precedent and/or subsequent to fulfilment" along with "Reps and Warranties". This last concept is tightly linked with the obligation to deliver truthful information to the buyer.

[65] The exclusivity period can range from 30 to 90 days, with 45 to 60 days to norm.

8) Publication: when the companies subject to acquisition are public, the buyer will need to share that information to the market in the form of a "relevant factor".

9) Conditions to precedent and/or subsequent to fulfilment: the buyer and the seller can both set conditions necessary to the fulfilment of the operation. Basically, these clauses would carry the ineffectiveness of the contract until the fulfilment of the conditions in the contract are established. Once the conditions are satisfied, the sale would be effective from the moment the SPA is signed[66] and not from the moment the conditions established are fulfilled. In these cases, the seller or buyer might want to set a deadline for fulfilment. An example of these conditions may be the regulators' approval prior to the settlement.

10) Integration process: once the process has been completed, the only thing left is for the acquirer to integrate the target company. Due to space constrains this topic will not be further explained although for more information about the integration process in M&A transactions I encourage the reader to read a very complete guides to mergers and acquisitions: *"Process tools to support M&A integration at every level"*, by T.J. Galpin and M. Herndon. (2014) or *"Postmerger integration"*, by P. Shrivastava.

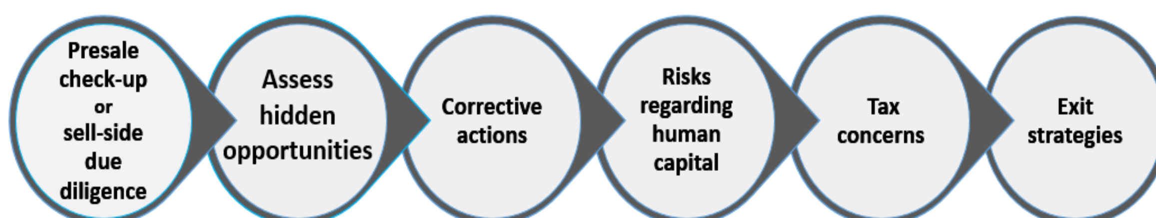
b) Steps to achieve maximization

Once the purchase strategy has been determined and successfully executed, the General Partners will focus, for up to 7 years, in preparing and boosting the investment, making it as attractive as possible to potential buyers.

As previously mentioned, it is key to determine the profile of a potential buyer from the get-go, from the moment it was correctly assessed; the Fund will "tailor" its recent acquisition in order to maximise the price the potential buyer will pay.

In the diagram below I illustrate the six steps I believe can contribute in maximising the value of a portfolio company by setting a "strategy for improvements". These steps are more detailed in the upcoming pages.

Diagram 13



Source: Prepared by the author

[66] Implying a retroactive effective date of the contract back to the moment when it was signed, meaning that for all purposes the contract displays its effects from the SPA date.

1) Sell-side Due Diligence[67]: which could be defined as a diagnostic summary undertaken years prior to the sale that highlights the areas subject to improvement. In regards to this, DD would help us answering a wide range of questions like if the information systems are strong enough? Whether or not the management team would be able to run the company without the president? What is the situation regarding the company's assets? Or, how is the relationship with customers, providers and clients evolving? These are just examples of the questions that could be answered by performing an intense Due Diligence, all which would point out structures or areas that should be subject to improvement, thereby establishing a starting point.

    Even though this check-up can cover a wide area, it is usually aimed at understanding earnings, as well as the components of business trends, intangibles, potential synergies, relationships with clients and suppliers alike, and Working Capital and CAPEX requirements. Naturally, depending on the business the questions will differ, but the ones mentioned above are a common source of concern among buyers, regardless of the industry.

    As the investment approaches the selling phase, GPs will start sharing this document with prospective buyers through Info memos or "high-level management presentations". These documents will, in most cases, need to be backed up by data rooms, already defined in this same Chapter.

    Overall, DD will not only be necessary to assess the best strategy to follow in the beginning, but it will be rather helpful for the seller to feel confident in the event of prospective buyers asking in-depth questions about the business in the selling process.

2) Assessment of hidden opportunities: which in some cases will encourage the PE Fund to hire the services of strategic consultancy firms in order to identify them.

3) Corrective actions: in order to improve the value of the underlying. These corrective actions almost always account for financial restructuring, capital structure improvement and operational enhancement. Moreover, it will be necessary to make sure that the audited financial statements are in hand, with an efficiently established accounting system with effective accounting processes, assessing Working Capital and in general undertake a labour of seek (inefficiencies) and find (improvements).

4) Risks regarding Human Capital: people-related issues stand out as one of the main reason why M&A operations fail to deliver expected results, not only in regular M&A transactions (taking place among competitors), but in Private Equity transactions as well.

    More specifically, Private Equity Firms are known for seeking the minimum change possible in the management team and operational team in general, and

[67] Note that the concept "sell-side" can be misleading, as we will be using this check-up since the very beginning, not towards the end.

will therefore try to lock in and incentivise, both the management and executive team to ensure their permanency, as they are (at least in theory) the ones responsible for the company's performance. Strategic buyers, on the other hand, would want to retain a business' head of sales (just like financial buyers would), but would most definitely change the executive team.

5) Tax concerns: in most cases, an operation succeeding or not, depends on being able to anticipate the upcoming transactions, stating objectives and evaluating the economic and tax risks. Substantial value can be sacrificed if the seller does not consider, from the start, the structure of the operation from a tax perspective.

   Hence, in many cases GPs (or sellers in general) must use tax advisors, who can tailor effective tax solutions for both parties. In these cases, it is important that the "tax engineering" is performed before signing the "letter of intent", as many matters will be tied up by then, making it quite difficult, if not impossible, to change the taxable approach.

   Moreover, specific tax strategies developed early in the selling process can maintain the seller in a controlling position. In this sense, deferred tax assets (DTAs) and deferred tax liabilities (DTLs) are a weapon that the seller can use to remain in control of the operation. As recognised by PwC, "*usual strategy is to defer tax gain whenever possible so as to allow the seller the benefit of the cash proceeds immediately while postponing the need to pay related taxes until a later date."* (PwC "Exit strategies: the del process" page 5.).

   In any case, the desired taxable treatment regarding a specific deal will depend on many variables: the specific tax attributes of the parties involved, the specific fiscal law in different countries (or states), the parties' objectives and so on. Due to the unimaginable number of different situations that could arise, this paper will not cover the different tax strategies to follow depending on the parties' situation, although I believe it could be a very interesting topic for future papers covering Private Equity strategies (specifically the different implications of performing an of an asset-based as opposite to a share-based transaction).

6) Exit strategies: after having undertaken restructuring processes and having performed the necessary improvements, PE Funds should prepare to sell in order to realize the return they looked for since the acquisition. In the next chapter the exit strategies are explained more in depth.

VII. PRIVATE EQUITY EXIT STRATEGIES

The nature of Private Equity funds is to buy (preferably at relatively low prices) and sell once they have achieved a desirable return on the initial investment. Thus, exit strategies are core in the business undertaken by PE funds, which is why exits for investments will be projected from the very beginning.

Essentially, exit strategies are ways of "cashing out" an investment. When deciding which of the exit strategies to follow, the seller will need to attend to different circumstances in order to effectively identify the goals and objectives that must be reached. These will be the ones to best determine the best exit strategy, as well as the right type of buyer.

As earlier stated, PE funds buy to sell so from the moment GPs buy, all their efforts will be focused on undertaking any required decisions that could optimize the value of their investment (henceforth referred to as "the portfolio company" or "the company"). As mentioned in previous pages, PE funds will manage their investments for an average of 5 years, which enables them to:

- Demonstrate to potential buyers the quality of the company's relationships with customers and vendors.
- Elaborate a new strategic plan (or alter the previous one) in order to make the potential sale more valuable.
- Undertake financial restructuring if necessary; the sooner this decision is made, the sooner the results will be seen, making for a more stable and mature financial structure appearance to the potential buyer.
- Create and organize semi-annual management reports (or even quarterly/monthly) in order to help the future buyer understand the performance indicators and key metrics specific of the business.

  Also, in case an IPO strategy becomes feasible in the horizon, this organization, in what comes to information reporting, will be highly valued as the company will need to make itself suitable for the public market. This market, depending on the jurisdiction, will have different requirements, but annual and quarterly reports, along with a specific management structure (among many others) are a must in the markets where PE Funds operate.
- Do what is necessary to achieve messages of quality in earning and performance, as these will be key drivers in the potential price offered.
- Comprehend and understand the strengths and weaknesses of the business; only being truly aware of the "warts" will the GPs be able to effectively defend and stand by their investment against potential buyers.
- But above all the things GPs do from the very beginning, there is one that might eclipse the rest: to consider who could be the ideal buyer and determine where the subjective value of the portfolio company would be for different buyers. I would say it is paramount to understand the needs, strategy and philosophy of potential buyers as the knowledge of these will enable the seller to best position the desired attributes in order to maximise the "personalised" value.

- With all this in mind, it would also be advisable to shape and implement a comprehensive sell-side due diligence process as the buyer will thoroughly analyse the potential deal.

Let's assume, for a moment, that you own a PE Fund. After having undertaken a successful investment, you have decided to cash it out, which means the time has come to decide how and to which potential buyer you will sell the business to. Of course, potential buyers will look for both qualitative and quantitative factors *(net debt to EBITDA ratios, capital structure, diversified customer base, strong business strategy and competitive advantages in the market place)*, yet each of the potential buyers will value qualitative drivers differently.

Consequently, it is very important to understand your buyers' valuation techniques as these will help you assess the subjective value your business has for them (therefore maximising the "personalised" value). In this line of argument, and attending to a series of papers published by PWC[68] regarding exit strategies, owners should gain an understanding of three different categories of buyers:

1. Logical strategic or pure plays
2. Vertical integrators
3. Financial buyers

However, the price of the investment is not specifically driven by the competitive landscape and other particularities, as external conditions will also affect the decision concerning the exit strategy.

According to Berger and Udell, 1998, (i) public equity market conditions (which will be key in potential IPO's strategies); (ii) public policy changes; (iii) effects of monetary policy shocks; (iv) credit crunches and (v) the consolidation of the banking sector *(regarding the flow of funds to small businesses)* could all potentially affect the decision process.

Public equity market conditions are particularly important in the Initial-Public-Offering (IPO) exit strategies since one of the principal valuation methods is the "comparables valuation method". As the valuation will strictly depend on the publicly traded comparable companies, the potential realizable returns of the VC investment will drop if the stock market plunges. Conversely, if current stock prices rise, the realized returns in the venture capital industry will increase.

Complementing this, Gompers (1998) found that whenever markets "overheat", according to him, there is an increase in the money supply for VC funds, which he explained was due to (a) an upsurge in the retained profits, (b) less limitations regarding the partnership agreements, (c) a change into later-stage investments and (d) a bigger appetite for international investments.

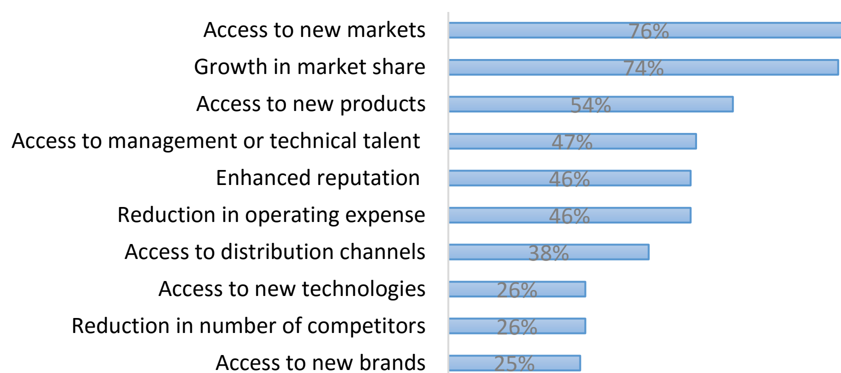
Coming back to the buyer, Private Equity funds must decide the exit strategy that best suits them. Six of the most widespread primary strategies discussed are:

[68] Private Company Services. "Exit Strategies. Finding the right buyer". To view all published instalments in the series, visit www.pwc.com/pcs/exitstrategies.

a) Sale to a strategic buyer

Potential buyers who are in the same business seek to access new markets, increase their market share, acquire patents, expertise, etc., and often times they come to realise that the acquisition of such company will bring to them faster and cheaper the desired goals instead of them developing it all from scratch.

The following graph emphasises on some goals strategic buyers tend to seek for:



Note: percent of companies listing the objective
Source: PricewaterhouseCoopers: A survey of Mergers and Acquisitions

However, they also look for synergies, as these will help potential buyers achieve economies of scale. These synergies (or "savings", as the regulated industries call them) will allow strategic buyers to offer better prices than their contenders, especially when anticipated benefits could be achieved with little integration planning due to the businesses' similarities.

In regards to synergies, the seller must quickly identify which synergies could be attractive to potential buyers in order to enhance them, allowing him to achieve the highest offering prices. It is true, nevertheless, that in the event the buyer decides to eliminate a portion of the existing management he will be willing to propose a lower price due to the asymmetry of information and causality between the company performance and the management.

When the potential sale is aimed at a strategic buyer, the seller may want to understand the costs and benefits of the buyer's integration, along with how much the buyer's purchasing power, the market share and the efficiencies generated with the deal will increase. The seller must do all this without forgetting about the potential improvement in Working Capital and a diversified customer base that the acquisition may bring to the buyer.

Here are some advantages and disadvantages of selling to a strategic buyer:

<u>Advantages</u>

– Highest valuation due to synergies and acquired elements (access to new markets or growth in existing ones.

– Greatest liquidity for the seller.

- The acquisition process might be easier for the seller due to the buyer's experience and industry's knowledge.
- May not be constrained by financing contingencies.

Disadvantages

- Management might lose its autonomy or prominence, if not their jobs.
- It may affect customer's loyalty.
- Upside value potential may be sacrificed.
- Bureaucratic or political delay (the deal might be subject to approval by competence committees among other supranational organizations).

b) Sale to financial buyers

Unlike strategic buyers who are focused on synergies, financial buyers are more dedicated to short-term investment goals, so the vast majority of these buyers will be Private Equity firms.

For a long time, it has been said that PE Funds generally pay less for a potential portfolio company, but this premise is now faltering due to the structure of PE Funds. It is true that when PE firms enter into a new industry (by acquiring an "anchor" for an industry acquisition strategy) their purchase price might be low compared to other bids, but these bids take place only in the beginning, because more will follow suit.

Once a portfolio company is acquired as a "platform company", financial buyers evolve into strategic buyers on steroids[69]. Now, PE Funds play in specific industries, meaning they pursue economies of great scale in order to boost their portfolio companies with strategic acquisitions that would enhance their portfolio value. In this sense, financial buyers have become strategic buyers by *de facto* with one advantage over the "genuine" strategic players: the former has easier and cheaper access to the credit market than the latter. With regards to this, the capacity of financial buyers to leverage the business is acute, as they can achieve higher ROEs despite paying higher prices due to the portion of debt in the deal.

According to PwC[70], financial buyers tend to seek for specific particularities in their potential acquisitions such as solid cash flows (high interest coverage ratios and a low Net Debt to EBITDA ratio), a defendable market position (the more the competitors the riskier the investment), low CAPEX requirements (as they are focused on harvest strategies[71]) and products and services present in markets that are growing.

[69] Before the 2007 credit crisis, PE Firms became stronger buyers than strategic ones.
[70] Private Company Services. "Exit Strategies. Finding the right buyer".
[71] Harvest strategy can be defined as strategy in which the investment in a particular line of business is reduced or eliminated because the revenue brought in by additional investment would not warrant the expense. A harvest strategy is employed when a line of business is considered to be a cash cow.

When the potential sale is aimed at a financial buyer, the seller may want to focus on the needs for improving the financial reporting systems or on enhancing potential opportunities that could be maximised with the injection of new capital (such as add-on[72] or tuck-in strategies[73]).

Here are some advantages and disadvantages of selling to a financial buyer:

Advantages

- Causes fairly less business disruptions with minimal effect on client's loyalty and employee's confidence.
- Financial buyers have higher purchasing power.
- May offer flexibility in the transaction structure.
- The acquisition process might be easier for the seller due to the buyer's experience and industry's knowledge.

Disadvantages

- The buyer might require the owner's involvement in the short term.
- If the acquisition has been financed with leverage:
    - Substantial debt requirements may limit the capital available for growth.
    - The company's structure becomes less flexible.
- A sale to a competitor within the PE industry may empower him at your expense.
- Heavy financial reporting requirements.

c) Initial Public Offering, or "IPO"

General Partners may choose "going public" as an exit strategy as well. In this strategy, PE Funds decide to offer the company's shares to the general public, institutional investors and retail investors alike.

The fund might decide on following this strategy (i) whenever the funding needed to achieve its business growth objectives has surpassed its debt capacity or (ii) when GPs want to cash out their investments. It is important to note that founders and early investors (in case of VC) and acquirers (in LBOs) bear one type of risk for which they are not rewarded: idiosyncratic risk. Even though "strategic" IPOs usually require the issuer

[72] Already defined in previous pages, an add-on acquisition refers to a company that is added by a private equity firm to one of its platform companies, or by a strategic buyer pursuing a consolidation investment strategy.

[73] The acquisition of a company made for the sole purpose of merging it into a division of the acquirer. Sometimes referred to as "bolt-on acquisitions."

to keep shares (the managers and executives of a specific company cannot just leave in an IPO, because if they do, the value of that company will most likely drop as there will be no skilled managers to run it), this is not the case of IPOs subscribed by Private Equities as the management team will be independent to the PE firm.

Here are some advantages and disadvantages of selling to a strategic buyer:

Advantages

- Access to long term capital
- Improves financial structure
- Provides liquidity to shareholders
- Prestige and public awareness
- Additional currency (stocks) for future acquisitions

In the event the PE Fund would like to retain a financial stake after the IPO in order to participate in upside potential

Disadvantages

- Lack of operating confidentiality
- High monetary costs:
  - ✓ 2 to 10% of administrative costs over the operation.
  - ✓ It is expensive to comply with regulatory filing requirements after becoming public.
  - ✓ Underwriting costs charged by Investment Banks (would range from 7% to 11%). IB will help the company to meet the requirements necessary to comply with the market supervisor (CNMV, SEC…) while providing credibility needed by medium to large firm to get to attract investors. Also, Investment Banks will provide advice on the valuation and pricing of the issue and will also absorb some of the risk of the issuance.
  - ✓ Under-pricing: depending on the market conditions, the firm pursuing an IPO might need to sacrifice a certain amount of value in order to attract investors to the subscription, offering its share at a lower Price Per Share (PPS) than the "Fair Value" of the firm.
- Disclosure requirements quarterly, semi-annually and annually.
- Loss of control to new stock holders.

Of course, GPs will outweigh the advantages and disadvantages and will arrive to a verdict on whether or not to go public. In this fashion, it is quite interesting to realise how the real options (option to wait, option to abandon and option to expand) do increase the value of GPs in the Fund's portfolio context. One of the main drivers for IPOs (for a company to decide undertaking an IPO) are market conditions, and based upon this, the option to wait would boost the expected returns of a PE Fund in an IPO exit strategy. Why?

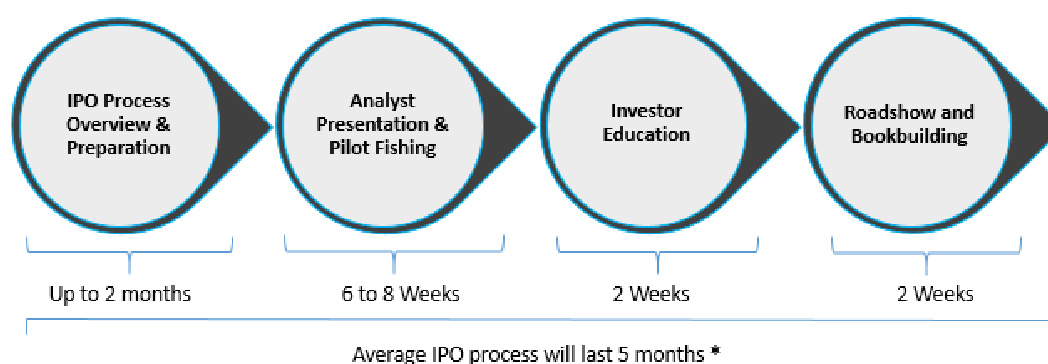
Very broadly, option pricing (as explained up to some extent in previous chapters) is based the premise that when assessing the value of an option (that grants you the possibility of buying a security with two possible outcomes) we need to take into account those two potential outcomes: the upside and the downside, as both values (weighted) will set the fair price. Building upon this, and if GPs can afford waiting for a bearish market to become bullish, they could eliminate (or at least diminish) the downside, which would lead to only computing the upside values when assessing expected returns. For more information about real options please view "Determinants of Corporate

borrowing", by Myers or "Real options: Managerial flexibility and strategy in resource allocation", by Trigeorgis.

So once the market is attractive enough to issue and once GPs have assessed the different variables and have decided to make the IPO effective, the process leading to the IPO will start.

The following diagram illustrates the route a company would usually follow in an IPO process:

Diagram 14



Source: Prepared by the author.

1. Preparation: all the work in this phase must remain highly confidential. In this period the company (along with Investment Banks) must perform a Due Diligence, prepare the IOM (Information Memorandum) along with other legal documentation. It is also normal to prepare the IPO internally: both the Board of Directors and the management team would work over the Financial Statements and Reporting.

2. Analyst presentation & "Pilot Fishing": in this stage, both parties (IB and issuer) will be working more closely as the issuer will start spending more time alongside its Bank. During the "Analyst Presentation" the issuer will spend (usually) one full day presenting its equity story and positioning. Along this 6 - 8 weeks, the issuer will educate research analysts, establish relationships with lead Analysts and obtain feedback from them.

   Once this process comes to an end and both the IB and issuer are on the same page with a shared strategy of the IPO, they will go through the "pilot fishing", which is nothing more than a market testing. The IB will deliver management presentations to 10-15 key investors, considered as leaders for the future bookbuilding process, after which they will ask for feedback. The feedback from these investors will be very valuable for both the IB and the issuer to gain awareness of both the market conditions and about any potential concerns Institutional Investors might have, giving them time to address them. These presentations will usually take place in the financial cores of Europe (UK) and US (NYC) and would usually seek for not only feedback from investors, but insurance in achieving early momentum in the bookbuilding process.

3. Investor Education: in this period, syndicate research analyst would meet with many investors (usually over 300) to educate them about the company's "intention to float". This process will usually take around 10 business days as some of the meetings would be one-on-one's. The IB will shed some light upon issues like the valuation parameters and other topics, which helps identifying areas of investor's interest and concerns. This information will be essential as it will help the IB to set a price range.
4. Roadshow: Finally, this will be the last phase in the IPO process before the bookbuilding. Here is where the Institutional Investors get to meet the management team (MT). The MT will, for about 10 business days, deliver their investment cases one-on-one meetings with the purpose of, at "Bookbuilding day", achieving high meeting-to-order conversion ratio and maximising demand and drive pricing.

d) Sale to Management

Where in most cases the PE fund will provide long-term financing to the managers. This exit strategy is purely a Management Buy Out (MBO) with the consensus of the acquirer. This type of acquisitions has already been explained in the second chapter.

e) Recapitalization

Even though recapitalization is not an exit *per se*, it could be a way to cash out an investment partially. This is more common in the VC part of PE as they usually go over many rounds of financing, enabling investors who entered in the first stages who partially cash out their investments. There may be different reasons why a company might decide to recapitalise a company, but the business cycle will be quite determinant. On page 51 I included a very illustrative chart created by Berger and Udell in 1998[74] which plots the different financing instruments that corporates need depending where on their business cycle they are in.

That being said, recapitalization may imply re-leveraging or may simply mean issuing debt for the first time in order to repurchase equity and the most important advantages of this strategy is the investment payoff possibility while still in control of the company. This not only reduces risk (decreasing duration), but also raises the possibility to benefit from tax shields higher than in any other exit strategy.

Of course, this strategy would have its drawbacks as well, the more likely appearance of financial difficulties due to a decrease in flexibility as FCFE is diminished by interests.

f) Write off/liquidation

The last of the possibilities when exiting an investment, and by far the most feared by the GPs. When a company is underperforming and no changes of reversing its cycle

[74] Berger, A., and Udell, G. "The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle". Journal of Banking & Finance, 613-673. 1998

seem plausible the GPs have two options: (i) they can write off the company from its portfolio, which most times happen with VC funds due to the possible still intangible performance or (ii) they can wait for the liquidation of the company to happen hoping that they will get some value out of the liquidated assets.

These are all feasible alternatives for General Partners to divest on their Portfolio companies, and they will all be taken into account from the very beginning,

In the cases were the sale is intended to another party (strategic or financial buyers and MBOs, IPOs are therefore excluded), it will be advisable for the seller to organise the sale process. Regardless the specific steps the seller drafts (as depending on the industry, the required milestones to fulfil and the way to fulfil them will be probably different), efficient information management and effective communication will be vital for success. Moreover, all players within a seller´s team must row in the same direction, reinforcing identical messages to avoid compromising the credibility and effectiveness of the company as a whole. Also, flexibility and trust will be two elements that both parties in the transaction will need to share.

By understanding that each party has its agendas quite busy due to, not only the transaction, but to ongoing operations of their own, both the seller and the buyer will smooth out arising schedule problems; in some cases, an operation can be ruined as they build tensions that can later be hard to dissolve. In this sense, trust is also critical; hence the seller would need to provide the buyer with crucial information while disclosing potential issues from the very beginning in order to avoid jeopardizing the operation.

XI. CONCLUSIONS

Public interest on the Private Equity Industry has been increasing over the last years, even when PE was facing the consequences brought by the 2007 credit crisis. This has now changed and PE has been escalating again with strength, a strength maybe due to the rise of Private Capital (which for the last years has become quite popular) or to the positive correlation PE has with the market, as it is mainly driven by capital demand and capital supply.

Hence, it is now that we might be witnessing a change in direction, from equity investing to private investing due to the challenging of the economic landscape, where the rates of corporate defaults have been increasing regardless the monetary stimulus, which has not been enough to overweigh uncertainty. In this sense, Private Capital has turned into a very attractive investment activity, with the use of instruments such mezzanine, distressed debt and unitranche debt. Private Capital in this regard will make a great subject of research.

But regardless the new attractiveness of Private Capital, Private Equity remains as a quite attractive investment strategy as it has been proven to deliver alpha, abnormal returns (particularly in LBOs strategies). A paper written by Harris, Jenkinson and Kaplan in 2013 set a new method to assess the return in the PE industry through the PME method, a method which compares the returns[75] investors in a PE Fund had against the returns that investor could have gained were they had invested in the public market. From the 80s until today, PE Funds (particularly Buyout) had returns around 3% yearly.

Also, and quite interestingly, the size of the funds seems to have no effect in the ROIs undertaken by PE, unlike the committed capital, which turns out to be negatively correlated with performance, suggesting that the diminishing marginal utility theory govern the PE industry

Once this being said, a lot has been written about LBOs and Venture Capital (although less of this last one) and not so much regarding turnaround or special situations' strategies. Of course, I believe the assessment of performance of these two is far more challenging to assess than the one for LBOs and Venture Capital, mainly due to lack of data available, but I think this could be a very interesting topic to research, as PE will continue to evolve.

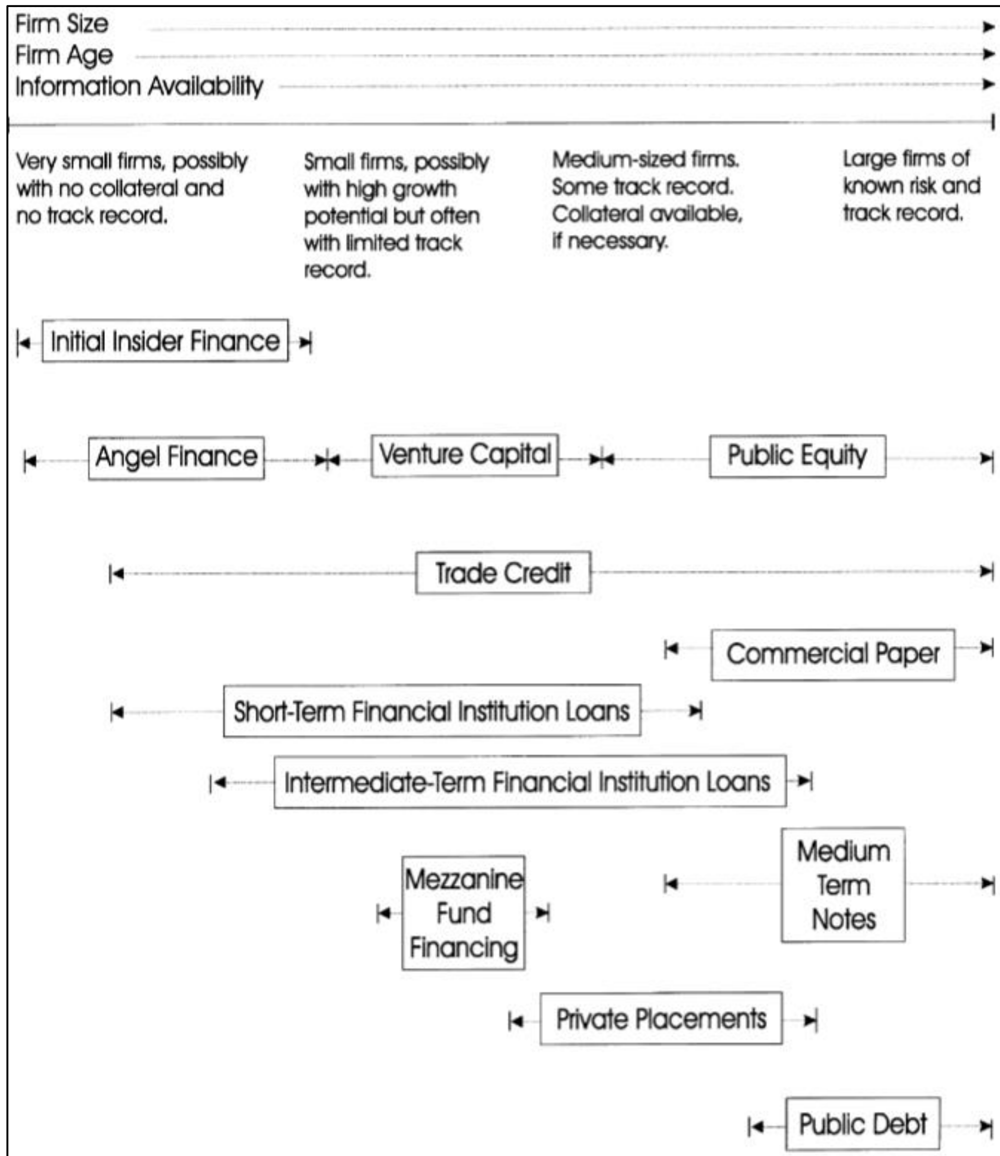
As regards to this, investors will be vital in developing this industry, which is why I have dedicated a fair amount of pages to them as they will need to understand the risks that come along PE investments, risks that are not only derived from the investments themselves but also derived from the GP's compensation package since its pay-off structure is non-linear. But besides the risks, the tools needed to assess the performance of a particular PE Fund will be also very important, and here is where the J-Curve will be core.

In what comes to the GPs in PE Funds, they have been following the same strategy since their appearance in the 80's: they have always intended to buy low and sell high in strategies that require buying low, assess which exit would best fit a specific company even before getting

[75] Net of fees.

to manage a specific company, to then improve both the operational performance and financial structure, which they will tailor to the expected buyer as this is how PE funds maximise the value of their portfolio companies.

Figure 1



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