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# PRIVATE EQUITY: AN ECONOMIC ANALYSIS OF APPLICATIONS, OPPORTUNITIES, RISKS AND SOCIAL IMPACTS

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*Dedicated to*
*my husband*
*and family*

# Abstract

I fondi di Private Equity sono oggetto di sempre maggiore attenzione nel panorama economico internazionale. La forte crescita riscontrata negli ultimi anni suscita molto interesse nella ricerca accademica. Da un lato il private equity è delineato come un *asset class* di rilevanza strategica, in quanto strumento a supporto di realtà aziendali sia da un punto di vista finanziario che organizzativo; dall'altro numerose critiche sono state sollevate per la sua natura speculativa in termini di rendimento e profitti.

Questo lavoro vuole analizzare in chiave critica, le effettive ripercussioni di carattere macroeconomico, in realtà che riscontrano la presenza di questi fondi di investimento, i quali si definiscono promotori di crescita economica, nonché generatori di valore ed opportunità.

Spesso l'operato del private equity ricade in politiche di management finalizzate al solo conseguimento di elevati profitti da poter ripartire tra i propri investitori. Da ciò deriva poca prudenza ed il ricorso al sovra-indebitamento, con conseguenti appesantimenti alla struttura aziendale, la quale si trova ad intraprendere azioni drastiche per poter far fronte agli impegni finanziari.

Verranno proposte possibili soluzioni in termini regolamentari, volte ad ammortizzare le implicazioni negative che ne derivano a discapito della società e dell'economia.

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# Introduction

By definition, Private Equity is capital invested in the direct ownership of business not traded on public exchanges. These financial assets, which are evolving rapidly and maturing fast, are a source of lot of attention and criticism.

To quite simply describe Private Equity, Luke Johnson chairman of the private equity firm Risk Capital Partners explains the PE model with these simple terms during the 2012 U.S. Presidential campaign:

"Stating the obvious, private equity is so-called because it does not operate in the public arena. It is a pure capitalist pursuit in which investors buy companies and try to sell them for a capital gain. There is an intense focus on returns for shareholders and rather less concern for citizens as a whole. Generally speaking, corporate social responsibility, sustainability, disclosure and environmental issues are not as much a priority as they are to public companies, charities and government. These companies are run to maximize profits for the owners, rather than for creations of jobs. Of course, private equity can be healthy for an economy, but as a career, it is probably at the opposite extreme from the public services in terms of motivations. Attention is not directed towards the common wealth, but enriching the management, buyout partners and their institutional backers. That is the nature of the game. To argue otherwise is bogus."

The purpose of this working paper is to analyze the effects of the private equity on the overall economy.

The first chapter describes what private equity is, the private equity structure, business model, the phases during the investment's life, and how their performance is measured.

The second chapter outlines the development of the private equity industry, how the industry has grown, challenges and risks associated with private equity, and the impact they play on the economy.

In conclusion, the third chapter will discuss the regulatory changes that have taken place in Europe and in the United States, the growth potential, hypothetical solutions, and how to reduce negative impacts on the economy as a whole.

# CHAPTER 1
# PRIVATE EQUITY AN OVERVIEW

## 1.1 What is Private Equity?

Private equity is an asset class consisting of equity and debt investments in companies, infrastructures, real estate and other assets. Capital invested in this asset class is typically raised from a range of investors through private, rather than public, means.
Given the broad nature of the field, providing a comprehensive and univocal definition of the term private equity is no easy task. One of the more commonly used definitions arrives from the European Private Equity and Venture Capital Association (EVCA), which refers to private equity as “equity capital to enterprises not quoted on a stock market”.
Mathonet, (2004) describe private equity as follows: “Private equity provides equity capital to enterprises not quoted on a stock market. It can be used to develop new products and technologies, to expand working capital, to make acquisitions, or strengthen a company’s balance sheet. Private equity also can resolve ownership and management issues. A succession in family-owned companies, or the buyout and buy in of a business by experienced managers may be achieved using private equity funding.”
Bauer et al (2001) define private equity as professionally managed investments in unregistered securities of mainly private companies. The investments are mostly in the form of equity, but also other structures combining debt and equity are possible. Most private equity managers acquire large ownership stakes and have an active role in monitoring and advising the companies in their portfolio. Thereby the investment horizon of the private equity managers is limited by an exit strategy with the aim of realizing a return on investment.
Based on the development stage of the target firms, private equity is often split into two major sub-segments: venture capital (VC) focused on earlier company stages, and buyout (BO) capital for more mature businesses.
Venture capital refers to equity investment made for the launch, early development, or

expansion of a businesses. It has a particular emphasis on entrepreneurial undertakings rather than on mature businesses.
Private equity can cover the financial life cycle of a company from its initial development until maturity is reached. A buyout takes place when PE funds invest in an existing company, acquiring it and becoming the new stakeholders.
The term private equity will be used to cover both venture capital and buyout through this working paper.

## 1.2 The Structure of Private Equity

The prevailing structure for private equity funding is the limited partnership in which the private equity firm serves as the general partner (GP), and the investors serve as limited partners (LPs).
"The limited partnership is a legally defined structure and is considered an attractive vehicle to investors mostly due to liability and tax reasons" (Sahlman, 1990)
The private equity firm collects capital within the private equity fund; the limited partners deposit a percentage of equity in support of the investment in companies and management fees to the general partners.
Investors are typically pension funds, insurance companies, endowments and wealthy individuals.
The key to success is to diversify the risk by investing in different businesses. General partners (GP) can be single or multiple PE firms. The total capital is usually provided in exchange for 1 percent contribution from the general partner although more can be invested.

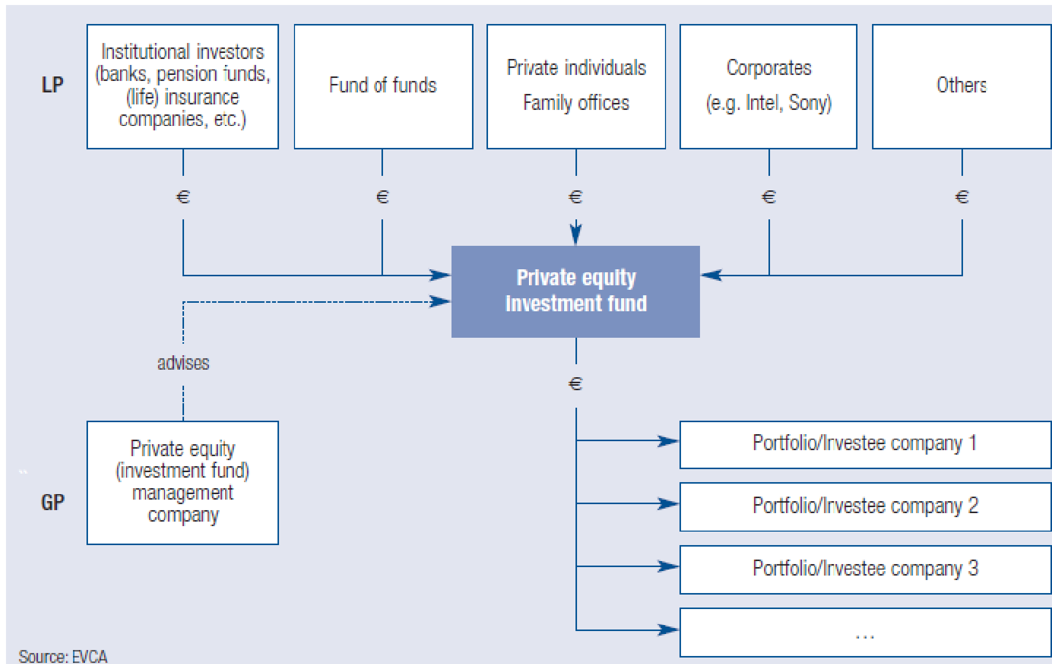



Figure 1.1. - PE business model

The fund typically has a fixed life, usually ten years, but can be extended from two-four additional years.

The funds' capital is gradually drawn down over a 3-5 year investment period as opportunities are identified and executed on. Over 5-12 years existing portfolio investments begin to exit with distributions flowing back to limited partners.

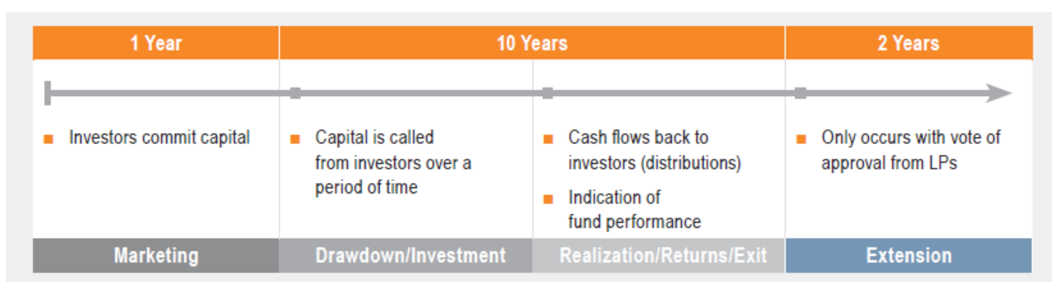



Figure 1.2. - PE fund lifecycle

Limited partners (LPs) have very little say in how the GP uses the funds, so as the fund agreement is respected. Agreements restrict the amount the capital funded to be invested in different types of securities and the quality of the debt being funding. Restrictions are also in place on fund capital being invested with a target company.

Private equity investing typically comes with high fees. GPs' compensation consists of both fixed and variable components. First, the GP earns a management fee for the operating costs of managing the fund, which is usually set as a percentage of the committed capital. This fee is fixed in the sense that it does not depend on the performance of the fund. The prevailing size of the fee is between one and three percent. As the GP divests an investment the proceeds will insofar as possible first, be used to return invested capital to the LPs together with a predefined hurdle rate (or preferred return). That is the level of return that must be achieved before the GP has the right to any profit sharing. A common range for the hurdle rate is between eight and ten percent of the invested capital (EVCA). Once the investors have achieved their pre-agreed rate of proceeds, the GP will share the excess. This second part of the compensation to GPs is referred to as a carried interest, and depends on the success of the fund. The level of carried interest is fairly standardized at 20 percent of the proceeds.

Greater returns and better performance based compensation justify the higher fees. Common bonds, public investments and other conventional assets have much lower fees but yield historically less profit. Therefore, the high demand for private equity investments has kept the fee system untouched.

## 1.3 The Business Model

The extensive use of leverage is the main characteristic of private equity investments.

The use of debt is relative to the profits a firm can earn. The higher the debt, the higher the yield to earnings. This is the core of the private equity business model. The method can be seen when a private equity firm sponsor operating companies by leveraging the company's operating debt.

The general partner of the PE fund makes decision about which operating companies the fund should acquire and how much debt to use in acquiring them. The personal funds invested by general partners are a small fraction of the purchase price of the companies the fund acquires. Most of the PE fund's equity is supplied by pension funds, wealthy individuals, and other institutional investors who are the fund's limited partners (LPs). The majority of the purchase price of portfolio companies is financed with debt.

What economists call “moral hazard” is the asymmetric relationship in which the general partner loses a small amount if the investment sours, but realize high gains magnified by the use of debt, if the investment is successful. With little to lose and much to gain by leveraging portfolio companies, the general partners in PE funds have incentives to engage in risky behavior and load excessive amounts of debt on the companies they acquire and control.

Before value can be captured by the private equity firm's partners, it must first be extracted from the operating companies acquired by the PE funds. PE funds use a range of governance, operational, and financial strategies to manage, control and direct their portfolio companies. Private equity owners are both investors and managers of the portfolio companies they acquire, exercising ownership with control to maximize shareholder value for the portfolio company's owners.

PE firms use their superior access to finance and management know-how to unlock the untapped potential in good companies or to turn around poor performance of failing ones. This result in a net gain for the economy as well as outsized returns to the PE fund and its investors.

Private equity funds are financial intermediaries. A PE firm raises capital from pension funds, mutual funds, insurance companies, university endowments, sovereign wealth funds and wealthy individuals, sponsoring a PE fund and investing capital in the acquisition of a portfolio of operating companies. The general partner of the fund is a partner or group of partners in the PE firm. The investors in the PE fund are the fund's limited partners. Pension funds are the largest source of equity capital for PE funds.

A private equity firm may sponsor multiple PE funds and typically raises a new fund every three to five years. The PE fund acquires operating companies through leverages buyouts, using the cash flow and assets of the company it purchases as collateral. Repayment of this debt is the responsibility of the acquired company; neither the PE firm nor the PE fund behind the purchase is liable to repay the debt.

The choice of which portfolio companies to acquire is based entirely on the potential for the company to generate profits for the PE fund and its investors. A good target for acquisition typically has demonstrated strong growth but has undervalued assets, generates a steady stream of cash, and has good prospects for a successful exit from the investment in a three- to five- year period.

The acquisition criteria lead PE firms, to own a wide diversity of companies across many industries rather than, companies in the same industries, in complementary product lines, or competing in the same product market. A minority of PE firms do specialize, and specialization strategies are more prevalent in PE firms that focus on small and mid-market buyouts.

Private equity firms pursue a strategy to limit their legal liability. Regardless of the industry composition of a firm's portfolio companies, each fund and each company in a fund is set up as a separate legal entity. That is, each fund sponsored by a PE firm is a separate special-purpose entity that acquires a number of companies, and each deal in which an operating company is acquired for the fund's portfolio is structured as a separate corporation. The purpose of this structure is to limit the legal liability of the PE firm and the fund investors. If a portfolio company of one fund experiences distress or enters bankruptcy neither the PE fund nor the PE firm is liable to make good on the portfolio company's debts or losses.

The PE firms promise to realize returns on limited partners' investments in a relatively short time frame. Their focus is on short-term measures of shareholder value, not longer-term financial measures, such as market share, industry leadership, or intermediate measures, such as operational excellence or innovation.

The exclusive focus on short-term shareholder value is driven by several features of the PE firm's business model. During a PE fund's typical life spam of ten years, the limited partners cannot withdraw their capital and new investors cannot join the fund. At the same time, the PE firm is under the gun to invest this capital in the first three to five years of the fund's life, return the uncommitted capital and relevant management fees to the LPs. Limited partners also expect to realize some returns within five years of investing in the PE fund; if they do not, they have fewer resources available to commit to subsequent PE funds raised by the firm. This puts additional pressure on the general partner to either exit a portfolio company within five years of acquisition, or to make distributions to the LPs in the form of dividends, collected from operating companies' cash flow or additional loans.

Exits can occur through the sale of the company to another company as a strategic acquisition, to another PE company as a secondary buyout, or via an initial public offering (IPO) on a stock exchange. Only at the end of a fund's lifetime, after all

investments in portfolio companies have been realized, it is possible to calculate the actual asset value of the companies and the investment returns of the fund.

The successful private equity firm raise a series of funds every three to five years, sponsoring three or even more funds at the same time. While the mechanism for PE firms to make money is the successful acquisition and exit of individual portfolio companies within a relatively short time frame, the PE firm's long-term success as a diversified conglomerate depends on maximizing returns across all of its funds.

The perspective of PE owners is radically different from that of owners of privately held companies or the managers of publicly traded corporations, whose primary investment or livelihood depends on the success of the company they own or manage.

The general partner receives three streams of income: management fees from the limited partners, profits from investments, and fees from the portfolio companies. The first two are specified in the contractual agreement between the LPs and the GP, the limited partner agreement (LPA).

The typical agreement requires LPs to pay annual management fees of 2 percent of the total investment fund to the GP. Over a ten-year period, the GP collects 20 percent of the value of the fund as management fees, regardless of how well or poorly the fund performs. The LPA also stipulates that the GP will receive a share of the fund's profits, referred to as “carried interest” which is typically 20 percent of the gains from investments in the portfolio companies once the fund achieves the “hurdle” rate of return, typically 8 percent.

GPs also hold decision-making power over a PE fund's investments. Limited partners are positioned as passive investors with no involvement in investment decisions, although they may voice concern when investments do not yield expected returns. Good decisions result in a good fund performance and in large payouts of carried interest.

Private equity firms take an active role in the governance, operation and financial management of the companies they acquire. The general partner of the fund plays a large role in selecting the company's board of directors, which typically includes partners in the PE firm and outside industry experts appointed by the GP in addition to the company's CEO.

Compared to publicly traded companies, PE portfolio companies have smaller company boards, hold more formal and informal meetings, and replace poorly performing

management teams more rapidly than their non-PE-backed counterparts. The GP actively advises and monitors the portfolio companies in the PE fund's portfolio.

At the direction of the general partner, managers of portfolio companies usually draft a "100-day plan" as an initial blueprint for restructuring the company's operations in order to service its increased debt burden and meet the PE fund's targets.

PE firm uses financial incentives to align the interests of an acquired company's top managers with those of its PE owners. Portfolio company managers are presented with a highly leveraged capital structure and the promise of very generous performance-based pay if they meet targets established by the PE firm and substantially improve the portfolio company's profit margins. PE firms quickly replace managers who do not meet these expectations.

Research on private equity identifies various sources of gains for PE funds. These strategies may be grouped into two general categories: business and operational strategies that add value to the portfolio firm, and financial engineering strategies that allow PE owners to extract wealth without necessary adding value. Business and operational strategies are similar to those that are often used by public corporations, including investments in new processes, technologies, or human capital; growth via acquisitions or new market strategies; and restructuring and downsizing. Financial engineering includes the sale of assets, with proceeds going to PE investors; the aggressive use of debt to multiply gains, obtain tax advantages, or pay dividends to investors; and the use of bankruptcy to reduce debt, abrogate contracts with unions and suppliers, and rid the company's owners of workers' pension liabilities.

The greatest opportunities for strategic and operational improvements occur in small and midmarket companies, which often lack professional management and modern financial accounting and information technology systems. They may be too small to attract the top management talent that could help them grow. Private equity owners can bring big company experience to these small and midsize enterprises.

The very large mature corporations already have professional management, accounting, IT systems in place and typically have the resources and expertise to invest in growth and operational improvements. Private equity has fewer opportunities to make improvements along these lines, but the larger assets and cash flow of these corporations can be used to support very high levels of debt, to return dividends to PE

investors, and to engage in other financial strategies.

### 1.4 Major types of Private Equity

The major categories of private equity investing include venture capital funds, buyout funds, mezzanine funds, and distressed securities funds. These vehicles are defined in the figure below (Fig. 1.3.):

| Fund Type | Definition |
|---|---|
| **Venture Capital Funds** | Funds that provide equity capital to privately owned businesses in early stages of development. A typical portfolio company has limited or no access to public finance or bank loans. |
| Seed-Stage Funds | Venture capital funds that invest in the portfolio companies that have not yet fully established commercial operations. Many are also involved in continuing product research and development. |
| Early-Stage Funds | Venture capital funds that invest in the portfolio companies for their product development, initial marketing, manufacturing, and sales activities. |
| Balanced Funds | Venture capital funds that invest in the portfolio companies in a variety of stages of development. |
| Later-Stage Funds | Venture capital funds that invest in the portfolio companies that are producing, shipping, and increasing their sales volume. |
| **(Leveraged) Buyout Fund** | Funds that invest in more-established portfolio companies with positive cash flows for purposes of acquisition (utilizing a significant amount of debt). |
| Small | \$0–\$250 million |
| Medium | \$250–\$500 million |
| Large | \$500–\$1,000 million |
| Mega | \$1,000 million + |
| **Mezzanine Funds** | Funds that provide venture financing to portfolio companies shortly before a public offering. |
| **Distressed Securities Funds** | Funds that invest in securities, principally debt instruments, of financially troubled corporations. |

Source: Venture Economics/NVCA.

Figure 1.3. – Major categories of PE funds

This working paper will discuss the two major types of private equity funds: venture capital and leveraged buyout.

Mezzanine investments are debt investments that are unsecured and are subordinate in right of payment to all other debts. As the most junior form of debt, mezzanine debt has the most repayment risk if the borrower files for bankruptcy and in return for that risk, mezzanine debt generally pays a higher interest rate and comes with warrants that give investors the ability to participate in the capital appreciation of the borrower, if any.

Distressed investments generally involve the purchase of equity or debt securities in a company that is experiencing hardship. Distressed investments offer the opportunity to

invest in debt securities that trade at discounted or distressed levels with the potential for higher future value if the company recovers.

*Venture Capital (VC)*

Venture Capital is the financing of start-up or emerging companies developing new business opportunities. Most venture capital investing has focused on new technologies in electronics, information technology, software, computers, telecommunications, materials, biotechnology, clean technology, and medical devices. There are also many service companies and consumer-oriented businesses that have been launched and developed with venture capital. Venture capital is an increasingly global business; however, it remains largely concentrated in regions that are conducive to entrepreneurship and business creation.

Huss (2005) describes that venture capital funds provide capital to firms that have difficulties attracting financing. Young firms that are plagued by high levels of uncertainty are helped by these venture capitalists. Venture capitalists provide an entrepreneur with management support. The most of these financed companies are young start-up companies, which have few tangible assets and are operating in a rapidly changing market. The financing of these companies happens by purchasing equity or equity linked securities, while the companies are still privately held.

Venture capital funds can be subdivided into three categories:

- Seed capital, which is provided to "start-up" enterprises that need backing to fund the development of the new business idea or concept. The start-ups are usually based on an innovative technology or business model and they are usually from the high technology industries, such as information technology (IT), social media or biotechnology.
- Early stage capital, investments given to a business to fund start up and prototype stages that are not capable of going into a bigger scale due to capital insufficiencies.
- Later stage capital, investments given to a business that is already generating revenues but needs more funds to grow production and products.

Investments into venture capital reached the highest point in the "dot.com" era in 2000. Investors were given new faith in companies that were now internet-based and

technologically driven. Many of these companies did not flourish as expected and basically proved worthless.

Venture capital has yet to recover from their consistent write-downs. Venture capitalism does have its outliers such as Microsoft, and FedEx, which were venture capital funded.

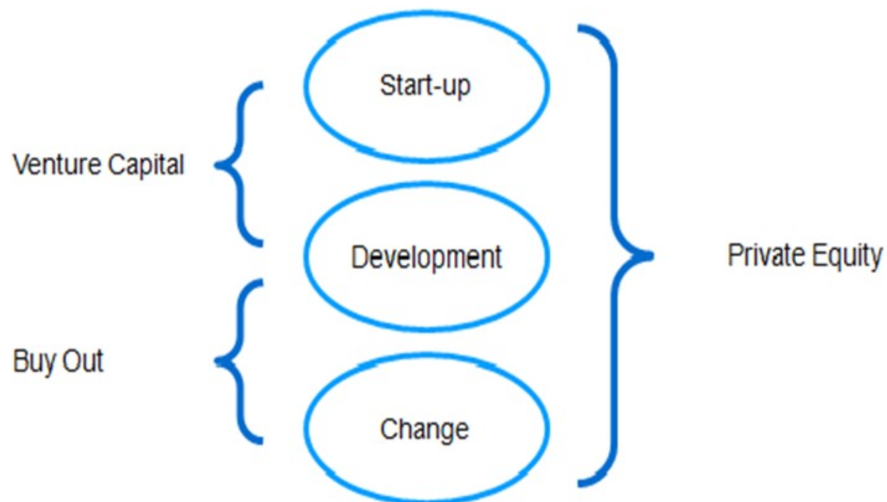



Figure 1.4. - VC & BO

*Buyout Capital (BO)*

Buyout capital comprises investments in established private, or publicly listed, companies that are expected to undergo a fundamental change in strategy and operations.

In a buyout transaction, the business, or business unit, is fully or partly acquired from other shareholders. The segment can broadly be divided into insider driven deals whereby the BO firm invests alongside the existing management team, i.e., management buyouts, or outsider-driven deals when a new management team enters the company, i.e., management buy ins. Capital invested in buyout processes can, for example, be channeled to business acquisitions or mergers, spinouts of divisions or subsidiaries, or to resolve ownership and management issues.

Most buyouts are financed with a substantial level of leverage, where the target company's assets are used to secure loans and its operational cash flow is used for future repayments. Hence, an important criterion when selecting investments is that the target firm shows strong cash flows at the time of the investment.

Venture capital and buyout capital share a number of fundamental commonalities. One of the unique traits of private equity investing is the active ownership style, where the investors are expected not only to bring capital but also to provide non-financial services in terms of relevant knowledge and experience, business contacts, and certification. Hence, in contrast to most shareholders in public companies, private equity investors put a great deal of effort into monitoring, managing and restructuring their investee companies to create value. Such operations require specific skills and practices, whereby a private equity management team consists of specialist professionals working closely with their investee companies while maintaining significant influence and control of strategic decisions and operational activities.

Buyout funds form the largest fraction of private equity funds with total investment volume. LBOs are also among the largest investment across all types of PE investments. A leveraged buyout is the acquisition of a private or public company by a PE investor. It is financed by debt capital while the fraction of equity originates from an investment fund, usually referred to as the buyout fund. The PE firm raises money from institutional investors or high net worth individuals who become a limited partner by committing capital to the found. After fundraising, the GP invests the fund's capital along with external debt to conduct LBOs. In a typical LBO, a target company's debt and equity is entirely purchased and replaced by the capital structure used in the acquisition.

The sole purpose of an LBO is to generate returns to buyout fund investors. This goal can be accomplished in two ways: recapitalizing the target company using a high levered financing structure and restructuring the business of the company using various value-enhancing strategies.

By restructuring a company, any existing inefficiencies in the operating business are eliminated and the company can later be sold at a premium, yielding a positive return to buyout fund investors.

Buyout funds use the leverage effect to increase equity returns. Debt has two primary effects on equity returns. First, interest expenses on debt are tax-deductible, therefore shielding some of the firm cash flows from being paid as taxes. This tax shield adds to the firm's value through a higher overall free cash flow to the firm. However, interest obligations shift the risk profile of a firm by making profits more lucrative to equity

investors but also making losses more severe. The second effect is commonly known as the “mortgage” effect. The underlying idea is that buyout funds use only a small fraction of the fund's equity and a large fraction of external debt to purchase all outstanding equity and debt securities of the target company. The debt used to finance the acquisition of the target company becomes part of the capital structure of this company. Thus, the company is responsible for repaying the debt from its free cash flows as quickly as possible. By paying down the debt, the equity stake of a buyout fund becomes more valuable over time, analogous to a mortgage. This mortgage effect further adds value to the company, mainly to its equity holders.

### 1.5 The phases of Leveraged Buyouts

An LBO is conducted in a three-step process. In the pre-investment phase, the LBO fund manager identifies a suitable target company and structures the financing with debt and equity for the deal. In the investment phase, the acquired company is restructured to increase economic value and to repay the LBO transaction debt. In a final exit phase, the target company is sold, some of the remaining debt is paid off, and the proceeds from selling the company are distributed to the fund investors.

*Pre-investment phase*

The most important part of the pre-investment phase is choosing a suitable target company. Since it typically takes five to six years to complete an LBO and the transaction often requires billions of dollars of invested capital, the choice of target is critical to the buyout fund and its investors. Choosing the wrong target can be damaging the success of the fund and the investors' equity, which is why fund managers sometimes take years to find eligible companies and negotiate their acquisition terms.

Usually companies should meet three main criteria to be considered as an LBO target:

Economic value creation. The company should have a sufficient potential for economic value creation. Often, targets are large, inefficiently run conglomerates. Fund managers are fond of such companies because they can swiftly create value through management replacement, tighter governance structures, and the divestiture of underperforming business divisions.

Free cash flows. The free cash flows of the company must be sufficiently high to allow for a successful implementation of the leverage plan.
Low price. The company should be obtainable at a low price. Many large conglomerates use antitakeover provisions allowing the incumbent management to fend off hostile takeover attempts or make them costly.

*Investment phase*

In the investment phase, the target company is restructured to reap the benefits of economic value creation and to generate free cash flow to pay down its debt. There are four distinct categories of restructuring efforts: 1. financial engineering, 2. operational engineering, 3. governance intervention, and 4. management monitoring (Kaplan and Strömberg, 2008).

Financial engineering describes restructuring efforts connected to the financing structure and the financial accounting of the target company. Restructuring the financing is both directed at the leverage effect and at the choice of the funding instruments.

Acquiring the target company is financed with only little equity but large amounts of debt. The goal is to acquire both equity and debt instruments of the portfolio company to replace its old capital structure with the new acquisition financing structure. The portfolio company is then responsible for repaying the principal and the interest payments of debt. The capital structure is chosen for two reasons. First, debt interest payments are tax-deductible. The company therefore generates higher overall cash flows to the firm, effectively creating a higher value. Second, by paying down the debt, the equity stake becomes more valuable over time, similar to the impact of making mortgage payments over the life of a loan for real estate property.

The LBO fund has to obtain financing instruments that allow the successful implementation of the leverage plan. The funding costs have to be sufficiently low to maintain free cash flow available for debt pay-down after the interest payments have been made.

The repayment conditions of the debt instruments need to allow for a timely repayment, given the short time horizon of an LBO of typically five to six years.

Large LBO firms that often put together funding packages for their transactions maintain excellent relationship with banks and institutional debt investors. Thus, they

can negotiate the desired terms of low interest rates and few covenants.

The second part of financial engineering is optimizing the financial accounting of the target company. LBO firms often use the full potential of discretion in valuing certain assets to lower the target companies' taxable income through higher depreciations.

Operational engineering, describes restructuring the operating businesses of the target company. The goal is to either increase revenues or lower the costs to create more free cash flow from the operations. Frequent strategies involve reducing corporate overhead through layoffs, as shutdown of unprofitable production lines or divestiture of unprofitable divisions, and strengthening and expanding profitable products or divisions.

Asset sales are also vital part of operational engineering. Spinning off unprofitable or cash-weak divisions or product lines into separate entities and selling them can accomplish two things: a singular cash inflow from the asset sale and a higher overall profitability of the company.

Governance intervention and management monitoring are two mechanism to lessen agency costs in target companies. Governance intervention describes the active restructuring of the governance structures of the target company to lower agency costs. To accomplish this, the LBO funds select a new management team that replaces the incumbent management of the target company on the acquisition. To align the interests of equity investors and managers, the target company's management is awarded with ownership stakes in their company.

To further reduce agency costs and to make sure managers act in the best interest of equity investors, the LBO fund managers hold a board seats to closely oversee the managers and their actions. Taken together, these measures accomplish two things. First, the target company becomes more valuable due to a reduction of agency costs. Second, the LBO firm can make sure that all desired restructuring mechanisms as previously described are fully implemented by the management.

Besides restructuring and leverage, some buyout funds conduct so-called dividend recapitalization as a third strategy to create value for their investors, especially in large and profitable portfolio companies. In this special recapitalization, the portfolio company issues new debt and immediately pays out the proceeds as a special dividend during a later stage of the LBO. Buyout funds use these transactions to extract debt-

funded cash flows from the portfolio companies, which are subsequently distributed back to the LPs of the fund. To accomplish this feat, the portfolio company gets more debt funding through short-term notes or bank bridges loans. The proceeds from this debt are directly paid out to the buyout fund in the form of a dividend. Often, portfolio companies execute this transaction shortly before their IPOs to use the IPO proceeds for debt repayment.

A dividend recapitalization has four advantages. First, it allows the buyout fund to distribute cash to its investors before the actual exit of the company. Second, the IRR of the deal and the fund will benefit from this transaction because cash flows are paid out much earlier. Third, the buyout fund can lock in some proceeds from the deal without having to bear market risk from post-IPO share sales. And fourth, it allows GPs to time certain cash flows such as when they are still in need of clearing the hurdle for the preferred return of their management contract. The additional debt burden is costly for the portfolio company, and, if all IPO proceeds are used for debt pay-down, they cannot be used for investing in positive NPV projects.

*Exit phase*

After a successful restructuring, the target company is exited. The exit is comprised of two successive steps: selling the target company and distributing the sale proceeds to LPs. Generally, a buyout fund can use four exit channels: a trade sale to a strategic investor, a trade sale to another financial investor (so-called secondary), an IPO, or a combination of different exit channels, known as break-up-and-sale. Each exit choice has its advantages and disadvantages.

The most profitable LBO targets are taken public, whereas the least successful are sold via trade sale to strategic investors.

Once the exit is fully conducted, the generated proceeds have to be distributed to the buyout fund investors. The way the proceeds are distributed in the so-called “distribution waterfall” is regulated by the partnership agreement between investors and fund managers. Based on the institutional features of the fund and its fee structure, the fund managers receive their share of fees and profits, with the remaining proceeds being distributed to fund investor.

## 1.6 Exit Strategies in Private Equity

The ultimate objective for private investors is to generate a return on the investment after a given amount of time. Exiting allows the investors to attain their goals, and becomes a normal part in the end of every life-cycle transaction. Choosing the right time of departure also adds to the success of the investors. Exit strategies directly affect the attractiveness of an investment therefore also influences the profits the firm is able to generate. Below are different methods that PE investors generally follow to exit successfully.

*Trade sale*

A trade sale consists of, the private equity investors selling their company's shares to another buyer that can also be another entity operating in the same industry of the company to sell. This is the preferred exit method since it provides a full and fast exit from the investment. Another advantage of trade selling comes from the fact that there is a single buyer to negotiate with and this implies a more efficient and quicker conclusion, since there are no many restrictions applicable like IPO transactions.

The investor might also in certain cases obtain a higher value for the company compared to other exit strategies since there is more control that can be exercised over the process.

The downside can be management resistance as possibly the newly absorbing company may want to keep their management and free themselves of the previous. During the negotiations, the buyer may learn trade secrets and methods of operation of the absorbing company that in most cases is a competitor that can no longer be protected, but is essential to the possibility of the trade. This example can be seen in the pharmaceuticals industry. This is where a small startup is usually acquired by a third party such as a larger pharmaceutical brand.

*Secondary buyout*

Secondary buyouts are basically a lateral transfer from one private equity investor to another. Secondary buyouts usually take place when investors possibly just want to exit due to external factors such as politics, the economy and or lack of funds to keep

growing the company. The growth still has not reached maturity, but this is where the second investor makes further development until it can be sold as a trade or IPO. This is also a great way that management cannot rid themselves of investors that do not allow further growth, or no longer are seen fit for growth with the company. A secondary buyout also offers immediate advantages and completely exits faster. These immediate sales are gaining popularity.

*Initial Public Offering (IPO)*

An IPO can only occur if a firm's proprietors want it to, with the key potential motivators being the raising of fresh capital and a desire to cash out, at least partially.

An IPO is the method in which a company's shares get listed on the stock market for the first time. This strategy offers a PE firm a way to exit by selling the shares of a company in its portfolio. IPOs are a popular exit route for PE providers. When the stock market is "bullish," this method is likely to enable the vendor to realize the highest return on its investment. This environment makes IPOs suitable for large portfolio companies or high-performing companies. However, an IPO involves high transaction costs, notably due to legal restrictions and the market supervisor's rules.

The market for PE-backed IPOs is well adapted to highly profitable portfolio companies with growth opportunities. However, the quality of the firm, assessed by its equity story, is not the sole factor that determines a company's decision to exit through an IPO.

The economic and market environments are of great importance, and when proper market conditions are available, the IPO channel seems to be the most profitable exit solution to reward LPs.

PE firms prepare for an IPO far in advance since timing is critical. Usually an IPO requires five steps and lasts from 6 to 12 months after the company's board decides to initiate the IPO.

The first step is to choose external partners including accountants, independent auditors, and legal advisors who will help the firm review its corporate governance and structure to meet the listing criteria.

In the second step, these external partners exercise due diligence while the underwriter conducts an initial share valuation and draws up documents such as the listing prospec-

tus and notice based on research and publicity guidelines, and possibly the help of a financial communication agency.

During the third step, the IPO candidate begins the registration process with the financial authority and submits the prospectus and the registration form. The prospectus unveils business and financial information about the firm and its prospects. It sheds light on the main risks that future investors could face. The prospectus also informs potential investors about the operation itself such as the type of shares, offer price, and timetable of the operation.

After financial authority approval, the fourth step involves the firm publicly announcing its IPO, holding pre-marketing analyst road shows, and establishing the range of the share price.

In the fifth and final step, the IPO candidate holds group presentations and one-on-one meetings to market the shares as the underwriter assesses the demand for shares and determines their price through the book-building process. Upon selling shares to the public and/or to institutional investors, the firm is now publicly traded.

Firms initiate IPOs for three main reasons. First, through the IPO, a firm gains attention from potential customers, suppliers, investors, and any other third parties.

Second, going public helps a firm fund its growth by providing long-term capital and diversified financial resources (e.g., equity, convertible debt, and straight bonds).

Third, an IPO is a way for shareholders to sell their equity ownership and fully or partially exit the company. Venture capitalists (VCs) or PE funds may be among these existing shareholders.

The public offering is a very demanding process that involves increased risk exposure, market fluctuations, strict regulation requirements and restrictions.

IPO does not mean an immediate exit since the shares need to be sold in the stock market and it takes time before shares match the public offers. IPO can be the beginning of an exit but does not guarantee the amount of time or capital before a full exit can take place.

Even if IPOs do not become routine for private equity firms there is another way in which private equity could move under the public umbrella. For owners of a privately held firm who are seeking to exit, a public offering is not the only exit option. Another possibility is for the business to be sold outright to a buyer. If the proprietors of a

private equity firm sell out to a publicly quoted company, then as with a public offering, the "private" element of the business will have been displaced in an important way.

In deciding which exit strategy to pursue, investors should consider several variables: (1) the general economic perspective, (2) relative performance of PE investments versus other asset classes, (3) bullish or bearish stock markets, (4) commitments of PE investors (reimbursing a debt and LBO financing), and (5) quality of the PE investor. (e.g., investment fund, GP of the PE firm, and LPs).

*Leveraged Recapitalization*

Leveraged recapitalization is the process where investors are able to be remunerated without completely exiting the company. Traditionally the repatriation of profits is commonly done by dividend distribution to the shareholders.

Re-leveraging takes place when the company repurchases its own shares from the investor's borrowing funds from a bank or issuing bonds. Investors in this exit strategy are able to benefit from tax credits and still have control while receiving payment. Other risks associated with this exit strategy is over-leveraging where the company borrows more than can be generated and which in turn possibly end in bankruptcy.

*Write-off*

A write-off is usually included during the disinvestment as well as devaluation, partially or totally, of the participation as a consequence of money loss unrelated to a transfer of property. This is included because it is different from other exit strategies; it reduces or removes specific assets on the balance sheet.

Investors decide to write-off a deal when the stake and the company are unable to produce value in the future. The write-off process is used when no economic return is generated from the stake. Bankruptcy laws are followed and sometimes investors can get back part of the face value of the shares if the cash resources of the company's assets exceed the total amount of the debt. The typical write-off occurs when the PE investors asks the court to declare that the company is in default and creditors asks the Court to begin bankruptcy proceedings.

Write-off is very common in seed and start-up ventures. Before deciding to write off an investment, the venture capitalist must make sure the following condition are satisfied

to realize a profitable disinvestment:

- No possibility the company will produce profit in the future.
- Assets of the venture-backed company can be sold with satisfactory results through the market.
- Cost of the write-off are insignificant with short-term management.
- Social impact of the write-off is irrelevant and does not generate negative consequences for the investors.

## 1.7 Performance Measurement

Private equity funds are valuated with the Net Asset Value (NAV), measurement reported from the general partner to the LPs after provision of carried interest on quarterly basis. Private equity investments are not traded in a transparent and liquid market, and valuation cannot be standardized, reliable or precise. This is why the general partner has the discretion to interpret the valuation method.

The NAV can change for any of the following three reasons: (1) The PE firm pulls cash out of the fund to pay management fees or to invest in a portfolio company, (2) changes in the valuation of an existing company, or (3) when dividends are paid or sold back to investors.

The GPs have valuation guidelines to adhere to; however, can still determine the value of the private equity funds using a number of valuation methods including real option value, discounted cash flow method, and several relative valuation types. All methods allow for a great deal of individual judgment by the GP in assessing a value to the private equity fund. Due to recent financial crisis, the real option value is becoming the more popular method. GPs have been known to abuse the subjectivity of these valuations, causing over inflated values that cannot be maintained over time. Other GPs use a more conservative approach to avoid having to report reductions in value. Once a year these valuations are audited to determine if the methodology is correctly applied. Auditors are tasked to confirm that the value assigned is reasonable, is correctly calculated, and any underlying assumptions are acceptable.

Ultimately, the actual value of a private equity fund is not realized until all investments

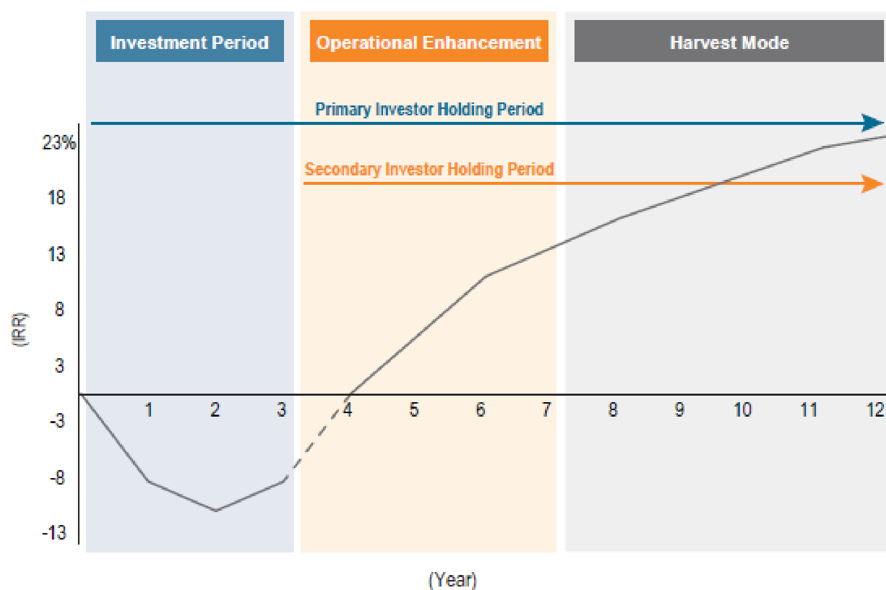
are sold.
The internal rate of return (IRR) is the dominant measure of a PE fund performance used by PE industry associations, PE firms, limited partners, and industry analysts. It is widely used by money managers who manage the assets of pension funds, foundations, and so on, to make decisions about how those funds should be allocated to various financial assets.
IRR assumes that cash distributions in all periods will have the same rate of return as the initial investment. The IRR is calculated for each fund as cash inflow and cash outflow to the investors on a year-to-year basis, as well as the estimated value of the portfolio's remaining companies.
IRR however is a deeply flawed measure for tracking and comparing PE fund performance, in view of the fact that the timing and payouts to limited partners may vary widely over the life span of a particular fund and between funds.
The IRR has been borrowed from corporate finance and is now widely used by the private equity industry and the general public to evaluate the performance of a particular fund, the relative performance of different funds, and the performance of PE investments as an asset class compared to investment in stocks or other assets.
Capital commitments are invested at different times over the first few years of the fund's life span, and the fund receives distributions as the portfolio companies pay dividends or are sold. These are the fund's cash flows. For a fund that is still active and has unsold companies in its portfolio, the return in the last year of the period being analyzed is the fund's cash flow that year plus the value of any unsold companies still in the portfolio. Thus, the valuation of unsold companies (the NAV) plays an important role in determining a fund's IRR.
Although the internal rate of return is widely used by all participants in the private equity industry as a measure of individual fund performance and as a measure of performance of the assets class, it is a deeply flawed measure.
The IRR as a value-weighted return measure is computed using fund's cash inflows and cash outflows and corresponds to an overall rate of return to investor considering the various entry and exit points.
Some of the general problems with the internal rate of return as a measure of performance, apply to its use in private equity calculations. Returns can be highly

volatile, negative in some years, and different PE funds will choose to operate at different scales. Some portfolio companies are purchased in the lower middle market, in the core middle market, the upper middle market while others make acquisitions in the mega-market. These characteristics of PE returns make it problematic to calculate meaningful IRRs or to compare IRRs across funds.

Academic researchers generally prefer to use the public market equivalent (PME). PME estimates the returns earned by investing in private equity relative to what LPs would have earned if they had invested the same capital over the same period in a stock market index, such as the S&P 500 or the Russell 3000.

The J-curve describes how returns from a private equity fund are typically distributed. In the initial years, returns are negative; fees are charged and early underperforming investments are often identified and written down. It is often not until mid-way through the life of the fund that profits begin to be realized from the sale of investments and distributions are made to the limited partners.

Ideally an investor would own funds with differing vintage years for diversification and to smooth the impact of the J-curve on returns.




The chart shown above is for illustrative purposes and does not represent past or projected performance of an actual product. There is no guarantee performance will match this illustration. There is no guarantee whether expressed or implied that actual cash flow will follow this pattern. Technically, a secondary can occur any time between time '0' and '12' in this illustration.

Figure 1.5 - Typical Fund Annual Cash Flows to Investors

As illustrated in Figure 1.5. negative returns are common in the early stages of a PE due to startup costs, investments, assets and expenses. Once the company has absorbed the initial costs, investments generate cash flows that will cut costs.

Cash flows are intensified in the harvest phase and will be no longer required in large amounts for capital requirements and costs, then the “J-curve” can usually be referenced.

# CHAPTER 2
# PRIVATE EQUITY: CONSTRUCTIVE OR DESTRUCTIVE

## 2.1 The Development of Private Equity industry

The history of private equity is mainly set in the 20th Century and shows fluctuations along the way. Its development stems from the United States and reached Europe only in the most recent decade.
The origins of private equity can be traced back as early as the industrial revolution. At this time investors had already been engaged in investing in privately held companies as well as in acquiring businesses. J.P. Morgan purchased Carnegie Steel Company from Andrew Carnegie and Henry Phipps for $480 million in 1901 – to this day this is considered the first leveraged buyout in history. Towards the beginning of the 1900s J.P. Morgan’s company would engage in financing of industrial companies and railroads. Before World War II, the domain of private equity financing was in the hands of wealthy individuals and families such as the Rockefellers, Vanderbilts and Warburgs.
It is the establishment of the American Research and Development Corporation (ARDC) in 1946 that marks the rise of professionally managed private equity investments, as an effort to commercialize innovative technologies developed during the Second World War (Bygrave and Timmons, 1992).
Also the passage of the Small Business Investment Act of 1958 and the establishment of the Small Business Administration (SBA) to provide financial and managerial support to small entrepreneurial businesses in the US, are considered important starting points for the modern private equity industry. During the 1960s and 1970s, private equity was primarily targeting startup firms within high-tech areas. At the beginning of the 1970s, the structure of limited partnerships arose as the dominant organizational form for PE fund investing.
The steady growth of capital into the VC industry in the late 1970s and early 1980s caused a virtual explosion of new VC firms in the US market.
During the 1980’s Private Equity became famous as Jerome Kohlberg Jr. and Henry

Kravis who formed (KKR) after a bidding war with the CEO of RJR Nabisco ended with the purchase of the company by leverage buyout.

However, these commitments came to a sudden halt in the late 1980s due to declining returns, a collapsing stock market and the withdrawal of international capital from the US market. Only the more successful firms survived.

The boom of the 'dot-com bubble' era occurred in the late 1990s, when many high-tech startups benefited from massive public interest in nascent Internet technologies and when initial public offerings of technology stocks were frequent occurrences. The NASDAQ crash in March paralyzed the entire global VC industry. Over the years to come, VC firms were forced to write off large proportions of their investments.

A decade after the 'dot-com' collapse, little recovery has been seen in the VC industry on a general basis. The buyout market also flourished in the 1980s. The boom was driven by the availability of high-yield debt, so-called 'junk bonds'. The buyout firms during this period were particularly focused on taking public companies private and larger deals were carried out as more capital flowed into the industry. As a result of the high leverage levels of most transactions, failed deals occurred regularly.

Consequently, the prevailing way of conducting buyouts by taking public firms private declined significantly (Kaplan and Strömberg, 2009).

Instead, by the early 1990s, the reemerging buyout market tended to favor midsized entities of non-publicly traded firms. Surviving BO funds found new routes for conducting their business and eventually the returns from buyout investing turned positive again. Thus, the buyout industry once again took off and experienced steady growth in the period from 1995 to 2007. The combination of historically low interest rates and thereby widespread access to cheap debt, regulatory changes for publicly traded companies, rising profitability in most industries and the allocation of significant investments from institutional investors to this particular asset class, caused an extreme development of the BO industry during the end of this period.

However, this flourishing market characterized by extraordinary growth and returns came to an abrupt halt in 2008 with the collapse of the world's debt markets and a deepening economic crisis that impacted countries around the world. After that, deal activity decreased substantially and has still not fully recovered (Kaplan and Strömberg, 2009).

## 2.2 Why Invest in Private Equity

There are different reasons why traditional private equity, as an investment strategy, has become a popular option.
Private equity, in particular, can offer the ability to generate high rates of return on investments over a long term, knowledgeable professional managers, access to strategical private information prior to decide to invest, common alignment of interest between GPs and LPs, and a bigger pool of investments opportunities.
Private equity investors identify and select companies with the intention of holding them for long periods of time to make strategic and operational improvements as well as adding capital. Contrary to investors in listed-public equity, PE investors take control and work to align the interests of a company, its management and the investors.
Bance (2004) mentions that private equity have access to legitimate inside information. GPs have a greater depth of information on proposed company investments. This helps the managers to access the viability of a company’s proposed business plan and to project the post investment strategy to be pursued.
Private equity firms have a vast ability for investment opportunities that are usually not found in the traditional publicly traded methods. GPs have the unique capability of using well-managed resources without the pressure to meet set criteria and timelines as publicly traded organizations.
Open communication also leads to easy access to private industry information that helps investment decisions.
The knowledge and experience are usually overlooked and unattainable to the general market. Additionally due to the sum of all the investors together as a whole, the buying power grows and allows for greater opportunity for return on investment opposed to one single investor.

## 2.3 Private Equity Challenges

Private equity has many different aspects that should be evaluated in comparison to a

traditional business plan. Therefore, the risks should be understood compared to those with traditional assets.

*Long-term time horizon*

Private equity is possibly a volatile investment that needs discipline to mitigate the risks associated with this type of investment.

Performance is subordinate upon diverse exogenous factors such as business cycle, capital flows, and the responsiveness of debt and equity markets.

The illiquid nature of the investment limits the ability to intelligently enter and exit the market, and limits the volatility of the investment cycle itself. An optimal strategy would be implementing long-term approach of committing to attractive investment opportunities each year, over typically a three-year period.

*Illiquid asset*

Market liquidity risk for PE investments refers to the exit risk, that is the risk of being forced to sell an investment at a discount or to be locked up in an investment longer than desired.

The secondary market is the informal market where LPs can sell their stakes in a PE fund or portfolio of funds (Cotton 2012). However investors are still exposed to liquidity risk due to the small size and inefficient nature of secondary markets.

*J-curve effect*

The J-curve effect represents the model of returns realized by tracing the returns generated by a PE fund from the beginning to end of the investment.

Start-up and fixed cost in the early years, prior to any return causes capital contributed to be higher than the value initially assigned to the portfolio investments. Therefore, the PE funds will have a negative trend in the beginning years; writing down of portfolio investments expands this negative trend. Therefore, as the portfolio companies mature, they will increase the ability to generate profits and consequently returns to the investors.

*Due diligence and manager selection*

A process that is crucial to the success of the investment is due diligence. During due diligence, a financial sponsor must look at the commercial, financial and legal aspects of the target company, the priority of the three being commercial. With the aid of consultants, PE firms are ultimately responsible for making the decision whether to invest in a target firm. The company's value proposition, market position, historical performance and industry trends assist the firm in determining if the target is capable of making forecast. Then financials, operations, customers, markets and tax issue determined to be accurate and to understand some of the unique dynamics of the company. Legal due diligence looks into regulation and litigation related to the target.

Manager selection is critical in private equity as performance varies widely across private equity managers. The top performing managers are those who are successful in taking advantage of the illiquidity, lack of public information about underlying companies, and business and technology risks associated with new companies.

*Capital Structure*

Capital structure considerations are important for LBOs, since they rely heavily on leverage to produce attractive returns. Leverage creates investment risk and influences how the target company runs its operations. Firms need to analyze the cost of the debt, the capital structure's flexibility, and how much debt suitability.

Senior debt is the largest component of an LBO company's capital. It has the lowest financial cost, senior claims, and is sometimes secured by the company's assets. Strict maintenance covenants, including total leverage and interest covenants protect the senior debt investors. In addition, senior debt typically requires amortization payments, which burdens the company to generate sufficient cash flow from operations. Senior debt typically matures after 5-7 years and has a floating coupon.

High yield debt or subordinated debt has a higher financial cost than senior debt but less restrictive covenants, longer time to maturity, and no required amortization payments. Subordinated debt typically matures after 6-8 years and has a fixed coupon or interest rate. One restriction of high yield debt is it often is not pre-payable by the company for a few years, locking in high interest rate for investors.

Equity is the most junior portion of the capital structure. Equity shareholders require the highest rate of return due to high levels of risk being taken and subordinate claims.

*Portfolio Construction*

The manager must construct the portfolio of the fund balancing the returns and risk. Managers can diversify holdings to reduce risk and the methods to reduce the risk are known as traditional and core-satellite methods. In the traditional method, the manager takes the best assets and invests them in reference to returns, risk, and correlation potential. The core-satellite method takes diversification and low risk to generate stable returns. Although satellite investments are riskier than larger core holdings, they add an extra return.

Investments are specifically tailored for each investor with the three following criteria, bottom up, top-down and mixed or naive approach. The bottom-up method consists of screening, due diligence, and analysis as investments in the most profitable funds. The issue here is the portfolio maybe too heavy towards a particular type of investment. The top-down method is where sectors are selected that will be predicted to outperform the common economy. The problem is not enough people can manage these assets correctly since they can span the globe as well. The mixed method is where the top-down and bottom-up strategies are used simultaneously.

## 2.4 Private Equity Risks

Private equity investments are subject to various risks. They share many systematic market and economic risks with public equity.

The major risk factors associated with private equity investments are:

Funding risk, also referred to as default risk, is the risk that an investor is not able to pay his capital commitments to a private equity fund in accordance with the terms of the obligation to do so. If this risk materializes, an investor can lose the full investment (according to typical LPA rules) including all paid-in capital, which is why it is of paramount importance for investors to manage their cash flows to meet their funding obligations effectively.

Liquidity Risk is the risk that an investor is unable to redeem his investment at the time of his choosing. Private equity fund structures are designed so that the investor remains in the fund for its full term without an opportunity to redeem his commitment. As a re-

sult of these structures, however, a secondary market for LP participations has evolved. Consequently, liquidity risk may also be regarded as the risk that an investor wants to sell his private equity investment (in the form of a fund commitment) on the secondary market, but the market does not offer enough volume or efficiency for a fair trade.
Market risk is relative to the fluctuation of the market that is going to impact on the value of the investments held in the portfolio.
Capital risk for the investor is defined as the probability of losing capital with a private equity portfolio over its entire lifetime and as consequence, the investor would have a realized loss in his portfolio. The realization value of private equity investments can be affected by numerous factors, including the quality of the fund manager, equity market exposure, interest rates and foreign exchange. If fund managers are unable to refinance their companies on the market or if they are not able to exit them at attractive equity prices, managers may lose some of the equity in their portfolio companies. Investors can influence their long-term risks when investing in private equity, mainly through diversification. Diversification over multiple private equity funds and over many years is the best and most important capital risk reduction mechanism in private equity.

## 2.5 The impact of Private Equity

In reference to a study conducted by Strömberg in 2009, analyzing the impacts of PE investments and innovations, the following is the summary of the empirical evidence:
"Academic research has shown a positive link between private equity investment and innovation. However, some studies have found diverging evidence on the causal relationship.
One group of academic studies looking at US data found evidence that venture capital investments cause a significant increase in patent filings and thereby stimulate innovation. For example, Kortum and Lerner's research shows that a dollar of venture capital could be as much as 10 times as effective in stimulating patents as a dollar of corporate R&D.
Some subsequent authors argue that although venture capital investments may be a driver of patent activities, they do not improve productivity growth and hence do not

necessarily spur industrial innovation. These studies actually suggest that venture capital investment may follow innovation, not the other way around. The latest study on US data, however, which carefully controls for reverse causality, suggests that venture capital has a significant effect on both patenting counts and new firm creation.
Studies on European data are generally less conclusive than the US ones.
Although venture-capital-backed companies generally have a higher patenting activity, some studies argue that this is because venture capital firms fund companies that are already more innovative, rather than actually increasing the companies' innovativeness.
Research concurs that buyout-backed companies pursue more economically important innovations and have more focused patent portfolios in the years after a buyout investment, as their innovation activities become focused on a few core areas.
Researchers have also shown that the average R&D intensity of buyout-backed companies increases at a rate comparable to that of non-buyout companies." (Strömberg, 2009)

| *Author/Year of study* | *Country* | *Findings* |
|---|---|---|
| Mollica and Zingales, 2007 | US | Venture capital investment has a positive impact on innovation and the creation of new companies (controlling for various reverse causality explanations). |
| Kortum and Lerner, 2000 | US | Venture capital investment has a positive impact on patent counts and this impact is larger than that of industrial research and development expenditure. |
| Popov and Roosenboom, 2008 | Europe | Private equity investment causes a significant increase in patent filings. |
| Hirukawa and Ueda, 2006 | US | Venture capital investment causes an increase in patent filings but without a corresponding increase in total factor productivity. |
| Caselli, Gatti and Perrini, 2008 | Italy | Venture-capital-backed companies register more patents than comparable non-venture-capital-backed companies before receiving venture capital investments, whereas this tendency disappears after the investment is made. |
| Engel and Keilbach, 2007 | Germany | Venture-capital-backed companies register more patents than comparable non-venture-capital-backed companies before they receive venture capital investments, but this is not the case after the investment. |

Table 2.1. – Academic evidence on innovation

In referring back to Strömberg, we can see the analysis of the impacts of PE investments and the general economy. The summary from his study follows:
"The beneficial effect of private equity on productivity and innovation suggests a positive impact on economic growth.

However, no rigorous academic study has analyzed whether private equity actually has an impact on the GDP growth of a country. The problem in undertaking such studies is to control for the reverse causality explanation– that growth causes private equity investment, rather than the other way around.
Researchers argue that management buyouts played a catalytic role and helped restore the US economy during the 1980s and early 1990s.
The overall research evidence shows a positive effect of leveraged buyouts on individual firm performance and productivity. This suggests that, on a macroeconomic level, leveraged buyouts contribute to better allocation of capital and a more efficient economy. As such, they can be a powerful tool for accelerating the restructuring of the economies. Through leveraged buyouts, scarce equity capital can be freed from declining, low-value-added industries and invested in high-risk, high-value-added emerging industries that may otherwise not be financed.
Some studies suggest that private equity has a positive impact on stock market development.
The empirical evidence on the operating performance of companies after a private equity investment is largely positive.
For buyouts, there is evidence of increased operating margins, increased productivity, and increased capital efficiency after a leveraged buyout. Recent empirical work finds larger positive performance increases for European buyouts than US ones.
For venture capital, venture-capital-backed companies have been shown to grow faster and be quicker to bring their products to market than non-venture-capital-backed companies. The positive effects on financial performance have not been found to be at the expense of long-term investment and growth.
On the contrary, as already mentioned, buyout- and venture-backed companies show an increase in the size and productivity of their investments in innovation and research and development. Moreover, the beneficial effect of private equity investment has been shown to continue after the private equity funds have sold their investments. In particular, private-equity-backed initial public offerings outperform other initial public offerings in the stock market." (Strömberg, 2009)

| *Author/Year of study* | *Country and nature of transaction* | *Findings post-transaction* |
|---|---|---|
| Kaplan, 1989 | US, public-to-private | Operating margin increased by between 10% and 20%. Cashflow margin increased by roughly 40 percent. Ratio of capex to sales declined. Large increases were recorded in company values. |
| Boucly et al., 2008 | France, leveraged buyout | Operating profitability after buyouts increased by about 6%. Buyout-backed companies experienced a very strong growth in sales, assets and employment after the transaction, in particular when they were previously more likely to be credit constrained. |
| Smith, 1990 | US, management buyout | A sustained and significant increase in operating cash flows per employee and per dollar of operating assets from the year before to the year after the buyout was recorded. The increase is not the result of layoffs or reductions in expenditures for advertising, maintenance and repairs, research and development, or property, plant, and equipment. |
| Lichtenberger and Siegel, 1990 | US, leveraged buyout | Leveraged buyouts and management buyouts had a strong positive effect on total factor productivity |
| Davis et al, 2009 | US, leveraged buyout | Within two years after a buyout, productivity growth was 2% higher than for comparable non-buyout-backed companies. About two-thirds of this differential was due to improved productivity among continuing establishments of the company and about one-third to the contribution of more entry and exit. |
| Harris et al, 2005 | UK, management buyout | Companies involved in management buyouts were less productive than comparable companies before the buyout, but experienced a substantial increase in total factor productivity after the buyout. |
| Bergstrom, 2007 | Sweden, leveraged buyout | Leverage buyout-backed companies recorded an improvement in operating performance in terms of EBITDA margins and sales growth. |
| Cressy, Munari, Malipiero, 2007 | UK, leveraged buyout | The operating profitability of private-equity-backed buyouts was 4.5% higher than comparable non-buyout companies over the first three years. |
| Acharya and Kehoe, 2008 | UK, public-to-private | Buyout-backed companies recorded higher profitability per employee (11.6%) than their quoted peers (5.9%) in terms of average annual growth. In declining industries, private-equity-backed companies performed far better than their public equivalents. |
| Gottschalg, 2007 | Europe, leveraged buyout | Buyout-backed companies outperformed comparable publicly traded companies in terms of sales, EBITDA and profitability growth (EBITDA/assets). |
| Goossens, Manigart, and Meuleman, 2008 | Belgium, buyouts | Non-private-equity-backed buyouts and private equity-backed buyouts recorded similar sales growth and efficiency. Private-equity-backed buyouts grew less in terms of assets but more in terms of employees. |
| Guo et al, 2008 | US, leveraged buyouts | Gains in operating performance were either comparable to or slightly exceeded those observed for comparable non-buyout-backed companies. |
| Weir et al, 2007 | UK, public-to-privates | Public-to-privates recorded a modest improvement in operating margins. |

Table 2.2. – Academic evidence on performance

According to Strömberg, we can see the analysis of the impacts of PE investments and the employment:

“Up-to-date different academic studies have reached diverging conclusions on whether private equity firms help create or reduce employment, however, the empirical evidence is consistent with a view that private equity portfolio companies create economic value by operating more efficiently.

For leveraged buyouts, the academic evidence from the US and the UK suggests that employment and wages both grow at companies that experience leveraged buyouts, but at a somewhat slower rate than at other similar companies. One exception is France, where companies undergoing leveraged buyouts experience both significantly higher employment growth and wage growth than other similar companies.

However, research in the UK and the US has shown that companies that received private equity backing had significantly lower productivity and employment growth than other companies in the same sector before the buyout. This means buyout firms usually invest in underperforming companies that “need to be repaired”.

Overall, the academic findings are not consistent with concerns over job destruction, but neither are they consistent with the opposite position that buyouts are associated with especially strong employment growth. Rather, the empirical evidence is consistent with a view that private equity portfolio companies create economic value by operating more efficiently.

For venture capital investments, US studies have shown that venture-backed companies persistently tend to be larger than non-venture-backed companies at every stage of the company’s life cycle – at birth, at the time of venture financing, and beyond. In addition, the majority of new companies going public are venture-backed. This suggests that venture capital investment has a positive impact on new job creation.

Survey evidence suggests that buyout deals have a positive effect on employee relations in terms of pay systems and employee involvement methods. Similarly, survey evidence suggests that employees at management buyout companies appear to have more discretion over their work practices than comparable workers at non-management buyout entities, with skilled employees in particular having low levels of supervision at buyout-backed businesses.” (Strömberg, 2009)

| *Author/Year of study* | *Country* | *Findings* |
|---|---|---|
| Boucly et al, 2009 | France | Leveraged buyout companies experienced greater job and wage growth than other similar companies. |
| Bruining, Boselie, Wright and Bacon, 2005 | UK and Netherlands | Post-management buyout, companies saw an increase in training and employee empowerment. |
| Amess, Brown and Thompson, 2006 | UK | Employees at management buyout companies had more discretion over their work practices than comparable workers at non-management buyout entities, with skilled employees in particular having low levels of supervision at buyout-backed businesses. |
| Amess, Girma, and Wright, 2008 | UK | Private-equity-backed leveraged buyouts had no significant impact on either wages or employment. Non-private-equity-backed leveraged buyouts and traditional acquisitions caused a decline in employment. |
| Wright et al, 2007 | UK | The majority of buyouts of companies that underwent either a management buyout or management buy-in experienced growth in wages. |
| Lichtenberg and Siegel, 1990 | US | Relative to the industry average, employment levels tend to decline after the buyout, but at a slower rate than they did before the buyout. Following leveraged buyouts, production workers wage rates increased. |
| Kaplan, 1989 | US | Employment increased post-buyout, but by less than other companies in the industry. |
| Wright et al, 2007 | UK | On average, employment levels initially fell, but then rose above the pre-buyout level in management buyouts; in management buy-ins, employment levels fell after the buyout; the majority of management buyouts and management buy-ins experienced growth in employment. |
| Davis et al, 2008 | US | Post-buyout, employment at buyout companies increased at a lower rate than at other companies in the same industry. However, this continued a pre-buyout trend (i.e. buyout-backed companies had smaller employment growth prior to the buyout transaction).<br>The results varied depending on the sector: the relative declines in employment levels were concentrated in retail businesses, while no difference in employment levels was found in the manufacturing sector. However, for new establishments (greenfield investments), buyout companies had higher job growth than similar non-buyout companies. The authors were unable to determine the net effect of leveraged buyouts of the lower growth in existing establishments, but higher growth in new ones |
| Davis et al, 2009 | US | Buyout-backed companies experienced an intensification of job creation and destruction activity. The correlation between the growth in productivity and earnings per worker after buyout transactions was higher at buyout-backed companies than at comparable non-buyout-backed companies. |
| Cressy, Munari, Malipiero, 2007 | UK | Over the first four post-buyout years, employment fell relative to comparable non-buyout companies, but increased in the fifth year.<br>The initial period of rationalisation created opportunity for more sustainable job creation. |

Table 2.3 – Academic evidence on employment

## 2.6 Private Equity Critics

Private equity is under challenge. This comparatively recent form of organization has been attacked by unions, finance ministers and members of the general public for putting people out of work, asset stripping, paying too little tax and overpaying the managers who run these organizations. In the first six months of 2007, the *Financial Times* printed more than 100 letters from critics and sympathizers on the topic of private equity.

They are pictured as corporate raiders who "ride on the backs of businesses, ripping them off and earning a profit on their misfortune".

Private equity is routinely charged with all sorts of iniquity: it strips companies of assets and flips them for a fast buck; it loads them up with dangerous amounts of debt, to suck out capital for its investors; it pays scant attention to employees and suppliers; its greedy partners avoid the taxes that others have to pay; if the markets turn, the volume of condemnation will only increase. Imagine the derision when funds stop making money even as their partners take home large salaries on the basis of past achievements; when private-equity-owned companies default on debts, leaving insurers and pension funds saddled with the losses; when workers are put on to the street because of desperate cost-cutting or bankruptcies.

Private equity firms are accused of taking good businesses, selling off valuable assets to pay down debt and, as a result, leaving the remaining business with a less promising future.

A long-standing criticism dating back to the first private equity wave in the 1980s is that the higher leverage in private equity deals was likely to have adverse systemic implications. The traditional private equity fund structure operates to limit systemic risk by offering long-term, illiquid, unleveraged investment assets to investors with large diversified portfolios. The private equity industry did generate increased demand for debt during the second private equity wave. However, the contribution of industry to the market failures seen in 2007–2008 arose through failures in the associated acquisition finance banking market, not within the private equity fund structures. Pressure to increase leverage within funds and to provide liquidity to investors may lead to geared private equity funds which would lead to increased systemic risk.

Critics argue that private equity firms pursue their goals in a rather ruthless way: cutting costs by cutting jobs. Private equity firms reduce employment in a way that improves short-term performance, but undermines long-term performance. They cut costs in discretionary areas like new business development, research or marketing that improves profits today but undermines future success. PE firms are accused of being unconcerned about the people whose jobs are destroyed after a buyout.

Another major criticism is that private equity firms pay too little tax: they increase the amount of debt finance (which is tax deductible) and reduce the amount of equity finance (which is not tax deductible).

Investee companies and private equity funds adopt artificial and convoluted structures to reduce tax in ways that are legal but not available to others and therefore unfairly favor private equity.

Private equity firms are also accused to undermine the solvency of pension funds.

Most established companies, the classic target for private equity firms, have large pension liabilities. By selling properties or adding debt, private equity firms are increasing the risk for pensioners.

# CHAPTER 3
# THE IMPACT OF PRIVATE EQUITY

## 3.1 Private Equity Pro and Cons

Private equity presents itself as the new and efficient way of productive business ownership and governance. It creates claims of value and increased returns to shareholders that also benefit society as a whole. Implications on employees and companies are more complex and at times create negative results. PE firms can provide strategic, managerial and structural directions to the companies they acquire. The goal is to improve efficiency that will lead to increased enterprise value and will create economic wealth. In turn, this enlarges the economic system. New business strategies and better utilization of resources take longer to show results, so efficiency is not used by itself, other techniques are utilized. The access to high levels of debt will magnify returns and reduce tax liabilities, and the dividend recapitalization to the PE owners.
“Moral hazard” can lead to dangerous behaviors from the GPs of the PE funds. They can possibly excessively increase the amount of debt and risk than can be paid back, further leading to bankruptcy and meaning loss of income to the portfolio companies. Results are not only implicit to the stakeholders but also to the general economy and the public as well.
Financial Market strategies play a role with private equity but are not exclusive. During the bubble years from 2002 to 2007, many low interest rates became available and so was access to these borrowed funds. Financial engineering became the preferred methodology to increase profit growth during this time. Strategic and operational techniques became insignificant. Instead, strategies to save money by either cutting employees or their wages helped decrease overhead to in return increased profit margins. This was possibly a short-term solution but did not benefit society as the costs would now be passed to the general public and the economic structure.
Private equity firms seek out midsized well-established companies that are usually privately owned but no longer have the means to continue to grow the business.

Typically, the CEO is still the founder of the company and is missing the professional experience to correct various operational issues within the organization. There are usually operational problems that need to be fixed, and private equity's greater access to financing may facilitate the implementation of a larger vision or a more aggressive business strategy for the company.

Companies that are not currently global can become global, since these private equity firms usually are experienced and knowledgeable in various different markets that the founder may not well versed in.

"Axle Tech, was highlighted by the Private Equity Growth Capital Council as a great example of how private equity helps companies increase sales revenues and earnings. The Carlyle Group did help Axle Tech develop a winning business strategy and increase earnings." (Appelbaum E., Batt. R., 2014)

Private equity uses risk to generate possible lucrative opportunities. Investing in midsize companies provide opportunities, but can also be challenging to grow the company to a large organization. The other possible problem arises when the time comes to exit the investment.

In regards to private equity firms that operate by acquiring firms that are in the lower end of the market. These firms generate growth by reutilizing capital rather than financial engineering practices. Creating and implementing a growth strategy is not easy, and it helps the small company grow quickly and increase revenue. PE firms decide to invest in this sector level not only for higher earnings that can be generated, but also for the opportunity to sell the company at a higher multiple of earnings. These strategies are essential for firms investing in fast growing companies such as technological firms.

Most PE funds prefer to focus on healthy investment opportunities. A healthy investment would be a strong company that is more than likely capable to yield a return for the investors. Although preferred, a small fraction of the industry' investments also focus on companies in distress.

Realities that are currently experiencing distress are appealing to the investors, because they can be turned around, and have potentials to yield profits.

An example of a successful distressed investment is represented by the US steel industry in the early 2000's. "The US steel industry was buoyed in the 1990s by strong

world-wide economic growth that fueled a high demand for steel. After a nearly two decades of decline, steel prices roses, companies were profitable, and employment in the industry increased. This brief interlude ended in 1997, when the world demand for steel collapsed. The openness of the US economy to trade made this country a prime target for foreign steel producers to sump steel at prices below production cost.
China's accession to the World Trade Organization (WTO) in 2001, which opened US markets to Chinese steel, exacerbated the situation. Forty-five US steel companies declared bankruptcy between 1998 and 2001. Wilbur Ross, whose investments firm owned the political daily The Hill, was aware that President George W. Bush was contemplating the imposition of tariffs on imported steel in response to the illegal dumping. In 2002, his PE firm, WL Ross, formed the International Steel Group (ISG) as a vehicle to purchase major bankrupt steel companies. It bought LTV Steel in February 2002, and a month later President Bush imposed a 30 percent temporary tariff on fourteen categories of steel. The tariff led to a dramatic reversal in fortunes of the industry and allowed WL Ross and the steelworkers' union time to restructure and consolidate a major part of U.S. steelmaking capacity and turn the companies around. WL Ross sold its steel companies a short time later, earning some 4.5 billion dollars on the investment." (Appelbaum E., Batt. R., 2014)
One of the main sources of private equity gains come from the portfolio company transfers. This can take place with two different modalities i.e. paying dividends to the PE owners and stripping the operating company of its assets or real estate. PE owners that are uncertain of profitably exiting a portfolio may run into dividend recapitalization in order to recover money from other investments. Recapitalization of dividends take place when companies try to take on new debt in order to pay the dividends owed to the shareholders. This common practice has gained popularity in the last decade as PE owners have used loans to pursue payment of dividends implying a transfer of resources to themselves without using them towards the improvement of the portfolio company.
Portfolio companies under increased pressure may start to limit overhead such as laying off employees, losing resources that in return can also limit substantial gains.
According to Standard & Poor's, dividend recapitalizations damage credit quality, may increase defaults, and may drive portfolio companies into bankruptcy.
Harry & David, the food and gift mail-order business provides an example. "It was

acquired in 2004 by Wasserstein & Co. and Highfields Capital Management for 253 million dollars in equity and 170 million in debt. A year later, in 2005, the PE owners took a dividend of 82.6 million, and then two more dividends totaling 19 million. This guaranteed the investors in Harry & David a 23 percent return no matter what happened to the company. In March 2011, the company, sinking under a debt loan of 200 million, declared bankruptcy. The federal Pension Benefit Guaranty Corporation assumed responsibility for the retirement benefits of 2.513 Harry & Davis's employees and retirees.

Note that Harry & David was a small company that should have provided opportunities for operational improvements and growth; instead the PE firm extracted dividend recapitalization resulting in bankruptcy."(Appelbaum E., Batt. R., 2014)

Strategies such as outsourcing, downsizing, closing plants and facilities are often practices used by the GPs of the PE funds. These practices are used in order to quickly increase profits margins and cash flows that are going to be used towards servicing the high level of debts and to distribute returns to their investors.

These strategies have one main purpose, which is creating profits. Employees of healthy companies are laid off, and those who remain can be subject to an intensification of work, salary cuts, benefit reduction and collective bargaining agreements may be abrogated.

This practice is usually a quick fix to correct cash flows and profit margins.

"Hertz is a global car and equipment rental company that was acquired in December 2005 by a consortium of PE firms led by Clayton, Dubilier, & Rice (CD&R) and including the Carlyle Group and Merrill Lynch Global Private Equity. The case illustrates how the effects of debt on a company's net revenue lead job losses even as PE firms rich rewards and changes in business strategy and operations improve performance. Eventually the high levels of debt resulting from the leverage buyout at Hertz would leave the company in a weak position to deal with the global recession of 2008 to 2009 and lead to significant reductions in its workforce."(Appelbaum E., Batt. R., 2014)

Leverage of debt is the most important source for earnings in private equity.

The leveraged amounts are used during the acquisition of the company, altering its structure, and increasing debt. Company's interest payments on debt are tax-deductible

and therefore reduces the company's tax liabilities. Low taxes increase the enterprise value of the company, thus increasing the returns for PE without any increase in the economic wealth.

The tax benefit of debt encourages companies to make aggressive use of tax arbitrage to legally avoid taxes.

PE-owned companies have more debt in loans that publicly traded companies. This level can usually be seen up to 300 percent higher than public firms. PE's high leverage use is unrelated in the aspect of factor size, and R&D intensity.

Enterprise value of the company does not in actuality mean the company increased in wealth economically. In return, the PE investors are increasing profits by in fact placing the losses on the public taxpayer by increasing their taxes or cutting back services.

Another method used to avoid tax liability and payments is tax arbitrage. As explained by Appelbaum E., Batt. R., 2014 tax arbitrage is the use of tax strategies to reduce the federal and state taxes a company is required to pay. In restructuring a company or its financial structure for the primary purpose of reducing tax payments, tax arbitrage can generate substantial tax savings that pass through to the bottom line and benefit a company's shareholders. Although legal, its only purpose is to alter tax structure to provide investors with greater gains.

Many companies lack the scale, resources, and political clout and are not able to successfully pursue tax avoidance strategies. By contrast large PE sponsors can well afford the elite law firm and tax specialists required to aggressively engage in tax arbitrage.

Talent and resources that could otherwise be used to produce economic wealth are instead diverted to the highly remunerated but socially unproductive activity of reducing the tax payments of portfolio companies. This produces gains for the PE owners of the portfolio companies, but at the expense of the taxpaying public. (Jon Alpert and Matthew O'Neill, No Contract, No Cookies, HBO, 2001)

Tax avoidance through foreign operations appears to be an important tax arbitrage strategy for PE-backed firms.

Bankruptcy for profits occurs when a PE firm takes a portfolio company into bankruptcy and then buys it out of bankruptcy. The PE firm is still the owner, but the debts of the company have been slashed and its pension liabilities have been transferred

to a government agency. The PE firm comes out ahead, but lenders take a haircut and workers face job loss and reduced pensions.

"Sun Capital was able to do this in several cases. Following the bankruptcy of Friendly's the iconic ice cream parlor and family restaurant, Sun Capital managed to hold on to the restaurant chain. Immediately after Friendly's closed 65 stores, laid off 1.260 workers, and sought Chapter 11 bankruptcy protection in November 2011, a second Sun Capital affiliate announced its intention to acquire the restaurant chain. A third Sun Capital unit came forward to provide a loan to finance the chain's operations while it was in bankruptcy. This made Sun Capital both owner of Friendly's and its large creditor, and put Sun in position to retain ownership of Friendly's when it emerged from bankruptcy with fewer liabilities. Under bankruptcy law, the owners of a bankrupt company are last in line to be repaid and generally lose their equity investment. This is intended to motivate them to avoid taking the company into bankruptcy and risk losing their money along with the jobs and pensions of their workers. Lending Friendly's money to keep operating while in bankruptcy put Sun Capital in a position to retain ownership of the company, a tactic that thwarts the goals of bankruptcy law.

In December 2011 Sun Capital was able to hold on the ownership of Friendly's by wiping out the 75 million dollar loan that one of its unit had previously made to see the restaurant chain through the bankruptcy period and by assuming some of Friendly's liabilities. A key part of Sun Capital's restructuring plan involved shifting liabilities for Friendly's pension plan to the federal government's Pension Benefit Guaranty Corporation.

Sun Capital ended the year as the owner of Friendly's but with much of the company's debt forgiven and without responsibility for the chain's pension obligations to its nearly six thousand employees and retirees."(Appelbaum E., Batt. R., 2014)

## 3.2 Transparency in Private Equity

Private equity typically does not disclose complete information about the companies once they are taken over. Several reasons exist why this lack of information may exist. In certain countries finances are not closely regulated and possibly not regulated at all.

Another reason is disclosing information about the company may in fact hurt the company by giving the competitors too much information. This is not easy to regulate nor control and is the reason that more transparency would in fact help stakeholders, but it can also at the same time hurt them as well. Divulging too much information about the company's performance can in fact mean loss of profits due to competitive leaks. Transparency if seen through the eyes of the investors, would help substantiate claims of the portfolio manager as being profitable, at the same time help save them money on monitoring costs, and fundraising activities.

### 3.3 Regulatory Developments in United States

The financial crisis of 2007-2008 started in the U.S. subprime market, spread throughout financial system, and led to the adoption in 2010 of the Dodd-Frank Act, an ambitious effort to overhaul U.S. financial regulation. The Act mainly targets systemic risk.

The Dodd-Frank Act has two primary objectives: to limit the risk of contemporary finance and to limit the damage caused by the failure of large financial institutions.

The Act contains terms seeking to improve transparency in the PE industry and reduce concerns about the potential contribution of PE to the systemic risk. Title IV of the Dodd-Frank Act requires PE firms to register with the SEC under the Investment Adviser Act of 1940 and comply with heightened disclosure requirements and provisions seeking to protect investors in PE funds.

Section 6619 of the Act. The so-called Volcker Rule forbids banking entities from sponsoring or investing in a PE fund subject to limited exceptions. Finally, systemically important PE firms or funds may be brought under the supervision of the Federal Reserve on their designation as systemically important financial institutions by the FSOC. Systemically important financial institutions are those institutions whose failure could significantly jeopardize financial stability and adversely impact the real economy. Title IV abolishes the section of the Act, which allowed PE fund managers to avoid registration as investment advisers with the SEC. Fund managers who previously relied on this exception are now required to register with the SEC.

Sections 113 of the Dodd-Frank Act introduces a novel regulatory framework for nonbank systemically important financial institutions aimed at safeguarding financial stability. In response to the failures of the previous regulatory regime, which mainly focused on micro-prudential regulation, the Dodd-Frank Act establishes FSOC to monitor and respond to systemic risk in U.S. financial markets. The FSOC may designate nonbank financial companies including PE firms and/or their funds as systemically important financial institutions. Once designated as a systemically important financial institution, a nonbank financial company is brought under the supervision of the Federal Reserve Board, which has the authority to develop and impose prudential standards.

The Volcker Rule introduced by section 6019 of the Act bans banking entities from sponsoring or investing in PE funds. The definition of sponsorship includes serving as a GP; managing member or trustee of a fund; selecting or controlling the fund's directors, trustees, or management; or sharing the same name as the fund.

Overall, regulating PE in the United States is premised on the potential contribution of the industry to systemic risk through the widespread failure of PE-backed companies and its effects on banking system, which finances LBOs and the real economy. Nonetheless, no widespread failure of the PE-backed companies occurred during the financial crisis of 2007-2008 and the failure of these companies did not jeopardize the real economy.

Although the failure of standalone PE firms and funds is unlikely to pose a threat to the financial system, systemic risk may emanate from banks' ownership and sponsorship of PE funds. The failure of internal PE funds may be adversely affect the reputational capital of the parent banking organization and result in its failure, which may destabilize the financial system if the parent is systemically important.

### 3.4 Regulatory Developments in European Union

The financial crisis of 2007-2008 and the failures of the EU financial regulatory framework resulted in an overhaul of EU financial regulation. One of the first targets of European regulators was the opaque alternative investment fund industry. EU politicians

regularly criticized the PE industry for breaking-up companies, slashing jobs, and promoting a short-term thinking inside corporate boardrooms at the expense of long-term value creation. This result was the adoption of the AIFM Directive in November 2010. The Directive's main goals are protecting investors in alternative investments funds and tackling systemic risk. The AIFM Directive seeks to achieve these goals by creating a harmonized EU regulatory framework for alternative investment funds (AIFs). An AIF is any "collective investments undertaking" that raises capital from investors for investing it according to a defined investment policy and does not require authorization under Article 5 of Directive 2009/65/EC, commonly known as the "UCITS Directive".

The AIFM Directive regulates alternative investment fund managers (AIFM) established in the European Union that manage AIFs, whether established in the European Union or not, and non-EU-based AIFMs that manage EU funds or market funds in the European Union. An AIFM is any entity managing AIFs as a regular business. As a result, managers of PE funds, hedge funds, commodity funds, and real estate funds fall within the ambit of Directive. PE fund managers covered by the Directive are required to become authorized by the competent authorities of their home Member States.

Covered fund managers must comply with modest initial and continuing capital requirements, devide appropriate risk and liquidity management systems, and implement procedures to identify and manage conflict of interest that could adversely affect the funds managed or their investors. The AIFM Directive introduces depositary and valuation requirements. A fund manager must appoint a single depositary for each fund managed that will be responsible for safekeeping the fund's asset and monitoring its cash flows. Additionally, an independent valuation of the fund assets must take place at least once per year.

To increase the transparency of the AIF industry, the AIFM Directive introduces mandatory reporting requirements toward investors and national supervisors.

Fund managers must make available to investors specific information both before and periodically after their investment in the fund. Fund managers must also produce an annual audited report for each fund and provide it to the competent national authority and investors on request.

The AIFM Directive also imposes disclosure obligations at the portfolio company level. Finally, the Directive seeks to protect companies against short-term investment strategies used by PE investors. The most notable strategy involves depleting the target company's assets for repaying the debt incurred to finance acquisition, a practice commonly referred to as asset stripping. A fund manager who acquires control of an EU company shall not for two years after the acquisition facilitate, support, instruct, or vote in favor of any distribution, capital reduction, share buyback or acquisition of own shares by the portfolio companies. The asset stripping prohibitions affect exit and deal structuring in Europe and limit the option available for returning value to PE investors. The AIFM Directive is expected to increase compliance costs for PE firms operating in Europe and the restrictions on distributions to shareholders are likely to have a profound impact on deal structuring and exits.

## 3.5 Towards a more effective Regulation of Private Equity

General stakeholders, suppliers, creditors, customers, employee, retirees, the broader community and the taxpayers can be negatively affected by the strategic decisions put in place by the GP of a private equity fund. PE owners and investors employ the use of aggressive tax arbitrage strategies that benefit themselves and increase the default risk of the company. All participating parties may be misled by the lack of transparency and the use of flawed measures.

Regulations should focus on increased transparency from all parties involved. Currently PE firms are not legally obligated to publicly disclose pertinent financial information regarding the nature of their business. This information would be beneficial for business partners, lenders and union leaders. Unions and their workers are seldom aware of the involvement of PE funds in the business, especially those private equity funds that are using offshore holding companies. In publicly traded companies these information are known to stakeholders and employees.

Unlike publicly traded companies with financial statements and prospectuses available to their shareholders, investors in PE firms can find it difficult to evaluate and measure the performance across funds, because of the lack of transparency in financial reporting.

PE firms lack accountability for the leveraging of the firms they acquire. In prosperous economic times the leverage, can provided tax credits and boosts to company value. This benefit is quickly eroded when the economy slows. Business are no longer able to meet their obligations and start signaling distress. Financial distress costs and bankruptcy affect everyone in connection with the business.

The extensive use of leverage has different advantages for the private equity firm. One such advantage is the lack of accountability for the PE firm. The responsibility for repaying the debt falls completely on the acquired company. The PE firm and its investors have little more at stake than their initial equity. High levels of leverage magnifies the returns for PE investors in successful ventures and minimizes loss from less profitable ventures.

In addition to limited liability, another advantage to the PE firm regarding debt is the tax treatment. Debt can be deducted from the tax liabilities, creating the illusion of a value added proposition without actually contributing to the economy. This is considered a transfer of wealth from taxpayers to PE firms and their investors. This wealth must be compensated by tax dollars or budget cuts.

The phenomenon can be resolved by limiting the amount of debt that can be used in private equity transactions. This would diminish the risk of financial distress, deter bankruptcy and reduce the taxpayer's exposure to social duties.

Limits on leverage ordinarily must be established by legislation. There are three general approaches for accomplishing this: placing a cap on the amount of debt that can be used to acquire a portfolio company; limiting the tax deductibility of interest; and establishing rules designated to limit risky behavior.

If interests on debt were less tax-deductible, private equity firms could still decide to use as much or as little debt, they wanted in acquiring a portfolio company. Limiting the tax-deductibility of interest payments on debt would not directly limit the amount of debt that PE firms are able to leverage on portfolio companies. It would, however, remove a major incentive for loading these companies up with such high levels of debt relative to the value of enterprise.

Limited liability partnerships provide protection to the shareholders to abuse company assets if they wish to do so. The limited liability benefits should not be extended when the company’s assets are stripped by an opportunistic shareholder.

The liability should be placed on shareholders in order to discourage behaviors that would hurt the company's interest.

Legislation requiring a type of agreement when equity funds acquire companies could provide a solution to this problem.

The agreement would create accountability for the PE owners for negative outcomes that arise as a result of their sale of company assets.

There is no negative consequences to shareholders for the sale of the portfolio company assets as long as they do not undermine the function of the company. To meet debt obligations, and to pay unsecured creditors, the private equity company owners including the private equity company that sponsored the fund, would have to forego the protection of limited liability and be accountable both individually and collectively for debts unpaid. This would include obligations to vendors, to workers for unpaid wages and severance pay, and to employees' pensions, health and welfare funds.

Asset striping and dividend recapitalization transfer resources from the company to the PE owners. This leads to a failure of retained earnings that could be used to invest in research and innovation. Innovation is vital to the development of the process and product technologies for the company's long term success and the economy's growth.

Dividend payments reduce the capacity of the company to increase the value of the enterprise through investments in products or process technologies, professionalization of management practices, and improvements in employee skills and capabilities.

Payments of dividends to shareholders should been limited by corporate law. Equity in the company must be sufficient enough to keep up with overhead costs.

Dividend distributions can effectively transfer resources from the company to the private equity shareholders even when they do not drive a company into bankruptcy.

Directors who breach fiduciary duty by declaring dividends that would make the company become insolvent should be held accountable.

"Pros and cons are present in all business activities. Policymakers always need to consider what they can do to contribute toward the creation of an environment in which economically worthwhile activity can take place, but abusive conduct that is socially wasteful is curtailed." (M.Wolf, 2007).

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