WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

Alternative Investments 2020

An Introduction to Alternative Investments

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Contents

Introduction and Scope

Accompanying the industry's rise have been recurring worries that hedge funds destabilize capital markets, private equity investors load firms with debt, strip their assets, then sell the firms in question, and venture capital firms invest in unicorns that may disappear once they are in the hands of the public. While there are indeed examples of this, short-hand indictments do not do the industry as a whole justice. A robust and educated public debate must form the basis for how we – as a society – engage with and regulate it.

Over the past three decades, the alternative investments industry has become a critical component of the global financial system and world economy. Its impact on society can be seen across capital markets, in mainstream businesses and board rooms, and as part of the political discourse. Investors in alternatives now deploy trillions of dollars around the world, playing a critical role in supporting global capital markets, and redistributing risk. The industry has given rise to leading investment firms such as the Blackstone Group, Bridgewater Associates, and Sequoia Capital in the United States, CVC Capital and Brevan Howard in Europe, and The Abraaj Group and many other firms focused on emerging markets. It has owned or funded many well-known companies across a range of industries such as Google, Facebook, Motorola, Heinz, Hertz, and Skype.

The goal of this report is to provide policymakers, regulators, journalists, and the public with an objective overview of the industry in order to better understand the benefits and risks associated with the industry. We believe this is to be a critically important task, given the industry's increasingly central role in the economy and society and the often polarized debate about alternatives. We have aimed, as much as possible, to explain the industry in plain English, but some concepts pre-suppose our reader's fundamental understanding of financial markets and concepts such as liquidity. A list of useful primers on potentially puzzling terms can be found in the appendix. Our hope is that this report clarifies much of the mystery surrounding alternative investments, and provides readers with a framework to evaluate facts in a comprehensive manner.

The report answers some fundamental questions that surround alternative investments:

— What are alternative investments?

— Why do alternative investments exist and why have they grown so rapidly?

— Where do alternative investors obtain their capital?

— How do alternative investors generate returns?

— How do alternative investors interact with the financial system?

— What benefit do alternative investors provide to society?

— Why is alternative investing so important for the future and what is shaping the industry?

We hope this report provides a foundation and starting point for an ongoing dialogue on the role of alternative investments. We invite feedback and comments and look forward to a robust debate.

1. Overview of alternative investments

1.1 Definition of alternative investments

In its broadest definition, alternative investment assets are those which are not part of traditional asset classes such as cash, stocks, or bonds that retail investors are most familiar with. Such a definition would encompass investing in mainstream assets such as real estate or commodities or luxury goods such as art or wine. However, for this report, alternatives will be those which have historically utilized distinctive fund structures and which only wealthy individuals and institutions have had access to. Alternatives will thus encompass a wide range of asset classes, including private equity real estate and private equity infrastructure funds, secondary funds, and private debt funds. In particular, this report will focus on three asset classes: private equity buyouts, hedge funds, and venture capital. Historically, these three have played the most important role in the evolution of the industry and have accounted for the vast majority of the capital allocated to alternatives.

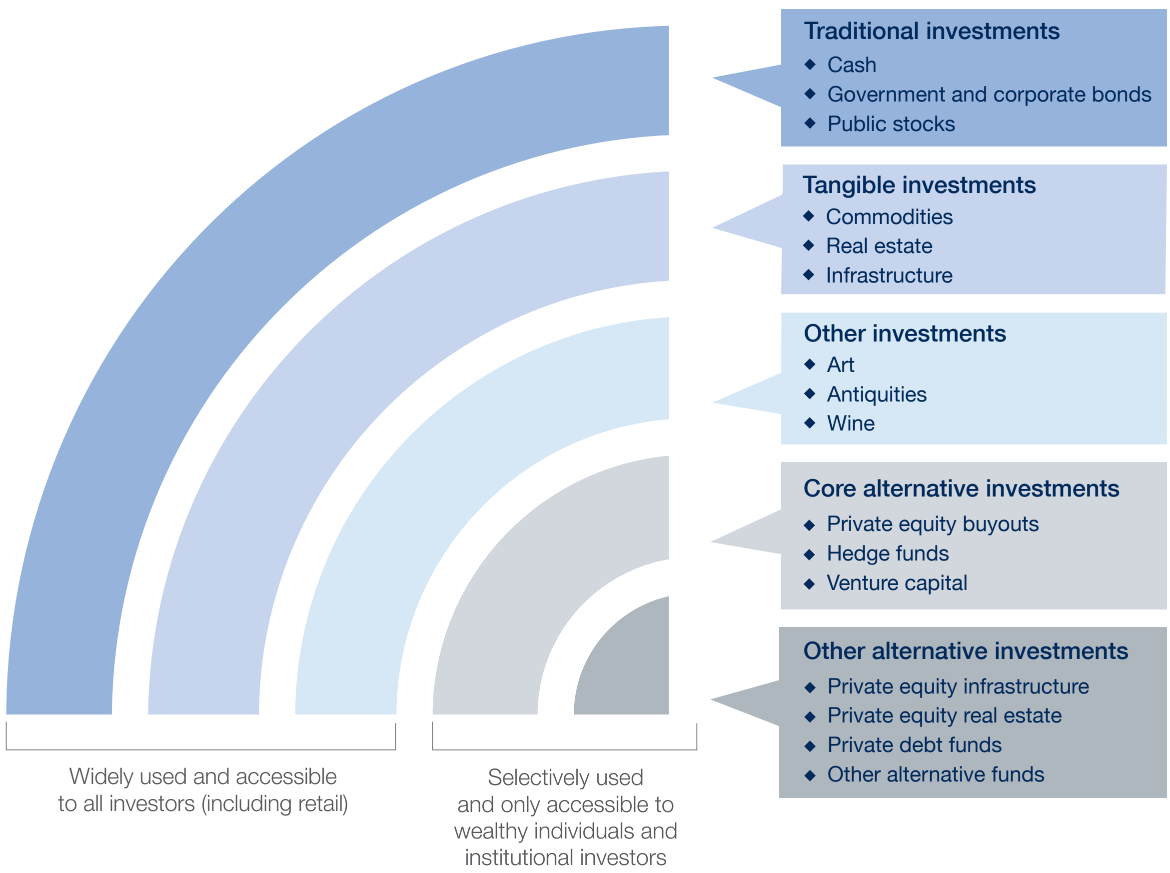
Figure 1 provides an overview of different types of mainstream and alternative investments, while Figure 2 shows how alternatives fit into the broader cycle of investing savings into businesses or assets.

1.2. Investment characteristics

Alternatives offer investors a distinct set of attributes that are not commonly found in mainstream investments such as public stocks or government or corporate bonds. These typically include one or more of the following attributes: long term, high risk, or illiquid investments that are associated with higher returns; low correlation with traditional assets to deliver diversification benefits; inflation-hedging benefits; and scalability (the ability to absorb large investment sums).

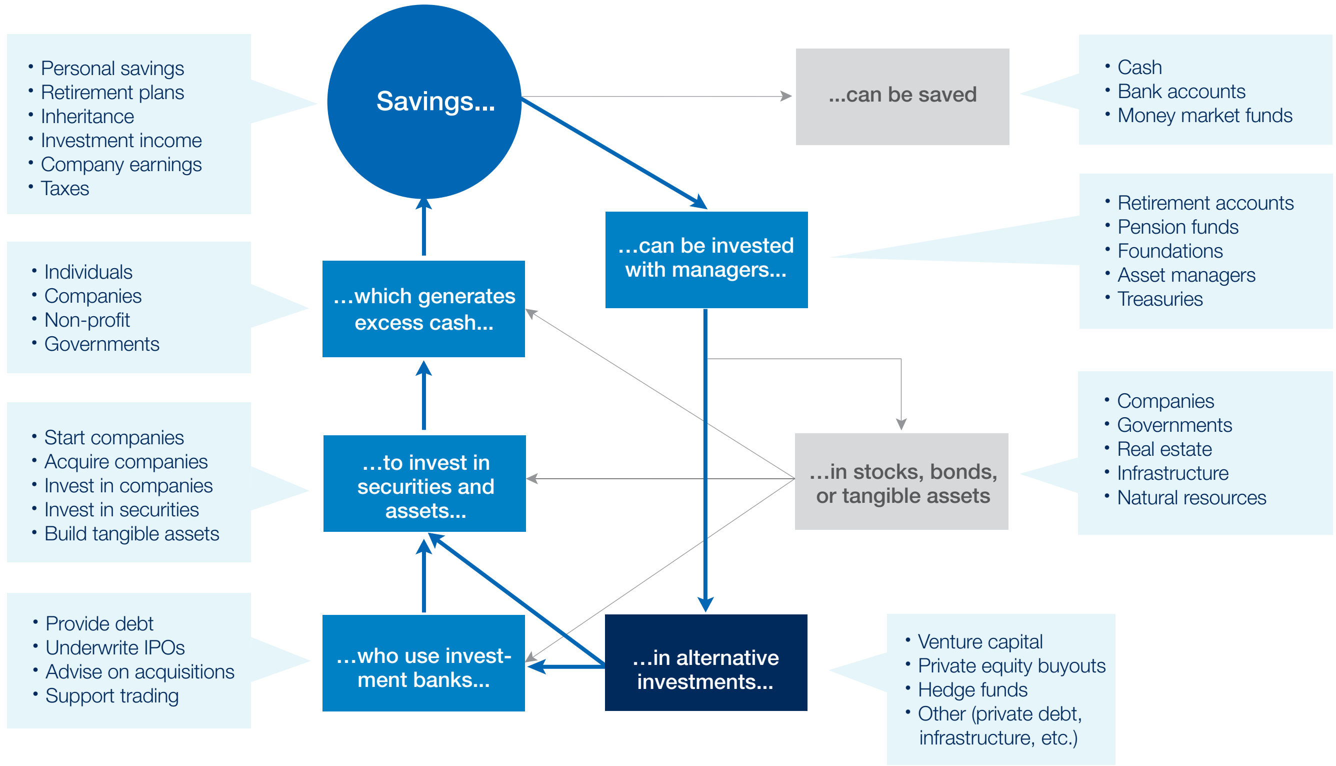
Figure 3 shows the degree to which these and other investment attributes are available to investors in each of the three core alternative asset classes.

Figure 1: Overview of different types of investments



Source: World Economic Forum Investors Industries

Figure 2: The investment cycle



Source: World Economic Forum Investors Industries

Figure 3: Expected investment attributes for core alternative investment asset classes

VC Venture capital **PE** Private equity buyouts **HF** Hedge funds Very low ▢ ▢ ■ ■ ■ Very high

	Implications for:	Description	VC	PE	HF
Performance	Target returns[1]	Produces net returns to investors	Very high	High	Moderate
	Risk	Variance in returns and risk of losing capital	Very high	High	Moderate
Investment attributes	Correlation with other assets[2]	Correlation with other assets (lower is better)	Moderate	Very high	High
	Inflation-linked	The asset typically adjusts for inflation	Very low	Low	Very low
	Liquidity	Ability to easily sell the asset when needed	Low	Low	Moderate
	Scalability[3]	Ability to deploy large sums of capital	Low	Very high	Very high

[1] Over a 10yr horizon; Very high returns = >20%, high = 10-20%, moderate = 5-10%, low = 0-5%, very low = 0%
[2] Correlation with equity markets; Very high = 80-100%, high = 60-79%, moderate = 40-59%, low = 20-39%, very low = 0-19%
[3] The ability of an LP to deploy large amounts of capital efficiently with fund managers and/or in co-investments

Source: Cambridge Associates, Hedge Fund Research, RREEF, JPMorgan, Coller Capital, Preqin

2. A brief history of alternative investment

Private investors, largely in the form of wealthy individuals, have deployed capital in companies since before the Industrial Revolution. However, it was not until the mid to late 20th century that today's alternative investment industry began to take shape in the United States (Figure 4). The industry has since grown from a handful of firms in the US managing a few billion dollars to thousands of firms spread across the world that now manage more than $7 trillion on behalf of investors. The key drivers behind this growth have been regulatory changes and technological innovation in the US and global market events.

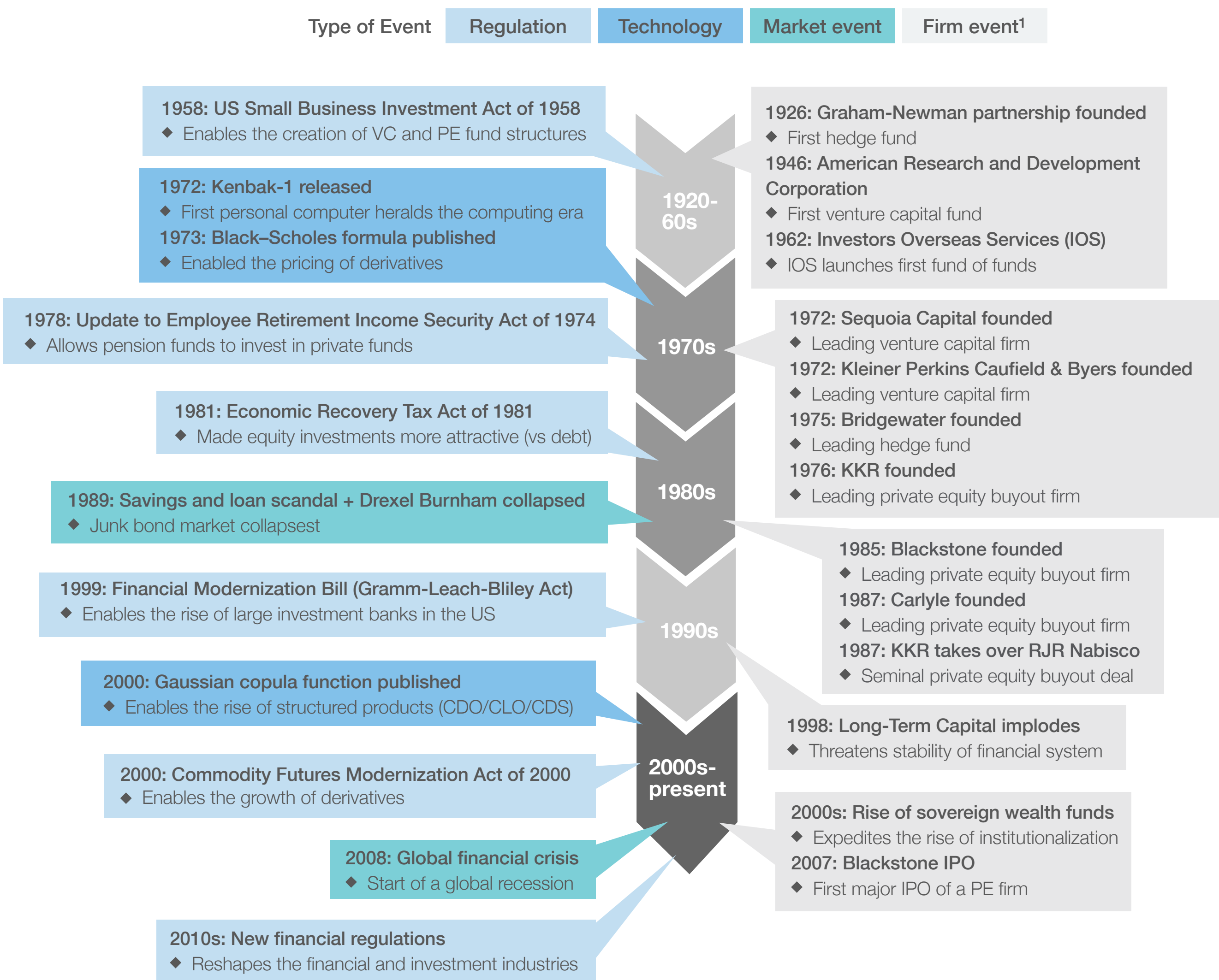
2.1. Laying the foundations for alternative investments

2.1.1. Regulatory changes

Three laws supported the birth and initial growth of the alternatives industry and two additional laws enabled the industry to scale up dramatically in the 2000s.

1. *US Small Business Investment Act of 1958:* The law supported private investment in small businesses and innovation. It legally enabled the creation of venture capital and private equity buyout fund structures and allowed them to use leverage. Alternative investors found the legal structures particularly attractive, as fund profits could typically be treated and taxed at lower capital gains rates and not as income, which is usually taxed at higher rates.

Figure 4: Key moments in the history of alternative investments



[1] The firms referenced here are illustrative examples. Only space constraints prevent us from mentioning the many other outstanding firms that played important roles throughout the history of alternative investments.

Source: World Economic Forum Investors Industries

2. *US Department of Labor update (1978) to the Employee Retirement Income Security Act of 1974 (ERISA):* This update lifted an earlier restriction placed on pension funds from investing in privately held securities, thereby enabling them to invest in alternative investments.

3. *Economic Recovery Tax Act of 1981*: The law reduced capital gains taxes, which increased the attractiveness of equity investments relative to debt. As a result, institutional investors, such as pension funds, increased their allocation to alternative investments.

4. *Financial Services Modernization Bill (Gramm-Leach-Bliley Act) of 1999:* The law effectively repealed the U.S. Banking Act of 1933 (Glass-Steagall Act) and enabled the creation of large universal banks in the US, whose activities supported the dramatic increase in the scale of private equity buyouts and hedge funds in particular.

5. *Commodity Futures Modernization Act of 2000:* This law clarified that most types of over-the-counter derivatives, which are not traded on exchanges, would not be subject to government oversight. The law enabled the growth of derivatives, used extensively by hedge funds, to grow unchecked by any regulatory constraints.

Box 1: Potential impact of new financial regulations

The future of alternative investments will likely continue to be influenced by regulatory changes. Following the financial crisis, regulators in the United States and Europe overhauled regulations governing many highly technical aspects of the global financial system, with the goal of preventing a similar crisis from occurring again (Figure 5). Regulations that target one type of financial actor can have ramifications for many other seemingly unrelated ones within the financial ecosystem, given the complex set of interdependencies amongst different parts of the system (Figure 6).

Thus, alternative investors will likely be affected by the new regulations, even though many of the laws target banks or other actors in the traditional financial system. Potential effects include a reduction in market liquidity, financial innovation, access to capital, and returns to investors and an increase in costs for existing firms and barriers to entry for new firms (Figure7).

For an in-depth review of the charts below, the new regulations, and how they may shape the future of the industry, readers can refer to a forthcoming World Economic Forum report, *Alternative Investments 2020: Regulatory Reform and Alternative Investments.*

Figure 5: Overview of financial reforms in the United States and Europe by area

Regulatory reform	Legislative region	Leverage limits	Collateral requirements	Liquidity requirement	Central clearing	Proprietary trading / private equity limits	Trading tax	Brokerage fee limits	Deposit and reporting requirements	Compensation limits
Dodd–Frank Wall Street Reform and Consumer Protection Act, *(Dodd-Frank)*		●	●	●	●					
§ 619 (12 U.S.C. § 1851) of the Dodd-Frank Act *(Volcker Rule)*						●				
Foreign Account Tax Compliance Act *(FATCA)*									●	
Third Basel Accord/Capital Requirements Directive *(Basel III/CRD IV)*		●	●	●				●	●	●
Undertakings For The Collective Investment of Transferable Securities V *(UCITS V)*									●	
Alternative Investment Fund Managers Directive *(AIFMD)*									●	
Solvency II Directive *(Solvency II)*		●	●							
Markets in Financial Instruments Directive II *(MIFID II)*								●	●	
European Market Infrastructure Regulation *(EMIR)*			●		●				●	
Financial Transaction Tax *(FTT)*						●				
Packaged Retail Investment Products *(PRIPS)*									●	
International Financial Reporting Standards *(IFRS)*			●						●	
Retail Distribution Review *(RDR)*								●		

● Areas affected

Source: World Economic Forum Investors Industries

Figure 6: Implications of regulatory changes for different actors

Regulatory reform	Legislative region	Banks	Asset managers	Insurance companies	Pension funds	High-net worth / Retail investors	Hedge funds	Private equity	Venture capital
Dodd–Frank Wall Street Reform and Consumer Protection Act, *(Dodd-Frank)*		◆					□	□	
§ 619 (12 U.S.C. § 1851) of the Dodd-Frank Act *(Volcker Rule)*		◆					□	□	□
Foreign Account Tax Compliance Act *(FATCA)*		◆	◆			◆	□	□	□
Third Basel Accord/Capital Requirements Directive *(Basel III/CRD IV)*		◆	◆				□	□	
Undertakings For The Collective Investment of Transferable Securities V *(UCITS V)*			◆			□	◆		
Alternative Investment Fund Managers Directive *(AIFMD)*			◆				◆	◆	
Solvency II Directive *(Solvency II)*				◆			□	□	
Markets in Financial Instruments Directive II *(MIFID II)*			◆				□		
European Market Infrastructure Regulation *(EMIR)*		◆	◆	◆			□		
Financial Transaction Tax *(FTT)*		◆	◆				□		
Packaged Retail Investment Products *(PRIPS)*		◆	□	□		◆	□		
International Financial Reporting Standards *(IFRS)*		◆			◆			□	
Retail Distribution Review *(RDR)*			◆			◆			

◆ Primary target □ Also affected

Source: World Economic Forum Investors Industries

Figure 7: Impact of new financial regulations on alternative investment actors

Low □ ▢ ▩ ■ High potential impact

	Implications for:	Description	VC	PE	HF
Capital markets	Market liquidity	The potential for the reform process to profoundly decrease trading volumes		▢	▩
	Financial markets innovation	The potential for any limitation on innovation to feed back into the alternative investment industry		▢	▢
Investment and retirement needs	Human talent	The number and quality of people moving from traditional financial firms may fall.		▢	▢
	Cost	New regulations are imposing major costs on firms		▢	■
	Consolidation & barriers to entry	Cost and regulatory complexity will form new barriers to entry		▢	■
	Innovation	The combined effects on talent, cost and barriers to entry may stifle innovation		▢	▩
	Access to capital	Investors who could benefit from alternative investments may be denied access	■	■	▩
	Returns to investors	The cumulative impact of these challenges is likely to be a fall in returns to investors	▢	▢	▢

Source: World Economic Forum Investors Industries

2.1.2. Technological change

The technology revolution, in part funded by alternative investors (venture capital), and innovative ideas by academics also played a pivotal role in the history of alternative investments. The dramatic increase in computing power transformed financial markets and made it possible to record, track, move, store, and analyse previously unmanageable and unthinkable amounts of data. In addition, academic innovations in the form of the Nobel Prize winning Black-Scholes options pricing formula (1973) and the application of the Gaussian copula theorems to financial instruments (2000) enabled investors to quickly and easily price complex financial products such as derivatives[1] and structured securities, which supported their rapid growth and increased liquidity in markets overall.[2, 3] Hedge funds benefited immensely from these changes, as their business models often rely on the large and liquid markets and/or accessing, analysing, and valuing large amounts of data or complex financial instruments.

2.2. Market events

Building upon the aforementioned foundations, the alternative investment industry has grown with each passing decade.

— **1980s:** The economic boom and growth of the high yield (junk bond) market proved critical to the growth of private equity buyouts, as firms used the debt to acquire much larger companies than they would have been able to otherwise.

— **1990s:** Strong market returns, in large part driven by venture capital backed companies, generated large amounts of private wealth, which served to fuel investments in hedge funds.

— **2000s:** Investments in venture capital fell significantly following the dotcom crash. However, the credit driven economic resurgence allowed private equity buyouts and hedge funds to scale up to new heights.

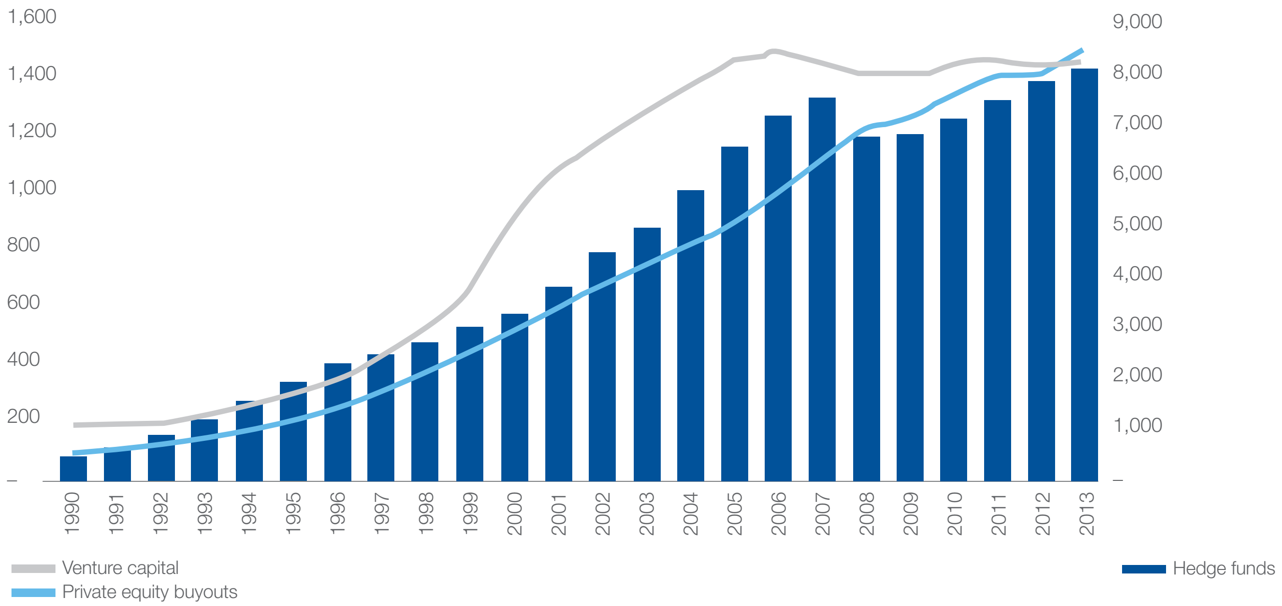
— **2010s:** Alternative investments performed well relative to traditional investments during and after the financial crisis. The result was an increase in demand for alternative investments, which enabled the growth of non-core alternative investments.

Today, the alternative investment industry is truly global in both breadth and depth. More than 10,000 firms (Figure 8) mange some $7 trillion in assets under management (Figure 9). The capital is invested across the globe in companies at every stage of development and in every imaginable industry sector.

The industry has expanded beyond the core and now includes a range of additional asset classes. Some are specific to alternatives, such as secondary funds, which seek to acquire stakes in existing alternative funds, while others utilize private equity style fund structures and investment techniques to target traditional asset classes such as real estate, infrastructure, or private debt.

Figure 8: Growth of core alternative asset classes[4]

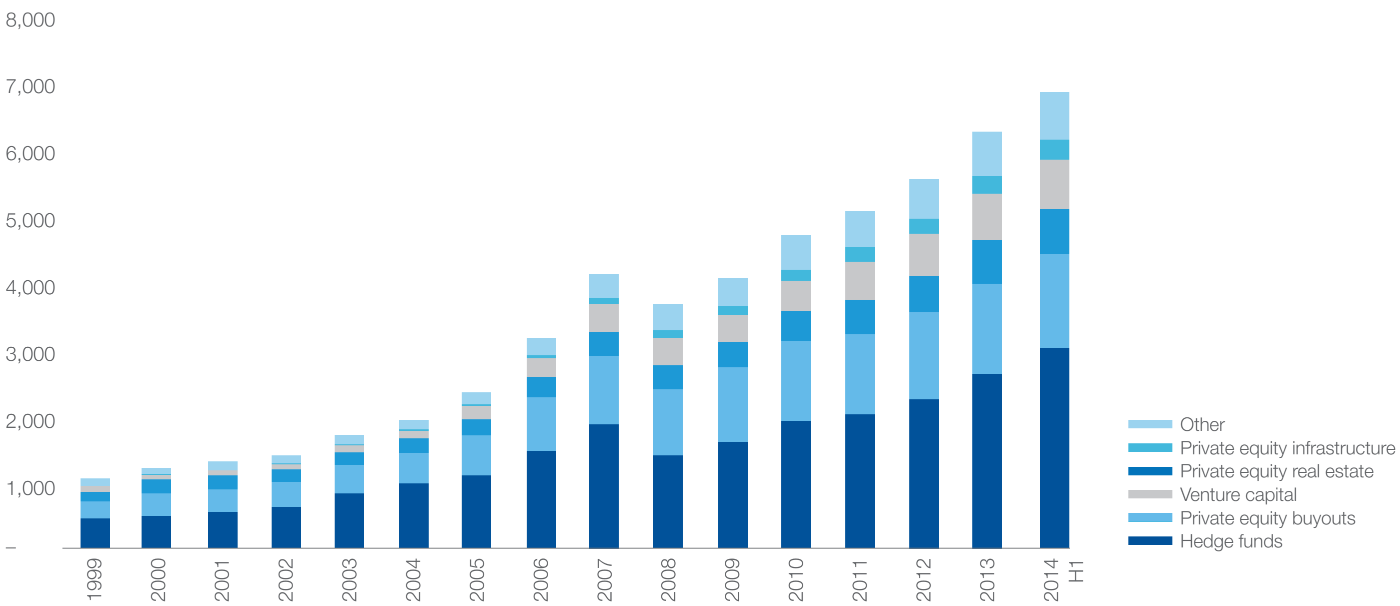
Total number of hedge funds, private equity buyout, and venture capital firms



Source: Preqin, HFR

Figure 9: Growth in assets under management by asset class[5]

Total alternative assets under management, $ billlions



Source: Preqin,Hedge Fund Research

3. Investing in alternative investments

3.1. Investment structure

The legal structures used by alternative investment funds differ significantly from most traditional fund arrangements (mutual funds in the US, unit trusts in the United Kingdom, and UCITS funds in Europe), even though both entail a fund investing on behalf of an investor. This results in different and unique fee structures, investment lifespans, degrees of freedom with regard to the investment mandate, cash flow patterns, liquidity and investor constraints, and performance metrics. Figure 10 provides an overview of the key differences between alternative investment funds and traditional funds, such as mutual funds.

3.1.1. Investor constraints

Most governments only permit wealthy individuals and institutional investors (such as pension funds, sovereign wealth funds, and endowments and foundations) to invest in alternative investments. The belief is that such investors are better able to understand and manage the complex, often high risk, and illiquid nature of alternative investments.

3.1.2. Investment lifespan

Most types of alternative investments utilize closed-end fund structures that have a fixed lifespan (typically 10-15 years). All of the value of the investment is returned to investors within this timeframe, who must then identify new investment opportunities to reinvest the capital in. Hedge funds are a noteworthy exception, as they usually offer open ended funds, which are similar in style to traditional fund structures, in that the capital is automatically reinvested with the fund unless the investor requests that the capital be returned to them.

3.1.3. Investment mandate

The legal structure that alternative investment funds use is quite flexible relative to traditional funds. Alternative investors usually have broad investment mandates, which allows them to employ a diverse range of strategies and pursue a wide range of investments. Moreover, they are not constrained by legal barriers imposed on traditional funds that limit their ability to use debt (leverage), short sell securities, invest in illiquid securities, or use derivatives when seeking to execute on their strategies.

Figure 10: Comparison of investment attributes for alternative vs traditional fund structures

		Alternative investments		Traditional investments
		Closed-end funds	Open-end funds	Open-end funds
	Types of investments	• Private equity buyouts • Private equity real estate • Private equity infrastructure • Distressed debt • Venture capital • Secondary • Private debt	• Hedge funds	• Public stocks • Government and corporate bonds • Cash
Asset classes	Fee structures	• Management fees • Performance fees + hurdle rate	• Management fees • Performance fees + hurdle rate	• Management fees
	Investment lifespan	• Usually 10-12 years	• Microseconds to 18 months	• Days to years
	Investment scope	• Flexible investment scope • Often illiquid • Can use debt and derivatives	• Flexible investment scope • Can be illiquid • Can use debt and derivatives	• Narrowly defined scope • Liquid and long only securities[1] • Limited ability to use debt
	Cash flow patterns	• Unpredictable when cash will be invested or returned to an investor	• Relatively predictable when cash will be invested/returned	• Relatively predictable when cash will be invested/returned
	Liquidity constraints	• No withdrawals permitted • Secondary sales are permitted	• Staggered withdrawals (months), with a delay	• Ability to withdraw all capital in a short period (days)
	Investor constraints	• Only wealthy individuals • Institutional investors	• Only wealthy individuals • Institutional investors	• Any individual • Institutional investors
	Performance metrics	• Money weighted (internal rate of return)	• Money weighted (internal rate of return)	• Time weighted return

[1] There are some exceptions to this long only means that funds do not short securities

Source: World Economic Forum Investors Industries

3.1.4. Cash flow patterns

Alternative investments have more unpredictability in the size and timing of cash flows than that of traditional funds. Cash invested in a traditional stock or bond fund is usually fully invested within one business day. In contrast, most alternative investment funds accept cash commitments from investors, but no cash is transferred to the fund until it needs the cash to make an investment. There can be a lengthy delay (months to years) between when the capital is committed and when it is invested. Importantly, the full amount of capital committed will be invested (a "capital call") over a period of time (often years). The return of capital (a "distribution") to an investor is equally unpredictable, since fund managers cannot predict the timing or price of an asset in advance. The resulting cash flow pattern is known as a j-curve, which is illustrated in Figure 11.

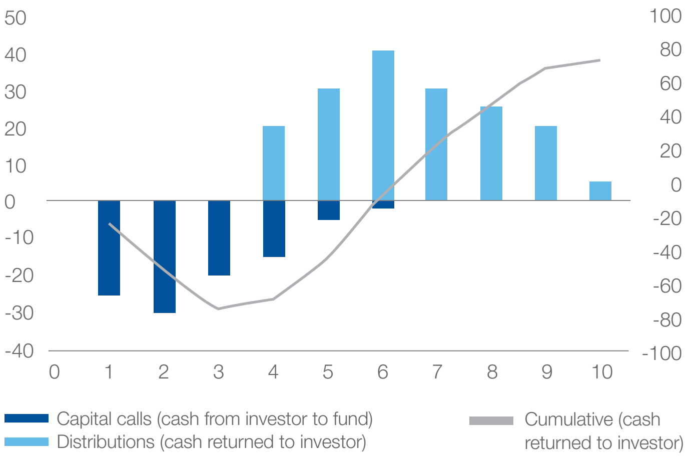
3.1.5. Liquidity constraints

Alternative investment funds are much more illiquid than traditional funds. Most use closed-end fund structures that do not permit investors to withdraw their capital from the fund due to the illiquid nature of the investments. However, investors can sell their stake to a secondary fund, which specializes in such transactions.

In contrast, open-ended fund structures allow investors to request that their capital be returned to them at any time. In traditional mutual funds, fund managers are required to return the capital within a matter of days. Hedge funds often use open-ended structures as well, but they do not have the same requirement to quickly return the capital to investors. Rather, investors must submit requests 1-12 months in advance and on a staggered basis. The delay reflects the fact that the underlying investments are sometimes illiquid and cannot be sold quickly without incurring large losses.

Figure 11: Illustration of cash in/outflows for closed-end fund structures

Illustration of closed-end fund cash flows



Source: World Economic Forum Investors Industries

3.1.6. Fee structures

Alternative investment funds have two primary fees: management fees and performance fees. Management fees are similar in nature to those charged by traditional investment products, but performance fees are unique, as traditional funds are not typically permitted to charge performance fees.The most important fee related factors are:

- **Management fee:** Fund managers usually receive fees of 1-2% of raised or invested capital per annum. Such fees are intended to cover the costs of operating the fund. Fees in excess of these costs are retained by the firm that manages the fund, which can create an incentive to raise large funds.
- **Performance fees** (also known as carry)**:** Fund managers typically receive 20% of net profits generated by the fund over its lifespan, once the hurdle rate (discussed below) has been met. Sharing in the profits serves to align the interests of the fund manager and the underlying investor.
- **Hurdle rate** (also known as a high watermark or preferred rate of return)**:** Most fund agreements stipulate a hurdle rate of 7-8%. Fund managers do not receive performance fees until they meet the hurdle rate. As the hurdle rate is calculated over the whole life of a fund, sub-par returns in one year need to be matched with outsized returns in following years. This incentivizes fund managers to aim for high absolute returns and take a long-term view.

3.1.7. Performance metrics

Alternative investors use different performance metrics than those used by traditional funds. The difference reflects the fact that the former have control over the timing of an investment, but traditional managers do not (the investor determines this). Traditional funds measure returns using the time weighted method, which ignores how much cash was invested and simply computes returns based on the value of a security at two points in time. In contrast, alternative investors use the money weighted return method (also known as an internal rate of return), which weights returns based on the size of the cash inflows and outflows over time. In turn, alternative investment funds are typically measured by the rate of return they are able to generate over a period of time and a cash flow multiple, which compares how much cash was returned to an investor relative to how much they started with. Figure 12 provides an example of how these two methods can produce different returns.

Figure 12: Comparison of money vs time weighted returns

Period	Starting capital	Ending capital	Cash to investor	Cash from investor	% of capital invested	Period return
Quarter 0	–	100	–	100		n/a
Quarter 1	100	105		50	16.2%	5%
Quarter 2	155	171	25		25.1%	10%
Quarter 3	146	116		100	23.6%	-20%
Quarter 4	216	249	249		35.1%	15%
Annual			**274**	**250**		

Time weighted = [(1+5%)*(1+10%)*(1-20%)*(1+15%)]-1 = **6.3%**

Money weighted = (5%*16%)+(10%*25%)+(-20%*24%)+(15%*35%) = **3.9%**

Cash flow multiple = (274/250) = **1.1x%**

Source: World Economic Forum Investors Industries

Figure 13: Investment life cycle for different types of alternative investors

Fund life cycle / Investment life cycle

	Private equity	Venture capital	Hedge funds[1]: Quantitative	Hedge funds[1]: Qualitative (liquid)	Hedge funds[1]: Qualitative (illiquid)
Raising capital	• Closed funds • Fund raising lasts 6-18 months	• Closed-end funds • Fund raising lasts 6-18 months	• Open-ended funds • Fund raising is an on-going concern for all fund types	• Open ended funds • Fund raising is an on-going concern for all fund types	• Closed funds • Fund raising lasts 6-18 months
Searching for investments	• Weeks to years • Firms analyse a company	• Weeks to years • Firms analyse a company	• Milliseconds to minutes • Algorithms identify opportunities	• Days to months • Firms review individual or groups of securities	• Weeks to months • Firms review individual companies
Deploying capital	• Months • Firms usually take a controlling stake in companies	• Months • Firms partner with other VCs to provide capital to companies	• Milliseconds to minutes • Shares are acquired on exchanges	• Hours to days • Acquire securities on exchanges or private exchanges	• Weeks to months • Acquire securities on exchanges or private exchange
Owning an asset	• 3-7 years • Own and manage entire companies	• 5-7 years • Own and advise on partially owned companies	• Milliseconds to weeks • Own securities	• 1-12 months • Own securities	• 6-18 months • Own securities
Exiting an investment	• Months • Exit deal through IPO, trade sale [2] or secondary sale [2]	• Months • Exit deal through IPO, trade sale [2] or secondary sale [2]	• Milliseconds to minutes • Sell security on an electronic exchange	• Hours to days • Sell security on an exchange or to a private party	• Weeks to months • Sell security on an exchange or to a private party
Returning or reinvesting captial	• LPs receive net returns after each company is sold	• LPs receive net returns after each company is sold	• Days to weeks • LPs receive cash with a delay (30-90 days) after requesting a withdrawal	• Days to months • LPs receive cash with a delay (30-90 days) after requesting a withdrawal	• Days to months • LPs receive cash with a delay (30-90 days) after requesting a withdrawal

1 The liquidity profile of hedge funds varies widely, depending on the nature of the investment strategy

2 Trade sales is the sale of a company to a corporation; secondary sale is the sale of a company to an alternative investment fund that specializes in purchasing companies from private equity firms

3 The nature of the strategy will determine the liquidity of the investment, as well as how long it will take a fund to fulfill a redemption request

Source: World Economic Forum Investors Industries

3.2. Investment life cycle

The investment life cycle for most types of alternative investments is usually much longer and involved than that of a traditional investment. In most cases, the full cycle will last nearly a decade and involve many different parts of the financial system. The steps and the order they are taken in are shared by all alternative investments, but there is tremendous variance between how each asset class executes each step and how long each step can take. Figure 13 provides an overview of these differences, which will be discussed in greater detail in this next section.

3.2.1. Raising capital

Most alternative investment funds are closed in nature and engage in a fund raising period prior to closing the fund to new commitments. During this window, which usually lasts 6-18 months, funds receive commitments from investors, but do not begin to invest the committed capital. Hedge funds are an exception, since their open-ended fund structure allows them to raise and invest the capital at any time.

3.2.2. Searching for investments

The process of identifying companies, securities, or assets to invest in varies widely by asset class. Private equity buyout and venture capital firms and certain types of hedge funds, will devote weeks or months to researching, reviewing, and conducting due diligence on investment opportunities before a single specific target is identified. The process itself is similar for hedge funds that focus on investing in liquid securities, though the timeframe may be as short as microseconds for those that use computer algorithm driven quantitative techniques or days or weeks for those that rely on analysis by investment professionals.

3.2.3. Deploying capital

The time it takes to deploy capital in an investment also varies significantly across different asset classes. For hedge funds that invest in liquid securities traded on public exchanges, the process could be as short as microseconds or last as long as days if the fund seeks to purchase a meaningful stake in a company (often 5 to 10% of a specific security). At the other end of the spectrum are the remaining alternative asset classes that seek to acquire entire companies or large positions in a specific company or security either by themselves or in partnership with other investors. Such deals can last months and ultimately the fund may fail to close the deal.

3.2.4. Owning an asset

Depending on the nature of the investment, hedge funds may hold an investment for mere seconds, weeks or months, or even more than a year in the case of activist hedge funds that seek to influence the strategy or operations of a target investment. Most of the remaining asset classes usually retain an investment for three to seven years. Moreover, most of these funds (and activist hedge funds) will invest significant time and resources in seeking to improve the operations and management of the companies they own in an attempt to generate strong returns.

3.2.5. Exiting an investment

Exiting an investment can be as short as microseconds or last as long as a year. Hedge funds can take as little as microseconds to days to sell securities on public exchanges. This is because many focus on liquid investments. Funds that are selling an entire company/asset, a large stake in a company/asset to a company (trade sale), another investment fund (secondary sale), or listing it on a public exchange (IPO), can expect an exit process of around three to twelve months.

3.2.6. Reinvesting or returning capital

What happens to the proceeds of an investment sale depend on how the fund is structured. If the fund is open ended, as is typically the case with hedge funds, the capital will remain with the fund manager to invest until the investor submits a request to withdraw capital from the fund. In contrast, closed end funds return the capital, minus any applicable fees, to investors after each sale. An investor usually has the option to recommit the capital to the fund manager, but can only do so by committing it to a new fund that is in the process of raising capital.

4. Overview of different types of alternative investments

The industry encompasses a diverse range of asset classes, but three in particular are worth exploring in greater detail: hedge funds, private equity buyouts, and venture capital.

4.1. Hedge funds

4.1.1. Overview

Hedge funds manage more than $3 trillion (40% of all alternative capital), which makes them a large and important part of the industry. Geographically, the industry is highly concentrated. Most of the capital is managed in the US (70%) and Europe (21%), with managers in the New York area (50%) and London (18%) overseeing two-thirds of all global capital.[6, 7] Still, hedge funds make investments across the globe and in all sectors of the economy. Overall, there are more than 8,000 hedge funds,[8] with the top 25 managing 29%[9, 10] of all assets under management.

4.1.2. Business model

Hedge funds usually acquire minority stakes in securities with the goal of generating outperformance for a given level of risk, no matter the economic environment. Unlike venture capital and private equity buyouts, hedge funds employ a wide variety of strategies in an attempt to generate their target returns (Figure 14). Depending on the strategy employed, they may invest in different parts of the capital structure (equity, different levels of debt) or purchase (or short) a range of securities (stocks, bonds, loans, structured products, derivatives, commodities, currencies, etc.) to meet their investment objectives. Hedge funds usually use a mix of equity from investors and borrowed funds to acquire securities, with the amount of debt used varying widely. The strategy employed influences the holding period, which can be as short as microseconds or longer than a year.

4.1.3. Investment attributes

Investors continue to allocate more capital to hedge funds for a number of reasons. According to a recent survey,[11] the number one objective for institutional investors investing in hedge funds is for funds to produce returns that are uncorrelated to equity. The degree to which hedge funds are able to meet this objective varies widely, with different strategies and funds producing correlations with traditional stocks ranging from 20-35% for futures, fixed arbitrage and global macro funds, to 70-80% for long/short or emerging equity funds.[12] Investors also value the fact that the reduced correlation of hedge funds with equity markets diversified their investment portfolio and reduces the volatility in it.[13] Finally, the ability to generate risk-adjusted absolute returns in any market is prized by investors.[14]

Figure 14: Overview of hedge fund strategies

Strategy	Sub-strategy	Characteristics
Long-short equity	• Market neutral (discretionary) • Short bias • Long bias • Variable bias • Sector player	• Long and short positions in equities/equities-related security • Analysis of company fundamentals and with some technical analysis • Variable market exposure to express market views • Often broken down by geographical regions
Event driven	• Activist • Credit long/short • Distressed/restructuring • Merger arbitrage • Special situations • Multi-strategy (ED)	• Company-specific events and special situations • Mergers, takeovers, bankruptcies, spinoffs, restructurings • Distressed securities and high yield • Invests across the entire capital structure
Relative value	• Asset backed • Convertible bond arbitrage • Credit arbitrage • Fixed income arbitrage • Market neutral (systematic equity) • Volatility	• Takes advantage of the convergence of prices between two assets • Takes long and short exposures in proportionate amounts • Seeks to have no to low correlation with the markets • Instruments include all types of bonds, swaps, and equities
Global macro	• Diversified global macro • Commodity • Currency	• Views on macro-economic themes • Takes positions in equities, rates, currencies, commodities
CTAs[1]	• Trend following • Short-term trading • Fundamental trading • Multi-strategy (CTA)	• Trades commodity and financial derivatives, mainly futures • Systematic traders rely on mathematically-derived, computer-generated signals to capture market trends • Discretionary traders also rely on fundamental analysis, decisions taken by the managers

1 Includes managed futures, commodity traded advisers   Source: LGT Capital Partners, World Economic Forum Investors Industries

4.2. Private equity buyouts

4.2.1. Overview

Private equity buyout firms have been a large and high profile part of alternative investing since the 1980s. The asset class is the second largest segment within alternative investing, with private equity buyout firms managing $1.4 trillion. Firms invest in dozens of countries across the globe, though companies in the US (50%) and Europe (26%) receive a disproportionate share of the capital.[15] They invest across a wide range of industries and in companies ranging from small businesses to Fortune 500 companies worth billions. Globally, there are approximately 1,000 firms, with the 25 largest managing 41% of the total assets under management.[16]

4.2.2. Business model

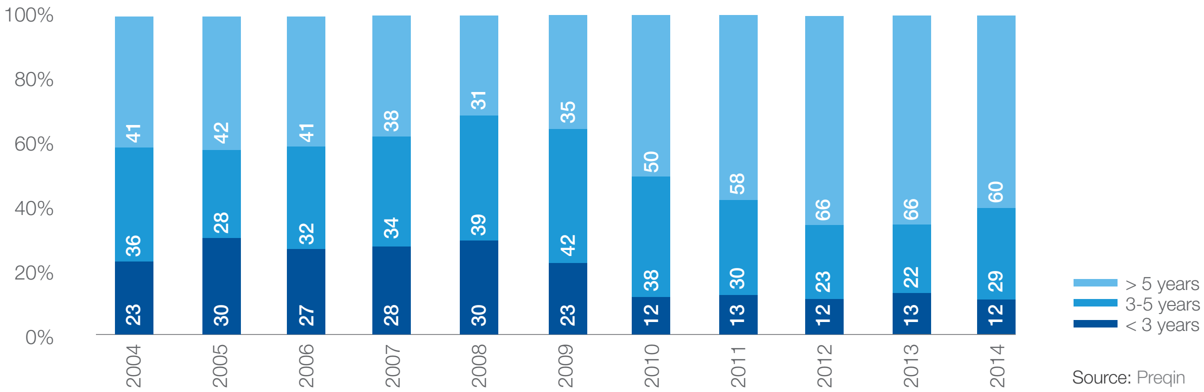
Most private equity buyout firms focus on the private acquisition, ownership, and eventual sale of equity stakes in existing businesses. They usually acquire the entire company or at least a controlling stake, though some firms specialize in making minority investments in companies. Debt, often in the form of leveraged loans of high yield bonds, usually accounts for 50-70% of the purchase price.[17, 18] After acquiring a company, firms will often seek to upgrade management and governance, improve the operations, and grow the business for a period of 3-6 years (see Figure 15). It will then seek to sell the business to a company, another alternative investment fund, or list it on a public exchange (Figure 16).

4.2.3. Investment attributes

Investors find private equity buyouts attractive for a number of reasons. First, they expect relatively high returns. Some 37% expect private equity funds to outperform public equity by +4.1% and another 49% expect it to outperform by +2.1-4.0%.[22] Historically, this has been true, with global private equity buyout returns yielding an average of 18.8% per year from 1986 to 2002 and 11.9% from 2003 to 2012.[23] Second, the asset class tends to be illiquid and long-term,[24, 25, 26] which provides an opportunity to capture return premia associated with each. Third, private equity returns offer a partial inflation hedge, as the revenues of the companies they invest in are linked to the rate of inflation.[27, 28] Fourth, historically investors had valued the fact that private equity buyout returns were significantly uncorrelated with those of other asset classes, but this diversification benefit has eroded significantly as it has grown.[29]

Figure 15: Typical holding period for global buyout deals[19]

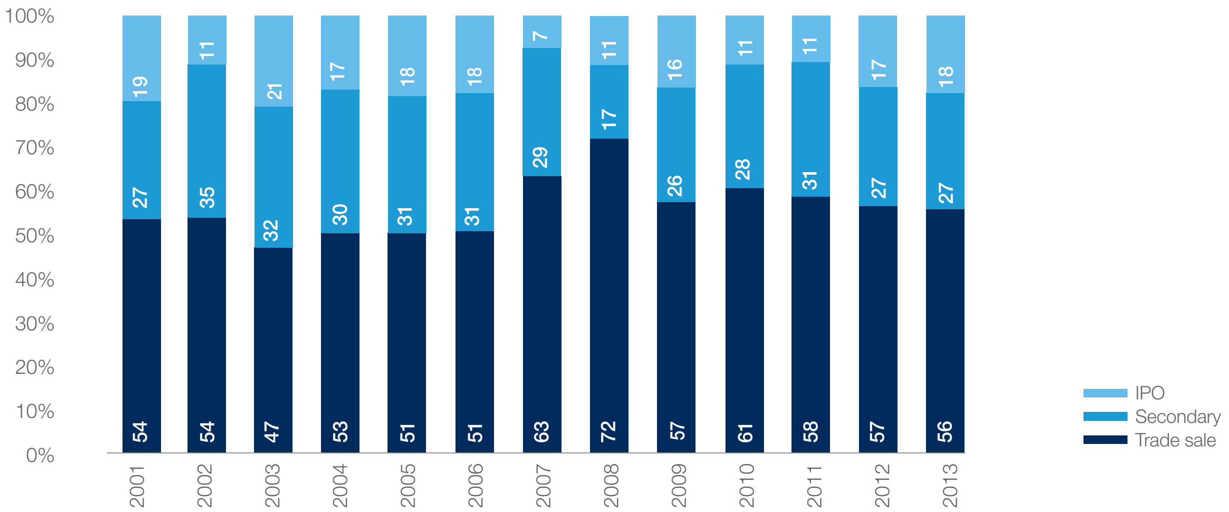
Percentage of global private equity buyout-backed investments exited (average length of time investments were held in the fund portfolio)



Source: Preqin

Figure 16: Distribution of exits for global private equity buyout deals by type[20, 21]

Percentage of the number of deals



1 EY, EY Global IPO Trends, 2014. 2 EY, Global IPO trends 2011: Private equity, 2011. Source: Ernst & Young

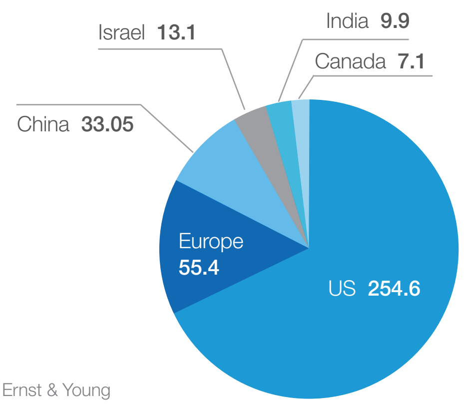
4.3. Venture capital

4.3.1. Overview

Venture capital is the best known alternative asset class and can trace its history back to 1946. Today, venture capital firms manage more than $400 billion in assets under management.[30] Geographically, investments and firms are highly concentrated in a handful of countries, with the US alone attracting nearly 70% of global investments (Figure 17). Investments are concentrated in industries and sub-sectors that rely on the development of new technologies, with information technology, biotechnology, internet related media and consumer, and energy companies receiving a large share of all annual investments. Most firms specialize in just one or two life stages of a company, with most focusing on either seed and early stage businesses or late and expansion stage companies. There are nearly 1,500 venture capital firms globally, with the top 25 firms managing 25% of the global assets under management.[32]

Figure 17: Top countries for total venture capital invested[31]

Share of total venture capital invested 2006-2013, $ billions



Source: Ernst & Young

4.3.2. Business model

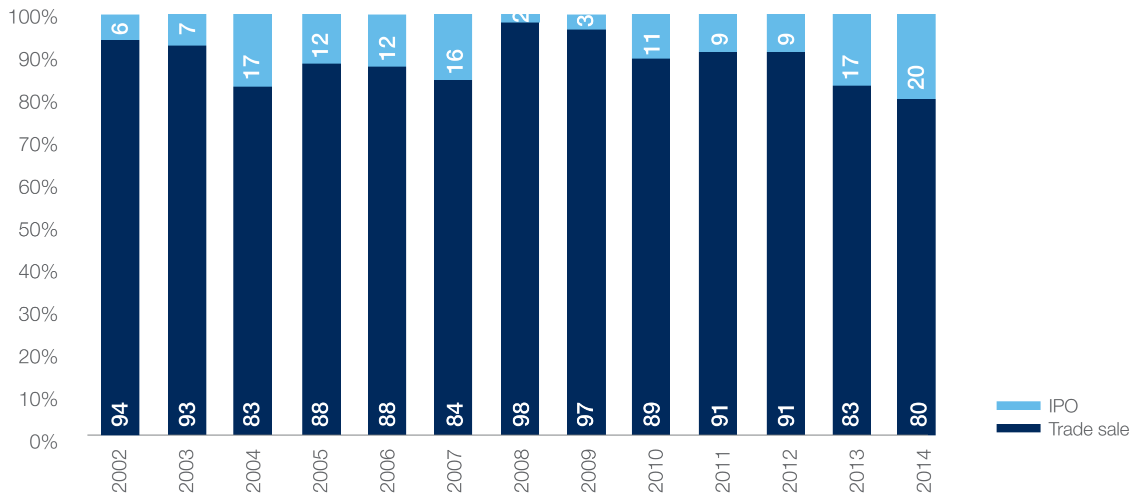
Venture capital firms focus on investing equity in privately owned start-up companies, particularly those that are developing innovative new solutions, products, and processes and have the potential to grow rapidly.[33, 34] Given the high failure rate of start-up companies, the business model is predicated on the hope that a few investments will deliver exceptionally high returns (>10x invested capital) in order to offset for the many other investments where some or all of the equity invested is lost. Most investments range from less than $1 million for a seed stage deal to $10 million for a late stage deal. Venture capital firms expect the capital to be invested for 3-7 years, depending on which life stage of the company they invest at, before they seek to sell the investment to a company (known as a trade sale) or list it for an IPO on an exchange (Figure 18).

4.3.3. Investment attributes

Investors are primarily attracted to venture capital for the prospect of receiving outsized returns relative to traditional public equity. The expectation of high returns is justified due to the high level of risk associated with investing in young companies with unproven products, business models, or management teams (or all three), with the hope of profiting from the creation of the next Google, Facebook, or Uber. Such investments are high risk, illiquid, and long-tenured. Historically, the asset class as a whole was able to deliver on these expectations, with returns averaging as high as 100% during the dotcom boom.[37] However, following the dotcom crash, returns hovered around 0% for nearly a decade and only recently returned to the 15-30% range in the late 2000s.[38]

Figure 18: Distribution of exits for US venture capital deals by type[35, 36]

Percentage of the number of exits



Source: NVCA

4.4. Other types of alternative investments

4.4.1. Overview

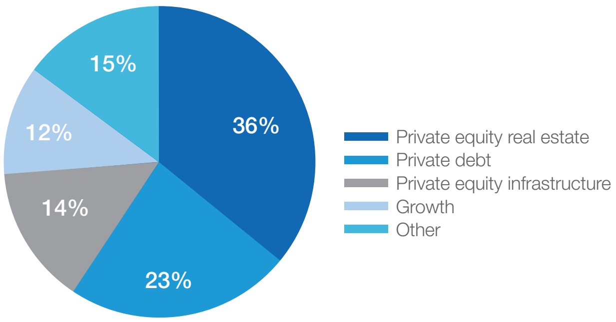
The attractiveness and success of the alternative investment structure has led investors to apply it to a range of investments beyond the core asset classes described above. Some asset classes are unique to alternative investing. Examples of this include secondary funds and growth equity funds. Other funds apply the alternative fund structure to traditional investments. Examples of this include private equity infrastructure funds, private equity real estate funds, and private debt funds (including mezzanine, distressed debt, direct lending).

Collectively, non-core alternative investment funds manage $2.07 trillion, with four asset classes accounting for 85% of this (Figure 19).[39] The geographic focus varies by asset class, but the majority of capital is invested in developed countries. These funds invest in all industries of the global economy and in every part of the capital structure. The size of the target company or security also varies widely, from growth stage companies to multi-billion dollar real estate portfolios or infrastructure projects. There are well over 1,000 non-core funds and each asset class has a diversity of funds of varying sizes and specialties.

Figure 19: Share of non-core alternative investment classes[40]

Other alternative investment classes (share of other assets under management as of 2014, H1)[1]

100% = $2.07 billion



1 Other alternative investment classes excludes private equity buyouts, hedge funds, and venture capital

Source: Preqin

4.4.2. Business model

Non-core alternative investors use a variety of business models, but most use closed-end fund structures and seek to exit an investment through a trade or secondary sale after holding it for 3-7 years.

Private equity real estate and private equity infrastructure use the private equity buyout model. They acquire controlling equity stakes in assets, use a large amount of debt as part of the deal structure, and often seek to increase the value of the asset by investing in improvements, upgrades, cost reduction measures, or growth initiatives. Similarly, growth equity is akin to very late stage venture capital, as firms seek to acquire minority stakes in small companies with strong growth prospects. The final primary non-core area is that of private debt funds, which are comprised of mezzanine, distressed debt, and direct lending funds. These funds either extend credit directly to companies or acquire debt securities issued by a company. The fund manager can be a relatively passive owner of a portfolio of such securities or actively engaged in advising on the business strategy and operations of the underlying company itself.

4.4.3. Investment attributes

Investment attributes vary widely for non-core asset classes, but investors value several in particular. They value the inflation linked and relatively non-correlated returns that investments in real estate and infrastructure generate, as well the ability to efficiently deploy large sums of capital in such deals. The ability to generate relatively high returns when investing in growth funds is also prized by many investors.

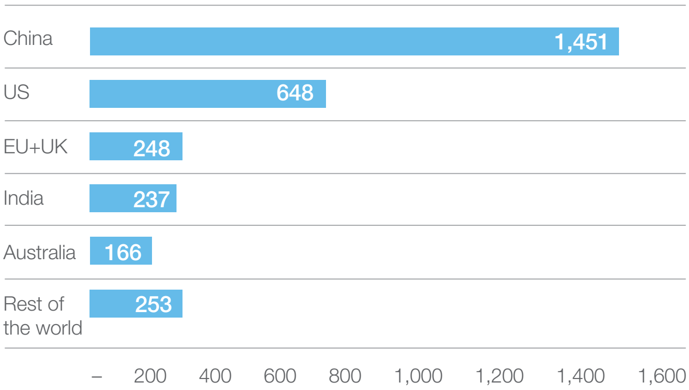
Box 2: Alternative investment, private debt funds and shadow lending

Alternative investors have recently begun to expand into providing debt (loans or bonds) to businesses, an area traditionally dominated by banks. The disintermediation process is part of a broader global trend known as shadow banking or shadow lending, whereby non-bank actors seek to provide credit to companies. The growth in alternative investment related shadow lending has been dramatic and the implications for investors, regulators, and the system are still unknown.

The trend is driven by three factors. First, the post-crisis financial regulatory reforms have led banks to reduce their lending activities, particularly to small and medium sized businesses. Second, the demand for credit from businesses has not fallen to the same degree, leading to unmet demand. Third, the demand by institutional investors for debt that yields more than government debt remains robust. Overall, the non-bank financial actors including alternative investors, are expected to replace banks in providing a projected $3 trillion of lending by 2018 (Figure 20).

Figure 20: Projected value of bank disintermediation in 2018 ($ billions)[41]

Projected value of bank disintermediation in 2018, $ billions



Source: S&P

Alternative investors have long invested in certain types of debt, but the scope of the market broadened in recent years. Historically, the private debt market consisted of specialized funds that provided mezzanine debt, which sits between equity and secured/senior debt in the capital structure, or distressed debt, which is owed by companies near bankruptcy. Following the financial crisis, a third type of fund emerged. Known as direct lending funds, these funds extend credit directly to businesses or acquire debt issued by banks with the express purpose of selling it to investors (in the past it would have been held by the bank).

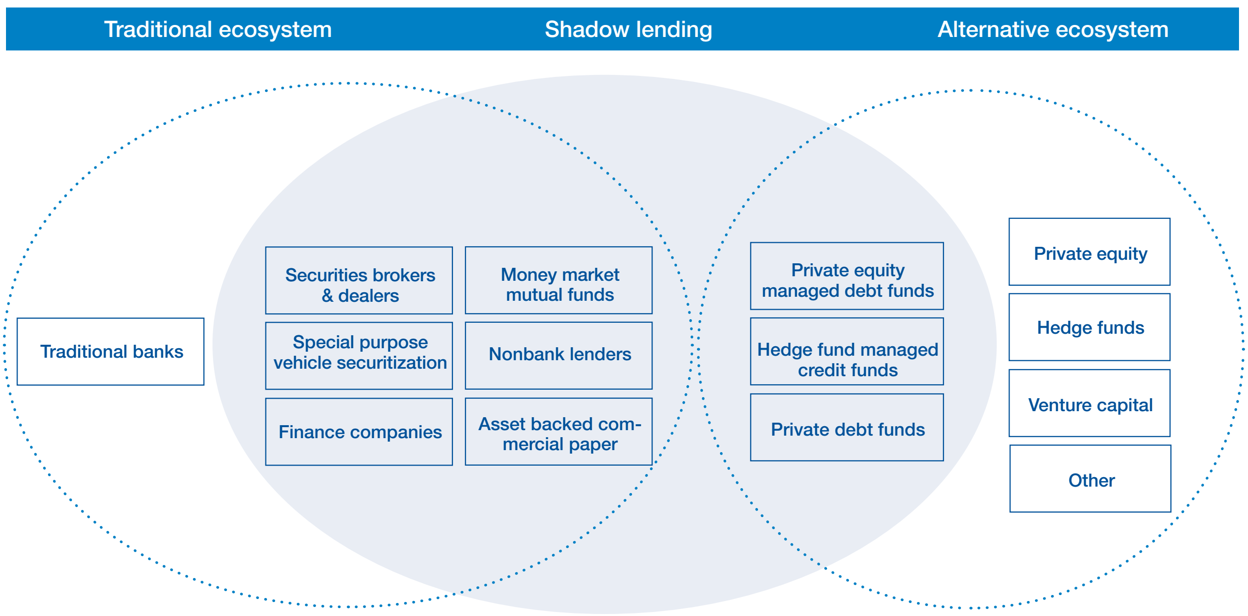
The market for direct lending includes an array of core and non-core alternative investors (Figure 21). Leading alternative investors, such as the Blackstone Group, Apollo Global Management, the Carlyle Group, Pine River, and BlueCrest Capital, have all expanded their product offerings to include private debt funds. They are joined by a number of specialized new firms.

The strong demand by institutional investors has enabled these funds to expand their size rapidly. Collectively, some 531 private equity style debt funds have been raised since 2009.[42] Overall, total assets under management have doubled since the financial crisis, from $213 billion in assets under management in 2007 to $465 billion by June 2014,[43] with 25% of that coming from direct lending funds. Hedge funds have also been an important source of debt capital and now manage more than $600 billion of debt focused funds.[44]

The risks associated with shadow lending are not yet well known. Regulators in the US, United Kingdom, and Europe have expressed their concern that they could undermine the broader financial system if they take on too much leverage, mismanage risk, or experience liquidity crises stemming from a mismatch in what they borrow (short-term and liquid debt) and what they lend (long-term and illiquid). They have responded by studying the issue closely and examining whether shadow lenders should be subject to some or all of the strict regulations that govern lending by traditional banks.

While the universe of shadow lending is vast, it is worth noting that most alternative investment debt funds do not use extensive amounts of additional debt in order to extend or acquire business loans.

Figure 21: Overview of key actors in the shadow lending system



Source: World Economic Forum Investors Industries

5. Sources of capital

Sources of capital for the industry have evolved over time, simultaneously supporting the rise of alternative investment and leading to changes in the industry itself. The capital base has steadily shifted from small scale long-term investors (e.g. wealthy individuals) to the large institutional investors (e.g. pension funds) that provide most of the capital today. Below we discuss both the different sets of drivers, as well as a number of specific types of investors.

5.1. Investment drivers

Three sets of drivers underpin investment demand for alternative investments, with each seeking a distinct set of attributes that alternatives can offer (Figure 22). Different classes of investors are usually aligned with one of these three groups.

Figure 22: Primary drivers for investors in alternative investments

Investment drivers	Examples of investors	Primary attraction to investors
Long-term	• High-net worth individuals • Foundations • Endowments • Sovereign wealth funds	• High returns • Illiquidity premium • Scalability (for SWFs)
Liability driven	• National pension funds • State/city pension funds • Teachers pension funds • Corporate pension funds	• High returns • Inflation-linked • Steady cash flow • Scalability
Diversification driven	• Banks • Asset managers • Insurance companies • Corporations	• Diversification • High returns • Inflation linked

Source: World Economic Forum Investors Industries

5.1.1. Long-term investors

Long-term investors have theoretically infinite horizons. They range in size from large sovereign wealth funds to high-net worth individuals, family offices, endowments, and foundations. Long-term investors are attracted by the above average returns that are often possible when investing in long-term and illiquid investments.

5.1.2. Liability driven investors

Liability driven investors have moderately long investment horizons (10-15 years) and a need to pay out cash on an on-going basis in the short-term.[45, 46] Pension funds, are the key investors in this category, as they need to generate returns over the lifetime of a beneficiary, as well as cash to payout to those in retirement. They are attracted to the prospect of high expected returns, the ability to deploy large amounts of capital efficiently, and the inflation-linked and cash flow generating attributes that alternatives can offer. Insurance companies would normally be included as well, but legal limitations on investing in alternatives leads them to behave more like diversification driven investors.

5.1.3. Diversification driven investors

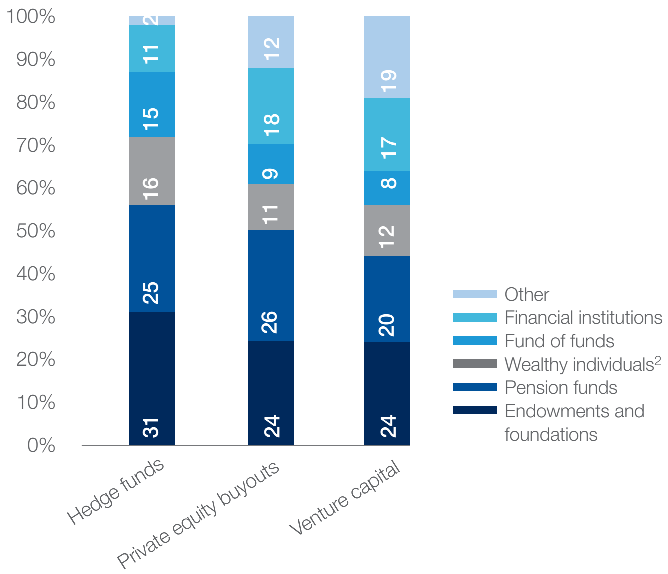
Diversification driven investors are seeking to diversify their portfolios. This set of investors includes asset managers, corporations, banks, insurance companies, and government agencies. These investors allocate to alternatives because it improves the overall returns and the risk return profile of their broader portfolio. Historically, these investors have had relatively and absolutely small allocations to alternative investment, though collectively they provide a meaningful share of capital to the industry.

5.2. Providers of capital

The pool of investors that allocates capital to alternative investments is vast and diverse, and encompasses both institutional and retail investors. The number of institutional investors alone that invest in alternatives exceeds 4,800,[47] with the majority all allocating capital to at least two alternative asset classes.[48] A wide range of investors dedicate capital to alternative assets (Figure 23), with a wide variance in allocations (Figure 25). However, over 70% of this capital come from only three types of institutional investor: pension funds, sovereign wealth funds, and endowments/foundations (Figure 24).

Figure 23: Breakdown of investors in core alternative investment asset classes by number of investors[49, 50, 51]

Percentage of the number of investors[1]



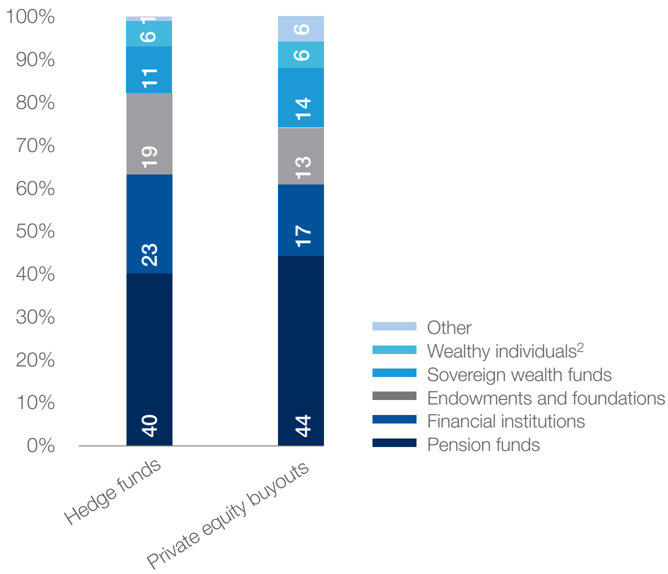
1 Includes institutional investors that have invested in hedge funds or that have a preference for or previously invested in private equity or venture capital funds

2 Includes high-net worth investors, wealth management and family offices

Source: Preqin

Figure 24: Breakdown of investors in core alternative investment asset classes by capital invested[52, 53]

Percentage of assets under management[1]



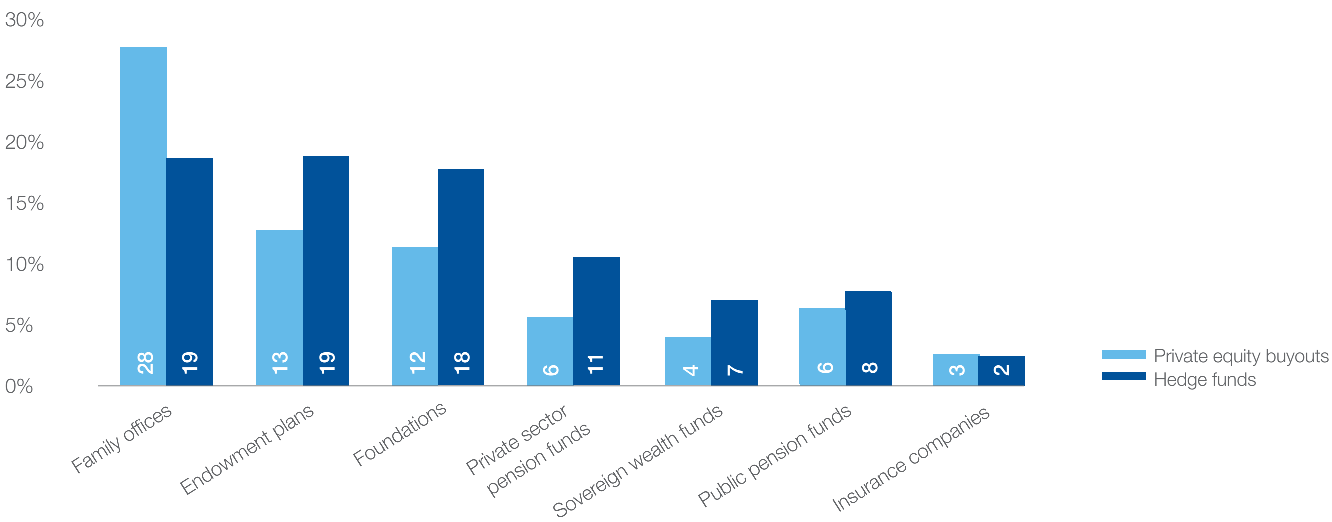
1 Excludes fund of hedge funds, and fund of funds and asset managers for private equity firms

2 Includes high-net worth investors, wealth management and family offices

Source: Preqin

Figure 25: Average allocation to private equity buyout and hedge funds by select investor types[54, 55]

Average allocation as a percentage of total portfolio allocation



Source: Preqin

5.2.1. Pension funds

Pension funds are among the largest, most influential, and longest running investors in alternative investments. Pension funds, whether corporate or public, are liability driven investors that collectively manage more than $36 trillion,[56] making them the single largest pool of institutional capital in the world. Their immense scale played a critical role in supporting the early rise of the industry in the 1980s. The ability of alternatives to consistently meet their unique investment needs over time has resulted in pension funds allocating increasingly large sums of capital to the industry, which is a key reason why alternative firms now manage trillions of dollars. Many of the largest and most sophisticated pension funds have sought to develop the capability to partner with alternative firms when investing or even to lead investment deals themselves. They have also played an important role in shaping the industry itself, particularly with regard to increasing the transparency of the industry and reducing the level of fees associated with investing in alternative investments.

5.2.2. Financial institutions

Financial institutions, such as banks, asset managers, and insurance companies, have been a steady and long-term source of capital for alternative investment firms. Asset managers are intermediaries that invest in alternative investments on behalf of their clients. In contrast, banks and insurance companies both use cash inflows from clients to invest in alternatives, with the goal of diversifying their portfolios and profiting from the difference between the returns the investments generate and the liabilities due their clients. Financial regulations limit their ability to invest in alternatives, so they only allocate a few percentage points to alternatives. Still, given the large pools of capital that financial investors manage (including asset managers), their absolute allocations to alternatives are second only to pension funds.

5.2.3. Endowments and foundations

Endowments and foundations have long been among the strongest supporters of the alternative investment industry. Overall, they are the third largest investor in alternative investments. Similar to wealthy individuals, endowments and foundations have a long-term investment orientation and relatively limited cash flow, legal, or governance constraints, and allocate relatively large amounts to alternatives. The increased scale, relative to individuals, means that they are also able to devote significant resources to developing teams capable of identifying and investing in new or innovative assets or firms and do so with larger amounts of capital than individuals are able to provide.

5.2.4. Sovereign wealth funds

Sovereign wealth funds are investment funds that are owned and operated on behalf of sovereign states. Most funds maintain a long-term investment focus that seeks to invest on behalf of the nation's citizens. However, some are mandated to serve as short-term economic stabilizers, so they invest in alternative investments from a diversification perspective. Collectively, they have more than doubled since 2008, reaching $7 trillion in assets under management by the end of 2014.[57, 58] Their rapid growth and large average size has quickly made them an important source of capital for alternative investors. Namely, their allocations to alternative investments have already risen to levels similar to pension funds, which make them the fourth largest investor in alternatives. Many of the largest funds, like their large pension fund peers, are also building the internal capability to invest alongside alternative funds or to invest directly in deals without the support of a third party fund.

5.2.5. Wealthy individuals

High-net worth individuals and family offices have played an important role in the creation of the industry, as well as in its continuing growth. Without the cash flow, operational, or governance constraints that most institutional investors face, affluent individuals are able to focus predominantly on investing for long horizons. This allows them to invest in new and unproven business models and firms, which have proven critical to the long-term success and continued growth of alternatives. Affluent individuals funded the original venture capital and private equity buyout firms, and hedge funds that gave birth to the industry. They also continue to be key sources of capital for new and potentially innovative firms. Overall, they usually invest more of their portfolio in alternatives than any other type of investor.

5.2.6. Funds of funds

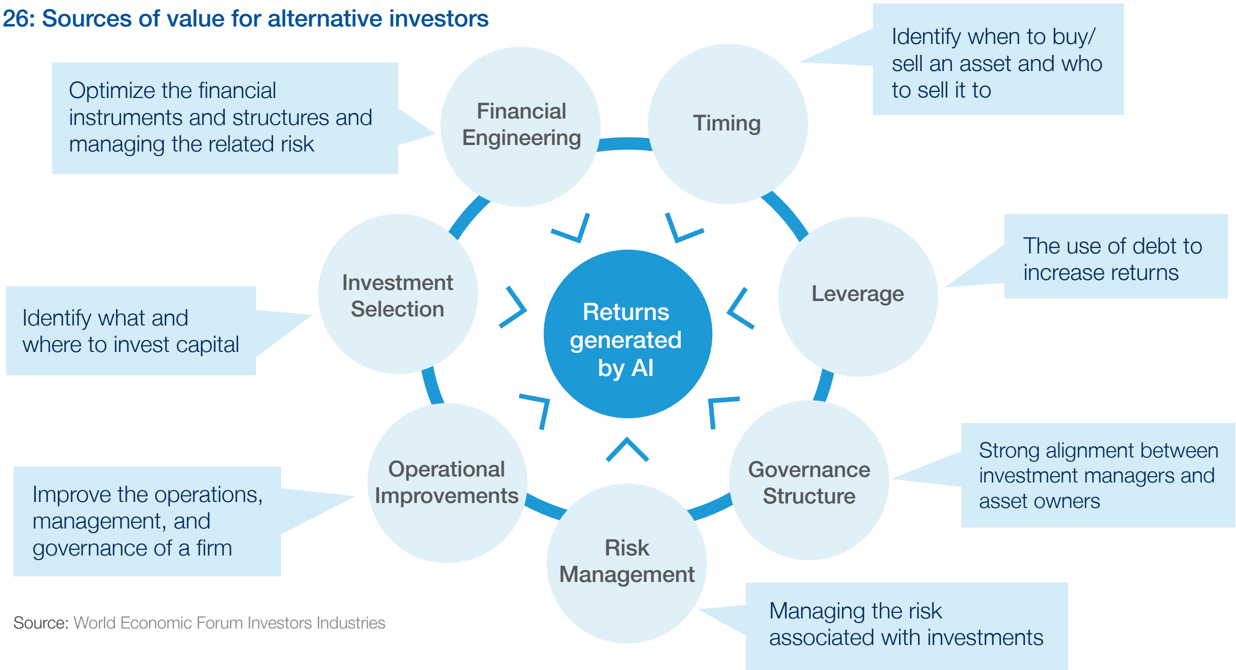
Funds of funds have provided investors with the ability to access alternatives since the 1960s, before the modern industry came into existence. Funds of funds pool capital from investors, then invest in a diverse group of alternative funds within a single asset class or segment (strategy, region, industry, risk profile, etc.). Investors without billions allocated to alternatives often find funds of funds attractive, as they are able to quickly and efficiently gain exposure to alternatives without having to develop an internal capability of assessing hundreds of funds in each alternative asset class. They are also often able to gain access to specific funds that might have minimum investment requirements that they cannot meet due to their small scale. Larger funds may also find funds of funds attractive, particularly those that offer exposure to a specific region or strategy that might otherwise be difficult to access.

6. Sources of returns

At first glance, many of the asset classes that fall under the alternatives umbrella seem to have little in common. However, all firms in the alternatives universe rely on one or more of the attributes in Figure 26 in order to generate their returns.

Below we take a look at these attributes in turn, noting that their importance varies considerably depending on the asset class in question. For example, leverage tends to be particularly important for private equity buyouts and for some (but not all) hedge fund strategies, while investment selection is the primary source of value venture capital and private equity buyout firms. Figure 27 summarises the relative importance of each attribute for each asset class and investment strategy, while Box 3 looks at the sources of returns in one example sector, private equity, and discusses how the mix has varied over time.

Figure 26: Sources of value for alternative investors



Source: World Economic Forum Investors Industries

Figure 27: Relative importance of each source of value by asset class

Level of importance	Investment selection	Financial engineering	Leverage	Operational improvements	Governance structure
HIGH	• Hedge funds • Private equity infrastructure • Private debt • Private equity buyouts • Venture capital	• Private equity infrastructure • Private equity buyouts	• Hedge funds (Event driven, Fixed income, Global macro) • Private equity infrastructure • Private equity buyouts	• Hedge funds (Activist) • Private equity buyouts • Venture capital	• Hedge funds • Private equity infrastructure • Private debt • Private equity buyouts • Venture capital
MODERATE		• Hedge funds • Private debt	• Hedge funds (Long/short)	• Private equity infrastructure	
		• Venture capital	• Hedge funds (Emerging markets & distressed) • Infrastructure & Distressed debt • Private debt	• Hedge funds (Non-activist) • Private debt	
N/A			• Venture capital		

Source: World Economic Forum Investors Industries

6.1. Governance structures

The way alternative investment firms and their investments are structured is a fundamental source of value for the industry. Most firms structure their investments such that their interests are reasonably well aligned with that of their investors. Doing so increases the incentive for all actors to focus on identifying and capturing value. For example, the primary driver of compensation for a hedge fund manager comes from carry (performance fees) and a hurdle rate – a practice that has been linked to stronger returns[59] – rather than solely on management fees based on assets under management.

Issues of incentive alignment can be mitigated by the requirement that the manager co-invest in the fund.[60] Across the alternative investment sector, this strong alignment with investor interests supports a greater flexibility in investment mandates, e.g. the ability to go "short" in the case of hedge funds or to invest across a wide range of sectors. In turn, flexibility and the ability to respond quickly to changes in the market helps alternative investors to pursue opportunities that may not be available to traditional asset managers following stricter investment mandates. Examples of this include the ability to: a) invest across different sectors, asset types, and geographies; b) utilize leverage; c) use derivatives; and d) take short positions in securities. Alternative investors also often impose the same kind of incentive structures on the companies they control, which encourages firm-level managers to pursue operational and other improvements.

6.2. Investment selection

Investment selection is a critical source of returns for every investment firm, with timing being a critical source of returns for every differentiator between each of the alternative asset classes. Venture capital and private equity buyout firms develop a range of skills that allow them to screen and select the firms, entrepreneurs and management with the most potential. Partly this comes down to building not only proprietary knowledge about particular companies, but also in-depth knowledge about the industry sector and its cycle. For example, they develop knowledge as to which sectors they believe are likely to do well over a given multi-year investment horizon, then select the best time to buy and sell an investment. In contrast, most hedge funds seek to exploit market imperfections and arbitrage pricing discrepancies over a much shorter time horizon that ranges from just microseconds to several months or quarters, though some may hold their investments for longer periods of time.

6.3. Timing

The timing of when to buy and sell an asset is an important source of value. Unlike traditional investment funds, alternative investors have complete control over when to acquire an asset, when to sell it, how to sell it, and who to sell it to. The increased flexibility allows them to maximize the value of an investment. They can sell it shortly after acquiring it or patiently wait many years to sell it. In most instances, they do not have to sell it in the same manner that they acquired it, which allows them to identify the most profitable way to exit an investment. For example, a venture capital or private equity firm may invest in a private company, but they can select whether to exit the deal by listing the company on a public exchange (IPO), selling it to a secondary fund, or selling it to a corporation.

6.4. Risk management

The ability to understand, value, and manage the risks associated with an investment is another area where alternative investors are able to create value.[61] Managing the increased risk associated with private equity buyout deals, which often use large amounts of debt, is one example of how alternative investors use risk management to create value. A second example pertains to their ability to analyse, understand, and value complex securities or structured products, which is an area that many hedge funds specialize in. Another example is that of distressed debt investors, which take on the long and risky task of finding new ways to generate profits from a company that is failing or already in bankruptcy.

6.5. Leverage

Another hallmark of most alternative asset classes is the use of leverage to enhance returns. Private equity (buyouts, infrastructure, real estate) and many hedge funds use debt within the capital structure of their investments, far beyond the levels applied by most corporations. Investors benefit from the tax shield on debt (i.e., interest is tax deductible). It also serves to enhance returns (or losses) generated by other investment skills, such as asset selection, though it comes at the cost of increasing risk to the investment.

The amount of debt available to alternative investors and the form it has taken has varied over the years. The key determinants have been the business cycle and regulations. The amount of debt available is usually linked to the business cycle, with more debt being available during economic upturns. The regulatory climate also plays an important role, as regulations determine which institutions can invest in alternatives related debt, as well as how much debt financial intermediaries, such as banks, can create. The actual type of debt issued to alternative investors has varied widely over the years and has included senior or subordinated debt, high yield bonds and leveraged loans, and structured products such as CLOs and CDOs. Throughout, the principal acquirers of this debt have been institutional investors such as pension funds.

6.6. Operational improvements

Improving the operational performance of firms they own is another important source of returns. Venture capital firms, for example, offer advice and support to start-up businesses and often supply key pieces of expertise until the firm matures enough to fill gaps in its management team. Private equity buyout firms seek to improve the productivity of the firms they acquire by pushing them to adopt the best operational practices and to invest in additional R&D. Most of these practices could be implemented by companies without the help of an alternative investor, but they are often implemented more rapidly and thoroughly when alternative investors become involved.

6.7. Financial engineering

Financial engineering involves identifying and understanding all of the risks associated with an investment, then packaging and distributing these risks to the investor most willing to hold them. Financial theory argues that investors able and willing to assume risks that other investors avoid should in turn be rewarded with outsized returns or risk premia. Sources of risk include the tenure, liquidity, leverage, and complexity of an investment. Investors willing to increase their exposure to one or more of those elements can expect to be compensated in the form of higher returns. For example, a private equity buyout firm acquiring a company may use a range of different types of capital, including equity, leveraged loans, high yield bonds, and mezzanine debt, with some of these being further packaged into collateralized debt obligations (CDOs) or collateralized loan obligations (CLOs). Each of these securities will have a different mix of risks and expected returns associated with them. Parcelling out risk in such a manner allows alternative investors to both increase the pool of potential investment capital and better meet the needs of individual investors.

Box 3: How has the source of returns for private equity firms varied over time?

Here we describe the key sources of value for private equity buyouts – investment selection and sector expertise, leverage and financial engineering, and operational improvements – and discuss how the relative importance of these has varied over time.[62]

Investment selection and sector expertise

A critical part of the value proposition for many firms is their ability to build skills to identify and execute the deals with the strongest prospect of generating returns in excess of traditional public equity.[63] However, the value of this skill has been reduced in recent years due to three factors. First, the skill of accurately valuing companies has improved over the past few decades. In turn, the likelihood of identifying a company that is materially mispriced has fallen significantly. Second, the increase in the number of potential targets has not kept pace with the increase in the size of the funds managed by private equity buyout firms. The reason is that the number of potential target companies falls exponentially as the enterprise value of the target company rises, provided a firm seeks to acquire larger companies when it raises a larger fund. Finally, the level of competition, from both other private equity buyout firms and corporations, has increased dramatically over time. The natural result is an increase in the price that companies pay to acquire a company and a commensurate reduction in expected returns.

Still, in spite of the more challenging environment, the ability to garner returns through expertise remains an important role. Deal sourcing remains absolutely critical for firms specialising in small cap and emerging markets, where there is less competition or agreement on how to value a company. The development of deep sector expertise has become a core skill because more competition for mid-market or large companies means that understanding the business environment and sector cycles are an important part of investment selection. It is also a key factor when making operational improvements.

Leverage and financial engineering

The emergence of junk bonds and inexpensive debt in the 1980s marked the introduction of leverage and financial engineering as a key source of value for private equity buyout firms. Leverage, which was typically taken by the target firm and not the investor directly, enhanced the potential returns of the investors, but also increased the financial risks of a company. In response, firms competed to build skills in financial engineering and structured deals in ways that enabled them to create and capture value by doing so.

Leverage remains an important characteristic of private equity buyout deals. However the basic skills associated with using high levels of leverage (and, to a substantial extent, financial engineering) are no longer considered proprietary and the benefits are often priced into the deal upfront. Today, the degree to which a firm is able to derive value from leverage or financial engineering is largely a function of the size of the deal, the sophistication of the market, and current market conditions, rather than as a result of any proprietary leverage that a private equity firm provides.

Operational improvements

Private equity buyout firms have long appointed management teams, but in the years immediately preceding the financial crisis of 2008 – something of a "Golden Age" – the investment in improving operations at portfolio companies reached an intensity rarely seen in earlier cycles.[64] The primary driver behind this was the steady erosion of the value that could be captured using more traditional levers. The ability to improve the performance of companies at the operating level, including market leaders and global firms worth billions of dollars, continues to be a key source of value for many firms. Many of the leading firms now have operating partners and professionals with industry expertise involved at each stage of the deal process, from target identification through to post-acquisition management. Many have also developed in-house consulting arms, e.g. KKR's Capstone, as well as portfolios of former CEOs to help run the acquired companies.[65] The trend has shown tremendous growth in recent years, with the number of partners focused on operations nearly doubling from 535 to 919 from 2013 to 2015.[66]

BOX 4: Case study – Hertz deal

The 2005 buyout of Hertz, a leading rental car company, from the automaker Ford by a group of private equity buyout firms provides an example of how such firms operate and how they generate returns for investors.

Background and acquisition

The case, as is common in the industry, began years before the acquisition itself. In 2000, Clayton Dubilier & Rice (CD&R), a private equity buyout firm, began investigating the auto rental sector. By 2002 it had identified the Hertz division of Ford, as an ideal target and approached Ford with regard to acquiring Hertz.[67] CD&R's interest stemmed from its belief that Hertz was an inherently strong brand that was not performing as well as it could because it was an "orphan" unit within the auto giant.[68] Ford reached a similar conclusion in 2005 and began an effort to divest Hertz, which included filing for an IPO and conducting a competitive auction. Ultimately, Ford elected to sell Hertz to a private equity buyout consortium consisting of CD&R, the Carlyle Group, and Merrill Lynch Global Private Equity for $14.8 billion. The consortium paid $2.3 billion in equity and issued $5.6 billion in corporate bonds and loans and $6.9 billion in asset-backed securities to fund the purchase price.[69]

Ownership and strategic changes

The consortium, led by CD&R, owned and influenced the operations and financing of Hertz for more than seven years, as they did not sell their final stakes in the company until May 2013.[70] Over this period, they would make a number of decisions that affected the strategic direction, operations, governance, profitability, and risk of Hertz.

— **Strategic direction**

Post-acquisition, Hertz sought to expand into new market segments and ancillary businesses. The value of buying and selling cars can be so lucrative for auto rental companies that some competitors, such as Enterprise, "are so good at it that rental income is just icing on the cake."[71] Recognizing this, Hertz acquired British Car Auctions (BCA), a specialist company that sells used vehicles, in 2009. Under Ford, Hertz had been primarily focused on the premium and corporate market. However, Hertz sought to expand into the leisure and value conscious market and did so by acquiring Dollar Thrifty in 2012. It also expanded the number of off-airport locations, adding 1,000 locations under new ownership.[72, 73]

— **Operational improvement**

The new owners identified and implemented a number of operational changes that improved the customer experience and increased the profitability of the company. Seeking to address customer concerns, Hertz aggressively introduced hybrid vehicles, added self-service kiosks to its locations, increased the number of vehicles at suburban locations during weekends, simplified the car cleaning process to reduce the time vehicles were unavailable to customers, and made it much easier for customers to purchase vehicles from Hertz.[74, 75] Once Hertz was no longer a captive part of Ford, it sought to improve operations by negotiating better rates when it acquired vehicles and questioned whether it needed large in-house computer programming teams or security operations, with both eventually being outsourced.[76] CD&R also sought to streamline operations by closing money losing off-airport branches and reducing overhead costs at locations in Europe, which were several times higher than at US locations.[77]

— **Governance and management structure**

The spin-out of Hertz by the private equity firms resulted in a change in the governance and management structure of the company. The new structure strengthened the alignment between the consortium and the Hertz management team and created financial incentives for a wide range of employees to increase the performance of Hertz. The changes started at the top. A new CEO (Mark Frissora), with a background in process improvement and industrial management and prior experience at General Electric and as the CEO of auto parts supplier Tenneco, was brought in to run Hertz.[78] He personally invested $6 million in Hertz, received a salary of $950,000, far more than previous executives under Ford, and was awarded bonuses, Hertz stock options and other grants (not poorly performing Ford stock) worth millions if he performed well.[79] Similar types of incentives were awarded to hundreds of other employees at Hertz, which reinforced their incentive to focus on reaching key performance metrics.[80]

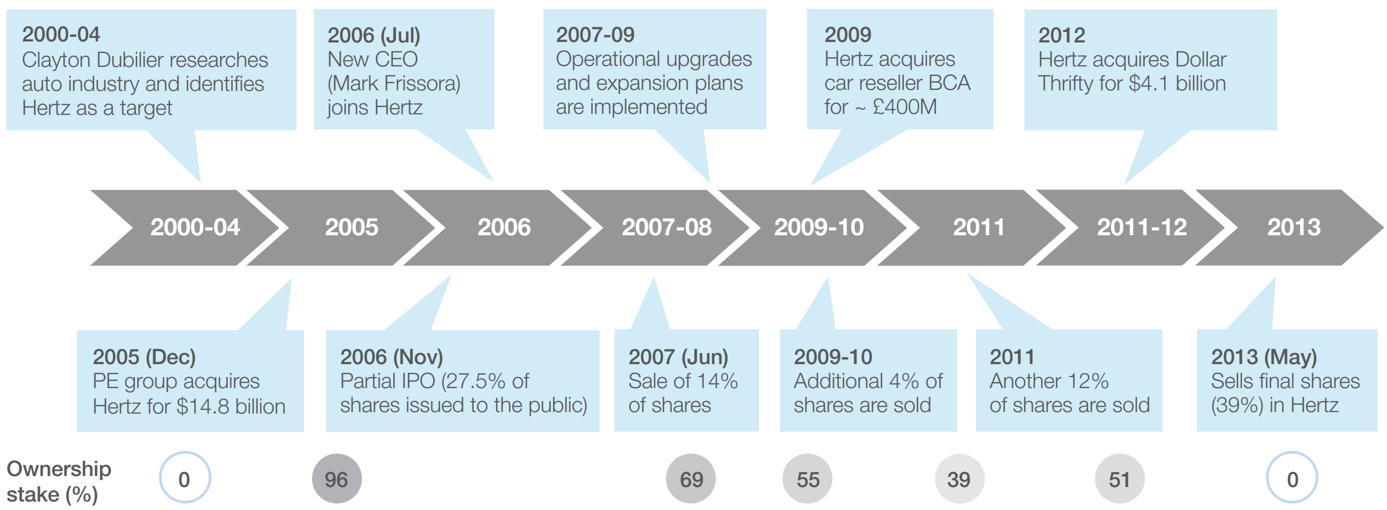
— **Financial engineering and risk management**

The consortium used a number of financial engineering and risk management techniques to acquire, manage, and exit the Hertz deal. In order to finance the deal, the private equity buyout firms used multiple forms of debt, including a senior secured bank loan, a bridge loan, and US dollar and euro asset-backed securities secured by Hertz's fleet of cars in the US and Europe.[81] The use of so much debt increased the risk to the company, which needed to be duly managed, as interest payments increased from 6.7% in 2005 to 11.2% in 2006 before they began to decline.[82] In order to reduce the risk of low equity returns, the group filed for an IPO the year after the acquisition, which provided the capital to issue a special dividend that could be returned to investors. The group would retain a majority stake through 2010, and then begin to reduce its stake in Hertz until it exited completely in May 2013.[83, 84]

Outcome

The deal proved successful for most stakeholders. Investors in the deal, including the fund investors (pension funds, endowments, insurance companies, etc.), the private equity buyout firms, and management teams, did quite well. The investment generated a gross return of 33% (IRR) and yielded 2.6 dollars for each dollar invested.[85] Public shareholders also benefited, as the Hertz stock increased 66% from when it went public (November 16, 2006) to when the private equity firms exited the investment (May 6, 2013), compared to increases of 48% and 16% for competitor Avis and the broader S&P 500 respectively. The profitability of Hertz also increased, with EBITDA up 57% during the ownership period.[86] Customers were better off due to the investments that Hertz made, but employees did not fare as well. Namely, Hertz reported having 32,100 employees when it was acquired, but that number had been reduced by 29% to 22,900 by the end of 2010. Much of the loss can be attributed to the effect of the financial crisis, as non-private equity managed rental car competitors Avis and Dollar Thrifty saw their workforces fall by 35% and 29% during the same period.

Hertz | Timeline



7. Role in the financial system

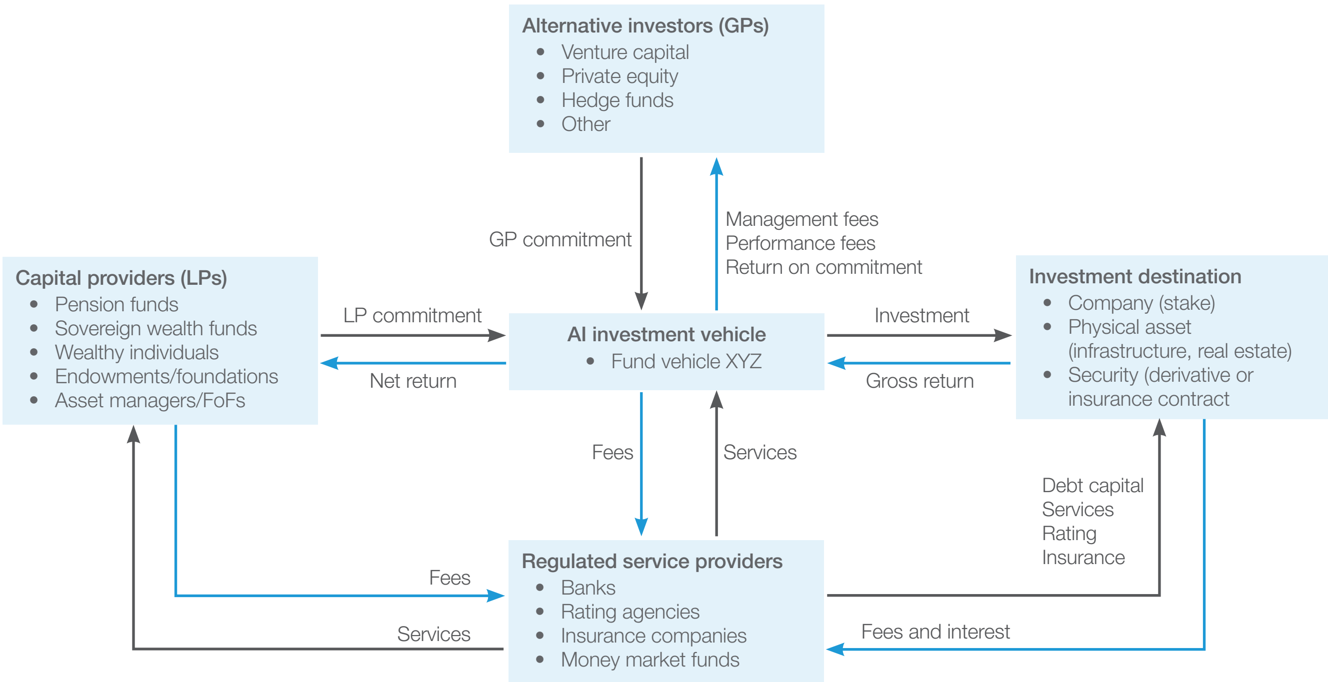
The alternative investment industry is part of a much broader financial ecosystem (Figure 28). Since the 1980s, the industry has relied on banks, insurers, and other types of financial intermediaries to supply leverage (debt financing), provide critical services such as transaction support, act as counterparties, and generate new financial products – as we describe in more detail below.

Growth in the alternatives is therefore somewhat dependent upon the future shape and health of the wider financial system, which in turn is undergoing a profound set of reforms following the global financial crisis that began in 2008.

7.1. Leverage

A critical way in which the financial industry supports alternative investing is through directly and indirectly providing loans in the form of debt financing. The impact of this can hardly be overstated, with asset classes such as private equity buyouts, hedge funds, and private equity infrastructure relying on debt financing to pay for 50% to 80% of their investments (Figure 29). Their ability to apply leverage allows these firms to pursue larger targets and to improve returns (or reduce) returns.

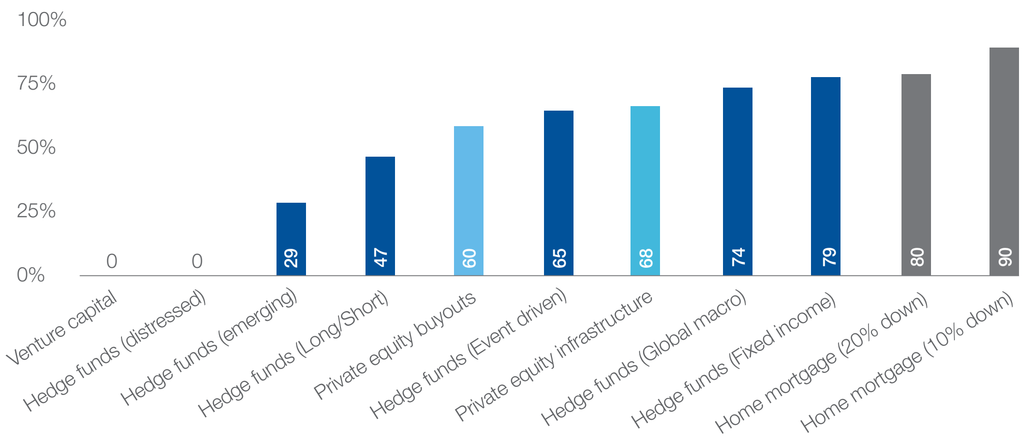
Figure 28: Alternative investment firms within the wider financial system



Source: World Economic Forum Investors Industries

Figure 29: The average amount of debt (leverage) used by different investment strategies [87, 88, 89]

Debt as a percentage of the total deal value



Source: Preqin, Citi, William Blair

For example, a private equity buyout firm with $ 1 billion of equity to invest might raise debt finance and, by using 67% debt, command a much larger $3 billion portfolio of businesses. Figure 30 illustrates how debt can improve investment returns by using the day-to-day example of a home mortgage.

Figure 30: Illustration of how leverage works

Simplified home mortgage example		
Debt	0%	67%
Equity	100%	33%
Interest rate	n/a	5%
Starting home value	100,000	100,000
One-year appreciation	10%	10%
Ending home value	110,000	110,000
Starting equity	100,000	33,333
Equity gains	10,000	10,000
Interest	0	-3,350
Ending equity	110,000	39,650
Return on equity	**10.0%**	**20.0%**

Source: World Economic Forum Investors Industries

Not surprisingly, debt is a critical component of growth and returns for many alternative asset classes. The financial services sector, particularly investment banks and money market funds, have long played a critical role in providing debt to alternative investors. They do this by selling the debt directly to investors or by bundling individual loans or bonds together into financial products that investors are willing to purchase. In some circumstances, alternative investors provide leverage to the financial system. For instance, private debt funds support the creation of credit, as they provide loans directly to businesses or acquire loans made to companies.

7.2. Services

Financial institutions provide an extensive array of other services to the alternative investors, some of which also serve as inputs additional services offered by financial institutions. Examples include:

— Asset and private wealth managers help alternative investment firms raise capital.

— Investment banks provide M&A and transaction support to private equity buyout firms and sponsor the IPOs and trade sales that offer exit routes for venture capital and private equity buyout deals. The public listing of firms typically results in additional market research and coverage of the companies by the bank, thus creating a new service offered to investors and the broader market. In addition, the debt issued on behalf of alternative investors, is often packaged by investment banks into securitized products, which are then sold to investors.

— Ratings agencies rate the bonds and loans issued by private equity buyout backed firms, making them attractive to debt investors. The large amount of debt issued to these companies also serves as an input into the ratings process itself, as it increases the number of data points that analysts can use when seeking to value existing debt or to identify a reasonable price at which to issue new debt.

— Prime brokerage and treasury units at banks provide the transaction services and record keeping required to make financial investments, track asset ownership, and meet regulatory requirements.

7.3. Counterparties

Ready access to trading counterparties in financial markets is critical, particularly for hedge funds. To implement their complex investment strategies, hedge funds need to buy and sell standardized equity and fixed income products, as well as bespoke derivatives. This requires large and liquid financial markets and sophisticated trading counterparties to form the other side of each deal. The financial system and the economy benefit from such transactions, as hedge funds provide financial services firms, corporations, and retail investors with a tremendous amount of liquidity and increased levels of price discovery. The former makes it easier for investors to buy or sell a security, while the latter means that there is greater clarity around how much a security is worth.

7.4. Product innovation

Financial sector innovation has helped the alternative industry to grow, but it has been a double-edged sword. Consider complex structured products such as collateralized debt obligations (CDOs) and collateralized loan obligations (CLOs), which packaged junk grade fixed income securities into investment grade instruments. These products helped private equity buyout firms to issue large amounts of debt in the boom years before the global financial crisis in 2008. However, similar instruments that packaged mortgage related debt and sold to traditional investors proved disastrous, as the opaque distribution of risk throughout the financial system made it difficult to ascertain how much risk was being accumulated and where it was located. Other such examples include the invention of high yield “junk” bonds in the late 1980s, followed by the crash of the early junk bond market, and the trading strategies of Long-Term Capital Management, a giant hedge fund that came close to failure in September 1998 before being rescued by the banking industry.

8. Role in society and the economy

The alternative investment industry plays an important role in society and its actions affect a wide range of stakeholders through their impact on the world's capital markets and, especially, the real economy (Figure 31). Figure 32 qualitatively summarizes the academic literature discussed below with regard to how each major alternative asset class affects society (positively, negatively, or both).

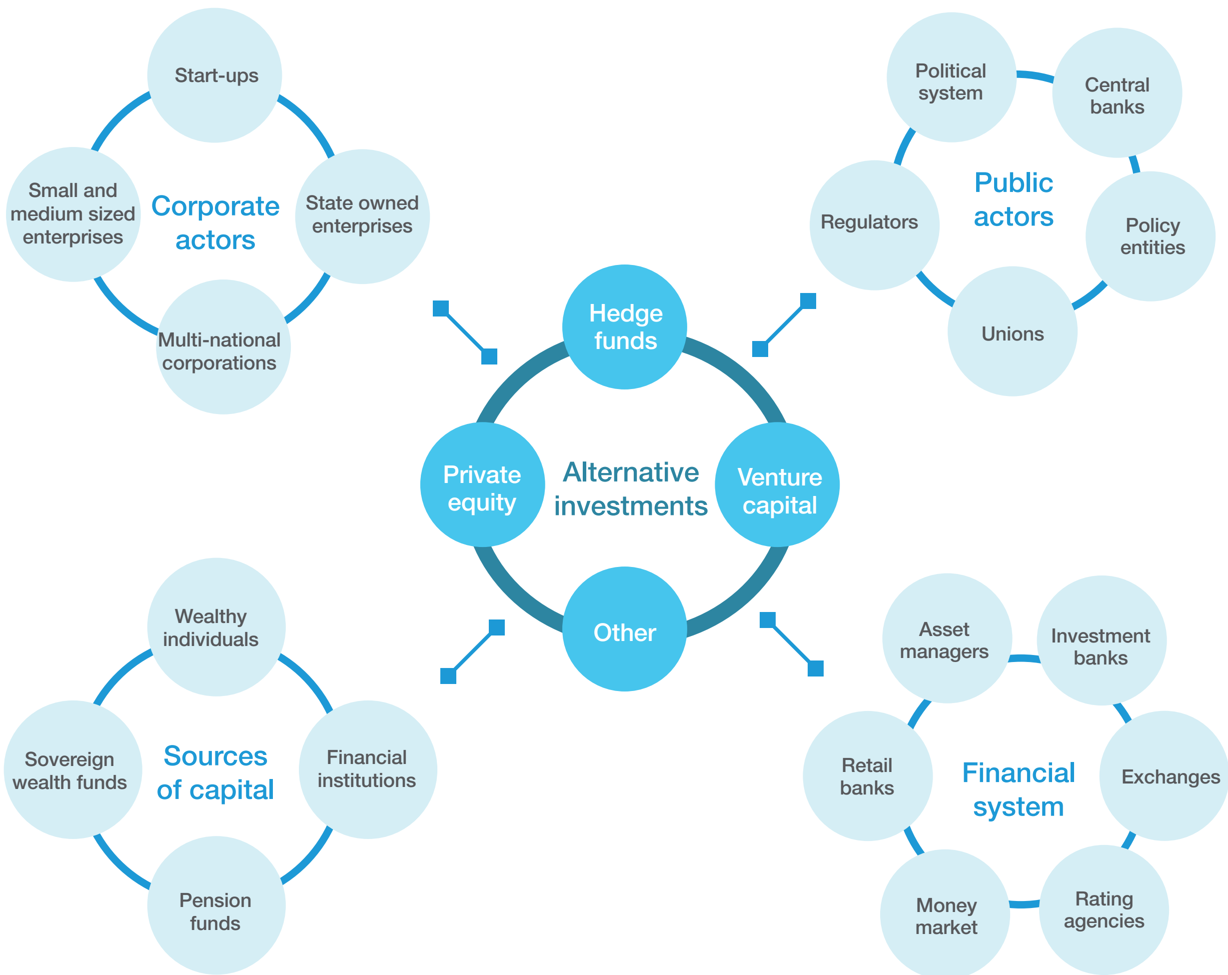
As we discuss below, capital markets benefit through mechanisms such as increased market liquidity and lower transaction costs, while alternative investment drives the real economy through its direct economic impact (e.g. improving retirement outcomes for millions of people) and through other key mechanisms such as the promotion of innovation (e.g. funding new technologies).

8.1. Capital markets

Perhaps the most important effect of the alternative investment industry on capital markets is the efficient allocation of capital to long-term, illiquid or risky investment assets that might otherwise be underfunded by traditional investors. Venture capital, for example, plays a critical role in efficiently allocating capital to high risk entrepreneurial endeavours. Research has shown that venture capital firms serve as a screening mechanism: they only fund 1% of the companies that seek their funding,[90] identifying successful first-time entrepreneurs at far higher rates than other capital providers.[91] The rigorous screening mechanism has proven to be quite successful. As few as 0.16% of all new businesses receive venture capital, but 60% of IPOs are backed by venture capital.[92]

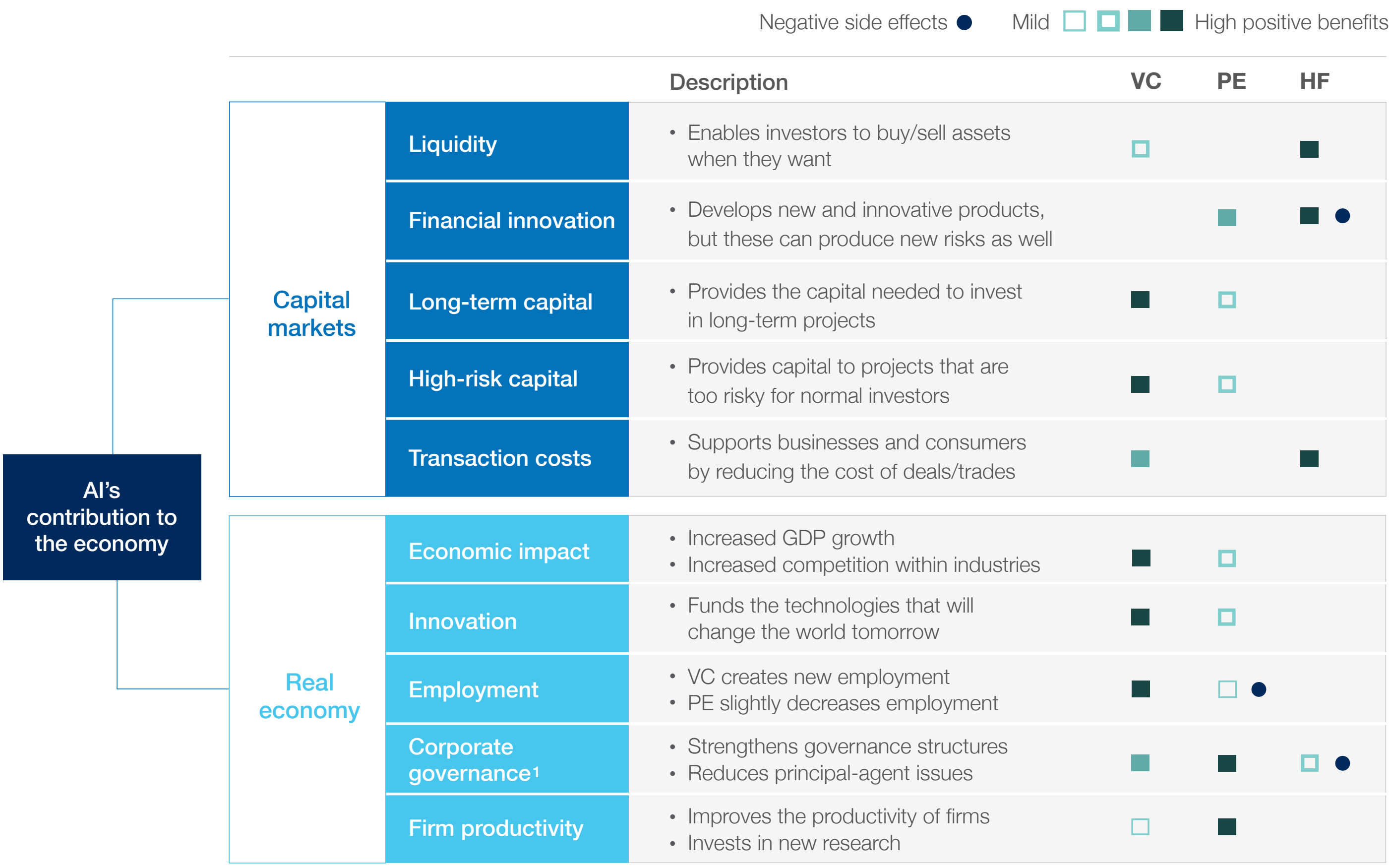
Alternative investors also generate benefits for capital markets and investors. Researchers have found that the immense trading volume of hedge funds strengthens price discovery[93] and reduces bid-ask spreads (transaction costs). They do this by serving as counterparties willing to buy or sell assets that might otherwise have remained illiquid. Critically, hedge funds account for 33% of foreign exchange trading, 40% of all stock trading globally,

Figure 31: Stakeholders affected by alternative investment strategies



Source: World Economic Forum Investors Industries

Figure 32: Mechanisms through which alternative investing contributes to the economy



1 Concerns have been raised that activist hedge funds may focus too much on short-term results

Source: World Economic Forum Investors Industries

30% of all US bond trading, and 85% of distressed debt securities. They are also key players in derivatives markets, accounting for 55% of US investment grade and 80% of high-yield related derivatives.[94, 95] While recent research has found that hedge funds can stabilize markets in times of crisis by providing liquidity, the evidence is not yet conclusive.[96, 97] The sophisticated analysis applied by many hedge funds helps markets by facilitating the application of complex instruments[98] and increasing the probability of success in restructuring cases.[99]

The impact on society of hedge funds that use high-frequency trading strategies is still being actively debated. Their immense trading activities may lead to an overall reduction in the cost of trading securities for all investors. However, it may also generate additional costs for some investors[100, 101] and even increase net costs in some instances.[102] Some governments, including Germany and Australia, have raised concerns that certain activities could undermine some aspects of a well-functioning market.[103, 104] Seeking to address these concerns, researchers have proposed a number of recommendations for regulators.[105, 106] Overall, the benefits to society brought by hedge funds appear to outweigh the costs, but the evidence either way is not yet conclusive.

8.2. Real economy

8.2.1. Economic impact

From the perspective of the public, the most important effect of alternative investment is to increase the level of innovation and competition in the economy. For example, economies that foster venture capital benefit from a positive spillover effect[107, 108, 109] from the patents and technologies that are developed and shared with other firms. In addition, 22% of the US GDP can be traced to companies that were originally venture-backed.[110]

At an industry level, studies have found that introducing private equity buyouts into an industry can generate enough competitive pressure to force other companies to follow suit in terms of improve their practices and productivity.[111] Similarly, profitability, job growth, and productivity growth can increase for public companies in the same sector following the takeover of a competitor by a private equity buyout firm.[112]

The investment in alternatives by major institutions is designed to improve retirement outcomes for millions of pensioners, which contributes to their spending power in the economy. The rise in allocations to alternatives in pension funds and other large institutions since the financial crisis is based on the attractive returns they have harvested from the sector in recent years, with $1.4 trillion of capital returned to investors by private equity buyout firms alone from 2012-2014.[113]

8.2.2. Innovation

The degree to which alternative investments drive innovation varies widely by asset class. Hedge funds typically do not invest for periods long enough to influence long-term rates of innovation in society. However, research suggests that venture capital backed companies may be three or four times as efficient at generating innovations, as measured by patents, than traditional corporations are.[114] While annual investments in venture capital have held steady at 0.1-0.2% of the value of the stock market, the sector accounts for 14% of all innovation related activity in the US.[115] In addition, companies that were originally backed by venture capital firms now generate 40-90% of total revenues in US high tech industries (such as software and biotech).[116]

There has been concern that private equity buyout firms seek short-term gains by dramatically cutting back on research and capital expenditures. However, recent academic research in the US finds that the quality of research (using patents as a proxy) increases, and that small businesses owned by private equity buyout firms are more likely to license and sell their technology rights and to engage in collaborative research and development agreements.[117, 118] Evidence is similar in Europe, as the European Central Bank finds that private equity buyouts accounts for 8% of aggregate industrial spending, but as much as 12% of innovation (again, using patents as a proxy).[119]

8.2.3. Employment

Alternative investment's impact on employment is more controversial. Venture capital firms tend to be regarded as job creators, as 11%[120] of all jobs in the US private sector are at companies supported by venture capital, including some 50-90% of all jobs in high tech sectors.[121]

Private equity buyout owned companies employ more than 8.1 million individuals in the US alone and their activities have sparked a robust debate in society.[122] The industry often seems to epitomize the best and worst characteristics of Schumpeter's notion of creative destruction. Academics find that private equity buyout firms are often able to increase the dynamism and productivity at the companies they own, but the speed of change and its effect on individuals can generate considerable opposition, e.g., within the labour movement. In fact, research suggests that private equity buyout owned companies experience much higher rates of both job destruction and creation, for a net result of a 1% decline in employment relative to previous owners, with a large share of job losses coming from companies in the retail sector.[123]

Whatever the net effect, the process generates considerable uncertainty for both employees and company executives. Deal partners at top performing firms are quick to intervene,[124] with about one third of CEOs replaced within the first 100 days of ownership, and two thirds replaced over a four-year window.[125] The willingness to intervene early is one reason why an average of only 1.2% of private equity buyout owned companies defaulted on debt obligations from 1970-2002 (vs 4.7% for comparable companies) and only 2.8% (vs 6.2%) did so during the financial crisis period (2008-2009).[126]

8.2.4. Corporate governance

Alternative investors are often considered to have a positive effect on corporate governance, though there are also some concerns. As an example of a positive effect, efforts by activist hedge funds to improve company performance seem to have a beneficial impact on the governance of companies and on the accompanying stock price.[127, 128, 129, 130] This is because the credible threat of a takeover encourages management teams to focus on maximizing shareholder value.[131, 132, 133, 134] At the same time, some have argued that such activism reduces the role of the board and the focus of a company on pursuing long-term objectives.[135]

Private equity buyout firms can also improve how companies are run. One way is through reducing the principal/agent problem inherent in public equity ownership, as board members at private equity buyout backed companies are the owners of the company, not merely representatives. Relative to their peers at public companies, boards at private equity backed companies are much more likely to direct firm strategy, set rigorous performance metrics, and actively hold management teams accountable to those metrics.[136, 137, 138] Most boards also meet with much greater frequency (monthly),[139] tend to be smaller than their public counterparts,[140, 141, 142, 143] and have more relevant experience.[144, 145]

In turn, they devote less time to managing multiple stakeholders, short-term earnings, or audit and compliance reporting,[146] and are about three times as likely to list value creation as their number one priority relative to public boards which, by contrast, list compliance and risk management as their top priority.[147] However, the high degree of alignment between owners and investors and the strong focus on returns can make it difficult for alternative investors to fully incorporate the views of other stakeholders. The diversity of ownership found in public companies and their boards often leaves them more adept at representing the many stakeholders found in society and provides for a wide range of voices on the board.[148]

Private equity buyout firms further strengthen the governance structure of the companies they own by implementing governance reforms. A significantly larger share of management team compensation is likely to be tied to clear, absolute, and rigorous cash flow driven performance metrics, compared to the use of stock or relative performance metrics found among their public sector peers.[149, 150] They typically require management teams to investment to hold meaningful ownership stakes, with CEOs holding 3-3.5% in the companies they operate, which is 2-4x as much as their public peers.[151, 152, 153] In addition, the rest of the management team typically holds another 15% of the company.[154]

8.2.5. Firm productivity

Alternative investors are often able to enhance the productivity of the firms they own. For example, venture capital firms: a) impart operational and management expertise that is lacking in start-up companies; b) help identify new market opportunities; c) strengthen hiring processes; d) help run operations more efficiently; e) bring products to market faster; f) make introductions to vendors that can aid entrepreneurs in scaling up their companies; and g) bring in new and more experienced management teams to help companies reach the next level of growth or globalization.[155, 156, 157] The impact can be seen immediately and is long lasting.[158] Namely, venture capital backed companies are less likely to fail and more likely to grow faster than their peers, both while owned by venture capitalists and after they have exited.[159, 160, 161, 162] Admittedly, this is partly due to the fact that the strongest companies choose to be funded by the best venture capital funds, as this confirms their quality.[163] It is worth noting that the demand for start-up capital from entrepreneurs has been somewhat curtailed in recent years, as it is expensive in terms of the amount of equity that needs to be handed over to outside investors.[164]

Private equity buyout firms are also incentivized to upgrade the performance of the companies they own, as there is a strong alignment between the company profitability and returns to investors and owners. Management teams tend to adopt more demanding performance metrics, introduce merit-based hiring and firing polices, shutter underperforming businesses and introduce lean manufacturing and other modern operating techniques.[165] Doing so often requires investment, but the absence of short-term shareholder pressure means that they can spend more on capital goods than their public peers.[166] Within the first two years, productivity at private equity buyout backed companies is enhanced by nearly 2%[167] and the outperformance lasts even after the company has returned to public ownership.[168]

Concluding remarks: A look to the future

Alternative investments are a large, growing, and important part of the economy and they affect everyone in one form or another. Consequently, it is an industry that requires close attention not only from regulators, but also from the general public. With this report we have attempted to break down the complex workings and sometimes opaque history of alternative investments. Three insights stand out:

1. **Alternative investments have grown to become a critical component of the global financial system.** The industry provides liquidity, various forms of capital (from long-term to high-risk) and is a source of innovation. Alternative investors are also highly diverse, ranging from high-risk venture capital to long-term private equity buyout funds. As such, they are a key part of the engine that keeps capital moving within the financial system and in the real world.

2. **Alternative investors serve capital providers with higher returns and greater diversification.** Capital providers include pension funds, sovereign wealth funds and foundations and endowments, all of which serve the public good. Pension funds, for example, rely on returns to close their funding gaps and secure the retirement of their beneficiaries, while sovereign wealth funds invest on behalf of the public in order to stabilize the economy and provide future benefits. Most such institutions include alternatives in their portfolio to achieve goals in the interest of their stakeholders.

3. **The impact of alternative investments on the real economy is substantial.** Alternative investors have an effect on the economy in numerous ways – and not all are unambiguously positive. At the highest level, they seek to allocate capital towards its most productive use and enforce discipline on its deployment. Often this means funding innovative new products, increasing firm productivity, or creating corporate governance structures that better align the interests of executives and investors. All of these changes have the potential to improve the economy and society, but the process of doing so may also result in adverse effects such as layoffs.

The industry cannot thrive or survive by itself, as it relies on the broader financial system to provide much of the capital (e.g. debt capital) and services that it requires to operate. Thus, the potential unintended consequences of new financial regulations should be of significant concern to policy makers. A review and analysis of this topic can be found in our forthcoming report, *Alternative Investments 2020: Regulatory Reform and Alternative Investments.*

It is also an industry that is quickly evolving in terms of its sources of capital and the business models that it deploys. New trends, such as institutionalization – the systematic upgrading of the architecture of both investors and asset owners, and retailization – the growth of retail investors as a source of capital, are altering business models and changing the alternative landscape. A sister report in the World Economic Forum Alternative Investments 2020 series, *The Future of Alternative Investments*, will cover these shifts and what they mean for investors and asset owners alike in greater depth.

At the societal level, capturing the benefits of alternative investments, while managing their risks appropriately, requires a subtle understanding of the complex machinery at work. Our aim for this report is to contribute to this understanding and provide a primer and reference guide that can inform policymakers and the public.

The Forum hopes to further meaningful debate on a highly important topic for society, rather than provide set answers. In this spirit, we welcome any feedback and constructive input.

Glossary

1) AltAssets Glossary[1]

2) Investopedia[2]

(2) Activist Investor – An individual or group that purchases large numbers of a public company's shares and/or tries to obtain seats on the company's board with the goal of effecting a major change in the company. A company can become a target for activist investors if it is mismanaged, has excessive costs, could be run more profitably as a private company or has another problem that the activist investor believes it can fix to make the company more valuable.

(2) Accredited Investor – A term used by the Securities and Exchange Commission (SEC) under Regulation D to refer to investors who are financially sophisticated and have a reduced need for the protection provided by certain government filings. Accredited investors include individuals, banks, insurance companies, employee benefit plans, and trusts.

(1) Acquisition – The process of taking over a controlling interest in another company. Acquisition also describes any deal where the bidder ends up with 50 per cent or more of the company taken over.

(1) Asset – Anything owned by an individual, a business or financial institution that has a present or future value i.e. can be turned into cash. In accounting terms, an asset is something of future economic benefit obtained as a result of previous transactions. Tangible assets can be land and buildings, fixtures and fittings; examples of intangible assets are goodwill, patents and copyrights.

(1) Asset allocation – The percentage breakdown of an investment portfolio. This shows how the investment is divided among different asset classes. These classes include shares, bonds, property, cash and overseas investments. Institutions structure their allocation to balance risk and ensure they have a diversified portfolio. The asset classes produce a range of returns – for example, bonds provide a low but steady return, equities a higher but riskier return. Cash has a guaranteed return. Effective asset allocation maximises returns while covering liabilities.

(1) Assets under management – see Capital under management

(1) Benchmark – This is a standard measure used to assess the performance of a company. Investors need to know whether or not a company is hitting certain benchmarks as this will determine the structure of the investment package. For example, a company that is slow to reach certain benchmarks may compensate investors by increasing their stock allocation.

1 Private Equity and Venture Capital Glossary of Terms, https://www.altassets.net/private-equity-and-venture-capital-glossary-of-terms

2 Hedge Funds Terms, http://www.investopedia.com/categories/hedgefunds.asp

(1) Buy-out – This is the purchase of a company or a controlling interest of a corporation's shares. This often happens when a company's existing managers wish to take control of the company. See management buy-out

(1) Capital call – see drawdown

(1) Capital drawdown – see drawdown

(1) Capital commitment – Every investor in a private equity fund commits to investing a specified sum of money in the fund partnership over a specified period of time. The fund records this as the limited partnership's capital commitment. The sum of capital commitments is equal to the size of the fund. Limited partners and the general partnermust make a capital commitment to participate in the fund.

(1) Capital distribution – These are the returns that an investor in a private equity fund receives. It is the income and capital realised from investments less expenses and liabilities. Once a limited partner has had their cost of investment returned, further distributions are actual profit. The partnership agreement determines the timing of distributions to the limited partner. It will also determine how profits are divided among the limited partners andgeneral partner.

(1) Capital gain – When an asset is sold for more than the initial purchase cost, the profit is known as the capital gain. This is the opposite to capital loss, which occurs when an asset is sold for less than the initial purchase price. Capital gain refers strictly to the gain achieved once an asset has been sold – an unrealised capital gain refers to an asset that could potentially produce a gain if it was sold. An investor will not necessarily receive the full value of the capital gain – capital gains are often taxed; the exact amount will depend on the specific tax regime.

(1) Capital under management – This is the amount of capital that the fund has at its disposal, and is managing, for investment purposes.

(1) Carried interest – The share of profits that the fund manager is due once it has returned the cost of investment to investors. Carried interest is normally expressed as a percentage of the total profits of the fund. The industry norm is 20 per cent. The fund manager will normally therefore receive 20 per cent of the profits generated by the fund and distribute the remaining 80 per cent of the profits to investors.

(1) Catch up – A clause that allows the general partner to take, for a limited period of time, a greater share of the carried interest than would normally be allowed. This continues until the time when the carried interest allocation, as agreed in the limited partnership, has been reached. This usually occurs when a fund has agreed a preferred return to investors – a fund may return the cost of investment, plus some other profits, to investors early.

(1) Clawback – A clawback provision ensures that a general partner does not receive more than its agreed percentage of carried interest over the life of the fund. So, for example, if a general partner receives 21 percent of the partnership's profits instead of the agreed 20 per cent, limited partners can claw back the extra one per cent.

(1) Closing – This term can be confusing. If a fund-raising firm announces it has reached first or second closing, it doesn't mean that it is not seeking further investment. When fund raising, a firm will announce a first closing to release or drawdown the money raised so far so that it can start investing. A fund may have many closings, but the usual number is around three. Only when a firm announces a final closing is it no longer open to new investors.

(1) Co-investment – Although used loosely to describe any two parties that invest alongside each other in the same company, this term has a special meaning when referring to limited partners in a fund. If a limited partner in a fund has co-investment rights, it can invest directly in a company that is also backed by the private equity fund. The institution therefore ends up with two separate stakes in the company – one indirectly through the fund; one directly in the company. Some private equity firms offer co-investment rights to encourage institutions to invest in their funds. The advantage for an institution is that it should see a higher return than if it invested all its private equity allocation in funds – it doesn't have to pay a management fee and won't see at least 20 per cent of its return swallowed by a fund's carried interest. But to co-invest successfully, institutions need to have sufficient knowledge of the market to assess whether a co-investment opportunity is a good one.

(1) Debt financing – This is raising money for working capital or capital expenditure through some form of loan. This could be by arranging a bank loan or by selling bonds, bills or notes (forms of debt) to individuals or institutional investors. In return for lending the money, the individuals or institutions become creditors and receive a promise to repay principal plus interest on the debt. Distressed debt (otherwise known as vulture capital) – This is a form of finance used to purchase the corporate bonds of companies that have either filed for bankruptcy or appear likely to do so. Private equity firms and other corporate financiers who buy distressed debt don't asset-strip and liquidate the companies they purchase. Instead, they can make good returns by restoring them to health and then prosperity. These buyers first become a major creditor of the target company. This gives them leverage to play a prominent role in the reorganisation or liquidation stage.

(1) Distribution – see capital distribution

(1) Drawdown – When a venture capital firm has decided where it would like to invest, it will approach its own investors in order to draw down the money. The money will already have been pledged to the fund but this is the actual act of transferring the money so that it reaches the investment target.

(1) Due Diligence – Investing successfully in private equity at a fund or company level, involves thorough investigation. As a long-term investment, it is essential to review and analyse all aspects of the deal before signing. Capabilities of the management team, performance record, deal flow, investment strategy and legals, are examples of areas that are fully examined during the due diligence process.

(1) Early-stage finance – This is the realm of the venture capital – as opposed to the private equity – firm. A venture capitalist will normally invest in a company when it is in an early stage of development. This means that the company has only recently been established, or is still in the process of being established – it needs capital to develop and to become profitable. Early-stage finance is risky because it's often unclear how the market will respond to a new company's concept. However, if the venture is successful, the venture capitalist's return is correspondingly high.

(1) Exit – Private equity professionals have their eye on the exit from the moment they first see a business plan. An exit is the means by which a fund is able to realise its investment in a company – by an initial public offering, a trade sale, selling to another private equity firm or a company buy-back. If a fund manager can't see an obvious exit route in a potential investment, then it won't touch it. Funds have the power to force an investee company to sell up so they can exit the investment and make their profit, but venture capitalists claim this is rare – the exit is usually agreed with the company's management team.

(1) First time fund – This is the first fund a private equity firm ever raises – whether the firm is made up of managers who have never raised a fund before or, as in many cases, the firm is a spin-off, where managers from different, established funds have joined forces to create their own, new firm. In the first instance, the managers do not have a track recordso investing with them can be very risky. In the second instance, the managers will have track records from their previous firms, but the investment is still risky because the individuals are unlikely to have worked together as a team before.

(1) Fund of funds – A fund set up to distribute investments among a selection of private equity fund managers, who in turn invest the capital directly. Fund of funds are specialist private equity investors and have existing relationships with firms. They may be able to provide investors with a route to investing in particular funds that would otherwise be closed to them. Investing in fund of funds can also help spread the risk of investing in private equity because they invest the capital in a variety of funds.

(1) Fund raising – The process by which a private equity firm solicits financial commitments from limited partners for a fund. Firms typically set a target when they begin raising the fund and ultimately announce that the fund has closed at such-and-such amount. This may mean that no additional capital will be accepted. But sometimes the firms will have multiple interim closings each time they have hit particular targets (first closings, second closings, etc.) and final closings. The term cap is the maximum amount of capital a firm will accept in its fund.

(1) General partner – This can refer to the top-ranking partners at a private equity firm as well as the firm managing the private equity fund.

(1) General partner contribution/commitment - The amount of capital that the fund manager contributes to its own fund. This is an important way for limited partners to ensure that their interests are aligned with those of the general partner. The US Department of Treasury recently removed the legal requirement of the general partner to contribute at least one per cent of fund capital, but this is still the usual contribution.

(2) High-Frequency Trading (HFT) – A programme trading platform that uses powerful computers to transact a large number of orders at very fast speeds. High-frequency trading uses complex algorithms to analyse multiple markets and execute orders based on market conditions. Typically, the traders with the fastest execution speeds will be more profitable than traders with slower execution speeds. As of 2009, it is estimated more than 50% of exchange volume comes from high-frequency trading orders.

(1) Holding period – This is the length of time that an investment is held. For example, if Company A invests in Company B in June 1996 and then sells its stake in June 1999, the holding period is three years.

(1) Hurdle Rate – see preferred return

(1) Initial public offering (IPO) – An IPO is the official term for 'going public'. It occurs when a privately held company – owned, for example, by its founders plus perhaps its private equity investors – lists a proportion of its shares on a stock exchange. IPOs are an exitroute for private equity firms. Companies that do an IPO are often relatively small and new and are seeking equity capital to expand their businesses.

(1) Internal rate of return (IRR) – This is the most appropriate performance benchmark for private equity investments. In simple terms, it is a time-weighted return expressed as a percentage. IRR uses the present sum of cash drawdowns (money invested), the present value of distributions (money returned from investments) and the current value of unrealised investments and applies a discount.

The general partner's carried interest may be dependent on the IRR. If so, investors should get a third party to verify the IRR calculations.

(1) Lead investor – The firm or individual that organises a round of financing, and usually contributes the largest amount of capital to the deal.

(1) Leveraged buy-out (LBO) – The acquisition of a company using debt and equity finance. As the word leverage implies, more debt than equity is used to finance the purchase, eg 90 per cent debt to ten per cent equity. Normally, the assets of the company being acquired are put up as collateral to secure the debt.

(1) Limited partners – Institutions or individuals that contribute capital to a private equity fund. LPs typically include pension funds, insurance companies, asset management firms and fund of fund investors.

(1) Limited partnership – The standard vehicle for investment in private equity funds. A limited partnership has a fixed life, usually of ten years. The partnership's general partnermakes investments, monitors them and finally exits them for a return on behalf the investors – limited partners. The GP usually invests the partnership's funds within three to five years and, for the fund's remaining life, the GP attempts to achieve the highest possible return for each of the investments by exiting. Occasionally, the limited partnership will have investments that run beyond the fund's life. In this case, partnerships can be extended to ensure that all investments are realised. When all investments are fully divested, a limited partnership can be terminated or 'wound up'.

(1) Lock-up period – A provision in the underwriting agreement between an investment bank and existing shareholders that prohibits corporate insiders and private equity investors from selling at IPO.

(1) Management fee – This is the annual fee paid to the general partner. It is typically a percentage of limited partner commitments to the fund and is meant to cover the basic costs of running and administering a fund. Management fees tend to run in the 1.5 per cent to 2.5 per cent range, and often scale down in the later years of a partnership to reflect the GP's reduced workload. The management fee is not intended to incentivise the investment team – carried interest rewards managers for performance.

(1) Mezzanine financing – This is the term associated with the middle layer of financing in leveraged buy-outs. In its simplest form, this is a type of loan finance that sits between equity and secured debt. Because the risk with mezzanine financing is higher than with senior debt, the interest charged by the provider will be higher than that charged by traditional lenders, such as banks. However, equity provision– through warrants or options – is sometimes incorporated into the deal.

(1) Portfolio – A private equity firm will invest in several companies, each of which is known as a portfolio company. The spread of investments into the various target companies is referred to as the portfolio.

(1) Portfolio company – This is one of the companies backed by a private equity firm.

(1) Preferred return – This is the minimum amount of return that is distributed to the limited partners until the time when the general partner is eligible to deduct carried interest. The preferred return ensures that the general partner shares in the profits of the partnership only after investments have performed well.

(2) Prime Brokerage – A special group of services that many brokerages give to special clients. The services provided under prime brokering are securities lending, leveraged trade executions, and cash management, among other things. Prime brokerage services are provided by most of the large brokers, such as Goldman Sachs, Paine Webber, and Morgan Stanley Dean Witter.

(2) Retail Fund – A type of fund that is registered with the Securities and Exchange Commission (SEC) and is sold to individual investors through investment dealers and in open market transactions. Retail funds are often categorized as mutual funds, and carry lower initial investments and management expense ratios than non-retail funds.

(1) Secondaries – The term for the market for interests in venture capital and private equity limited partnerships from the original investors, who are seeking liquidity of their investment before the limited partnership terminates. An original investor might want to sell its stake in a private equity firm for a variety of reasons: it needs liquidity, it has changed investment strategy or focus or it needs to re-balance its portfolio. The main advantage for investors looking at secondaries is that they can invest in private equity funds over a shorter period than they could with primaries.

(1) Secondary buy-out – A common exit strategy. This type of buy-out happens when an investment firm's holding in a private company is sold to another investor. For example, one venture capital firm might sell its stake in a private company to another venture capital firm.

(1) Secondary market – the market for secondary buy-outs. This term should not be confused with secondaries.

(2) Shadow Banking System – The financial intermediaries involved in facilitating the creation of credit across the global financial system, but whose members are not subject to regulatory oversight. The shadow banking system also refers to unregulated activities by regulated institutions.

(1) Sliding fee scale – A management fee that varies over the life of a partnership.

(1) Syndication – The sharing of deals between two or more investors, normally with one firm serving as the lead investor. Investing together allows venture capitalists to pool resources and share the risk of an investment.

(1) Take downs – see drawdown

(1) Term sheet – A summary sheet detailing the terms and conditions of an investment opportunity.

(1) Vintage year – The year in which a private equity fund makes its first investment.

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