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Equity investments in unlisted companies

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Background

The Ministry of Finance holds the formal responsibility for the management of the Norwegian Government Pension Fund Global (GPFG). The operational management of the Fund is carried out by Norges Bank (the central bank of Norway) in accordance with a management mandate issued by the Ministry. The mandate sets out the general principles and regulations for Norges Bank's management of the Fund. The mandate expresses the Fund's investment strategy, including provisions on the composition of the benchmark index, risk limits, reporting and responsible management. At the end of third quarter 2017, the Fund managed assets worth approximately USD 1 trillion.

The GPFG is invested in listed equity, fixed income, and unlisted real estate, outside Norway. Norges Bank is in general not permitted to invest the GPFG in unlisted companies in sectors other than real estate. However, it may invest in unlisted companies where the board has expressed an intention to seek listing on a regulated and recognized marketplace.

In the annual report on the management of the Government Pension Fund submitted to the Parliament on 31 March 2017, the Ministry announced that it would assess whether to allow the GPFG to invest in equity in unlisted companies on a more general basis[1]. The aim is to present an assessment to the Parliament in the spring of 2018. As part of this assessment, the Ministry of Finance has asked for advice and assessment from Norges Bank and appointed an external expert group[2].

As a part of the review, the Ministry of Finance has asked McKinsey & Company to support the assessment by providing a fact-based analysis of how other comparable funds, including pension funds and sovereign wealth funds, invest in private equity[3]. The report should also look into historical performance of the asset class and discuss the importance of costs. Specifically, the mandate includes:

- Descriptions of comparable funds' scope, composition and management of unlisted equity investments
- Historical returns on unlisted equity investments and the importance of costs
- Descriptions of the different investment models for unlisted equity investments used by comparable funds, including the models' advantages, disadvantages and key success factors

1 Investments in unlisted infrastructure and real estate not included in scope.

2 Ministry of Finance (2017).

3 Throughout the report, the term *private equity* is used for investments in equity in unlisted companies, excluding real estate, infrastructure and natural resources.

The aim of this report is to provide a review of external sources based on publicly available information and expert interviews. This report does not make recommendations, but rather adds to the fact base for the Government. This does not include a comprehensive analysis of investing in equity in unlisted companies, as it does not provide a full perspective on the potential risk and return of such investments. For example, it does not assess the potential impact on overall portfolio risk-return profile, including outlook of risk and return of the asset class, and it does not include an assessment of all potential financial and non-financial risks. A decision on whether to allow the GPFG to make investments in equity in unlisted companies should take all of these aspects into account.

Next chapter presents a summary of this report. Subsequently, Chapter 1 of this report provides an overview of the private equity investment landscape, including the private equity investments of a representative sample of institutional investors across geographies. Chapter 2 outlines investment models to access private equity, including organizational setup and high-level approach to management of financial and non-financial risks. Chapter 3 presents historical performance of private equity as an asset class and discusses costs for different investment models. Finally, Chapter 4 discusses advantages, disadvantages, and key success factors for different investment models.

Summary

This fact-finding report provides an overview of how comparable pension and sovereign wealth funds invest in private equity. The mandate of this report is not to provide recommendations, but to add to the fact base for the Government. It includes an overview of investment models, high-level approaches to risk management, and a discussion on advantages, disadvantages and key success factors for the different investment models. The report also gives an overview of historical private equity performance and of costs for different investment models.

Private equity – a large and growing market

The private equity asset class has developed rapidly, growing at 10 percent per year from 2005 to 2015 to reach nearly USD 2.5 trillion in assets under management[4]. This corresponds to nearly 3.5 percent of the USD 74 trillion global asset management industry[5]. Private equity has historically offered investors relatively high returns, strong persistency of outperformance for top quartile funds, and low correlation to public equity markets. Though each of these advantages has waned, the asset class is still seen as attractive option to many institutional investors. Today, most large pensions and sovereign wealth funds invest in private equity, and allocations continue to increase (e.g., from 4.0 to 8.5 percent of assets for sovereign wealth funds since 2000).

Leading investors are using a range of investment models

In terms of investment models, institutional investors are typically known and act as limited partners (LPs) while private equity funds are known and act as general partners (GPs). Four main models exist for accessing private equity, ranging from the most external (investing via fund-of-funds managers) to the most internal (via "direct" investment in companies). Fund-of-funds investments involve the LP allocating capital to an external manager who invests in multiple private equity funds which in turn invest directly in assets. The second model, fund investments, remain core to the industry. This is when the LP allocates capital to GPs which in turn invest directly in assets. Thirdly, there is a recent trend towards "co-investment", where an LP invests alongside one or several GPs, typically as part of an existing LP-GP relationship. In this model, the GP allows the LP to inject additional discretionary capital into specific transactions, typically at lower fees or no fees. Finally, a limited number of institutional investors have moved towards directly investing into operating businesses, instead of investing through a GP. How institutions approach the asset class varies based on several factors, most notably the extent to which they seek to decrease fees and assume more control while taking on greater execution risk.

Institutional investors typically employ a mix of different investment models to access private equity. For most investors, fund investments constitute the majority of their private equity program. Institutional investors can be categorized into three archetypes based on their approach to private equity investments – indirect investors, active fund and co-investors, and professional direct investors – each with different norms as to investment approach, organizational setup, and risk management approach.

4 Preqin (2015).

5 McKinsey Performance Lens Global Growth Cube (2016).

Most institutional investors invested in private equity are indirect investors. “Indirect investors” invest primarily through funds. Some indirect investors have also started to establish deeper “strategic partnerships” with select GPs to better align incentives and reduce fees. Indirect investors tend to take a portfolio- and partner-oriented approach towards risk management, while relying on their GPs to manage asset-level risk.

As private equity has matured as an asset class, some institutions have developed their capabilities and refined their approach to invest directly themselves, becoming “active fund and co-investors.” These institutions tend to leverage their ongoing relationships with GPs to deploy capital in the form of co-investments, thereby complementing their fund investments and reducing average fees. Their risk management approach tends to resemble indirect investors’, with a stronger focus on partner selection and secondary diligence for co-investments. Recently, a limited number of institutional investors have evolved their approach to private equity to become “professional direct investors.” These institutions not only undertake co-investments alongside GPs, but also act themselves as lead investors on deals. In nearly all cases, these activities co-exist alongside a robust ongoing fund investment program. These investors manage risk at the portfolio company level where they do direct or co-investments, in addition to the risk management embodied in allocating their broader assets and selecting external managers.

Cost of investing varies with selected model, but what matters is net risk-adjusted return

It is challenging to measure private equity performance because the industry, as the name suggests, is private and available data is limited. Reported data may be biased and not representative for the industry and how to appropriately reflect risk-adjusted return is debatable. Internal rate of return, IRR, is commonly used to measure performance in the industry although it has some limitations, including not being adjusted for risk as discussed in Chapter 3. According to available data, returns have varied for different segments over time, but overall, private equity has offered attractive absolute net returns, in the range of 15-20 percent IRR, on average outperforming public market equivalents over the last two decades. However, this outperformance has waned for vintages from 2006 and later.

The cost of investing in private equity varies with investment model. Estimates from CEM Benchmarking indicate that average annual investment costs as a share of net asset value (NAV) are about 8 percent for fund-of-funds investments, and approximately 6 percent for fund investments. Lower costs have been reported for direct investments (0.5 percent) and co-investments[6]. The major drivers of these cost differences are the management fees and potential performance fees paid to GPs in fund investments and in some co-investments. When investing through a fund-of-funds manager an additional layer of management and performance fees are added (compared to fund investments), and paid to the external fund-of-funds manager.

6 Cost for co-investments is in the range of 0.5 to 5.7 percent. In a Preqin Fund manager survey, almost half of GPs report that they offer no management and performance fees, 27-36 percent offer reduced fees, while 16-25 percent offer same fees (Preqin, 2015).

Cost is one factor to consider when assessing investment models for private equity, but what ultimately matters to most investors is net risk-adjusted returns. Institutions have found it very challenging to build the capabilities necessary to achieve strong returns in a direct or co-investment model, regardless of cost.

The right capabilities are critical

As noted above, some institutional investors have gradually evolved their approach to unlisted equities from the indirect funds model towards a co-investing or even direct investment model. It must be stressed that significant capabilities are needed to make these transitions, especially when moving to a direct investment strategy. Although co-investment and direct investment approaches offer potential for lower fees and greater control over investment decisions, they also entail a sharp increase in execution risk and require very different capabilities.

The main capability required for indirect investors is selecting the right external managers. Strong relationships and reputation as a competent, reliable and professional partner also help in accessing top-tier GPs. As investors ramp up their co-investing, they also need to develop the ability to evaluate individual deals (usually on a “secondary” basis, assessing the quality of primary diligence done by the GP) and to build a reputation as an attractive partner in order to stimulate a strong flow of co-investment deals. The capabilities required to build a professional direct investing group are considerably greater, essentially equivalent to developing an internal private equity firm.

Recognizing the significant differences in investment approach and organizational skills required for different strategies, any institutional investor developing a private equity program should rigorously examine what internal capabilities can robustly be developed before deciding on an approach to the asset class.

1. Private equity investment landscape

This chapter introduces private equity as an asset class and provides an overview of how other large institutional investors, including sovereign wealth funds (SWFs) and pension funds, invest in private equity.

The total value of assets under management (AuM) for the global private equity market amounts to nearly USD 2.5 trillion, as of mid-year 2016[7,8]. This corresponds to nearly 4 percent of the USD 74 trillion global asset management industry[9]. Private equity is a smaller market than unlisted real estate (around USD 7 trillion[10]), but more than four times as large as unlisted infrastructure (around USD 0.6 trillion[10]). Growth of private equity assets under management averaged approximately 14 percent per year from 2005 to 2010, before slowing down to an average of 7 percent per year from 2010 to 2015[11].

The private equity market includes several sub-asset classes:

Buyouts[12] constitute 60 percent of total assets under management, and the term is often used interchangeably with private equity. It refers to the structure where large amounts of capital from investors such as pension funds and insurance companies are pooled into a fund and used to acquire companies. Within a timeframe of up to a decade, the fund tries to help the portfolio companies develop and increase in value, which will result in a profit for the fund when the companies are sold. Buyouts tend to target established companies and the fund advisors often have significant experience in value creation activities such as growing sales, taking products to new markets, improving operations and capital structure, as well as establishing strong governance practices. They commonly identify potential areas of improvement and growth, and develop a value creation plan prior to acquisition.

Venture capital constitutes the second-highest share of the private equity industry with 21 percent. The sub-asset class generally concentrates on start-ups and early-stage companies with high growth potential. To support value creation, GPs tend to be more hands-on than in buyouts, for example in terms of coaching management, helping to develop ideas, and sharing their network.

Growth equity constitutes 13 percent of the market and lies at the intersection of buyout and venture capital. It typically involves a minority investment in sizable but growing businesses needing capital injections to expand further. *Others*[13] account for the balance of 6 percent.

7 McKinsey Global Private Markets Review (2017).

8 Does not include co-investments, separately managed accounts, nor “shadow capital” invested directly by asset owners into private equity structures.

9 McKinsey Performance Lense Global Growth Cube (2016).

10 MSCI (2016).

11 Preqin.

12 Includes small-, mid and large cap.

13 Include various remaining other acquisition types, such as direct secondaries and turnarounds.

The venture capital and buyout markets both have grown at an annual average of 9 percent in the last decade. However, while buyouts grew quicker in the first half of this period, venture capital has outstripped buyouts with 10 percent growth between 2010 and 2015, compared to buyout's 4 percent. Buyout funds are usually much larger than venture capital funds. Between 2007 and 2015, the median buyout fund was USD 360 million while the median venture capital fund was USD 49 million. Similarly, the average of the 10 largest buyout funds was USD 16.5 billion compared to USD 2.1 billion for venture capital funds[16].

Historically, private equity has offered investors three attractive characteristics: high returns (both in absolute terms and compared to public markets)[14], strong persistency of outperformance for top quartile funds[15,16] and low correlation to public equity markets (offsetting risk and adding to the diversity of the overall portfolio)[17]. As the asset class has matured, the extent of outperformance to public equities has fallen[14] (though absolute net returns have remained strong). The relative performance of different funds have also become less predictable[16] (further details in chapter 3). Meanwhile, the asset class has become increasingly correlated with public equities[17].

Demand for the asset class has continued to rise rapidly among many types of institutional investors. For instance, allocations to private equity among sovereign wealth funds have more than doubled since 2000, rising from 4.0 percent to 8.5 percent of total assets under management[18]. Several factors have driven this rapid growth[7].

First and foremost is private equity's historical outperformance of public markets. Institutional investors are concerned about the outlook for public market returns in coming years. The McKinsey Global Institute argues that returns in public markets over the next 20 years will be substantially lower than over the prior 30 years, as the main macroeconomic factors that have propelled recent growth are likely either to reverse or to level off[19,20]. Second, pressure for returns is increasing among institutional investors. As the gap between pensions' assets and liabilities has continued to widen even in a strong public market environment, those institutions are increasingly seeking alternative investments to help close the gap. In parallel, lower commodity prices have constrained budgets for many commodities-producing nations, driving related sovereign wealth funds to allocate more heavily to private equity and other alternative asset classes which they expect may deliver higher returns. Third, even as these factors push target allocations upwards[21],

14 Harris, Jenkinson & Kaplan (2016).

15 Persistency measured for comparable funds within same PE firm. For larger funds, this means comparing performance of ensuing funds with similar investment profile, for example "Mid-market Fund IV" and "Mid-market Fund V", even if the same PE firm launched an infrastructure fund in between.

16 Preqin.

17 Welsch (2017).

18 Sovereign Wealth Fund Institute.

19 McKinsey & Company (2016).

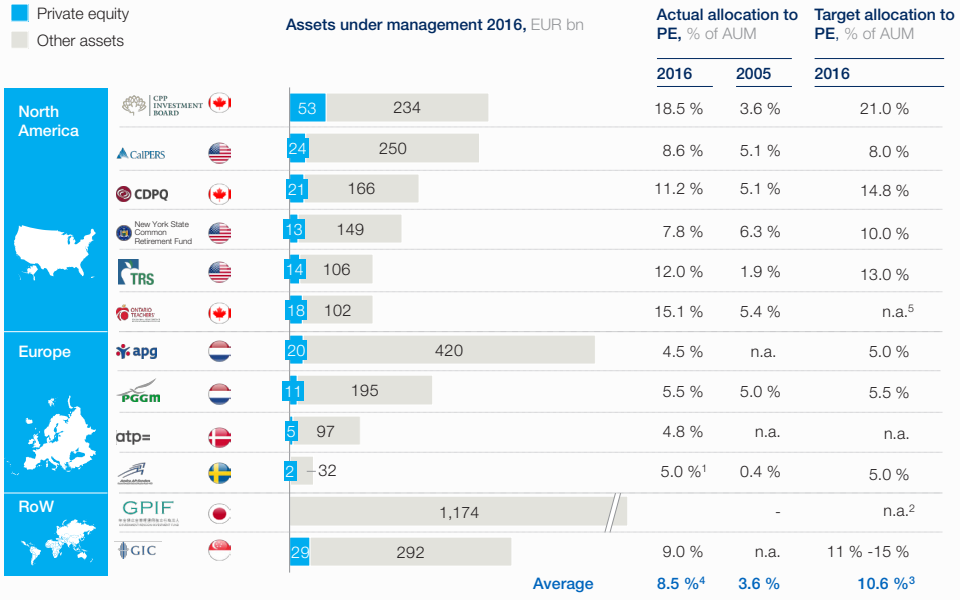
20 The steep drop in inflation and interest rates is unlikely to continue, a slower employment growth is likely to reduce global GDP growth, and businesses face a more competitive environment that could reduce margins.

21 A recent LP survey showed that 39 percent intends to increase their target allocation to PE (Coller Capital).

many institutional investors still have yet to reach their current target allocations to private equity. The median public pension fund is 100 basis points below its target allocation to PE, and the median sovereign wealth fund is 420 basis points underweight[22,23]. These factors make institutional investors likely to continue to look to private equity and other investments in private markets going forward.

Most large institutional investors include private equity in their investment mandate and portfolio. In this report, a sample of 12 peer funds have been selected, reflecting a mix of pension funds and sovereign wealth funds from North America, Asia, and Europe (including two Scandinavian funds)[24]. Among these funds, capital allocations to private equity range from from approximately 5 percent to 19 percent of total managed assets, with an average of 9 percent of managed assets (see Exhibit 1).

Exhibit 1
Large institutional investors' investments in private equity



	Actual allocation to PE, % of AUM		Target allocation to PE, % of AUM
	2016	2005	2016
North America			
CPP Investment Board	18.5 %	3.6 %	21.0 %
CalPERS	8.6 %	5.1 %	8.0 %
CDPQ	11.2 %	5.1 %	14.8 %
New York State Common Retirement Fund	7.8 %	6.3 %	10.0 %
TRS	12.0 %	1.9 %	13.0 %
Ontario Teachers'	15.1 %	5.4 %	n.a.[5]
Europe			
apg	4.5 %	n.a.	5.0 %
PGGM	5.5 %	5.0 %	5.5 %
atp	4.8 %	n.a.	n.a.
[illegible]	5.0 %[1]	0.4 %	5.0 %
RoW			
GPIF		-	n.a.[2]
GIC	9.0 %	n.a.	11 % -15 %
Average	8.5 %[4]	3.6 %	10.6 %[3]

1 Private equity investment in public markets (~SEK 1bn) excluded as per company annual report 2016
2 5% across alternatives (GPIF president in interview with Reuters)
3 Middle of ranges used to calculate averages. GPIF and OTPP are excluded from calculations of target averages
4 Average of 9.3% if only include the funds where information is available for 2005 actual
5 32%-42% for public and private equities

SOURCE: Preqin, company web pages, annual reports, press search

22 Median among LPs that report current actual and target allocations.

23 McKinsey Global Private Markets Review (2017).

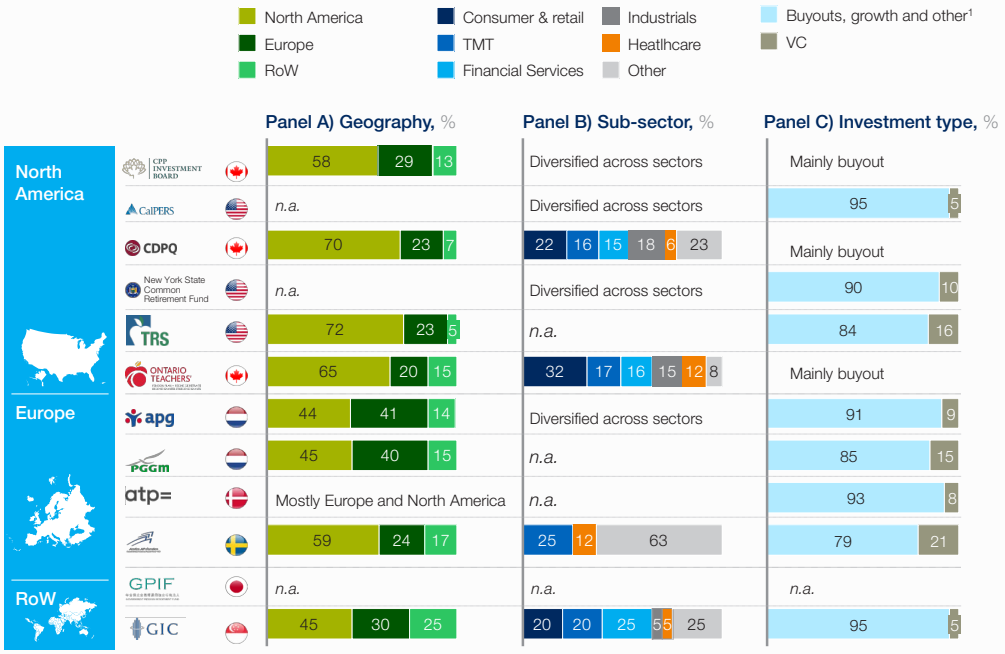
24 This sample consists of a mix of large funds from North America, Europe and Asia, a few Scandinavian funds operating in similar context, and a few North American funds seen as progressive in their approach to private equity investments.

Japan's Government Pension Investment Fund (GPIF) stands out as the exception with no allocation, as yet, to private equity. However, in 2016 the mandate of GPIF was broadened to allow up to 5 percent allocations to alternative assets, including private equity[25]. By and large, the North American institutions have higher allocations to private equity than their European peers. This may reflect the fact that private equity developed first as an asset class in North America, so those investors' private equity programs tend to be larger and more mature. In addition, the investment mandates and governance models of some of the North American funds are more conducive to larger share of private equity and other alternative assets.

Over the last decade, all the funds in the sample have increased their capital allocation to private equity as share of total managed capital (average increased from 3.6 percent to 8.5 percent). At the same time, most peer funds are below their target allocations to private equity, suggesting (in line with above) that actual allocations to private equity may likely continue to increase.

Peer funds' private equity portfolios are diversified across geographies and sub-sectors (see Exhibit 2). The portfolios are dominated by North America[26], in line with the overall market, with North America making up 53 percent, Europe 24 percent, and the rest of the world 23 percent[27]. There exists some degree of home bias for both North American and European funds, as both tend to be overweight in their respective region. The peers focus mainly on buyouts and are in general less allocated to venture capital. This is particularly true for the largest funds and perhaps reflects venture capital's smaller size and limited scalability.

Exhibit 2
Large institutional investors' private equity portfolio allocation



1 Includes small-, mid- and large-cap buyouts, distressed and growth equity *2 Per last 10Y for GIC*

SOURCE: Company reports; Company web pages; press search

25 Reuters (April 2017): "Japan's GPIF starts recruiting managers for alternative assets".

26 Geography refers to the geographical exposure of the underlying portfolio companies.

27 McKinsey Global Private Markets Review (2017).

2. How other leading institutional investors are investing in private equity

This chapter outlines four main investment models for institutional investors to invest in private equity. It then identifies three investor archetypes with different ways of investing, setting up their organizations, and managing financial and non-financial risks.

Four investment models to access private equity

Institutional investors access private equity through four different investment models (see Exhibit 3 and Exhibit 4):

Fund-of-funds (FoF) investment is when an institutional investor allocates capital to an external manager, which then allocates to multiple private equity funds. The private equity funds act as General Partners[28] (GPs) and invest directly in assets. Institutional investors acting as a Limited Partner (LP) simply need the capability to select and monitor fund-of-funds managers.

Fund investment is when an LP, such as a pension fund or a sovereign wealth fund, allocates capital to private equity GPs, which then invest in individual companies. The LP may rely in part on an external advisor such as an investment consultant, but allocates directly to the GPs. In this model, LPs' most important skill is in selecting strong external private equity funds ("pick the winners").

Co-investment is when an LP invests alongside one or several partners, most commonly as part of an existing LP-GP relationship. The GP allows the LP to inject additional discretionary capital into specific transactions, typically at lower fees or no fees. The co-investment arrangements may occur at the time of the deal-making process, or more often, via syndication after closing. In this model, LPs need to develop capabilities (internally or via advisors) to conduct secondary due diligence so they can assess the quality of primary diligence done by the GP. This means they can assess deal opportunities rapidly and effectively. LPs also need strong GP relationships to access attractive deal opportunities.

Direct investment is when the institutional investor invests directly (not via an external manager) into operating businesses. This typically involves taking a significant ownership share and requires strong capabilities across the entire deal cycle – including deal sourcing, primary due diligence, deal structuring and execution, managing portfolio companies (including actively driving value creation agenda through board and/or operational involvement), and executing exit strategy.

28 The GP is often separated from the actual funds that are making the investments, but they usually establish and act as advisors to the funds.

Exhibit 3
Four models for institutional investors to access private equity

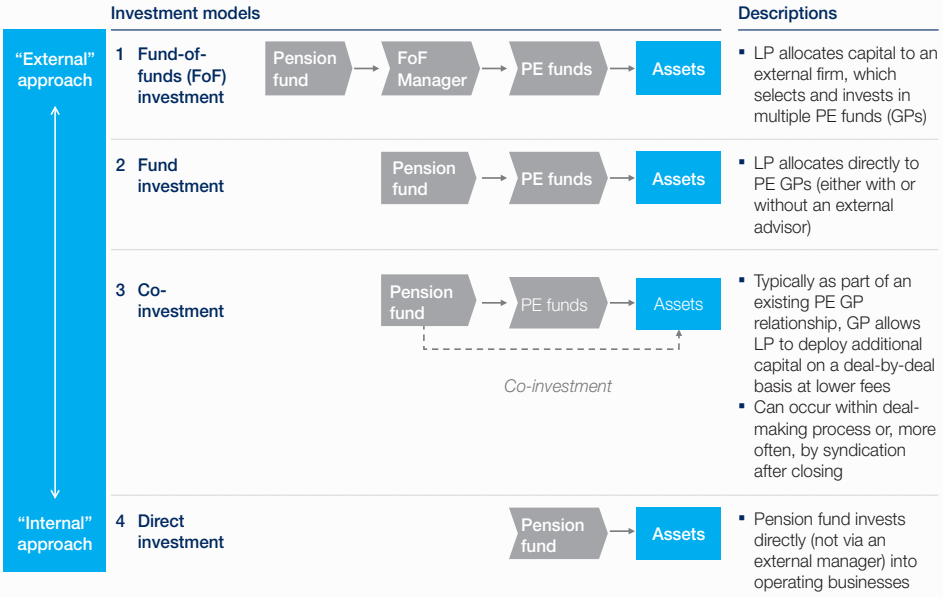


Exhibit 4
Overview of skillset required for different investment models

Investors use multiple models, with increasing focus on co-investments and direct investments

Most peer funds rely on some combination of the four different investment models (see Exhibit 5). Fund investments are the core of most private equity programs, but many large funds also deploy capital via co-investments, both to lower average fees and to invest more with a particular GP. A small number of institutional investors have sought to build direct investing capabilities. However, these remain outliers for now, as the commitment and investment required to do this well is significantly greater. While offering lower costs and increased control, implementing a co-investment or direct model is more challenging, with significantly higher execution risk. More than three quarters of institutional investors surveyed by McKinsey & Company[29] report being "likely" or "very likely" to build direct investing capabilities within the next five years – though many of these are likely referring to co-investment rather than fully direct investments. This mirrors trends in other alternative asset classes, such as infrastructure and real estate. Strategies vary widely across funds based on factors including governance model, experience in private equity, internal capabilities, scale of portfolio, and attitudes towards risk.

Exhibit 5

Overview of investment models used by large institutional investors

SOURCE: Company web-sites, Annual reports, press search

29 *The McKinsey & Company 2016 Institutional Investor Survey* is based on questionnaire responses by 36 executives (McKinsey & Company, 2016).

Three investor archetypes

Institutional investors can be categorized into three archetypes based on their approach to private equity investments:

Indirect investors invest primarily through funds, typically in a closed-end "blind pool" structure[30]. "Separately managed accounts"[31], however, are becoming more common, especially for larger allocations. These investors may co-invest with trusted GPs on a limited basis, but this tends to be the exception rather than the rule. Often, they aspire to increase co-investments over time, but have not yet developed the access or the capabilities to do so at scale. Investments mainly through GPs represent a strategic choice to focus internal capabilities on selecting and reviewing external managers. These investors have minimal or no control of the individual assets in the underlying fund portfolios, but rely on GP expertise across the deal value chain, including managing risk on the asset level. Some indirect investors have started establishing deeper strategic relationships with selected GPs, making joint, longer-term commitments and thereby better aligning incentives and reduce fees. This trend is expected to continue with over three quarters, 77 percent, of institutional investors being "likely" or "very likely" to enter into more strategic relationships with GPs within the next five years[32]. The LP invests in a range of GPs, but there is a shift towards LPs consolidating their holdings with fewer GPs, with the average LP commitment to a single fund increasing with 47 percent over the past five years[33]. The indirect investors typically have a small team ranging from a single person to a few dozen, broadly proportional to the amount of capital to be deployed. The team consists of investment professionals focusing on selecting external managers, with limited support staff.

Active fund and co-investors leverage strong, long-term GP relationships combining fund investments and co-investments, with occasional fund-of-funds investments (e.g., when accessing new geographies). These investors often have significant private equity experience and invest alongside GPs at lower fees. The team typically includes 10-40 investment professionals focused on selecting external managers and funds and evaluating deal opportunities with secondary due diligence. LPs only have limited direct involvement with the assets, with the GP responsible for creating value and managing risk on the asset level.

30 Closed-end fund structure is the common setup for private equity funds, and have several distinctions from open-ended structures, some of which are the predefined fund life span and investor's lack of ability to liquidate their commitment. Blind pool refers to the lack of ability to preview portfolio assets prior to committing capital.

31 "An SMA is a bespoke investment account, funded by a single investor and managed by a professional manager selected by the investor. Investors in managed accounts get the benefits of private equity investing, but (typically) at a lower cost, with potentially greater control over the investment portfolio and tax benefits that are unavailable to investors in a traditional, co-mingled fund" (MJ Hudson, 2015).

32 *The McKinsey & Company 2016 Institutional Investor Survey* is based on questionnaire responses by 36 executives (McKinsey & Company, 2016).

33 Triago (2016).

Professional direct investors focus on direct and co-investments with GPs and other institutional investors, complemented with fund investments. These investors typically have extensive experience and excellent internal capabilities across the deal cycle. Internal teams tend to be larger, with as many as 50+ investment professionals, often with local presence in target markets (e.g., with offices across US/Canada, Europe, and Asia). Larger teams are sometimes organized by sectors. Professional direct investors are responsible for managing risk on the asset level and actively drive the value creation agenda. In a few cases, professional direct investors have value creation teams to drive initiatives across the portfolio companies (however, this is rather the exception than the rule).

Risk management approach varies across investment models

All investors must take both financial and non-financial risks into account, but how these are identified and managed differ across investment models. Non-financial risks include a wide range of risks, with some examples summarized in Exhibit 6. The following section will specifically highlight environmental, social and governance (ESG) and (often related) reputational risks. These risks may also have financial implications. For fund-of-funds, funds and co-investments, the institutional investor controls partner-level risks. However, the GP is in control and accountable for risks at the asset level. For co-investments, institutional investors can control asset level risks through the selection of assets. However, post investment, the GP usually controls the asset-level risks. In a direct investment context, the institutional investor controls all asset-level risks, substantially increasing the need for active risk management.

Exhibit 6
Examples of nonfinancial risks controlled by institutional investors in private equity

NOT EXHAUSTIVE

			Risk controlled by institutional investor			
	Risk category	Examples of risk exposure	1 FoF investment	2 Fund investment	3 Co-investment	4 Direct investment
Partner level	Reputational	▪ Governance (e.g., corruption)	✓	✓	✓	
	People	▪ Succession of key personnel	(✓)	✓	✓	
	Process	▪ Investment process (e.g., diligence)	(✓)	✓	✓	
Asset level	Reputational	▪ Environmental, social, and governance (e.g., environmental damage)			(✓)	✓
	Regulatory	▪ Regulatory efficiency			(✓)	✓
	Political	▪ Safety and instability (e.g. social unrest) ▪ Politics and policies (e.g., tax legislation)			(✓)	✓
	People	▪ Unauthorized activity/employee misdeed (e.g. noncompliance)			(✓)	✓
	Process	▪ Corporate crisis management ▪ Third party risk			(✓) (✓)	✓ ✓
	Systems	▪ Cyber security and technology risk			(✓)	✓
	Other operational risks	▪ Health, safety and work environment ▪ Litigation			(✓) (✓)	✓ ✓

Institutional investors will be exposed indirectly to all these asset level risks, but will not be in control

In fund or fund-of-funds investments, investors typically take a portfolio- and partner-oriented approach to risk, while relying on partners to manage asset-level risk. Institutional investors take top-down allocation decisions (e.g., across geographies, sectors, life cycle) and carefully screen external managers. It is important to perform a comprehensive due diligence on prospective external managers, not only on track record and performance outlook, but also on ESG as well as compliance and risk management capabilities. The LP should also specify in the contract how the GP will report on key risk measures to allow regular monitoring. ESG factors and reputational risks are considered mainly in the investment phase, e.g., through specific due diligence of external managers and side-letters to the contract. During the holding period, the investor relies on partners' expertise in asset-level risk, and monitors key risk metrics including financial, health, safety, and corruption issues. Private equity is sometimes criticized for lack of transparency, and some LPs and GPs are cooperating to address this, e.g., by developing reporting practices covering both financial and non-financial issues. Fund investments imply only limited direct LP involvement on asset level and LPs usually hold limited internal capabilities on asset-level risk management. LPs often manage their involvement through an LP committee or through presence on an advisory board. This mechanism allows them to manage issues like conflicts of interest or to approve valuation methodologies[34].

For co-investments, institutional investors discuss opportunities and take investment decisions in an internal investment committee. The risk management approach focuses on portfolio allocation and partner selection (often with even more diligence than when selecting external managers). This includes aligning interests and incentives with partners. In addition, financial and non-financial risks in target companies are assessed by conducting a secondary due diligence; reviewing, stress-testing, and validating the primary due diligence findings. The LP mitigates risk by cooperating with trusted partners and formalizing risk management in contracts. During the holding period, the LP holds the partner accountable for asset-level risk, by reviewing and following up on key risk metrics.

For direct investments, the LP's investment committee assesses investment and portfolio risk. Assets are normally governed through boards (e.g., with independent directors), with ESG and reputational risks actively monitored and managed throughout the asset life cycle. Risk is managed both on a portfolio and asset level. In the investment phase, direct investors conduct thorough due diligence to assess financial and non-financial risks of potential targets. To invest directly, LPs typically need capabilities and risk management systems, e.g., reporting, tax, and granular monitoring of asset-level risks. During the holding period, the LP manages asset-level risks through participating actively on the board.

34 Arnall Golden Gregory (2013).

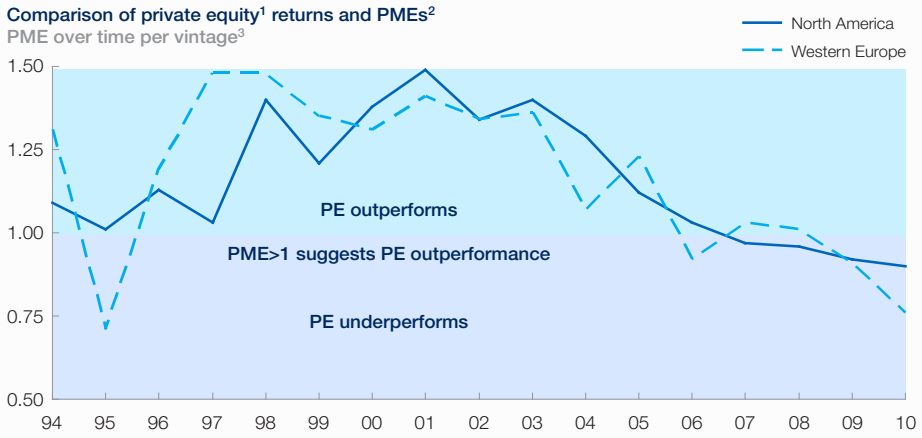
3. Private equity performance and cost of different investment models

This chapter compares historical returns of private equity to other unlisted investments and discusses the relative costs of different investment models. Measuring private equity performance is challenging as the industry, as the name suggests, is private and data availability is limited. Reported data may be biased and not representative for the industry and how to appropriately reflect risk-adjusted return is debatable. Academic research has sought to develop methods to compare returns to public markets. Internal rate of return (IRR) is the *industry* standard commonly used to measure performance, but a few caveats should be noted. Firstly, IRR is not adjusted for risk. Secondly, the metric is sometimes criticized for potentially overstating results, referring to, for example, the underlying assumption that at any given time, excess cash is reinvested at the IRR rate generated up to this point in time as well as exposure to potential gaming with timing of cash flows[35].

It is generally accepted that private equity on average has outperformed public market equivalents on a net returns basis over the last two decades. From 1995 through 2005, this outperformance was 300 to 500 basis points per year (not adjusted for risk). However, this outperformance has waned for vintages from 2006 and later (see Exhibit 7)[36]. In addition, both buyout and venture capital have tended to outperform other unlisted equity investments, including real estate and

Exhibit 7

Historical private equity performance (net returns) compared to public markets



1 Private equity here includes buyouts only

2 PME, Public Market Equivalent, defined by Kaplan and Schoar (2005), directly compares an investment in a PE fund to an equivalently-timed investment in the relevant public market, and can be viewed as a marked-adjusted multiple of invested capital (net of fees). A PME of for example 1,2 implies that an investor ended up with 20% more than he otherwise would had he invested in the public market (S&P 500 index)

3 All returns are net of management fees and carried interest paid to the GP

SOURCE: Harris, Jenkinson & Kaplan (2016)

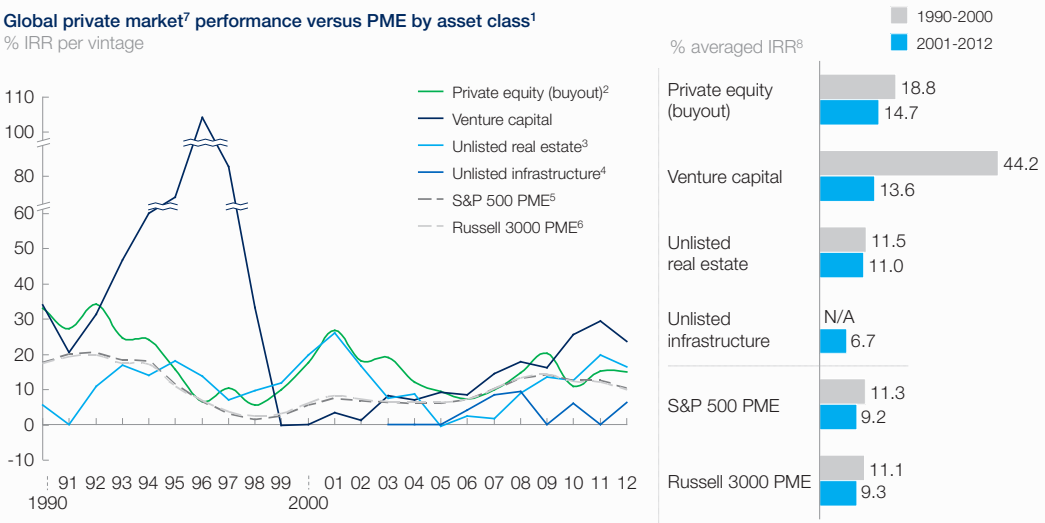
35 PE Accounting Insights (2012).

36 Harris, Jenkinson & Kaplan (2016).

infrastructure (see Exhibit 8). While appropriate ways to measure risk in private equity investments are debated, returns adjusted for risk (measured as volatility over the last decade), indicate that private equity outperformed public equities, high-yield bonds, infrastructure, and real estate investment trusts (REITs)[37].

Exhibit 8

Comparison of performance across unlisted assets



1 Quartile performance assessed using pooled IRR and calculated by vintage. Years in chart reflect Q1 data of the corresponding year. Some data not available for certain periods
2 Includes small cap, mid cap, large cap, mega cap buyout funds
3 Includes closed-end funds that invest in property. Includes core, core-plus, distressed, opportunistic, and value-added real estate, as well as real-estate debt funds
4 Does not include venture debt
5 Proprietary calculation by Cambridge Associates (mPME metric) using S&P 500 data
6 Proprietary calculation by Cambridge Associates (mPME metric) using Russell 3000 data
7 Private markets here refer to private equity, real estate private equity (closed - end funds), and infrastructure
8 Note that the PME used on this exhibit is modified PME (mPME), which is slightly differently defined from the PME in Exhibit 7, which is the Kaplan Schoar PME. The key difference is that while the modified PME returns an IRR (which must be compared to a public market IRR), the Kaplan Scholar PME returns a market multiple, where 1x implies equal return to public market

SOURCE: Cambridge Associates, Thomson One

Private equity performance has been strong in absolute terms, with buyouts[38] generating an average net internal rate of return[39] (IRR) of 19 percent for vintages[40] between 1990 and 2000, and an IRR of 15 percent for vintages between 2001 and 2012[41]. According to available data, venture capital delivered average net IRR of 44 percent and 14 percent respectively for the same vintages. As private equity funds are long-term legal structures, their ultimate performance cannot be conclusively assessed until all of the investments in a given fund have been concluded. This can be ten years or more after the initial investment.

37 Hamilton Lane (2017).

38 Buyouts used as a proxy being by far the largest segment over time.

39 "Internal rate of return is a discount rate that makes the net present value of all cash flows from a particular project equal to zero. Net present value is the difference between the present value of cash inflows and the present value of cash outflows" (Investopedia.com).

40 The vintage year is the year in which the fund made its first investment.

41 Cambridge Associates and Thomson One.

Realized returns are not readily available for all funds in the select peer group, and the metrics to measure performance are not consistent across all funds where data is available. Still, for the seven peer funds that reported their performance, the net rate of return was in the range of 10-20 percent over the last five years, thus in line with the rest of the private equity industry.

One important facet of private equity for any potential investor to consider is that the asset class has historically had a wide dispersion of returns – that is, the difference between high- and low-performing funds has been significant[42]. This characteristic means that an LP has the opportunity for high returns if it can reliably "pick the winners", but must also bear the downside of selection risk. The performance difference between top- and bottom-quartile funds is substantially larger for venture capital than buyouts. Moreover, the highs are higher and lows are lower in venture capital compared to buyout[43]. Historically, private equity enjoyed a reputation as an asset class with high persistency – that is, firms that had historically delivered funds with top-quartile performance were relatively more likely to repeat this outperformance. This meant that to pick the winners, LPs mainly needed to determine which firms had truly delivered top-quartile performance in the past. That persistency has, however, fallen over time among buyout funds[44]. 35-40 percent of top-quartile buyout funds were followed by another top-quartile fund between 1990 and 2009. This declined to approximately 28 percent between 2010 and 2013, only slightly above the 25 percent level that one could expect with random chance[42]. For venture capital, persistency has remained high over time, at close to 50 percent for top-quartile funds[44].

In private equity, the two major cost buckets for LPs are management fees and performance fees. The GP charges these fees to the investors in the fund. The management fee is an annual fixed fee typically set at 1.5-2.0 percent of committed capital[45], typically to cover the overhead costs of a fund's operations. The performance fee, often referred to as carried interest, is an additional fee which provides the GP with a proportion of the profits, depending on fund performance. It is most commonly set at 20 percent of profits (but can be higher or lower) on all returns above a minimum rate of return[46], often set between 7 percent and 9 percent (in absolute terms), which must be realized before the GP receives any carried interest profits[47]. Thus, higher performance fees mean the investors in the fund also enjoyed higher returns, and vice versa. It should be noted that these are fixed thresholds, not tied to public market returns. In addition, a partnership expense is charged by the GP to the portfolio companies (and thus indirectly to the investors, as it reduces their return).

42 Preqin.

43 Harris, Jenkinson & Kaplan (2016).

44 Harris, Jenkison, Kaplan & Stucke (2014).

45 Usually, the management fee is based on committed capital in the first half of the fund's lifetime (typically fund life time is 12 years) and net asset value in the latter half.

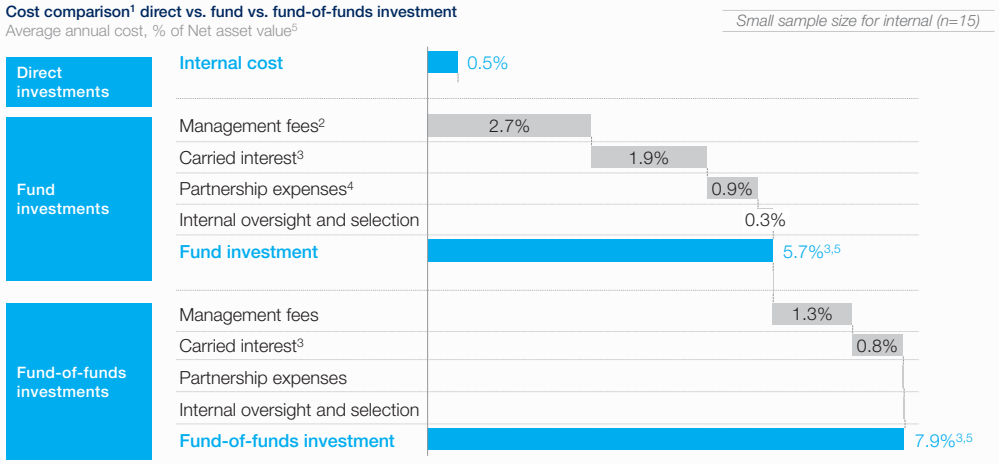
46 Commonly referred to as "hurdle rate" or "preferred return".

47 The actual payout depends on a "distribution waterfall" schedule, the order in which a private equity fund makes distributions to LPs and GPs as underlying investments are sold.

Detailed cost data for the private equity investments of peers are not publicly available. Hence, discussing the importance of cost can be addressed by assessing the cost per investment model, which varies. Estimates from CEM Benchmarking (see Exhibit 9) indicate that the average annual cost of fund investments as a share of net asset value (NAV) is approximately 6 percent, and 8 percent for fund-of-funds investments[48]. Lower costs have been reported for direct investments (0.5 percent), and co-investments[49]. These absolute cost levels should be interpreted with caution, especially for direct investments, as data is very sparse (small sample size, n=15) and excludes transaction costs. Additionally, institutions have found it very challenging to build the capabilities necessary to achieve strong returns in a direct or co-investment model, almost regardless of cost.

Exhibit 9

Cost comparison of direct investments, fund investments and fund-of-fund investments



Number of observations: partnership expenses: 112 observations, management fees: 167 observations, carried interest: 84 observations and internal oversight and selection: 122 observations

1 Includes base fees (management fees, partnership expenses, internal oversight and selection) and performance fees (carried interest) but excludes transaction and other costs
2 Fees are typically based on committed capital for the first 6 years of the LP-GP agreement, and on net asset value for the remaining 6 years, thus the mgmt. fee can be higher than the industry-common 2% when based on net asset value
3 Cost estimate includes expected performance fee (carried interest) of 1.9 percent for fund investments and additional 0.8 percent for fund-of-funds investments. This fee will vary dependent on fund's performance, e.g. for fund investments, if the fund's performance is poor the fee may be zero, while if the fund's performance is good it may exceed 1.9 percent (the average fee paid in the sample)
4 Partnership expenses are fees charged by GPs to portfolio companies
5 Had the costs been measured as a share of assets fees are based on (usually the committed capital into a fund) instead of net asset value the costs would be lower. Cost of fund-investment would be 3.8 percent (instead of 5.7 percent) and cost of fund-of-funds investments 5.5 percent (instead of 7.9 percent)

SOURCE: CEM Benchmarking Inc.

48 Cost estimate includes expected performance fee (carried interest) of 1.9 percent for fund investments and additional 0.8 percent for fund-of-funds investments. This fee will vary dependent on fund's performance, e.g., for fund investments, if the fund's performance is poor the fee may be zero, while if the fund's performance is good it may exceed 1.9 percent (the average fee paid in the sample).

49 Cost for co-investments will thus be in the range between 0.5 percent and 5.7 percent. In a Preqin Fund manager survey, almost half of GPs report that they offer no management and performance fees, 27-36 percent offer reduced fees, while 16-25 percent offer same fees (Preqin, 2015).

Still, cost is one factor to consider when assessing investment models for private equity. The major drivers of these differences are the management fees and performance fees paid to GPs in fund investments and in some co-investments[50]. When investing through a fund-of-funds manager (compared to GP funds), an additional layer of management and performance fees averaging 2 percentage points are added and paid to the external fund-of-funds manager, on top of the 5-6 percentage points paid to the underlying fund managers.

It must be stressed that, though this analysis suggests potential for lower costs via co-investments and direct investments than via fund investments, what ultimately matters to most investors is net risk-adjusted returns – and achieving strong net returns in a direct investment context is very difficult, with a high degree of execution risk. This will be further discussed in Chapter 4.

50 Co-investments are generally managed by GPs at some discount to their fees for a blind-pool structure, though it ranges from full fees to no fees.

4. Key success factors for each investment model

This chapter discusses advantages and disadvantages of the main investment models, and outlines key success factors for each of them[51].

Advantages and disadvantages of each model

There is no one superior model for accessing private equity investments. What best suits a given institution will depend on a range of factors, such as governance model, experience in private equity, internal capabilities, scale of portfolio, and attitudes towards risk. As described in Chapter 2, institutional investors often employ a combination of models, evolving over time. Some investors with more mature private equity programs have gradually shifted from pure indirect investments (i.e., allocations only to GPs and fund-of-funds) towards doing some co-investment or even, in a handful of cases, direct investments, but most private equity investors have continued to follow an indirect model. While all of these investment models are attractive in different situations, each involves distinct advantages and trade-offs. Overall, more direct models (co-investments and direct investments) offer the potential for lower fees and more control in exchange for greater execution risk. The execution risk includes every risk related to running a company. This dramatically increases the need for internal capabilities across the full deal cycle. The opposite is true for more indirect models (in particular, fund-of-funds investments), which often represent an extra fee layer in exchange for reduced need for internal capabilities. Key advantages and trade-offs of each model are outlined below.

Fund-of-funds investment is most attractive to institutions seeking to rapidly develop a diversified portfolio within the private equity asset class or within a specific private equity segment. For instance, a newer investor in the asset class lacking internal GP selection capabilities might choose fund-of-funds as a way of getting to know the asset class and some managers, with the safety net and acceleration of expert intermediation. An institution with more experience in private equity might use a fund-of-funds to explore a specific niche – say, a region in which it had not previously invested. Alternately, a smaller investor might use a fund-of-funds investment approach to develop a diversified portfolio of GPs if it lacks the scale to do so directly. A variant of this approach for institutions with limited internal capabilities is to make direct allocations to GPs with an intermediary like an investment consultant strongly involved.

Fund investment constitutes the core of most private equity programs. This model accommodates a wide range of internal capabilities and tends to reward institutions that are able to expertly select external managers – either through their in-house or advisor capabilities. Moving from fund-of-funds to fund investments, removes a fee layer of approximately 2 percentage points (as a share of NAV). It allows LPs to better control their manager selection and types of exposure. Drawbacks are that it requires additional resources and capabilities in manager selection. It also requires more time and/or capital to diversify the private equity portfolio.

51 Similar across buyouts and venture capital, unless commented upon.

Co-investment tends to be attractive for investors that already believe in the merits of the private equity asset class, and are seeking ways to deploy additional capital with trusted managers, to lower average fees, or to exert more influence over specific investment decisions. Nearly all sizable co-investment programs are founded on a strong indirect investment program; typically, the co-investment opportunities available will depend on the strength and nature of existing GP relationships. The term "co-investment" covers a fairly wide range of activities. Most co-investments occur when a GP has completed a transaction and, after closing, seeks to syndicate part of the equity to reduce its exposure. This requires an investor to be able to perform capable secondary due diligence, essentially reexamining the diligence work already conducted by the GP. Less commonly, GPs may seek select institutions to participate in a deal process from an earlier stage onwards. Such situations demand of the LP more substantial capabilities in primary due diligence as well. This model enables the LP to develop skills and relationships through more direct exposure to GPs, which can be a valuable experience later on if the investor considers investing directly. There are two main drawbacks. First, it requires capabilities to evaluate deal opportunities and, therefore, additional resources that are typically more expensive than professionals focused on external manager selection. Related to this, it also requires the GP to focus on deal sourcing, for example, by establishing themselves as attractive partners. Second, it involves the risk of adverse selection, i.e., the propensity of GPs to include LPs in their least attractive deals. However, recent academic research[52] has refuted previous studies[53] on this.

Direct investment has proven to be rewarding for a small set of highly sophisticated institutional investors with deep internal capabilities. For an investor that has the resources, the freedom, and the governance alignment to build a high-talent internal group with proven success in private equity investing, it represents an opportunity to seek higher net returns than they might achieve through fund investing mainly by reducing overall costs. It also enables increased control over investment decisions and underlying assets. The increased control involves both the flexibility to respond to changes in the market and deep understanding of risk exposures as well as value creation levers. Direct investing keeps decision-making close rather than transferring responsibility for decisions to external managers, enabling (and requiring) more informed investment decisions and a reduced potential for conflicts of interests with partners. Direct investments also allow for the most granular and coherent implementation of investment strategy. However, there are important disadvantages with direct investing. There is a significantly higher need for excellent internal talent with deep capabilities across the full deal cycle, and significant private equity experience. For many institutional investors, it is challenging to pay the high salaries required to attract leading private equity talent, and setting up an internal direct investing team entails a high risk for culture clashes. In addition, the direct link to the assets may imply a greater reputational risk related to performance, ESG, portfolio company actions, etc. Lastly, evidence of "best practices" is limited, as to date, only a handful of institutions have built such groups, typically as an evolution over time from playing an increasingly active role in co-investment decisions alongside a robust funds

52 Braun, Jenkinson and Schemmerl (2016).

53 Fang, Ivashina and Lerner (2015).

portfolio. Most institutions using direct investing strategies began to do so relatively recently, which makes it difficult to draw conclusions on their success or any implied learnings. Investors aspiring to invest directly must be comfortable extending their risk management capabilities from fund selection through to managing individual operating companies.

Key success factors

What it takes to succeed in private equity varies by investment model.

For fund-of-funds investments, the most important success factor is the ability to identify strong fund-of-funds managers. Additionally, as a private equity program scales and knowledge of the asset class develops within an institution, it is important to revisit whether a fund-of-funds approach continues to make financial sense.

For fund investments as well, the most important success factor remains the ability to identify which GPs are most likely to outperform. The manager selection capabilities required to do this well, in essence, relate to understanding a GP's strategy for value creation and assessing not only the wisdom of that strategy but also the GP's ability to execute on it. To access top-tier GPs, many of which have sufficiently strong demand to be able to determine LP allocations rather than vice versa, it also helps to have strong relationships and a reputation as a "good LP", through consistently showing competence, reliability, and professionalism in GP relationships. Being attentive to what matters to GPs – for instance, helping validate a new strategy by serving as an "anchor tenant" LP, an early committer to a fund-raise – can also help an LP agree to optimal terms with an external manager. Any needs the LP has for transparency or discretion should be clearly articulated in the formal LP agreement; requests beyond this agreement should be limited to avoid frustration. This also applies for co-investments. Ideally, the LP-GP relationship should be "rightsized", so that the LP is sufficiently high on the GP's agenda. Some institutional investors have begun to develop deeper strategic partnerships with select GPs as a long-term structural means of better aligning interests and improving terms.

For most institutions making co-investments, the key success factors are similar to those for fund investments, with a few additions – extra strong relationships with leading GPs (as demand for co-investments vastly outstrips supply), the ability to assess individual deals (rather than just funds) at high quality, and the ability to make decisions rapidly and opportunistically. Most leading GPs only offer co-investment opportunities to LPs with whom they have existing relationships. Some have simple formulae for allocating co-investments (e.g., proportional to fund investments), but many offer greater opportunities to LPs perceived as especially sophisticated, decisive, and aligned in terms of approach and time horizon. As such, GPs tend to prefer LPs with a clear approach for considering deals (e.g., conscious perspective on sectors, geographies, risk profiles, investment capacity, etc.) and with nimble, efficient

decision-making (e.g., a clear decision-making process with decisions seen as credible and unlikely to change). Further, the LP that wishes to build a large co-investment portfolio should be committed, with a long time horizon and little risk of forced selling, as well as having the ability to deploy capital quickly and efficiently.

Direct investing is by far the most challenging model to implement well. It is crucial to attract and retain very strong talent – i.e., individuals with an established track record of success in private equity and experience across the deal cycle[54]. A direct investor competes for talent with private GPs, so the value proposition necessary to attract and retain the right talent typically requires a mix of financial and non-financial incentives. Institutional investors can seldom match the compensation offered by top private firms (where base compensation often exceeds typical asset management salaries, with even more substantial upside). The most successful direct investing institutions generally offer financial compensation substantially higher than in their organizations generally, but less than private equity firms. This is coupled with a range of non-financial benefits, such as better lifestyle, an appealing culture, and significant professional growth opportunities. A direct-investing institution also needs credibility among potential partners and targets. Underlying this, to succeed, the investor should develop a clear sense of its own strategic positioning and competitive strengths (e.g., superior information, access to deal flow, lower cost of capital, longer time horizon, etc.), and how to execute on this.

54 Venture capital typically requires more hands-on involvement from the owner in managing the portfolio company than buyouts, including, for example, coaching of management, practical support with customer and supplier relations and operational decisions.

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