NTNU – Trondheim
Norwegian University of
Science and Technology

Direct Investments in Private Equity - a Nordic Perspective

Joachim Hanche-Olsen
Håvard Hammer Normann
Jacob Cornelius Ziesler

Industrial Economics and Technology Management
Submission date: May 2014
Supervisor: Einar Belsom, IØT

Norwegian University of Science and Technology
Department of Industrial Economics and Technology Management

Sammendrag

Basert på en omfattende undersøkelse blant nordiske investorer har vi avdekket at en majoritet av private equity (PE) fondsinvestorer også investerer direkte utenom fondsstrukturene. 17 dybdeintervjuer med aktører i PE-bransjen har avdekket at institusjonelle investorer i økende grad søker koinvesteringer på grunn av lavere honorarer og mer effektiv kapitalallokering. Institusjonelle investorer er derimot ikke organisert til å fullt ut utnytte investeringsmulighetene de får presentert, ettersom den interne strukturen i større grad er tilpasset forvalterseleksjon fremfor å prosessere koinvesteringer. Soloinvesteringer gjøres hyppig av familieselskaper, som bruker sin lange tidshorisont og industrielle ekspertise til å skape verdi gjennom aktivt eierskap i en nisje utenfor fokusområdet til PE-selskaper. Investorer har tilpasset sine investeringsstrategier med en forventing om flere koinvesteringsmuligheter, mens PE-selskaper nøler med å tilby flere. Dette resulterer i en ubalanse mellom tilbud og etterspørsel av koinvesteringer.

NTNU
Det skapende universitet

MASTERKONTRAKT

- uttak av masteroppgave

1. Studentens personalia

Etternavn, fornavn **Hanche-Olsen, Joachim**	Fødselsdato **28. jan 1988**
E-post **hancheol@stud.ntnu.no**	Telefon **93065671**

2. Studieopplysninger

Fakultet **Fakultet for samfunnsvitenskap og teknologiledelse**	
Institutt **Institutt for industriell økonomi og teknologiledelse**	
Studieprogram **Industriell økonomi og teknologiledelse**	Hovedprofil **Investering, finans og økonomistyring**

3. Masteroppgave

Oppstartsdato **15. jan 2014**	Innleveringsfrist **11. jun 2014**
Oppgavens (foreløpige) tittel **Direct Investments in Private Equity - a Nordic Perspective**	
Oppgavetekst/Problembeskrivelse Evaluate the extent, organization and performance of direct private equity investments in the Nordic countries. Assess chosen investment strategies and provide well founded perspectives on future direct private equity investment activity.	
Hovedveileder ved institutt **Førsteamanuensis Einar Belsom**	Medveileder(e) ved institutt
Merknader **1 uke ekstra p.g.a påske.**	

4. Underskrift

Student: Jeg erklærer herved at jeg har satt meg inn i gjeldende bestemmelser for mastergradsstudiet og at jeg oppfyller kravene for adgang til å påbegynne oppgaven, herunder eventuelle praksiskrav.

Partene er gjort kjent med avtalens vilkår, samt kapitlene i studiehåndboken om generelle regler og aktuell studieplan for masterstudiet.

Trondheim
21.05.2014

Joachim Haucke-Olsen

Sted og dato

Student

Hovedveileder

Originalen lagres i NTNUs elektroniske arkiv. Kopi av avtalen sendes til instituttet og studenten.

NTNU
Det skapende universitet

MASTERKONTRAKT
- uttak av masteroppgave

1. Studentens personalia

Etternavn, fornavn **Normann, Håvard Hammer**	Fødselsdato **08. aug 1990**
E-post **havanorm@stud.ntnu.no**	Telefon **47087400**

2. Studieopplysninger

Fakultet **Fakultet for samfunnsvitenskap og teknologiledelse**	
Institutt **Institutt for industriell økonomi og teknologiledelse**	
Studieprogram **Industriell økonomi og teknologiledelse**	Hovedprofil **Investering, finans og økonomistyring**

3. Masteroppgave

Oppstartsdato **15. jan 2014**	Innleveringsfrist **11. jun 2014**
Oppgavens (foreløpige) tittel **Direct Investments in Private Equity - a Nordic Perspective**	
Oppgavetekst/Problembeskrivelse Evaluate the extent, organization and performance of direct private equity investments in the Nordic countries. Assess chosen investment strategies and provide well founded perspectives on future direct private equity investment activity.	
Hovedveileder ved institutt **Førsteamanuensis Einar Belsom**	Medveileder(e) ved institutt
Merknader **1 uke ekstra p.g.a påske.**	

4. Underskrift

Student: Jeg erklærer herved at jeg har satt meg inn i gjeldende bestemmelser for mastergradsstudiet og at jeg oppfyller kravene for adgang til å påbegynne oppgaven, herunder eventuelle praksiskrav.

Partene er gjort kjent med avtalens vilkår, samt kapitlene i studiehåndboken om generelle regler og aktuell studieplan for masterstudiet.

Trondheim, 21/5/14

Sted og dato

Håvard H. Normann

Student

Einar Berg

Hovedveileder

Originalen lagres i NTNUs elektroniske arkiv. Kopi av avtalen sendes til instituttet og studenten.

NTNU
Det skapende universitet

MASTERKONTRAKT

- uttak av masteroppgave

1. Studentens personalia

Etternavn, fornavn **Ziesler, Jacob Cornelius**	Fødselsdato **16. aug 1988**
E-post **ziesler@stud.ntnu.no**	Telefon **92030063**

2. Studieopplysninger

Fakultet **Fakultet for samfunnsvitenskap og teknologiledelse**	
Institutt **Institutt for industriell økonomi og teknologiledelse**	
Studieprogram **Industriell økonomi og teknologiledelse**	Hovedprofil **Investering, finans og økonomistyring**

3. Masteroppgave

Oppstartsdato **15. jan 2014**	Innleveringsfrist **11. jun 2014**
Oppgavens (foreløpige) tittel **Direct Investments in Private Equity - a Nordic Perspective**	
Oppgavetekst/Problembeskrivelse Evaluate the extent, organization and performance of direct private equity investments in the Nordic countries. Assess chosen investment strategies and provide well founded perspectives on future direct private equity investment activity.	
Hovedveileder ved institutt **Førsteamanuensis Einar Belsom**	Medveileder(e) ved institutt
Merknader **1 uke ekstra p.g.a påske.**	

4. Underskrift

Student: Jeg erklærer herved at jeg har satt meg inn i gjeldende bestemmelser for mastergradsstudiet og at jeg oppfyller kravene for adgang til å påbegynne oppgaven, herunder eventuelle praksiskrav.

Partene er gjort kjent med avtalens vilkår, samt kapitlene i studiehåndboken om generelle regler og aktuell studieplan for masterstudiet.

Trondheim 21.05.14

Sted og dato

Jacob Ziegler

Student

Hovedveileder

Originalen lagres i NTNUs elektroniske arkiv. Kopi av avtalen sendes til instituttet og studenten.

NTNU
Det skapende universitet

SAMARBEIDSKONTRAKT

1. Studenter i samarbeidsgruppen

Etternavn, fornavn **Hanche-Olsen, Joachim**	Fødselsdato **28. jan 1988**
Etternavn, fornavn **Normann, Håvard Hammer**	Fødselsdato **08. aug 1990**
Etternavn, fornavn **Ziesler, Jacob Cornelius**	Fødselsdato **16. aug 1988**

2. Hovedveileder

Etternavn, fornavn **Belsom, Einar**	Institutt **Institutt for industriell økonomi og teknologiledelse**

3. Masteroppgave

Oppgavens (foreløpige) tittel **Direct Investments in Private Equity - a Nordic Perspective**

4. Bedømmelse

Kandidatene skal ha *individuell* bedømmelse ☐
Kandidatene skal ha *felles* bedømmelse ☒

Joachim Hanche-Olsen
Joachim Hanche-Olsen

Sted og dato
Trondheim 21.05.14

Håvard H. Normann
Håvard Hammer Normann

Hovedveileder
Einar Belsom

Jacob Ziesler
Jacob Cornelius Ziesler

Originalen oppbevares på instituttet.

Preface

This Master's Thesis examines the trend of direct investments in the Nordic region. The thesis concludes our Master of Science degree in Industrial Economics and Technology Management at the Norwegian University of Science and Technology (NTNU) in the spring of 2014.

The paper is written as an academic research article, thus meant for publishing. It has been prepared in LaTeX and different editors of the Microsoft Office suite.

We would thank our supervisor, Associate Professor Einar Belsom at the Department of Industrial Economics and Technology Management at NTNU, for helpful guidance and advice. We also extend gratitude to Knut Olav Rød from The Boston Consulting Group for suggesting the topic of research and to Kjerstin Owren for thorough proofreading. Finally we would like to thank our fellow students at NTNU, friends and family for helpful comments and support during our work with this thesis.

Trondheim, 30 May 2014

Direct Investments in Private Equity - a Nordic Perspective

HÅVARD HAMMER NORMANN
JOACHIM HANCHE-OLSEN
JACOB CORNELIUS ØXNEVAD ZIESLER *

ABSTRACT

Based on an extensive survey among Nordic investors, we find that a majority of those investing in private equity are also pursuing direct investments. 17 in-depth interviews unveil that institutional investors are increasingly seeking to co-invest because of reduced fees and efficient capital allocation. However, institutional investors are not organized to fully take advantage of all the opportunities presented, as the internal team structure and processes are not yet at the maturity level desired by private equity firms. Solo investments are most commonly pursued by family offices, which utilize their long-term horizon and industrial expertise to create value through active ownership in a niche outside the scope of private equity firms. Discrepancies in views of extent and importance of co-investments have caused investors to adjust their investment strategies in anticipation of more co-investments, while private equity firms are reluctant to offer more opportunities than currently presented, causing a mismatch in supply and demand for co-investments.

*Department of Industrial Economics and Technology Management,
Norwegian University of Science and Technology

Acknowledgments:
We would like to thank our supervisor Associate Professor Einar Belsom for helpful comments and feedback, Knut Olav Rød from the Boston Consulting Group for suggesting the topic of research and all the investors and fund managers whom we have interviewed for making this article possible.

I. Introduction

Institutional investors have several alternative investment channels when placing capital in non-listed (private) equity. Historically, non-listed equity placements have been performed by committing capital to a private equity fund managed by a specialized fund manager (GP). The fund manager subsequently invests in portfolio companies on behalf of their investors (LPs).

Since the credit crunch in 2008/2009, PE deal- and fundraising activity has recovered towards pre-crisis levels (Bain & Company 2013). However, recent developments show that long-term backers of buyout-firms, such as large US pension funds and other institutional investors, are increasingly seeking new ways to extract value from their private equity portfolios and, at the same time, reducing the overall cost. This is causing the relationship between GPs and LPs to change. According to Leamon, Lerner & Garcia-Robles (2012), the relationship between investors and buyout-firms have evolved more over the last five years than the previous fifty years combined. Furthermore, the forces at play may pose a threat to the private equity fund model as it is. Reasons for the increased pressure are numerous, but the essence boils down to one main question: do PE firms provide returns that justify the costs and associated drawbacks; high fees, misaligned incentives, illiquidity, limited flexibility and inaccessible top performing funds?

An indication of such alteration in the GP/LP relationship is the rising number of direct private equity investments, where the investor effectively bypasses the traditional private equity fund model (Fang, Ivashina & Lerner 2013). This includes deals where the investor originates and invests alone, solo investments, or deals that are originated by GPs, co-investments. Preqin (2012) finds that LPs are increasingly seeking to co-invest alongside trusted fund managers as a means to increase returns on a net-of-fee basis.

The phenomenon of direct investments in private equity is a topic devoted little interest among academics. But the topic has seen a recent increased interest from industry practitioners and media. Titles such as "'Solo' investing makes for good returns", a web-publication from Pensions & Investments Magazine, and articles in Forbes Magazine[1] and Financial Times[2] are making direct investments a hot topic. This is especially true after the recent publication of Fang et al. (2013), which is the only academic study on direct investments we know of to date. They studied detailed investment returns from seven major institutional investors in the US and found that solo investments outperformed both PE fund investments and co-investments on a net-of-cost basis. We contribute to the literature by extending the knowledge provided by Fang et al. (2013) through a deep-dive into the Nordic private equity scene. In contrast to the quantitative nature of their research, we study qualitative factors of investing directly in private equity.

To our knowledge, direct investments in private equity have not yet been studied outside the US. Encouraged by frequent appearances of buyout-cases such as Danish pension fund ATP's co-investment in Bain's and Advent's acquisition of Nordic digital payment services provider Nets[3] and ATP's and PFA's direct investment in Dong Energy[4] alongside investment bank Goldman Sachs, we investigate this phenomenon in the Nordic region. Our research is based on in-depth interviews of 17 players in the Nordic private equity industry. By obtaining perspectives from both private equity firms (GPs) and their investors (LPs), we aim to capture the changing dynamics in the LP/GP relationship as well as how this relates to co- and solo investment activity.

We map the extent of direct investment activity in the Nordics and investigate LPs' reasons to pursue these types of investments and how they perceive their performance. We also examine how LPs organize their private equity units and how this relates to their investment strategy. Moreover, we consider the future outlook of direct investments, as well as the impact they have on the LP/GP relationship. We will evaluate the implications of our findings for investors, make suggestions for how they should adapt, and point towards challenges to be aware of when considering direct investments.

We limit our research to considering different strategies of investing in private equity. Our goal is to offer insights for investors already seeking exposure to private equity, and do not compare the different strategies to investments in other asset classes. Although there are many different segments of private equity, we will restrict the scope of this paper to buyouts[5]. Hence, references to private equity will denote buyouts only in the remaining sections.

The remainder of this article is structured as follows: The next section gives an overview of theoretical aspects relevant for the topic at hand. Then we present a brief description of the method and data applied. The two last sections include a thorough discussion of the interview material followed by concluding thoughts around our key findings.

II. Background

In this section, we will present the strategic alternatives in private equity investing: fund investments, co-investments and solo investments. They all possess distinct characteristics and theoretic aspects that are important for understanding the value creation process, and how to evaluate the different alternatives. This section starts by presenting relevant literature on private equity funds and the industry's recent development. Then we delve into the theoretical aspects of direct investments, co- and solo investments respectively. Lastly, available research on the performance of direct investments is presented. The theoretical introduction is followed by a discussion on research questions that arise in the Nordic context.

A. Private Equity Fund Investments

There are several perspectives on the actual value of PE fund investing. In the article *Eclipse of the Public Corporation*, Jensen (1989) claims that private equity is a superior organizational form over the traditional public corporation in many mature industries. He argued that this corporate structure combined concentrated ownership stakes, powerful incentives and a lean, efficient organization. High leverage, active governance and performance-based managerial compensation should in theory reduce agency costs in the organization, and enable increased returns (Jensen 1989, Kaplan & Strömberg 2009). The GPs that create the most value, and also do it persistently, exploit a set of value creation levers. Four important levers that are highlighted in the literature are: deal skills and informational advantage, leverage optimization, governance improvements and portfolio company improvements.

On the other hand, there are, from an investor's perspective, significant costs and several other drawbacks associated with PE fund investments. There are both fixed and variable costs associated with investing in a PE fund. The fixed part is referred to as the *management fee*, and the variable cost can be split into *carried interest*, *transaction fees* and *monitoring fees*. Robinson & Sensoy (2013) explains that the typical PE fund follows a "2/20/1" rule: a management fee of 2% per year, carried interest of 20% and a GP ownership of 1% of the total fund size. Even though this is the norm, and is well aligned with the empirical results based on 542 buyout funds in Robinson & Sensoy's (2013) study, there is variation in some of the terms. There are variations both between different GPs and between different periods of time. Transaction and monitoring fees are more variable and is a potential source of rising costs associated with the investment.

Leamon et al. (2012) highlight three guiding issues behind LP/GP relations that have been present since the inception of the PE industry. These three issues, *alignment, trans-*

parency and *governance*, are the root of the common drawbacks associated with the PE model. More specifically, one can say that *misaligned incentives and risk profiles, non-optimal timing of investments*, *reduced control and flexibility* and *limited access to top performing funds* are important factors that may reduce an LP's return.

The empirical evidence that private equity firms create economic value on average is substantial (Kaplan & Strömberg 2009). However, the total value increase is not only earned by the PE investors. Pre-buyout shareholders realize a part of the future potential through a substantial bid premium in the acquisition and the GPs reap much of the profits through fees. Top performing PE funds create persistent risk adjusted returns well above the market return (Kaplan & Strömberg 2009), but on average, PE funds struggle to create excess value for LPs relative to those of public equity investments. Also, the best LP returns appear concentrated among funds selected by foundations and endowments, rather than those of typical institutional investors (Fang et al. 2013).

B. Recent development in the PE industry

In recent years, the private equity industry has recovered from the bust in deal activity following the financial crisis, but is nowhere close to its previous heights and lacks momentum for a new period of growth (Bain & Company 2013). Differing from the PE market collapse in the late 80s, the credit crunch in sovereign debt and fear of a Euro-zone collapse have caused recession in parts of Europe. PE funds have struggled to exit their investments at satisfying prices, as strategic buyers have been reluctant to make acquisitions and the global IPO climate has been chilly. As a result, several funds have problems realizing their investments, tying up LP funds and lowering returns (Bain & Company 2013). With funds tied up, LPs are unable to commit to rounds of fundraising without exceeding their target PE allocation. Fees are paid for unrealized investments, motivating LPs to look to alternative ways of getting PE exposure at lower cost. A survey by Preqin (2012) finds that 75% of the surveyed LPs ask for co-investing rights when committing to new funds. Moreover, 51% state that their motivation is better returns, while 35% state lower fees.

With many GPs having much dry powder[6] chasing too few good deals, LPs are likely to keep looking for new ways of achieving better net PE returns. In recent years, more LPs have expanded their direct investment program. A recent example is Teachers' Private Capital, a part of the Ontario Teachers' Pension Plan which have conducted 13 direct investments since 2010 (Bain & Company 2013). Booms and busts have drastically changed the PE landscape. Still PE funds look much like they did at their inception in the 80s in terms of structure and relationships with LPs. In a paradigm of low growth and funds unable to exit their investments, we expect to see changes in how GPs and LPs conduct their business. Co- and solo investments are interesting examples of this. The theoretical aspects of these are discussed in the following sections.

C. Co-investments

Co-investments, in our definition of the term, refer to transactions where LPs invest alongside GPs (Fang et al. 2013) in a deal originated by the GP. LPs typically acquire minority stakes in buyouts made available by GPs. After the transaction, the LP will usually enter a rather passive ownership role with the GP being the driving owner.

Since LPs invest alongside GPs, co-investments generally share many of the drawbacks and benefits of the PE fund model. The most obvious benefit of co-investments is the reduced fees relative to the traditional fund investment model. Fees and carry are negotiated on a deal-by-deal basis (Fang et al. 2013), but are usually either substantially lower or non-existing. In fact, LPs typically resent paying additional fees in co-investments with GPs they have already invested with (Fang et al. 2013). The second key feature of this strategy is that LPs can play an active role in evaluating each presented investment opportunity, allowing LPs to cherry-pick investments of interest.

Co-investments can give insight into PE firms' processes and strategies that are usually not transparent to LPs, displaying the GP's skill set and offering valuable experience to the LPs. LP involvement at the deal and target firm management level is usually specified in a contract between the GP and the LP. LPs can ensure that the contractual terms match their ambition for involvement. For instance, it is common for large LPs to be represented on the board of directors of the company they have co-invested in. Increased engagement in private equity deals through co-investments could potentially prepare LPs to be successful solo investors.

LPs are usually only allowed to invest in deals made available to them by GPs (although a recent study by Preqin show that three quarters of the sampled LPs are actively asking for co-investment opportunities (Preqin 2012)). Hence, there is a potential *"lemons problem"* associated with these deals. That is, GPs utilize the informational advantage over LPs by offering below average quality deals as co-investment opportunities (Fang et al. 2013). By reverse causality, the low costs of co-investing could then be viewed as a result of the quality of the deals offered. Another drawback related to this model of investing is the limited time LPs typically have to undertake decision support activities and due diligence. This is further broadens the informational asymmetries between LPs and GPs.

Additionally, co-investments seem to differ from traditional fund investments in terms of the internal resources needed to undertake them. Co-investments require a different skill set from that of picking the best private funds. This includes target screening and deal process skills as well as the ability to improve operational performance and make strategic choices for portfolio companies. Hence, the cost of acquiring these additional skills will affect the return on co-investments (and even more so for solo investments).

Recent developments in GP-LP relationships have brought forth interesting new models relevant in this context. There have been examples of GPs selling a minority stake in their firm to one or more LPs (Bain & Company 2013). An LP that owns a stake in the GP has significantly more influence, as well as access to internal GP knowledge. Co-investments in this setting see a reduced "lemons problem" and increase the potential value of knowledge transfer.

D. Solo investments

Solo investments include deals originated and completed by LPS without involvement from a PE firm, where the LP acquires either a minority or majority stake in a non-listed corporation (Fang et al. 2013). This investment form can be viewed as a reaction and solution to drawbacks inherit in the PE fund model; cost, market timing, deal type flexibility and ability to source the optimal investment team for each specific case.

Total investment costs in solo investments constitute only internal investment costs and hired external expertise. How much of these costs that are driven by internal activities will vary, based on the organizational setup at the LP. An LP that has internalized a complete investment team is not likely to spend as much on external consultants and advisers, in contrast to a lean investment team with little or no operational capabilities. The LPs in Fang et al.'s (2013) study reported an internal cost of direct investing of 0.91% of committed capital, compared to 0.11% for investing in private equity funds. The LPs also reported a significant reduction in total investment costs, but as mentioned above the internal cost for LPs is highly dependent on deal type and internal organization.

As previously stated in the section on co-investments, market timing is an important driver for direct investments. Agency and incentive issues give rise to the cyclical performance of PE funds. Through solo investments, LPs can circumvent these agency issues and potentially boost their returns over time. LPs may not feel as pressured as GPs to undertake deals at market peaks and are able to invest in slow markets when few others are investing. An LP has the option to suspend its investments in private equity for a period. A source in Fang et al.'s (2013) study commented that they suspended their direct investment activity completely in the period 2007-2010. Reduced activity for a period will still incur costs, but how much is highly dependent on the internal organization setup. Extending the timing argument, having a direct investment program will also provide flexibility in capital allocations for the LP. Most LPs are obligated to invest a certain percentage of their total funds in PE. However, such bindings can force LPs to commit capital under circumstances in which they do not find it optimal, e.g. with second tier funds or at high fee levels. By having an in-house investment unit, LPs have an alternative to PE funds, leaving them with more negotiating power over fees and covenants when committing capital to GPs.

The ability to selectively "cherry pick" the best deals is highlighted as a major driver for direct investments in general (Fang et al. 2013). This lever is potentially stronger for the solo investment case. An LP going solo can pick deals where managers can apply specific expertise and operational management skills to add value. The LP can specialize (Cressy, Munari & Malipiero 2007) and in that way limit the internal cost, but still create significant value. A factor that will undermine this point is if GPs have access to a larger and higher quality deal base, which indeed might be the case.

The internal organization of the LP's investment team is a key determinant. It is affecting the potential cost savings associated with solo investments and what kind of deals an LP could undertake in a successful manner. The second factor speaking for solo investments is the flexibility for the LP to compose an investment team that best suits the specific deal. Given that the LP sources services from actors with competence in specific areas (e.g. management consultants, investment bankers, lawyers etc.), going solo will enable the LP to employ the best external expertise available in every case. This point is also valid for a GP, which might even have better relations to the best actors. However, GPs having in-house competence are likely to utilize this even though there might be better external alternatives available. Again, the LP's relationship to various professional groups is important to factor into the evaluation.

The main drawbacks of solo investments are related to losing the GPs' skill set and reputation. In the traditional LP/GP setting, the LPs should excel in the task of selecting the best managers. To invest solo, the LPs must step into and fill a GP-like role, including conducting due-diligence, monitoring management and driving operational improvements (Fang et al. 2013). These competencies differ from the LP's usual core competencies (**?**). This factor constitutes a significant drawback of solo investing. Still, what reduction in gross returns could we expect to see if the investment was handled by an average LP, compared to that of a GP?

We split the expertise value-add by GPs into picking the best deals, realizing operational improvements and transactional experience. In addition to this, the GP's reputation is an important factor driving the intermediation value in terms of reducing information asymmetries with other parties, such as banks and vendors.

There is to our knowledge no significant research on direct investments in the Nordics, and although the value creation process should be the same, can we expect to see some differences. Cultural aspects, for example, are one factor that is likely to impact how significant the different levers are in this context.

E. Direct investments as an alternative to private equity fund investments

The solo investments in Fang et al.'s (2013) U.S sample generally outperformed fund investments, implying that the low costs of investing solo outweighs the value added by intermediated investing. Solo investments, as with private equity funds, are cyclical and most direct funds are invested at times when ex-post performance is relatively poor. However, investors in the sample did the vast majority of their investments[7] in 2004 and 2005, two years prior to the major bust. This may imply that LPs going solo feel less obligated to invest in overheated markets, lowering deal activity in periods when valuations are high and subsequent returns low.

Second, Fang et al. (2013) find that solo investments significantly outperform co-investments. The co-investment deals in their sample are, on average, significantly larger than the average solo buyout. This means that some of the differences in performance between solo and co-investments may be attributed to difference in deal characteristics, where size of the target company is a factor that negatively affects returns. Moreover, solo investments' excess performance was found to be less in settings where informational asymmetries between target companies and investors were small. Such deals include buyouts of companies located geographically adjacent to the investors and later stage companies conducting little or no R&D.

The investors in Fang et al.'s (2013) study have significantly larger PE allocations than the typical Nordic investor in our scope. We find it logical that this will have impacts on the results and hope to extend the understanding of how smaller investors view and handle direct investments. This will enable us to get a more complete understanding of the dynamics of this market.

F. Hypotheses and questions for research

The theoretic overview constitutes the basis for our research on the Nordic landscape for private equity investments. Available research is either focused on theoretical drivers or pure financial measures, and in none of these cases focused specifically on the Nordic region. There are gaps in the literature with regard to how widespread direct investments are, why investors choose to pursue them, how these deals have performed, how the players organize and how this affects the market balance between the LPs and GPs.

These gaps give rise to five main overall questions for our research. These will not completely cover the scope of our discussion, but serve as high-level guiding questions and will all be addressed. The topic at hand is complex and multifaceted, and we aim to touch as many as possible through investigating these questions and hopefully discover new, interesting ones.

1. *Extent* - How developed is the direct investment activity in the Nordics and which type of investors are currently active?
2. *Rationale* - What reasons other than reduced cost do investors have for conducting direct investments?
3. *Performance* - How have solo and co-investments performed compared to traditional fund investments for these investors?
4. *Direct investment process* - How have direct investments been carried out in practice and how are investors organized to facilitate them?
5. *Impact and future outlook* - How will the relationship between LPs and GPs be affected by the disintermediation trend?

Today, we do not know the extent of these investment forms in the Nordics. By answering the first question we contribute by enhancing the understanding of the private equity market landscape, and comment on how this corresponds to the increased media interest for direct investments.

The second question is interesting because no research we know of to date provides a thorough explanation of the reasons for making these types of investments, other than increasing the net-of-fee return. We seek to investigate both the soft and hard aspects, and to understand how investment managers evaluate and think about these issues.

The third question is aimed at getting an understanding of how direct investments have performed compared to traditional fund investments. Findings here will be compared to the findings in Fang et al.'s (2013) and can potentially enhance our understanding of the situation in the Nordic setting. Will we find that solo investments have outperformed both co - and fund investments for Nordic institutional investors as well?

The next question will enhance our understanding of the capabilities and type of organizations that perform different types of investments. This information, paired with how successful they have been, can offer valuable insight for investment managers in their evaluation of strategy and daily operations.

The last question is directed toward whether the increased interest in direct investments really has made an impact on the relationship between LPs and GPs. Is the trend hyped or is it in fact changing the dynamics in the private equity market? We seek to get the soft aspects and deep insights from both of the market participants, the LPs and the GPs, and based on this comment on the current situation in the Nordics, as well as point to how it will evolve going forward.

We will compare our answers to existing literature and evaluate what implications our findings have for investors. With these implications, we will suggest how investors should adapt and what challenges to be aware of when considering doing direct investments.

We choose to limit our research to only cover the large investors with substantial capital allocations to private equity. These include the major pension funds, insurance companies, banks, asset managers, and family offices in the Nordics. This is to ensure that investors in our sample actually has the size, capacity and level of sophistication needed to engage in co-and/or solo investments.

III. Method

Due to the competitive and sensitive manner of the industry, private equity firms rarely make data on deal-level performance publicly available. Likewise, their investors cannot share the information they receive from fund managers freely. In order to obtain comparable and comprehensive data, we chose to conduct a qualitative study from in-depth interviews of portfolio and fund managers at limited and general partners, respectively.

For our purposes, a qualitative study was preferable over a more quantitative survey for a number of reasons. Firstly, as most PE fund data is proprietary, we would have been depending on being handed over performance and deal data from investors and general partners. The funds and investors most likely to hand over such information would be the ones showing an above average performance, which could potentially bias our findings. Our impression from the early stage of our research was that more investors and fund managers were willing to conduct oral interviews rather than sharing data, reducing the likelihood of such a positive bias. Moreover, in-depth interviews with a semi-structured format allow us to dig deeper into topics discovered and hypotheses conceived during the interviews, which is of great importance in this mostly unexplored area of research. Lastly, our sample constitutes a diverse mixture of investors and fund managers. Data obtained from each investor and fund manager would likely not be directly comparable, nor do not need be consistent. Through interviews, special cases applying to only a subset of the sample would be easier to discover and provide more insight than a quantitative analysis of not statistically significant measures.

A. Sampling approach

We categorized the institutional investors in five main brackets; pension funds, insurance companies, asset managers, banks and family offices. Next, we built a sample of such institutional investors in all the Nordic countries, including public and private pension funds, insurance companies, asset management firms, asset management arms of banks and family offices. Only investors with potential for private equity investments exceeding NOK 1 billion were considered, in order for them to have sufficient experience to provide meaningful contributions. Whilst our study holds the perspective of an institutional investor, we sought to interview general partners to check for any discrepancies between the two respective groups' views on the subject and to discover potential connections between the fundraising climate and direct investment trends.

The investors and funds in our sample were primarily found from web searches on lists of banks, pension funds, insurance companies and the large asset managers in the Nordic region. From this base of investors, we approached potential interviewees. Using snowball sampling, we asked investors already interviewed or agreeing to be interviewed to suggest and refer us to other investors and fund managers to contact. As we were interested in managers focusing on the Nordic region doing deals large enough to attract co-investments, the PE fund managers were purposely selected based on criteria of investment history, size and geographic presence in a form of quota sampling.

B. Data

The data was gathered from investors in a three-step process. During the first step, we screened the investors' web pages and, when available, annual reports in order to determine whether the investors invested in any form of private equity. Following this we telephoned or emailed the investors to clarify whether or not the investor had, either previously or currently, pursued direct investments (solo or co). If so, we asked for an interview, either in person or by telephone. There is a complete, anonymized list of LPs and GPs we have contacted (Total of 53 LPs and 11 GPs) in Appendix B and C.

Every interview was conducted by either two or three members of the research group and one or two informants from the investor or general partner. Most investor informants were senior portfolio managers or Head of Private Equity investments, while all general partner informants were either partners or executives. All but one of the persons interviewed were male. The length of the interviews ranged from 30-90 minutes, and notes were produced from every interview. Table I, II and III summarize and provide an overview of contacted LPs. We see from Table I that a majority of the LPs that have invested in private equity also have made direct investments, of whom we managed to interview 50%. From Table II we see that our interview sample contains an overrepresentation of family offices, seen relative to the global sample. We do not see this as a potential bias since we treat family offices separately throughout our analysis. One important fact to note is that we did not manage to get interviews with any Finnish or Icelandic investors (See Table III), and this could be a bias with respect to capturing the full Nordic picture.

There were two distinct interview guides, one for investors and one for general partners, which were used to structure all interviews. The interview guide for investors consisted of 21 open-ended questions, of which 10 were follow-up questions for certain topics. As for the interview guide for general partners, the respective numbers were 20 and 7. The interview guides are available in Appendix D and E.

Individual interviews may suffer from bias related to a single informant per investor, not necessarily presenting the full picture. However, there is no reason to believe that this should result in a systematic bias for the study as a whole.

Table I: Overview of LPs

	Total	% of total	Interviewed
Total investors contacted	53	100 %	11
Have invested in private equity	37	70 %	11
Have invested directly in private equity	21	40 %	11
Have done solo investments	16	30 %	8
Have done co-investments	17	28 %	7

Table II: Type of LPs

	Asset manager	Bank	Family office	Insurance company	Pension fund
Total investors contacted	5	14	5	9	20
Have invested in private equity	1	7	4	7	18
Have invested directly in private equity	1	3	4	3	10
Have done solo investments	1	3	4	1	7
Have done co-investments	1	2	1	3	10
Interviewed	1	1	3	1	5

Table III: LPs by country

	DEN	FIN	ISL	NOR	SWE
Total investors contacted	19	4	3	17	10
Have invested in private equity	15	4	3	9	6
Have invested directly in private equity	4	4	2	8	3
Have done solo investments	2	3	2	7	2
Have done co-investments	4	4	2	4	3
Interviewed	3	0	0	6	2

C. Data analysis

Our data consisted of interview notes following roughly the same structure and the same topics. We had defined five topics of interest that we went through in each interview, enabling us to categorize and sort the interviewees' contributions. In order to prioritize the importance of each finding, we measured the frequency of findings in the interviews. Hence, arguments mentioned by all interviewees were regarded as more important than those mentioned by only one. Next we grouped similar findings into broader themes. Our empirical findings were then compared to those implied by the literature.

We followed the same process for fund manager data. Following this, we compared the views of the investors and fund managers, identifying similarities and differences.

IV. Discussion

In this section, we will present our findings along the five dimensions introduced earlier; the extent of direct investments in the Nordics, rationale for direct investing, the performance of the investments, organization and process set-up, and future outlook. These dimensions encapsulate why direct investments are an increasing trend, how investors exploit them and how this will affect the private equity landscape going forward. Each dimension comprises a synthesis of our findings with a thorough discussion of their implications. In light of our findings, we will treat family offices separately from the other group of institutional investors due to the distinct features we found categorizing family offices. Thus, in this section institutional investors will relate to pension funds, insurance companies, banks and asset managers managing external capital.

A. Extent of Direct Investments

Direct investments are not a new phenomenon in the Nordics. Many banks and insurance companies took over companies as indemnification. These holdings would then be held in a financial portfolio to later be sold. Although not in the manner we typically think of the private equity business today, this was the first experience with direct ownership for financial purposes only for many of the banks and insurance companies in our sample.

In the middle of the 1990's, several Nordic institutional investors began active solo investing, especially pursuing venture-like investments. This was partly a result of the US buyout boom of the 80's reaching the Nordics and the then recent trend of venture investments in the technology industry. This came along with the first Nordic private equity firms, where the Swedish firms Industri Kapital[8], Nordic Capital[9] and EQT[10] pioneered the Nordic buyout segment and raised capital from Nordic, but primarily Swedish, investors. The Nordic banks and insurance companies now held mixed portfolios of investments in PE funds, venture and companies unintentionally acquired through their core business.

Most of the seasoned investors we have interviewed began co-investing in the period 2004-2007, a period of all-time highs in terms of deal activity and value (Bain & Company 2013). A rallying market with ever higher valuations[11] pushed GPs to larger deals, requiring additional external capital in order to maintain a balanced portfolio. Only a few of the interviewees had defined strategies to deliberately seek co-investments at the time. Our findings are consistent with the findings of Fang et al. (2013), where co-investments in their sample were negligible before they suddenly skyrocketed in 2005 and peaked in 2007. As for direct solo investments, two investors in our sample actively pursued them at the time.

The current co-investment trend picked up in 2011/12. At this point, all but one of the institutional investors in our sample had reshaped their co-investments strategies. There are two camps; the actives and the opportunists. The first camp actively search for investment opportunities and pitch to GPs to show them more deals. What the investors in this camp have in common are recent strategy shifts to higher private equity allocations, requiring them to put more capital to work at a higher pace. The opportunists are close to or fully invested. They consider deals based primarily on increasing allocations to a GP they are confident in and to increase their net-of-fee returns. The investors that pursued solo investments in the previous wave had dropped this strategy in favor of co-investments. This change was at the portfolio managers' discretion, as their investment mandate had remained unchanged. Today, only one of the institutional investors engaging in solo investments in 2005-2007 still pursues this, while one other investor has begun solo investing as well.

Family offices are set apart from the other investors. Their wealth is built from industrial endeavors and passed on to the next generation, linking the fortune to strong industrial ties. All the family offices we interviewed are pursuing solo investments and practice active ownership. Moreover, their portfolios bear significantly higher exposure to solo investments, which usually amount to the majority of their holdings. This strategy seems to be consistent for all the family offices, and is adapted shortly after the sale of the industrial enterprise that originally formed the family fortune. Unlike GPs and fund managers, family offices tend to keep their solo investments restricted to the industries closely tied to the ones in which the family wealth was built, hence specializing within the fields where they possess industrial expertise and know-how.

B. Rationale for Investing Directly

Why do investors in our study choose to pursue direct investments? One would expect to see a clear strategic rationale given the different nature of such investments from traditional fund investments. In the following paragraphs, we discuss the findings on the topic of rationale from our interviews. We start by discussing co-investments, both from the LPs' and the GPs' perspective. Then we investigate our findings on solo investments. We wrap up with a summary of how these rationales and interests are aligned.

B.1. LPs' perspectives on co-investments

All LPs interviewed said that reduced cost was the single most important factor for engaging in Co-investments. Several LPs claimed that the fee structure is basically not negotiable from the GPs' side, leaving co-investment as a viable option for reducing the average cost of investing in PE. "We try to discuss carry levels, but its very difficult as this is an industry standard. Funds willing to discuss this are usually having trouble raising money, and might not be the fund you wish to invest with in the first place", an investor explained. All other things being equal, co-investments should increase the average net return to the LP due to the usually non-existent fees, given similar performance as average PE buyouts on the target company level.

The second most important motive is that co-investments increase the exposure to favored GPs. Four out of six[12] LPs with active co-investment programs described this as important. The normal fund ticket size[13] allotted to the LPs in our sample was often below the amount the LPs requested. Hence, several LPs are not able to reach their target PE allocation with their preferred GPs. Investors can in many cases double the amount invested with one GP through a single co-investment alongside their fund investment.

Another aspect of the allocation motive is the fact that the capital is immediately put to work, with GPs calling the full amount from the very beginning. This differs vastly from a normal fund investment, where the investment period can extend for up to five years and the LP must have capital available throughout that period of time. Additionally, usually only about 65% of the committed capital is actually called by the GPs (Bain & Company 2013). In this regard, co-investments can be useful when investors want to ramp up private equity allocation. "Given that our strategy has changed in terms of the amount allocated to non-listed equity, we need to put more money to work. Both co- and solo investments are means to achieve this", a pension fund highlighted. Co-investments are a means to smoothing the J-curve[14] for PE investments and reducing the problem of committed, yet uncalled capital earning low returns. As an interviewee points out: "this gives a simple mathematical effect improving the IRR of the investment".

A factor mentioned by two of the six co-investors was the possibility to use co-investments as a means to balance the risk of their private equity portfolio by being selective in which of the co-investment deals they choose to pursue. One investment manager explained "We own many companies through funds and cannot control industry, timing and risk position. Co-investments can be a tool to balance our total risk exposure". Though a valid point, the modest range of co-investments available to a single investor implies that the potential of a refined hedging strategy is limited for investors other than the very biggest and most sought after co-investors. It seems more reasonable to look towards active sourcing of solo investment to serve this purpose.

The rationales mentioned above came from the institutional investors, and not the one family office engaging in co-investments that we interviewed. This investor invests in funds with a specific industry focus and target size, and uses co-investment opportunities to build a position for a possible acquisition of the company in the next round. They only co-invest in particular industries in which they possess industrial expertise, with the goal to utilize that competence and run the company after the PE fund sells out. This does not only offer a head start in the acquisition process, but also yields operational insights and continuous reports on performance, making it easier for the investor to value the company. Because this investor invests in funds that are situated on the borderline between venture and buyout, it is not directly comparable to the larger buyout funds. We still consider it an interesting strategy that could be transferred to institutional investors engaging in solo investments.

To summarize, we see that there are several reasons for LPs to co-invest. Why, however, have other investors deliberately decided not to pursue such investments? The informants we interviewed were generally not worried about the potential existence of a lemons problem, which was highlighted as a possible explanation of the bad performance of co-investment deals in the study of Fang et al. (2013). Most LPs trust their GPs and rely on their previous GP due diligence to be sufficient, feeling confident that their own interests were aligned with those of the GPs. The only example from our sample deviating from this is the investment arm of a bank. This large manager consistently turns down all co-investment opportunities, conscious of the potential lemons problem. Moreover, this investor pointed to the additional skills the management team would require to conduct proper due diligence to mitigate such a problem. Therefore, they chose to focus on screening the best GPs and maintaining a good relationship in order to get access to the best funds. This investor was unique on this point, compared to comparable investors in our sample, in terms of awareness of potential informational asymmetries and the issues they may pose.

Another worry shared more generally among the LPs was the uncertainty and loss of control in terms of deal exit. They feared that GPs may exit deals in a non-optimal time. Both LPs and GPs commented that exit rights are one of the most important parts of the shareholders' agreement. A Danish investor remarked: "What will happen if other LPs are unhappy about the investment and want out? We spend a lot of time on the governance model and alignment of interest between us, the other LPs and the GP. Especially critical is the exit."

B.2. GPs' perspectives on co-investments

The GPs we spoke to mentioned four main scenarios where they would consider offering co-investments: to satisfy demand from LPs, legitimate a deal, utilizing specific industry competence and to increase flexibility in terms of deal size.

All except one GP had experienced increased interest for co-investment opportunities. "Almost all the large systems communicate that they want the [co-investment] opportunity, also in the Nordics". Hence, GPs are incentivized to offer co-investments simply to satisfy LPs. The GPs in our sample approached this in different ways. One GP has LPs with co-investment rights[15], three have lists of interested LPs and two give no guarantees and communicate that they will most likely not offer co-investments at all. The only GP that had not offered any co-investments was concerned about the issue of which LPs to choose, and found it better to not offer any opportunities at all. Moreover, this GP also valued the agility associated with operating alone over pleasing LPs with co-investments.

Another important scenario is an LP helping to legitimate a buyout for existing owners. It could be for political reasons, or that pure PE ownership seems frightening for management and founders, given the private equity industry's public reputation as owners. The co-investing LPs reputation as a well-established and responsible investor can help calm sellers, employees and other stakeholders skeptical to the implications of PE ownership. "We wanted to demonstrate to the general public that we had a large, known investor [co-investing], which provided credibility", a fund manager pointed out. Similarly, this is important for foreign GPs investing in new markets. In this case, the LP does not only offer credibility, but local networks, influence and cultural understanding as well. These types of deals are good opportunities for the right LP to co-invest, as their contribution offers them more negotiating power when discussing terms. On the other hand, there can be significant reputational downsides involved with being the "local alibi".

Three of the GPs mentioned LPs' abilities as a reason to offer co-investments. Our impression from the interviews is that such LPs are "nice to have", but LPs are rarely are invited to co-invest due to operational expertise. Contributions from LPs may positively surprise GPs, but just as often add distractions and complicating factors. GPs seem equally happy with generalist LPs without industrial competence to offer. As a GP put it, "there are two types of good co-investors; those who provide funds and keep quiet, and those who contribute with something positive". Following this chain of thought, pure financial LPs should focus on professionalizing their internal process of evaluating co-investments in order to generate as few distractions for the GPs as possible. LPs with specific competences, resources or contacts could aim to be invited to deals within their field of expertise and contribute when needed.

GPs often offer co-investments to engage in larger deals. Without co-investors, such deals may result in an unbalanced and risky portfolio. Co-investors provide flexibility through a larger range of deal sizes. This appears to be more useful for the GPs chasing a larger span of deals. Could the fact that co-investments often occur in large buyouts affect LPs' returns? As one GP commented: "If you always offer co-investments on the largest deals, the return will most certainly go down, as there is a correlation between size and return. But the fact that large deals are often offered does not mean that there is a lemons problem, as large deals often involve less risk". The co-investment deals in Fang et al.'s (2013) study were significantly larger than other deals in their sample and the returns lower, but there was no data implying accordingly lower risk.

There are several reasons for GPs to offer co-investments. Nevertheless, GPs expressed that they were somewhat conflicted about this trend as well. One GP, heavily oversubscribed in its latest fundraising round, without major co-investment pressure commented: "We don't want to display our challenges and the way we work internally. The LP is given access to the board and internal documents. He gets more insight to how we manage our companies. The LP could be surprised about the way we work. This can be a two-egded sword, and the effect can be both positive and negative". GPs choosing to invite co-investors need to prepare for issues related to transparency and information sharing.

B.3. LPs' perspectives on solo investments

The rationales for solo investments varied more compared to those of co-investments. The informants did not clearly state the prospects of reduced cost as an important argument for their choice of strategy, but focused on other aspects in the value creation process. A plausible explanation is that cost reductions associated with co-investments are more visible. However, at least for family offices, it is more than just pure financial aspects that matter. One family office CEO stated: "We want to be a counterweight to PE. We don't want to support GPs that get rich on management fees". Specifically, our informants mentioned risk balancing, increased flexibility in enter and exit timing and strategy, and utilization of internal core competence as key drivers for why they engaged in this investment form. The main downsides were the additional risks involved and that internal incentives are not set up to motivate solo investments. The following paragraphs will discuss these aspects from the perspective of an LP.

One of the two pension funds in our sample undertaking both fund and solo investments explained that they actively tried to balance their portfolio with solo investments, having a preference for stable, lower risk companies as a counterweight to the riskier fund portfolio. Consequently, they considered minority positions in conservative businesses as well as more typical PE fund growth cases. Solo investments appear to be a better and more flexible alternative if the goal is to balance the entire PE portfolio compared to co-investments, as the investor can actively search for investments within a wider range of risk, industry and size criteria.

Another benefit of investing outside the typical PE fund structure is the increased flexibility regarding market timing. The PE fund model of fixed lifespan and pressure to put money to work can result in sub-optimal decisions, which also affect co-investing LPs. This is especially true for the timing of entering and exiting a portfolio company. While PE firms are forced to exit an investment within the lifetime of the fund[16], other investors without such obligations can nurture an investment for decades, either to build it further or to reap the dividends. The family offices we spoke to were especially clear on this point: "We can exploit the long term opportunities that the PE funds can't". This flexibility opens for long-term investors to pursue solo investments that might not be suitable for PE firms, thus avoiding some competition. This perspective also requires different mind- and skill sets than those often present at PE firms, which again might attract a different breed of employee. In the words of a family office manager: "A different focus in the value creation process does so that a different type of people than those who aspire for a PE job are relevant for the job here. That makes our strategy more sustainable in terms of keeping the employees". Family offices, pension funds, endowments and other long-term investors considering solo investments should take notice of this competitive advantage.

The family offices in our study were all engaged in solo investments and almost exclusively invested in companies close to the core competence or industry from which their wealth arose. To the ones we spoke with, the prospect of simply being a passive financial investor was not very appealing. Consequently, the purpose of their investment strategy was not simply to maximize returns within boundaries of risk exposure, but actually reflected that the owners found it more meaningful to be active owners and create value on their own. A family office put it this way: "Our owner is very active and would find it too boring to simply be a passive investor". It was also highlighted that when the next generation takes over, there might be some changes in investment strategy as the industry specific competence in the family is likely to fade over generations.

All but two institutional investors chose not to engage in solo investments. One of the main reasons for not doing so is the total risk exposure. A skewed risk profile might be acceptable for smaller family offices with a limited number of stakeholders, but large banks, pension funds and insurance systems may consider risks beyond the purely financial ones unjustifiable. One interviewee explained: "This [solo investments] involves a whole lot of different risks where you take the full responsibility. It is not the type of investments we are cut out for". These risks include political, judicial and reputational risks. Another informant commented that: "The [political and cultural] climate in the Nordics is just too difficult and risky for a typical pension fund to have a large solo investment program". A recent relevant example is the scandal of the Norwegian Government Pension Fund Global and their (only) solo investment in Delta Topco, the owner of Formula 1 rights, uncovered by the Norwegian business tabloid *Dagens Næringsliv*(Gjernes & Skaalmo 2014). They invested in the firm with prospects of an imminent initial public offering, which subsequently never happened and is now overshadowed by bribery accusations against CEO Bernie Ecclestone. NBIM, the fund's manager, does not have the mandate to invest in unlisted companies except for opportunities just prior to IPOs. Hence, the situation is very precarious and shows some of the risks involved with solo investments, especially for such high-profile institutions[17].

Size of the investment operation is another explanation as to why Nordic institutional investors tend to avoid solo investments. Differing vastly from GP selection, even passive solo investments require dedicated personnel to screen companies, evaluate business cases, handle transactions and monitor the investments. Active ownership requires additional operational and industrial expertise. Such resources are costly, bearing in mind that the median private equity investment team size is five professionals for investors in our sample. Moreover, internal costs over invested capital is a common performance metric that portfolio managers are measured by. It follows that portfolio managers are not encouraged to expand their investment teams to handle solo investments. Instead, two of the pension fund explained that these metrics motivate outsourcing of the unlisted investment activity to PE funds, as only net returns from PE funds are visible, making the cost of unlisted investments less transparent. In addition to this, it requires a substantial allocation to solo investments to make it worthwhile to have in-house solo investment specialists. Although many institutional investors have the mandate to make solo investments, the portion of capital they can invest is too small to justify the cost.

Solo investments demand more in-house resources and offer less diversification than fund investments, in addition to exposing the investor to a different set of risks. It follows that the net-of-cost returns from solo investments must be significantly higher than those realized through fund investments to compensate financial investors for the additional effort. Family offices are better suited than institutional investors to take on the risks of solo ownership, having fewer stakeholders and broader objectives.

B.4. Rationale summary

In our discussion of rationale we find several reasons as to why investors pursue direct investments, and equally, why co-investments are offered by GPs. For co-investing LPs, there are prospects of higher net returns through reduced fees, increased allocation to favored GPs and efficient capital deployment. GPs gain increased flexibility in terms of enlarged deal scope, both in terms of size and base of deals plausible to undertake, the latter being caused by the co-investor helping to legitimate the deal. Co-investments seem to improve the efficiency in this market and can potentially increase returns for both LPs and GPs.

Solo investors seek to balance risk, utilize specialized internal competence or follow a value creation strategy that differs from the typical PE approach, avoiding competing directly with PE firms. The risks associated with these investments extend beyond financial risk, and the potential consequences are closely tied to the number and variety of stakeholders. Family offices are the type of investor with the most promising prospects to succeed with such investments.

C. Performance of Direct Investments

We observed that professional investment managers have several reasons to engage in co- and or solo investments or to choose not to. Nevertheless, the primary objective for all managers are increased net returns. Our data set on this point is limited and cannot provide any statistically reliable answers, but can still offer some insight into how Nordic investors view the performance of these investments.

Three out of six co-investors claim to have obtained better returns from co-investments than from fund investments. One of these, a pension fund, could show 1.4% higher IRR from their direct portfolio, compared to that of fund investments. This fund has an internal team of 12 professionals dedicated to direct investments compared to five in fund investments, and we should expect the after-internal-cost difference to be slightly lower. The second investor could show a 26% IRR on exited co-investments, but could not provide comparable fund data. Nevertheless, the investor was certain that co-investments had outperformed their fund portfolio. This investor had one team dealing with both co- and fund investments, and argued that the cost increase associated with co-investments was marginal. The returns from the last investor's co-investments had exceeded both its solo- and fund portfolio.

The three other co-investors could not provide insightful information due to few or no exited investments. One investor had "a good feeling about their investments so far", while the two others indicated pleasing performances of their co-investments. Although not enough to be conclusive, it is fair to state that Nordic investors are satisfied with their co-investments' performance and are optimistic about their future. Hence, none of the investors in our sample had plans for down-scaling their activities in this area.

Of the three institutional investors that have recently invested solo, only two continue to pursue such investments. One of these investors has only exited one out of six investments, doubling their money. The two other investors communicated "mixed results" and that their solo portfolios had done "reasonably well". Of these, one is currently exiting solo investments in favor of more co-investments. Going forward, the two investors going solo plan to obtain minority stakes in well-driven firms in stable industries with energetic partners managing the companies.

Of the family offices in our sample, only one had comparable data on both solo investments and fund investments. They could show to consistently better returns on solo investments over fund investments. The other family offices could either not provide data or did not have any fund investments of size to benchmark against. However, all were pleased with their solo portfolio performance and would not make any changes to its composition nor allocation going forward.

Although the data is scarce, co-investments appear to have been the best-performing private equity category for the institutional investor in our sample. The co-investment returns had exceeded their regular fund investments and they did not not communicate large internal cost increases. The returns from solo investments have varied, causing two out of three solo investors to alter the course of their direct investment program to co-investments only.

D. The Direct Investment Process

Among the interviewees in our sample, all pension funds communicated their interest for co-investments to their GPs. In the following paragraphs, we analyze how investors carry out these transactions and how they organize their investment units in order to execute their investments. We provide insights from both investors and fund managers.

The co-investment process is almost always initiated by a GP reaching out to potential co-investors with an investment case. For obvious reasons, the interviewed GPs tend to limit their attention to the LPs that are actively asking for co-investment opportunities. None of the investors in our sample formally required co-investment opportunities for committing capital to private equity funds, but one interviewee knew of instances where that was the case. Another investor rather communicated that they "were there" and were eager to contribute to co-investments. A large Swedish pension fund said: "We don't formalize demands for co-investments, but *sell it*!".

Most LPs in our sample differentiate between cases where the co-investor is involved early in the deal process and cases where the co-investor is offered a part in the deal subsequent of the GP closing it. All the LPs in our sample prefer the former. In such cases, the GP approaches a few potential co-investors, while deals offered after closing are often offered to all interested LPs and ticket sizes are therefore usually smaller. Also, some GPs charge fees for co-investing in closed deals. Most of the LPs in our sample only co-invest with GPs they have already committed to, due to the additional due diligence (DD) required from investing with a new GP. An interviewed investor explained that a DD process of a new GP can span from two to six months. For these investors, a thorough GP DD is sufficient when evaluating co-investment opportunities. "There is not really much of a difference between screening co-investments and fund investments in terms of the skill and resources needed", an investor explained. LPs view solid GP screening as crucial for successful co-investing. By having strong relations to capable fund managers with proven track records, LPs are more likely to trust the advice of the GPs. Trusting the GP, they assume that the investment cases GPs present are trustworthy as well. As a result, these investors spend little or no time on conducting a commercial DD on their own. As one LP put it: "Who are we to second guess their rigid and deep DD? [...] We do not challenge or question the commercial or legal due diligence done by the GP". Rather, they evaluate how the co-investment fits in their existing portfolio and spend time on legal alignment- and governance structures. Two interviewed LPs do not conduct a full DD on their own, but rather extend the GP's business case, talking to target company management and making reference calls to other investors and industrial contacts. Only one LP does full in-house DDs for co-investment opportunities they intend to pursue, hiring external consultants and investment banks for commercial and transactional support.

After the initial decision to invest is made, the LP focuses on aligning their interest with the GP and other co-investors. Clarifying the future governance structure of the portfolio company is vital during this phase of the deal. Another important issue emphasized by LPs and GPs alike is the alignment of interest in terms of exit considerations. This is usually resolved by including tag/drag-along specifications in the shareholders' agreement. Tag-alongs[18] effectively obligate the majority shareholder (GP) to include the holdings of the minority holder (co-investor/LP) in exit negotiations. Drag-alongs[19], on the other hand, are a right that enables the majority shareholder to force the minority shareholder to join in the sale of the portfolio company. One LP explained that they had never rejected a deal on the basis of not believing in the business case; the deal breaker was always related to the shareholders' agreement and other legal issues.

Five out of six co-investors in our sample remain passive owners throughout the lifetime of their investments, implying that they completely trust the GPs' ability to run and improve the performance of the portfolio companies. These passive co-investors seldom request to be represented in the boardrooms of the companies they own. However, they sometimes have representation as a direct consequence of the size of their ownership stakes. In these cases, the co-investor has little influence on how the portfolio company is run and board representation is primarily meant for monitoring purposes. Only one of the interviewed co-investors can be classified as an active owner, meaning they are actively involved in decisions affecting the operational and strategic aspects of the portfolio company's business.

The median team size of the private equity investment branches of interviewed LPs in our sample is five members, but this varies significantly across different investors with different strategies. The data also shows large variations in terms of the organization of the investment teams. While 9 out of 11 LPs have teams devoted exclusively to private equity investments, the remaining two employ more general alternative investment teams covering multiple non-listed asset classes. One example is a large Danish pension fund with an alternative investment team pursuing solo investments in energy and infrastructure as well as private equity funds and co-investments. In terms of internal organization within the private equity team, most LPs have chosen to give each professional responsibility for a set of GPs. Others share GP relations among the entire team, making the private equity unit less dependent on any singe individual. Only one out of six co-investing LPs interviewed, a large pension fund, had a separate team working with direct investments. The rest of the sampled co-investors do not have dedicated co-investment units, but handle co-investments and fund investments jointly, hoping strong GP selection will result in promising co-investments opportunities.

Institutional investors are increasingly pushing for opportunities to co-invest, but are they able to act on their own requests? In fact, all GPs asserted that most LPs asking for co-investments do not act on presented opportunities, lacking the necessary resources, ability or experience. "Many LPs desire co-investment opportunities, but when the time comes, there are few that actually follow through due to the fast pace and resource-demanding nature of the process. There is a gap between what they communicate and how they act once the opportunity presents itself", one GP pointed out. In general, GPs urge co-investors to create separate and agile co-investment units with a clear mandate and decision-making process, specializing in rapid transaction processing and execution. This differs from the way most institutional investors organize their private equity units today, with one single team to handle both co- and fund investments.

The institutional investors that pursue solo investments typically do so in the same manner as co-investments, in the sense that they usually seek minority positions alongside a strategic or industrial owner. Their deal sourcing strategy is rather passive, and deals are most likely to be initiated by approaches from other investors, investment banks or advisory firms. The only investor still actively seeking solo investments has specific criteria for deals they may engage in. They require a market cap of at least DKK 1 billion and partnership with an active owner that can be the energetic part of the process.

Family offices, on the other hand, tell quite a different story. They employ more active deal sourcing strategies, where they look for opportunities to invest in business within their areas of expertise, in addition to receiving deals from bankers and independent advisers. One family office commented that: "We look for an EBITDA around NOK 15 million, small CAPEX, and have for that reason specifically kept away from E&P and O&G". During the life of the solo investment, they use their industrial expertise to advise managers in the businesses they own and offer them financial support and consulting services. "We implement strong incentive schemes for the managers in the companies we own". Moreover, they are actively engaging in M&A and focusing on operational improvements; all known value creation levers utilized by PE firms. The difference is, as commented by several of the family offices, that: "We apply our interventions in the companies in a more gentle matter, compared to the situation of a PE ownership".

To summarize, most LPs prefer to be involved early in the deal process. This is mostly due to a higher degree of influence in terms of exit decisions and shareholder agreements, but also to avoid paying fees and competing with other LPs for capital allocations. Co-investors typically remain passive owners throughout the lifetime of the investment. Family offices, on the other hand, tend to have more active strategies regarding deal sourcing and ownership role when engaging in solo investments.

E. Impact and Future Outlook

Institutional investors were unisonant in their view of how the environment for co-investments will develop in the years to come. They expect co-investments to become more common and formalized as an investment channel. In order to adapt, some of the LPs have already taken steps to adjust their team composition and work flows to a structure more suitable to deal with a larger inflow of co-investment opportunities. Hence, their actions indicate that their expectations of more co-investments are more than a mere guess, but a definite change they adjust to. GPs should expect to see more LPs being eager to see investment cases and able to act on short deadlines.

As opposed to the LPs, the GPs in our sample are more differentiated in their view, ranging from thosw that almost characterized it as a hype to those believing co-investment will become a normal practice in the near future. The majority of the GPs believed that some of the interest in co-investments will fade when LPs that consistently have failed to act on presented opportunities realize they lack the necessary competence or resources and therefor will stop showing interest. This effect will separate the LPs that actually do invest from those that do not have the capabilities, resulting in a clearer co-investment landscape with defined co-investment players. However, the GPs do not seem to be aware of the lasting changes LPs are making to their organizations and strategies in response to an increasing number of co-investments. Although many LPs currently asking for, but not acting on, co-investments are likely to stop asking, the LPs embracing this investment form will demand an even higher volume of deals. Moreover, the investors positioning themselves for co-investments are among the largest Nordic investors with significant PE fund allocations. Most GPs we have spoken to are top-tier fund managers with proven track records and experience high demand for their services, which is likely to explain why these investors feel little pressure from LPs to offer co-investments. Investors are more concerned with getting access to their funds than demanding co-investments. The dynamics of the industry imply that hard-to-access top performing funds should experience little pressure from LPs in the future as well, but we have reason to believe that GPs showing a track-record of co-investments should see shorter and easier fundraising campaigns than those without, all else being equal.

For solo investments, all the investors clearly state that they will not attempt to compete head-on with private equity funds. Two of the investors plan to continue with solo investments. One will continue to act as a relatively passive partner, while the other aspires to active ownership, but no longer seeks majority ownership in all investments. Both still consider solo investments as an addition to their private equity portfolio of fund investments, regarding it the most efficient means to put more capital to work in times of increased PE allocations. For the family offices, the situation is different. They plan to continue as they do today with long-term active ownership, not making any changes to their existing business model. These investors benefit from a reputation as milder owners than PE funds, as well as their long-term horizon and different return requirements allowing them to engage in deals unsuited for PE firms, creating a niche for family offices to build value and make profits.

No GPs expect a significant increase in solo investments among Nordic LPs. Most justified this view by pointing to the political climate, egalitarian culture and organizational restrictions in the Nordics, which they believe will make it very difficult for LPs to exercise the active ownership required to realize sufficient returns. Still, many were familiar with large foreign direct systems, such as the Canada Pension Plan Investment Board, and did not rule out that some of the largest systems in the Nordics could attempt to do so as well. One GP explained: ”The really big ones, with teams just as good as buyout teams elsewhere, can be successful. Others will do the same mistakes as Norwegian and Swedish pension systems did in the 80's - [they] just took deals as they came through the door. Not many have been successful, but it can potentially increase. Large systems need to get their money to work, and are not able to reach their PE allocation targets through funds alone.”

V. Conclusion

Nordic institutional investors are communicating significant interest for co-investments. Co-investments appear to have performed well and LPs show no signs of down-scaling either their interest nor activity, which contradict the forecasts of most GPs. Large pension funds, banks and insurance companies have been experimenting with solo investments on an (primarily) ad hoc basis, with varying returns as a result. Streamlining their investment strategies, these investors have come to the conclusion that doing deals on their own requires too many resources and have not offered sufficient risk-adjusted returns to be worthwhile.

Co-investments have yielded higher net returns and offer more efficient capital deployment than committing money to funds. This makes co-investments an especially attractive strategy for LPs struggling to reach their PE allocation targets, as capital committed to co-investments is called and invested as soon as deals are closed. We suggest that large institutional investors should rely on fund investments as their primary private equity investment vehicle, but also attempt to pursue co-investment opportunities.

Although LPs pursue co-investments, they must be aware of what to expect and where to channel their resources. There is little overlap between picking talented GPs and screening for target companies, suggesting most LPs should stick to their core business; selecting and getting access to the best GPs and their funds. Existing investors in a fund are preferred over outside investors as co-investors, strengthening the argument for LPs to focus on GP selection and relationships. Moreover, most LPs should not have ambitions of active ownership, as this increases in-house costs and can do more harm than good to their GP relation. Co-investing with trusted GPs should be LPs' top priority. They should aspire to be GPs' preferred co-investor and hence see many deal proposals. This strategy requires an agile team from the LP's side, along with a clear mandate for deals they can make and rapid decision-making processes. It could be beneficial, depending on the frequency of co-investments, to have a dedicated team to handle these processes. Even though many GPs recommend such an organizational set-up for LPs, most LPs do not yet have this in place.

A strong brand name is beneficial for LPs, which is likely a driving factor for the number of co-investment opportunities available. Small and unknown LPs should recognize that they have little to offer GPs other than being of no burden. Instead of having dedicated co-investment resources, they should aim for efficient processes to be able to take part in the few opportunities that come their way and maintain strong GP relationships.

It is interesting, and slightly unexpected, that all but one investor in our sample barely question the business case of presented co-investments opportunities. They conduct little additional due diligence and rely on their knowledge of and relation to the GP presenting the deal. Being aware of the potential *lemons problem* of co-investments and the discouraging findings of Fang et al. (2013), one would expect LPs to get a second opinion on the business cases from a party with other incentives than GPs. Interestingly, the Nordic region has the highest degree of interpersonal trust[20], which is reflected in the business environment and lowers transaction costs (Economist 2013). The latter is clearly the case for Nordic co-investments, as engaging external consultants and bankers to review business cases would turn costly for LPs and, given the relatively small equity tickets in many co-investments, greatly lower net returns. It would be interesting to research whether this trust in GPs holds true for investors in regions other than the Nordics as well.

Solo investments expose financial investors to numerous, substantial risks outside their primary scope of financial risk. The variety of stakeholders and manager performance metrics inhibit Nordic pension funds and insurance companies from succeeding with solo investments. Stakeholder acceptance for high salaries and bonuses to the talent required to run a successful operation in these systems is low, and stakeholders with motives other than generating the most value could restrict available levers for improvements at the portfolio company level. Moreover, the political and reputational risks are potentially damaging to other parts of their business. All these factors imply that financial investors in the Nordics are unlikely to realize return higher than from fund investments, and may even in the worst case threaten their "license to operate". Therefore, solo investments should be out of scope for the vast majority of Nordic LPs.

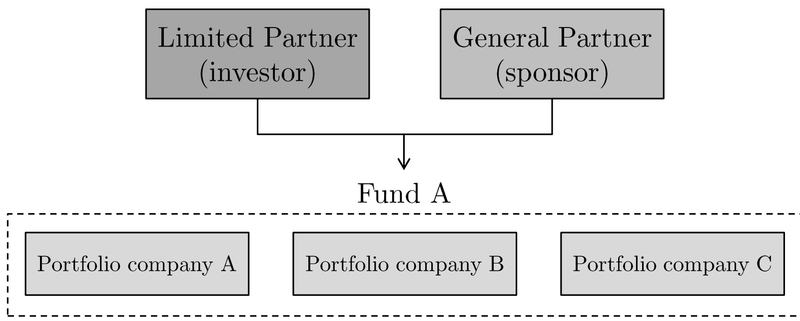
Family offices differ from other institutional investors. They have advantages in terms of less rigid timing issues, strong operational backgrounds and a broader range of objectives. These firms can also compete for talent different from the typical PE fund professional, which makes this strategy more sustainable in the long run. Consequently, family offices are better positioned to pursue solo investments. They should stick to industries they are familiar with and seek business cases where their industrial expertise is valuable. Likewise, they should embrace their differences from PE firms, which some selling entrepreneurs and managers will find appealing.

Going forward, more actors will find their place in the landscape. Today there is an imbalance between the demand for, and the abilities needed to engage in, co-investments. LPs have to either focus purely on fund selection or invest in internal competence and processes to position themselves as a preferred co-investment partner. As more investors choose a conscious co-investment strategy, the market for direct investments will stabilize.

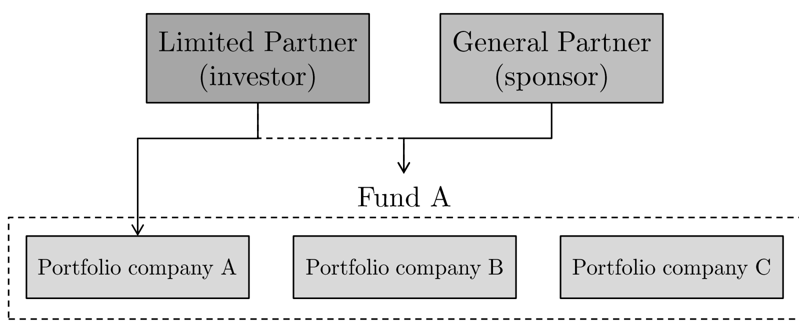
In the Nordic context there is one large institutional investor rumored[21] to face such a choice of strategy: The Norwegian Government Pension Fund Global (NGPFG), managed by the Norwegian Bank Investment Management (NBIM). We have argued that the vast majority of Nordic institutional investors should not pursue solo investments, but NBIM is not a typical Nordic investor. The fund has the size, reputation and sophistication needed to freely choose which approach to take. The current size of the fund is approximately USD 850 billion in assets under management, implying a 5% allocation[22] to private equity at USD 43 billion[23]. Reaching such an extensive allocation target if capital is to be put to work solely through funds will be a slow process. Seeking to diversify commitments among many LPs, GPs tend to cap ticket sizes for any single LP. Hence, NBIM must commit capital to a multitude of PE funds over a long time horizon, making it difficult to cherry-pick only the top tier funds. A viable option would be to employ an investment strategy mixing fund investments with direct investments. This strategy would enable a shorter ramp-up period, as well as reducing the costs of fees to fund managers. NBIM has the scale to maintain a large team of investment professional to continously source deals, handle transactions and monitor investments. Being a large and well-reputed investor, NBIM is an attractive co-investor as well. Moreover, direct investments will make their investment portfolio more transparent to the public and enlarge the fund's ability to practice the part of their investment mandate related to responsible and sustainable investing.

Appendix A. Illustrations of Private equity investment vehicles

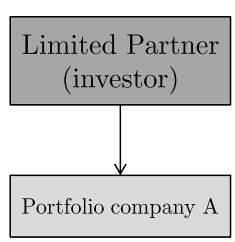
Private Equity Fund Investments



Co-investments



Solo investments



Appendix B. Overview of LPs

This appendix provides a list of all LPs contacted, categorized by the information we were able to obtain. The column headings A-F are specified in the table IV. Column A-D contains yes/no answers about whether the investor has been active in an investment form or not. We use an asterix on the "Yes" answer (Yes*) to specify if the investor was previously, but not currently, active.

Table IV: Data column descriptions

Column	Description
A	Has the investor invested in private equity funds?
B	Has the investor invested directly in private equity?
C	Has the investor invested directly through co-investments?
D	Has the investor invested directly through solo-investments?
E	The amount of people that are working with private equity investments (funds, co- and solo-investments)
F	How many that are working exclusively with direct investments
G	Have we conducted an in-depth interview with the investor?

Investor type	Country	A	B	C	D	E	F	G
Pension Fund	SWE	Yes	Yes	Yes	Yes	17	12	Yes
Pension Fund	DEN	Yes	Yes	Yes	No	10	0	Yes
Family office	NOR	Yes	Yes	No	Yes	3	0	Yes
Family office	NOR	Yes	Yes	No	Yes	5	0	Yes
Family office	NOR	Yes	Yes	Yes	Yes	5	0	Yes
Insurance	SWE	Yes	Yes	Yes	No	3	0	Yes
Pension Fund	DEN	Yes	Yes	Yes	Yes	2	0	Yes
Pension Fund	DEN	Yes	Yes	Yes	No	5	1	Yes
Asset Manager	NOR	Yes	Yes*	Yes*	Yes*			Yes
Pension Fund	NOR	Yes	Yes	Yes	Yes*	3	0	Yes
Bank	NOR	Yes	Yes*	No	Yes*	5	0	Yes
Pension Fund	ISL	Yes	Yes	Yes	Yes			
Pension Fund	ISL	Yes	Yes	Yes	Yes			
Bank	SWE	Yes	Yes	Yes	Yes			
Pension Fund	DEN	Yes	Yes	Yes	Yes			
Pension Fund	NOR	Yes	Yes	Yes	No			
Insurance	FIN	Yes	Yes	Yes	No			

Bank	FIN	Yes	Yes	Yes	Yes
Family office	NOR	Yes	Yes	No	Yes
Pension Fund	FIN	Yes	Yes	Yes	Yes
Insurance	FIN	Yes	Yes	Yes	Yes
Pension Fund	DEN	Yes	No	-	-
Insurance	SWE	Yes	No	-	-
Pension Fund	DEN	Yes	No	-	-
Bank	DEN	Yes	No	-	-
Bank	DEN	Yes	No	-	-
Pension Fund	SWE	Yes	No	-	-
Insurance	NOR	Yes	No	-	-
Pension Fund	DEN	Yes	No	-	-
Pension Fund	DEN	Yes	No	-	-
Bank	DEN	Yes	No	-	-
Pension Fund	DEN	Yes	No	-	-
Pension Fund	DEN	Yes	No	-	-
Bank	SWE	Yes	No	-	-
Pension Fund	ISL	Yes	No	-	-
Insurance	DEN	Yes	No	-	-
Insurance	DEN	Yes	No	-	-
Asset Manager	NOR	No	No	-	-
Insurance	DEN	No	No	-	-
Pension Fund	SWE	No	No	-	-
Bank	SWE	No	No	-	-
Asset Manager	NOR	No	No	-	-
Insurance	NOR	No	No	-	-
Bank	NOR	No	No	-	-
Asset Manager	DEN	No	No	-	-
Bank	SWE	No	No	-	-
Family office	NOR	No	No	-	-
Bank	NOR	No	No	-	-
Pension Fund	DEN	No	No	-	-
Bank	DEN	No	No	-	-
Asset Manager	NOR	No	No	-	-
Bank	NOR	No	No	-	-
Bank	SWE	No	No	-	-

Appendix C. Overview of GPs

Country	Interviewed?	Co-invested?
SWE	Yes	Yes
NOR	Yes	Yes
NOR	Yes	Yes
NOR	Yes	Yes
DEN	Yes	No
SWE	Yes	Yes
FIN		
SWE		
SWE		
NOR		
SWE		

Appendix D. Interview guide for LPs

Data

- **Investments**
  - Number of co-investments
  - Number of direct investments
  - Performance metrics for realized investments (TVPI, IRR)
  - Year for entry and exit of investments
- **Portfolio**
  - Total assets under management
  - Invested and committed capital to Private Equity
  - Capital invested in co- and solo investments
- **Organization**
  - Size of the investment team
  - Organization and number of people allocated to direct investments
  - Internal costs that occur from the investment activity

Interview

- **About investments and performance**
  - How have direct investments performed relative to fund investments?
    - What are your reflections on why these results are as they are?
    - What do you see as success or failure factors?
  - What is your basis for that you can achieve increased returns with this investment form?
- **About mandate and strategy**
  - Who initiated the strategy of making direct investments?
  - What type of investments are you allowed to engage in, according to internal mandates?
    - Size
    - Ownership stake
    - Geography
    - Industry
    - Lifetime
    - Size of investment
    - Sustainability/ethics
  - Do you practice an active ownership style with the companies you have invested in?
    - Do you initiate measures in your portfolio companies?

    * Board representation?
    * What are your thoughts on how to run the portfolio companies?

- **About structure and internal organization**
  - Did you make changes/trying to adapt the organization structure when you started with these investments?
    * Did you utilize external competence?
    * Did you change internal processes and guidelines?
  - Internal organization
    * Do you have a separate team to handle direct investments?
    * How is the decision-making process on the matter of which investments to undertake?
    * How do you perform and organize the due diligence process prior to direct investments?
  - Do you actively source co-investment opportunities, demand it, or do you handle them case-by-case if they are offered?

- **About future development**
  - How do you think the extent of direct investments will develop going forward?
  - How are you planning to approach these investments going forward?
  - Do you plan to change the internal strategy or organization to adapt to these investments going forward?

Appendix E. Interview guide for GPs

- **Fund**
  - Assets under management
  - Number of co-investments
  - Size of investment team
- **About co-investments**
  - Do you offer co-investments?
    * Which investors do you offer co-investments to?
    * Why do you offer investments to those specific investors?
    * What do you view as the ideal co-investor to bring along?
  - In what scenarios relevant to offer co-investments?
  - How has the amount of co-investments developed over time?
  - Do LPs ask for co-investments or have this as a criteria for investing in your fund?
    * How has this developed over the years?
- **About solo investments**
  - Have you noticed a trend or an increase in solo investments performed by LPs?
  - Why do you think investors pursue solo investments?
  - Do you see the potential trend of solo investments as a threat to your business?
  - Do you believe investors develop larger in-house investment teams?
  - Do you think investors will succeed with this strategy?
    * What do you see as the main success criteria? Pitfalls?
  - Why do you think it is better to invest through a PE fund, compared to doing solo investments?
- **About the fundraising climate and LP pressure**
  - How is the LPs negotiation power now compared to earlier?
  - Have you altered you terms/fees to raise money for your new funds?
- **About future development**
  - How do you think the Nordic PE market will develop in the years to come?
  - How do you see the development in the fundraising climate?
  - How do you see the fee and cost structure within the PE industry develop in the future?

REFERENCES

Bain & Company (2013), 'Bain & Company Global Private Equity Report 2013', http://www.bain.com/publications/business-insights/global-private-equity-report.aspx. Last accessed: 26 May 2014.

Cressy, R., Munari, F. & Malipiero, A. (2007), 'Playing to their strengths? Evidence that specialization in the private equity industry confers competitive advantage', *Journal of Corporate Finance* **13**(4), 647–669.

Economist, T. (2013), 'Special Report: The Nordic countries - Northern lights', pp. 1–15. Special report from the 2 February 2013 issue.

Fang, L. H., Ivashina, V. & Lerner, J. (2013), 'The Disintermediation of Financial Markets: Direct Investing in Private Equity'. Working paper, available at SSRN 2159229.

Gjernes, K. & Skaalmo, G. (2014), 'Risikosporten', *Dagens Næringsliv* pp. 4–15. Magasinet, 1 March 2014.

Grabenwarter, U. & Weidig, T. (2005), *Exposed to the J-Curve: Understanding and Managing Private Equity Fund Investments*, Euromoney Books.

Jensen, M. C. (1989), 'Eclipse of the Public Corporation', *Harvard Business Review* **67**(5), 61–74.

Kaplan, S. N. & Strömberg, P. (2009), 'Leveraged Buyouts and Private Equity', *The Journal of economic perspectives* **23**(1), 121–146.

Leamon, A., Lerner, J. & Garcia-Robles, S. (2012), 'The Evolving Relationship Between LP & GPs'. Study prepared for the Multilateral Investment Funds Fund Manager Meeting, 5 September 2012.

Preqin (2012), 'Preqin Special Report: LP Appetite for Private Equity Co-Investments', https://www.preqin.com/docs/reports/Preqin_Private_Equity_Co-Investor_Report.pdf. Last accessed: 26 May 2014.

Robinson, D. T. & Sensoy, B. A. (2013), 'Do Private Equity Fund Managers Earn Their Fees? Compensation, Ownership, and Cash Flow Performance', *Review of Financial Studies* **26**(11), 2760–2797.

Notes

[1]"In Private Equity, the Popularity of Investing Alongside Managers - Not in Their Funds - Soars", Forbes Magazine, March 17, 2014

[2]"Pension plans: Flying solo", Financial Times, September 9, 2013

[3]http://www.adventinternational.com/news/PressReleases/pages/PressRelease24032014_English.aspx

[4]http://www.ipe.com/atp-pfa-to-invest-dkk3bn-in-controversial-dong-energy-deal/10000876.article

[5]Other common segments are venture capital, growth capital, distressed securities and mezzanine capital.

[6]The part of a fund's committed capital that has not yet been invested.

[7]In terms of both deal value and number of deals.

[8]Now IK Investment Partners, founded in 1989.

[9]Founded in 1989.

[10]Founded in 1994.

[11]Per 2012, 9 out of the 10 largest buyouts ever originated from this period. In 2013, the takeovers of Dell and Heinz joined the ranks of top 10 mega deals.

[12]There are seven LPs in our sample that has been engaged in co-investments. One of them is currently not active and has not been recently.

[13]The equity ticket is the amount an LP is allowed to invest in a fund.

[14]The J-curve is used to illustrate the historical tendency of private equity funds to deliver negative returns in the early years and investment gains in the outlying years as the portfolios of companies mature (Grabenwarter & Weidig 2005).

[15]An LP with a co-investment right has the right to co-invest if the GP seeks co-investors in a deal.

[16]There are funds that can roll an investment over to a new fund, while other funds have flexible duration.

[17]"Innrømmer at Oljefondets Formel 1-investering var bom"

http://www.aftenposten.no/okonomi/Innrommer-at-Oljefondets-Formel-1-investering-var-bom-7497903.html

[18]A contractual obligation used to protect a minority shareholder (usually in a venture capital deal). If a majority shareholder sells his or her stake, then the minority shareholder has the right to join the transaction and sell his or her minority stake in the company. (http://www.investopedia.com/terms/t/tagalongrights.asp)

[19]A right that enables a majority shareholder to force a minority shareholder to join in the sale of a company. The majority owner doing the dragging must give the minority shareholder the same price, terms, and conditions as any other seller. (http://www.investopedia.com/terms/d/dragalongrights.asp)

[20]Score of interpersonal trust, World Values Survey Wave 5 (2005-2008) by World Value Surveys.

[21]There is a current discussion of whether NBIM should be allowed to invest in non-listed equity. "Norge bør gå inn i private equity" (http://www.dn.no/nyheter/2014/04/03/Finans/-norge-br-g-inni-private-equity), "Unngå dyr tabbe" (http://www.dn.no/meninger/debatt/2014/03/20/Oljefondet/unnga-dyr-tabbe?service=print).

[22]A 5% PE allocation is equivalent to the fund's current real estate allocation.

[23]As references, Canada Pension Plan and California Public Employees' Retirement System currently have USD 37 and 30 billion allocated to private equity respectively, both with significant portions dedicated to direct investments. These institutions have built successful internal buyout teams, thereby setting terms for the private equity scene worldwide.