Norges Bank

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Investment strategy for the Government Pension Fund Global – unlisted equities

In its letter dated 27 March 2023, the Ministry of Finance asked Norges Bank to analyse various aspects of investing in unlisted equities. In the following, we describe important aspects related to the management of the Government Pension Fund Global (GPFG). We describe trends that may have implications for whether the fund should be allowed to invest in unlisted equities and how this would affect the fund's return and risk characteristics. Finally, we outline how Norges Bank believes that investments in unlisted equities should be carried out.

Norges Bank's advice to the Ministry of Finance is to permit the GPFG to invest in unlisted equities on a general basis. The fund's investment strategy has evolved over time, and the principle of broad diversification is an important starting point. The unlisted equity market has grown rapidly in recent years and accounts for an ever larger share of the global market portfolio. The Executive Board's assessment is that permitting unlisted equity investments is a natural evolution of the fund's investment strategy. A broader investment universe will provide more investment opportunities and help the fund benefit from a larger share of global value creation.

The goal for the management of the fund is the highest possible return after costs. Analyses of historical returns indicate that investments in private equity could give higher returns after costs than listed equities in the long term. The fact that the GPFG is a large, long-term and well-reputed investor gives reason to expect a higher net return than for the average investor in private equity.

The benchmark index and restrictions in the management mandate set out what is considered acceptable risk for the fund's owner. One key restriction is the limit on expected relative volatility. Norges Bank does not propose any change to this limit and will organise the management of unlisted equity investments with the aim of ensuring that these investments do not increase the equity market risk in the fund relative to the benchmark index.

If the Ministry permits unlisted equity investments, it is important that possible challenges with such investments for the GPFG are well communicated and anchored in the fund's governance structure. As with the fund's other unlisted investments, there will generally be less publicly available information about these investments. The investments are not priced daily in the market, which can make it more challenging to communicate and

evaluate the results of our management of the fund. Total costs as a share of invested capital will be higher for unlisted investments than for other management areas. For unlisted equity investments, reported results will likely be negative in the early years. It will, on average, take longer to sell unlisted equity investments than investments in listed companies, and there is a risk that we will not be able to sell before the lifetime of private equity fund naturally ends.

The Executive Board has placed great emphasis on transparency, responsible investment and cost efficiency when working on this advice. Other large international funds that also emphasise these considerations have significant investments in unlisted equities. If the Ministry of Finance allows the GPFG to be invested in unlisted equities, the Executive Board will formulate a more detailed investment strategy and principles for investments in unlisted equities in line with what is outlined here. Norges Bank will set strict requirements for selecting partners, responsible investment and transparency, as well as restricting investments geographically. It is the Executive Board's assessment that the strategy outlined here satisfactorily addresses the possible challenges of such investments.

Gradual evolution of the investment strategy and management of the fund
The management mandate from the Ministry of Finance to Norges Bank sets out the fund's overall investment strategy. The mandate specifies which asset classes the fund can invest in, defines a benchmark index against which the management of the fund is measured, and establishes risk limits and requirements for the management of the fund. Norges Bank contributes to the development of the fund's investment strategy through its role as adviser to the Ministry of Finance.

The investment strategy has been developed over time in light of new trends and new knowledge, and always after thorough evaluation. Significant changes in the fund's overall investment strategy are anchored in Parliament. This ensures broad support for key elements of the management of the fund. Broad support for strategic choices has made it possible to adhere to the long-term investment strategy even in periods with large fluctuations in financial markets, such as during the financial crisis and most recently through the COVID-19 pandemic.

In its report *The Fund in a changing world*, the Sverdrup commission wrote that if a significant share of global value creation were to move out of the listed market, consideration would need to be given to the implications for the fund's investment strategy.[1] In its consultation response, Norges Bank pointed to trends indicating that an increased share of value creation is indeed taking place off stock exchanges and that

[1] Official Norwegian Reports NOU 2022:12.

there is a need to investigate whether this should be reflected in the fund's investment universe.[2]

The fund's investment universe has been expanded gradually over the years. When the fund was established in 1996, the investment universe was limited to government bonds, but it was quickly enlarged to include listed equities in 1998. In the early years, the fund could only invest in certain countries and markets. The investment universe has subsequently been broadened to include more countries and markets and different types of companies and bonds. The principle of broad diversification has been a central argument for these expansions.

The investment universe has also been expanded to include unlisted assets. When the Ministry permitted the fund to be invested in unlisted real estate in 2010, it was emphasised that real estate made up a substantial proportion of the global market portfolio. Emphasis was also placed on the fact that other international funds had substantial investments in real estate, and that investing in real estate could further diversify the risk in the fund. The knowledge and experience built up by Norges Bank from investing in unlisted real estate was highlighted as an argument in favour of permitting investments in unlisted infrastructure in 2019. Since 2011, the management mandate has also opened for investments in unlisted companies where the board has expressed an intention to seek listing on a regulated and recognised marketplace.

Norges Bank now has more than a decade of experience with unlisted investments. The operational management of investments in unlisted assets has many similarities. Given permission to invest in unlisted equities, Norges Bank will therefore be able to draw on experience from its existing unlisted investments. This will be relevant in areas such as designing partnership agreements, structuring ownership, accounting, risk management, tax matters, regulatory compliance and reporting.

In its letter of 27 March, the Ministry of Finance writes that Norges Bank's experience with the opportunity to invest in unlisted companies where the board has expressed an intention to list may be relevant to the question now being addressed. Norges Bank has made only one such investment. Our experience is that board decisions on stock exchange listings are made relatively close to the application to list, and that such investments therefore differ from investments in unlisted equities in general.

If the Ministry decides to permit investments in unlisted equities, Norges Bank will not invest directly in unlisted companies on its own. We will invest in and alongside private equity funds which decide which companies to invest in. Over time Norges Bank has built considerable expertise in selecting external managers in the listed market. Our experience is that the fund's characteristics have given us good access to external

[2] Norges Bank's letter of 5 January 2023.

managers. In the case of investments in unlisted equities, we will seek to utilise the fund's characteristics and expertise in manager selection in listed markets. Investment in and alongside private equity funds will, however, require additional expertise that we do not possess today. There will be a need for some new hires.

Trends relevant to the fund's investment strategy
Investing in unlisted equities was last considered in the 2018 white paper on the management of the fund. In its letter of 27 March 2023, the Ministry asked Norges Bank to review trends since then that may be relevant for whether the investment universe should include unlisted equities. Below, we briefly explain some important terms before presenting key developments.[3]

Important terms
We define the unlisted equity market here as the part of the market that is available to professional investors. Professional investors generally invest in unlisted companies through or alongside private equity funds. Assets under management at private equity funds can be used to estimate the size of this market. Private equity funds invest in unlisted companies with the aim of increasing their value and normally have a lifespan of ten years.

Private equity funds first raise capital from investors such as pension funds and other institutional investors. The manager then assesses several investment opportunities. Once the fund has acquired a stake in a company, the manager works actively with the company's management on improving the business and increasing the value of the investment. This is made possible by private equity funds often having a controlling interest in the company. Private equity funds generally create value through three types of improvements: (i) governance engineering, (ii) operational engineering and (iii) financial engineering. Enclosure 2 shows how financial engineering was the most important driver of value creation in the 1980s and 1990s. Since the 2000s, operational improvements have played an ever more important role in value creation.

Private equity funds are usually divided into three categories depending on where the portfolio companies are in their life cycle. Buyout funds are the largest segment and invest in mature companies. These companies usually have a positive cash flow, and investments are motivated by a potential for increased profitability and further growth. Venture funds invest in early-stage companies. These companies often have a negative cash flow but considerable growth potential. Growth funds invest in companies that lie between the buyout and venture segments. These companies are often profitable but need more capital to grow.

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[3] See Enclosure 1 for details.

The unlisted equity market
The unlisted equity market has grown rapidly in recent years. At the end of first quarter 2023, private equity funds had assets under management of 7.8 trillion dollars.[4] This figure has grown by 20 percent annually since 2017, which is significantly faster than the listed equity market. Measured relative to the size of the listed market, assets under management at private equity funds increased from 4.2 percent in 2017 to 9.2 percent at the end of first quarter 2023.

The secondary market – the market for trading interests in private equity funds – has also grown. Around 1.5 percent of private equity funds' assets under management are now traded in the secondary market. This corresponds to roughly 100 billion dollars. The dollar amount traded in the secondary market has doubled since 2017.[5] Investors might sell interests in the secondary market because of changes in strategy, active portfolio management or if market developments lead to an excess allocation to private equity. Buyers are often specialised secondary funds.

Co-investments make up an increasingly large share of the unlisted equity market. In a co-investment, investors invest directly in an unlisted company controlled by a private equity fund. These investments are often part of a strategic partnership where the investor also has an interest in the private equity fund itself. Investors do not normally pay fees for co-investments. Co-investments grew from 10-15 percent of assets under management at private equity funds in 2017 to around 20-25 percent in 2021.[6]

The listed equity market
A small proportion of listed companies are accounting for an ever larger share of the listed equity market. The number of listed companies worldwide has levelled off. Since 2010, the listed equity market has not grown beyond what can be explained by movements in share prices.[7] There are fewer IPOs in developed markets, and the companies coming to market are larger than before. This suggests that the GPFG is missing out on part of companies' growth by not investing until after they have been floated and eventually enter the fund's equity benchmark.[8] These trends are not new but have become more pronounced over time.

Other international funds
Other sovereign funds and pension funds have increased their investments in unlisted equities in recent decades. CEM Benchmarking prepares a report for the Ministry of Finance every year comparing the GPFG with other funds. In the report, CEM compares

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[4] Most recently available complete estimate of assets under management at buyout, venture and growth funds from Preqin.
[5] Hamilton Lane Insights: "What does secondary market growth mean for you?" (2023).
[6] Estimates from Bain & Company.
[7] See Chart 2 in Enclosure 1.
[8] It takes around five years (median) from initial listing for a company in developed markets to be included in the FTSE Global All Cap index.

the fund with the ten largest state-owned investment funds and pension funds for which it has data.[9] The latest report from CEM shows that all funds in the peer group invest in private equity, and that the share of private equity in their portfolios increased from 9.3 percent in 2017 to 12.8 percent in 2021.

Several of the funds in the peer group have long experience with investing in private equity funds and have adjusted their investment programmes over time. Co-investments with private equity funds are accounting for a growing share of peer funds' investments in unlisted equities. Some of the funds have also developed expertise in making direct investments themselves.

Large international funds emphasise transparency and responsibility and have driven improvements in these areas in recent years. US pension funds have been the driving force behind disclosing the names of portfolio companies that private equity funds are invested in. This is now standard practice for large, established private equity funds.

European pension funds have driven a greater emphasis on responsible investment, for example by requiring private equity funds to report on sustainability and governance at portfolio companies. The number of private equity firms signing up to the Principles for Responsible Investment (PRI) has increased significantly since 2018.[10] PRI signatories are required to report annually on their responsible investment activities. Recent years have also brought initiatives where investors and private equity funds are working together to collect and compile ESG data for unlisted companies.[11]

Enclosure 1 shows examples of how other international funds report on private equity investments. The requirements Norges Bank will set for transparency and responsible investments are described in more detail under *Implementation of unlisted equity investments.*

Return and financial risk in the fund

The objective for the management of the GPFG is the highest possible return after costs with acceptable risk. A number of factors may lead investors to expect higher returns on investments in private equity funds than on listed equities. Concentrated ownership and managers' incentives to increase profitability in portfolio companies, are often cited as explanations for the value creation in private equity funds over time. Investments in private equity funds are generally less liquid than listed equities, and it is natural to assume that investors demand compensation for this. Investing in private equity funds is not an option for all investors, as they generally require large sums to be invested.

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[9] The peer group for the fund consists of the ten largest funds for which CEM has data: four US funds, three Canadian funds, two European funds and one in the Asia-Pacific region.
[10] PRI is a UN-supported international network that works to promote the integration of ESG into investment decisions. We helped found PRI and have been represented on the board since 2021.
[11] The ESG Data Convergence Initiative started up by CalPERS and Carlyle is one example.

Historical return after costs

Higher returns and diversification are cited by other international funds as the main reasons for investing in private equity.[12] CEM Benchmarking finds that, on average, the annual net return on private equity in the peer group has been 4 percentage points higher than that on public equity over the past decade.[13]

The academic literature suggests that investors in private equity have, on average, achieved higher returns after costs than for a broad equity portfolio. Korteweg (2023) reviews the results of several academic studies that look at realised returns for a wide range of investors. This review article finds excess returns[14] for buyout funds for the entire period and for venture funds before the year 2000.[15] Korteweg also emphasises the uncertainty around the estimates due to differences in data sources, periods and methodologies.

In a Discussion Note published on 14 September 2023, Norges Bank Investment Management (NBIM) reviews the academic literature and analyses the risk and return when investing in private equity funds.[16] In the period from 1985 to 2023, NBIM's analysis shows that the average investor in buyout and secondary funds achieved higher net returns than for listed stocks.[17] For venture and growth funds, the results in the Discussion Note are more mixed. This analysis of buyout funds is consistent with those in a number of academic studies.

A basic assumption in financial theory is that assets with higher equity market risk have a higher expected return. The studies above and NBIM's analysis compare the return on private equity with public equity and implicitly assume that the equity market risk is the same. This assumption will not always be correct. For example, private equity funds have on average had higher leverage than we find in the listed market.

To test the assumption of equal equity market risk, NBIM has estimated the equity market risk for private equity investments. The calculations indicate that buyout funds have similar equity market risk to a broad listed equity portfolio, while venture and growth funds have slightly greater equity market risk. Korteweg (2023) finds similar results, with

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[12] Preqin, *Investor Survey 2022*.
[13] CEM Benchmarking: "Investment Benchmarking Analysis" (2022) and CEM Benchmarking: "Investment Cost Effectiveness Analysis" (2017). The figure is a comparison of total net return on listed and unlisted equities for the fund's peer group from 2012 to 2021. The peer group generated a net return on listed equities of around 11.9 percent over the period.
[14] After adjustment for equity market risk, or beta.
[15] See also Jenkinson, Kim and Weisbach (2023) for a review of the academic literature on buyout fund.
[16] For further information, see Enclosure 3 and NBIM Discussion Note 4/2023.
[17] Net return in this analysis is the return achieved by investors in private equity after all fees to the private equity manager are subtracted. The analysis includes funds with vintage years from 1985 to 2016. Vintages after 2016 are not included, since only a small proportion of their investments will have been realised and distributed back to the investor.

a beta[18] of around 1.1 for buyout funds and 1.4 for venture funds. In Enclosure 3, we show that the estimates vary widely between studies. Based on net return data for the funds on which it has information, CEM Benchmarking finds that the equity market risk for buyout funds is similar to that of the listed equity market.[19]

In NBIM's analyses, the historical net return is adjusted for risk factors such as size and value. Enclosure 3 compares the net return of investments in private equity funds with a broad portfolio of listed small-cap stocks. This analysis also shows a significant historical excess return for buyout funds. Korteweg (2023) concludes that investments in venture funds look like an investment in small growth stocks, whereas buyout funds tend to load on value but do not have a consistently meaningful loading on size. There is, however, no consensus in the academic literature on how results at private equity funds should be adjusted for risk, and it will always be challenging to measure the risk of investments not priced continuously in the market.

Both the academic literature and NBIM's analysis show that returns can vary considerably between the best and worst private equity funds. The return that a specific investor earns when investing in private equity funds may depart significantly from the historical average return achieved by investors. There is fierce competition between investors to invest with the most renowned managers, and so it is important to possess characteristics that bring access to these opportunities.

Studies indicate that investors with large amounts invested in private equity achieve higher net returns than investors with smaller sums invested.[20] Large investors, such as the GPFG, may have better access to the best managers, a better bargaining position and a greater capacity to co-invest with them.[21] It is standard for the largest investors to pay a management fee below 1.5 percent of committed capital, compared with 2 percent for the average investor. Private equity funds apply most-favoured-nation clauses to management fees and give similar investors equal terms.

Studies also show that returns have been higher for funds launched in years when available capital is scarce.[22] The GPFG's limited short-term liquidity needs mean that we could commit capital to private equity funds even when less capital is available than normal. The GPFG's good reputation in terms of responsible investment practices may

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[18] Median for net returns.
[19] CEM Benchmarking: "Private Equity Benchmarking and Performance" (2020).
[20] See Dyck and Pomorski (2016).
[21] Braun, Jenkinson and Schemmerl (2020) find that co-investments can contribute to significantly higher net returns for investors in private equity.
[22] See Axelson, Jenkinson, Strömberg and Weisbach (2013). The availability of capital for private equity funds is currently lower than for a long time. This could therefore prove to be a good time to invest. Current market conditions should not, however, influence long-term strategic decisions for the fund and should not be used as an argument for whether or not the fund should invest in unlisted equities.

also be an advantage. The expert group appointed by the Ministry in 2017 also pointed out that the GPFG's good reputation in this area could mean that buyout funds will be more accommodating in negotiations with Norges Bank.[23]

Financial risk in the fund

The Ministry's letter of 27 March asked Norges Bank to consider the most appropriate way of regulating the risk associated with unlisted equity investments in the management mandate. As unlisted investments have a number of common features, we respond to the question of how the risk associated with unlisted investments, including real estate and infrastructure, can be regulated in a separate letter dated 27 November 2023.

Norges Bank's conclusion is that investments in unlisted equities can be regulated in the same way as the fund's existing unlisted investments, i.e. within a limit for expected relative volatility. Norges Bank does not propose changing the current limit of 1.25 percentage points.

The limit for expected relative volatility restricts the size of expected deviations between the return on the fund's investment portfolio and the benchmark index. Unlisted investments are not part of the benchmark index. All investments outside the benchmark index draw on the limit for relative volatility but will not necessarily impact the absolute volatility of the fund in the same way.[24]

Since 2017, Norges Bank has sought to manage real estate and infrastructure investments in such a way that they do not change the fund's equity market risk relative to the benchmark index. If unlisted equity investments are permitted, Norges Bank will manage these investments in the same way.

With this approach, investments in private equity will be funded by selling stocks in the benchmark index with the same estimated equity market risk. In our letter 27 of November, we show how such funding will ensure that the equity market risk in the fund reflects the benchmark index. In the same letter, we also show the effect of funding unlisted equity investments with securities with lower equity market risk. This funding would increase both equity market risk and absolute volatility in the fund compared to the benchmark index. The funding will be tailored to each individual private equity fund or co-investments and continuously managed to keep equity market risk in the fund unchanged compared to the benchmark index.

It can be challenging to precisely measure the equity market risk of each individual fund and co-investment. We describe how this will be reflected in a return target set by

[23] The expert group also noted that the same factors could be a disadvantage when investing in venture funds. For further information, see Døskeland and Strömberg (2018).
[24] Absolute risk, or standard deviation, is the most common measure of risk in financial markets. The standard deviation indicates how much returns are expected to fluctuate around the average.

Norges Bank under *Governance structure.* In determining the return target, we will take into account that unlisted equity investments will expose the fund to other types of risk besides equity market risk, including liquidity risk.[25] Liquidity risk is a risk the fund is well suited to bear. It is Norges Bank's assessment that there is no need for new provisions to regulate liquidity risk in the fund. Even if the Ministry permits unlisted equity investments, most of the GPFG will still be invested in listed equities and tradable debt, and expected withdrawals from the fund will be small relative to assets under management.

Trade-off between return and risk in the fund

Analyses of historical returns indicate that buyout funds can provide an excess return over the listed market, even when adjusted for equity market risk. If the Ministry of Finance permits investments in unlisted equities, Norges Bank will make these investments in such a way that equity market risk in the fund does not change relative to the benchmark index.

However, historical returns are no guarantee of future returns, and the period analysed by academics and NBIM has been characterised by falling and low capital costs for both unlisted and listed companies. Should excess returns in buyout funds be lower in the future, there are still reasons to believe that the fund should be able to do better than the average investor. The fund's size and long investment horizon, as well as the GPFG's reputation for responsible investments, may bring access to the most renowned managers. Furthermore, our costs will probably be lower than for the average investor, both through lower fixed management fees and better access to co-investments where no fees are normally paid.

Implementation of investments in unlisted equities

In its letter of 27 March, the Ministry asked Norges Bank to consider how investments in unlisted equities should be made. Norges Bank's management assignment is extensive and complex.[26] Investing in private equity will place additional demands on our management of the fund. When designing the strategy outlined here, we attached particular importance to the fund's characteristics and the goal of maximising returns after costs. Transparency and responsible investment have also been prioritised. The strategy outlined ensures that complexity does not increase significantly beyond what already follows from the fund's investments in unlisted real estate and renewable energy infrastructure.

We outline the main features of the strategy below.[27] If the Ministry permits unlisted equity investments, the Executive Board will formulate a more detailed investment strategy.

[25] When investing in private equity funds, investors also commit a pre-agreed amount, while it is the private equity manager that decides when capital is actually called and invested.
[26] Letter from Norges Bank to the Ministry of Finance of 1 December 2021.
[27] Due diligence and tax matters are discussed in Enclosure 4.

Investing with others

There are different approaches to investment in private equity. It is important to choose an approach that fits the fund's characteristics and our qualities as an asset manager. If the fund is permitted to invest in unlisted equities, we will invest primarily in mid-sized and large buyout funds. This will enable us to develop good relationships with a select few partners. Fund investment will give access to co-investments.

We will not invest directly in unlisted companies on our own. Direct investments would demand considerable and different expertise to that required to invest in or with private equity funds, which primarily requires competence in manager selection. Norges Bank has built up considerable expertise in evaluating external managers in listed markets since 1998 and has good experience with this.

To spread risk, we will not have interests of more than 5 percent in any one fund. Nor is it usual for private equity funds to allow individual investors to hold more than 5 percent of the funds they manage. To manage country risk, we will invest primarily with private equity funds in developed markets in Europe and North America. These mainly invest in companies in the same regions.

To ensure diversification across vintage years, we will need to invest steadily through cycles.[28] It is the private equity manager that decides when the capital will actually be invested, and as an investor in private equity funds it is difficult to adjust the rate of investment to market conditions. To take advantage of the fund's limited short-term liquidity needs, we will nevertheless seek to be countercyclical and contribute slightly more capital in periods when less capital is available than normal.

Investing cost-efficiently

The management of the fund should be cost-efficient. Low costs are not a goal per se, but cost-efficient management can make a significant contribution to the goal of the highest possible return. Private equity investments require the payments of fees to the private equity manager, and management costs at Norges Bank will increase somewhat.

Fees to private equity managers

Private equity managers typically charge both a fixed management fee and a variable performance fee. Performance fees means that part of the value created is retained by the manager of the funds. This gives private equity managers a strong incentive to achieve excess returns.

Experience from the management of the GPFG is that it can be difficult to communicate and gain support for high fees to external managers, even when these investments bring

[28] Vintage refers to the year when the private equity fund makes its first investment.

the fund an excess return after costs. The management mandate currently requires Norges Bank's agreements with external managers to include a cap on fees. It is unlikely that a private equity fund will accept a limit on fees. This requirement will need to be adjusted if the fund invests in private equity funds.

To ensure that we invest cost-efficiently, we will build expertise in co-investing alongside private equity funds. Investors do not normally pay fees on co-investments, and investments of this kind are effective in reducing total fees in relation to invested capital. Fees as a share of invested capital will fall proportionally with the share of co-investment.

There are different approaches to co-investments. Investors can choose an approach where the investor and manager together search for investment opportunities, perform due diligence and carry out transaction. Norges Bank does not propose an approach where we actively search for investment opportunities ourselves, but rather participate in most of the co-investments offered by the private equity fund. Norges Bank will have the opportunity to opt out of individual investments and will assess each co-investment based on the manager's due diligence. Investors are typically given ten working days to consider whether to participate in a co-investment. With such an approach, the responsibility for ownership and board representation will be delegated to the private equity manager. This is the most common approach to co-investments for investors placing great emphasis on cost efficiency.

We will build a portfolio of co-investments gradually to ensure diversification across companies, sectors, geographies, and managers. We will acquire non-controlling interests in the companies. The GPFG's total interest in any one company will not normally exceed 15 percent.

The latest report from CEM Benchmarking shows that our peer group pay an average of 3.5 per cent in total fees as a share of committed capital for investments in buyout funds.[29] The average for all funds for which CEM has data is 4.3 per cent.[30]

Total fees to private equity funds, measured as a share of committed capital, will be higher than for the other asset classes the fund is invested in. However, the fund's size and a significant share of co-investments give reason to expect that our costs in the long term will be lower than for the average private equity investor.

Management costs at Norges Bank

On average, Norges Bank's management costs are higher for unlisted investments than for listed investments. For example, costs will be incurred for entering into agreements

[29] Management fees accounted for 1.6 percentage points, while performance fees accounted for 1.95 percentage points.

[30] Management fees accounted for 1.7 percentage points, while performance fees accounted for 2.65 percentage points.

and for using external advisers, as well as overheads for working with and monitoring partners. These costs are not dependent on the size of the investment in the private equity fund. In order to avoid too many partners and ensure cost-efficiency, we will therefore invest with mid-sized and large partners.

Norges Bank will draw on experience from the fund's other investments, but there will be a need to recruit staff with skills and experience from investing in and alongside private equity funds. We anticipate around 10-15 employees working on unlisted equity investments in the early phase, and around 20-30 in the longer term. These estimates are based on our strategy to invest in and alongside private equity funds, which requires considerably fewer employees than more direct approaches.

Most of the 20-30 employees will be investment personnel, as we will be able to draw on existing expertise to a greater extent on the operational implementation. The investment department will be organised as part of the existing management areas, not as a separate unit. The investment department will have a mixture of new and existing employees to ensure that the organisation culture today is preserved. It will be possible to recruit people with the skills we need within the current limits on remuneration.

The strategy outlined here and the estimate of the number of employees required indicate that the contribution to management costs in the long term will probably be somewhat lower than for the other unlisted investments in the fund.[31] For 2022, management costs at Norges Bank amounted to 4.4 basis points of the fund's value. The contribution from unlisted investments was 0.2 basis points.

A gradual approach

It will be natural for Norges Bank to approach investment opportunities and build expertise gradually. We have good experience with a gradual approach from the fund's existing unlisted investments. A gradual approach also facilitates good communication and anchoring in different parts of the governance structure.

Large investors in private equity often have better access to both the best managers and co-investments, and obtain lower management fees. An unlisted equity portfolio of 3-5 percent of the fund will enable us to take advantage of the benefits of the fund's size and facilitate adequate diversification across managers and vintages. This share corresponds to unlisted equities' share of the global market portfolio and amounts to 40-70 billion

[31] Management costs and fees for private equity funds will be treated in the same way as for the fund's existing unlisted investments, where fees are charged directly against portfolio income. For further information, see Note 6 to the GPFG's financial reporting for 2022.

dollars at the fund's current value.[32] By way of comparison, the ten largest investors in private equity had an average of 80 billion dollars invested at the end of 2022.[33]

If the Ministry decides to permit the fund to be invested in unlisted equities, Norges Bank will formulate a more detailed investment strategy and a careful investment plan. It may be appropriate to divide the investment plan into different phases, such as a start-up phase, a growth phase and a management phase. The investment plan could be adjusted between these phases based on knowledge and experience from the management of the unlisted equity portfolio. It will probably take about a decade to build a portfolio of the size outlined here.

In the start-up phase, the reported results are likely to be negative. This is a consequence of private equity funds' investment model. It can take them one to two years to raise their capital, three to five years to invest that capital, and one to three years to return it to investors, adjusted for any gains or losses. In the meantime, investors pay management fees on the capital they have committed. This means that costs will be incurred before capital is invested. In the secondary market, investors buy interests in funds that have been in existence for a few years and are at the stage where capital is being distributed to investors, which can improve the return profile and ensure vintage diversification in an early phase.[34] Norges Bank will consider investing in the secondary market during the start-up phase.

Transparency

Transparency is important for broad support for the management of the GPFG. There is generally less publicly available information on unlisted companies than on listed companies. This is because unlisted companies are monitored by fewer market participants, are less frequently in the news and are not subject to the same disclosure requirements as listed companies. The disclosure requirements that apply depend on the company's domicile and size. In the EU, unlisted companies are required by law to publish parts of their financial reporting. Those over a certain size must publish a balance sheet, an income statement and management reports. In the US, unlisted companies are not required by law to publish their financial reporting.

Although information will not always be publicly available, investors in private equity will have good access to information, about both the private equity fund and its portfolio companies. In many cases, investors will have more information about the unlisted companies than about the listed companies in which they are invested. There will

[32] Dodard and Le (2022) estimate that private equity accounts for 4 percent of the global market portfolio. Consulting firm MSCI estimated for the Ministry that the unlisted market made up around 2 percent of the global market portfolio in 2015.
[33] The largest and the tenth largest investor in private equity had invested 134 and 46 billion dollar respectively, according to Private Equity International, *Global Investor 100 2023*.
[34] There are three main approaches to investing in the secondary market. These are described briefly in Enclosure 4.

probably be more demands on private equity funds to share information with investors in the future, due partly to more private equity managers trying to cater to non-professional investors, which may result in regulatory changes.[35]

The Executive Board will set requirements in fund partnership agreements for what information we can access and share with the public[36]. We will set requirements that make it possible to report on individual fund investments, performance, risk management, costs and responsible investments. One requirement will be that we can publish a regular overview of portfolio companies. Furthermore, we will require private equity funds to report on sustainability and corporate governance at portfolio companies. The partnership agreements will also ensure that we can share all relevant information with key bodies such as the Ministry of Finance, Norges Bank's Supervisory Council and the Council on Ethics when necessary, as well as third parties appointed to evaluate the fund's performance. Norges Bank will only invest with private equity funds that meet our requirements.

Transparency is also about evaluating results and valuing investments. Both are more challenging than for listed equity investments, as unlisted investments are not continuously priced in the market. Our public reporting will be based on valuations from the private equity funds.[37] This is standard practice among other institutional investors. As with the fund's other unlisted investments, Norges Bank will establish internal controls to ensure that these valuations give the best possible picture of the performance of our investments. In cases of major market movements, we will consider adjusting the valuations we receive based on information we receive about the portfolio companies. In the partnership agreements, we will require that valuations of companies are revised annually and comply with Norges Bank's IFRS requirements, as well as return measurement in accordance with GIPS[38].

We will report separately on unlisted equities' contribution to our overall excess return. The return on unlisted equity investments should be compared with relevant performance measures, such as the return on the securities that we have sold to finance these investments. We will report in a way that ensures that external parties can evaluate our performance. The return on an investment in a private equity fund cannot be determined definitively until the fund has sold all its portfolio companies.

As with the GPFG's other investments, some information will be commercially sensitive. Therefore, we will not publish valuations of individual companies. Nor do we do that for the fund's unlisted real estate investments.

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[35] Most recently in August this year, the US Securities and Exchange Commission proposed new rules to increase transparency around performance, fees and costs at private equity funds.
[36] Partnership agreements have become more detailed over time.
[37] For further information on the valuation of unlisted companies, see Enclosure 5.
[38] Global Investment Performance Standards.

Other funds with strict requirements for transparency have large investments in private equity.[39] The GPFG was named the world's most transparent fund in 2023.[40] Second and third in the same ranking were state-owned pension fund Canada Pension Plan Investments and pension fund AustralianSuper, one and two points behind the GPFG respectively. At the end of 2022, these two had 34 and 5 percent respectively of their capital in private equity.

Investing responsibly

Responsible investment is an integral part of our management of the fund. We work on responsible investment and active ownership at three levels. At market level, we work on improving international standards for all companies. At portfolio level, we monitor information on environmental, social and governance issues and use these insights in our investment activities. At company level, we promote sustainability and good corporate governance through clear expectations, company dialogues and voting. Our expectations do not differentiate between listed and unlisted companies. Norges Bank's overarching framework for responsible investment will also apply to private equity investments.

At market level, we will continue to support international standards and contribute to their further development. Regulatory authorities and standard setters have not come as far when it comes to investing in and alongside private equity funds as they have with listed companies. Norges Bank's ability to contribute to work on international standards may therefore be greater. Norges Bank believes that the benefits of investor collaboration in this area could be considerable.

At portfolio level, we can require in the partnership agreements that the private equity funds report regularly on responsible investment activities at portfolio companies in line with internationally recognised principles and standards. For example, we will expect companies to commit to net zero emissions by 2050, have time-limited targets for emission reductions, and report on their progress. Norges Bank has reviewed the reporting of the largest private equity funds and sees that they now report broadly on responsible investment, including emissions and emission reductions at portfolio companies. Private equity funds are also investing more capital in climate-friendly solutions.[41]

Voting and monitoring at the company level will largely be delegated to the managers of the private equity funds. In our agreements with private equity funds and through

[39] Enclosure 1 gives examples of how other funds report on their private equity investments.
[40] *2023 Global Pension Transparency Benchmark.*
[41] Assets under management at private equity funds specialising in such solutions increased from 75 billion dollars in 2019 to 196 billion dollars in 2022, an annual growth rate of 40 percent. McKinsey (2023).

thorough due diligence, we will ensure that we invest in funds that share our principles for responsible investment and will avoid or actively engage with companies with unsustainable business models.

Our expectation documents and principles for responsible investments will be an important starting point for the partnership agreements we negotiate and for ongoing dialogue with the private equity funds. We will monitor managers' processes and any issues at individual companies by following up with managers and participating in Limited Partner Advisory Committees. It is our assessment that the planned approach to responsible investment will safeguard our influence as an investor in private equity funds.

The fund cannot be invested in companies excluded from the investment universe under the guidelines for observation and exclusion. In our partnership agreements with private equity funds, we will attach particular importance to ensuring that investments are made in accordance with these guidelines. This is standard practice among other investors, and a number refer to the GPFG's ethical guidelines in their partnership agreements.

If a private equity fund invests in a company that violates these guidelines, that company will not be part of our fund investment. We expect that our interests will align with those of the private equity fund in most cases, and that situations that could result in ethical exclusions will be rare, especially conduct-based exclusions. We describe how Norges Bank will handle situations that arise during the life of a private equity funds under *Non-financial risk*. We have had an initial dialogue with the Council on Ethics. If the fund is permitted to invest in unlisted equities, we will continue this dialogue to find a way of ensuring the same good exchange of information as today. In our agreements with private equity funds, we will ensure that the Council on Ethics has access to relevant information.

<u>Non-financial risk</u>

Any investment exposes investors to non-financial risk. Aspects of both the fund manager and portfolio companies can be sources of such risk. Some private equity funds have been criticised for investing in ways that impose costs on society in the form of job losses and unsustainable business models. Studies of the conduct of private equity funds do not give grounds to conclude that they act in such a way as a group.[42] Just as with listed companies, however, there will always be some actors with unsustainable business practices.[43]

Non-financial risk can affect the GPFG's credibility and reputation. If the fund is permitted to invest in unlisted equities, it will, on average, have larger holdings in individual

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[42] See, for example, Cohn, Nestoriak and Wardlaw (2021), Bernstein, Lerner, Sorensen and Strömberg (2017), Acharya, Gottschalg, Kehoe and Hahn (2013) and Bloom, Sadun and Van Reenen (2015).

[43] See, for example, Gupta et al. (2021).

companies than is the case with the fund's listed equity investments. This may mean that the reputational consequences of an unwanted event will be greater. The Executive Board has placed great emphasis on limiting this risk in the strategy outlined here. We will invest with large and established managers in developed markets in Europa and North America and not have ownership shares above 15 percent. In comparison, the fund's maximum ownership share in a listed company is 10 percent, while ownership shares around 50 percent are common in the fund's portfolio of unlisted real estate and infrastructure. In the agreements Norges Bank enters with private equity funds, the Executive Board will set strict requirements for transparency and responsible investments. These requirements may mean that the fund misses out on investment opportunities.

Norges Bank will seek to limit remaining exposure to non-financial risk through the partnership agreement with the private equity firms and thorough due diligence. As with the fund's other investments, not all risk can be eliminated ahead of an investment. An unwanted event with reputational consequences for the GPFG and Norges Bank could occur during the life of a private equity fund. For example, an investment might be found to violate the ethical guidelines.

In the case of an unwanted event, Norges Bank will begin by engaging in dialogue with the manager on a risk management plan. Buyout funds' holdings in portfolio companies average 80 percent, which brings control and power.[44] If the plan for risk management does not make progress or meet our expectations, we will aim to sell the investment in the secondary market. Even with a functioning secondary market, there is a risk that we will have to sell at a significant discount to the estimated value at the time of sale, or that we do not manage to sell before the fund's life naturally comes to an end. It will be particularly challenging to sell co-investments. Potential sources of non-financial risk must therefore be reviewed thoroughly ahead of each co-investment.

The Executive Board will set strict requirements for the selection of private equity managers, transparency and responsible investment, as well as restricting the investments geographically. Given these requirements, it is the Executive Board's assessment that the non-financial risk in the fund will not change significantly.

Governance structure

There are certain differences between listed and unlisted investments that need to be considered in the GPFG's governance structure. Unlisted investments are not priced continuously in the market, and there are no suitable benchmark indices. Hence, unlisted investments are not part of the fund's benchmark index, and additional risk limits will need to be set. We discuss how unlisted equity investments can be regulated in the management mandate in a separate letter dated 27 November 2023. In the following, we

[44] See Gompers et al. (2016).

describe how additional risk limits should be set, as has been done for investments in unlisted real estate and infrastructure.

Ministry of Finance
It is important that the allocation of roles and responsibilities between the Ministry of Finance as owner and Norges Bank as operational manager is clear.

In the letter dated 27 November, Norges Bank considers the regulation of unlisted equities in connection with the fund's other unlisted investments. Up to 9 percent of the fund can currently be invested in unlisted real estate and unlisted infrastructure for renewable energy. If the Ministry permits investments in unlisted equities, an overall upper limit for unlisted investments could, for example, be set in the interval between 10 and 12 percent. Since unlisted investments are not priced daily in the market, such an upper limit must take into account that the share of unlisted investments will increase when listed markets fall. Under normal market conditions, there is a need for a significant buffer between the share of unlisted investments in the portfolio and the upper limit in the mandate.

The Ministry can also set an upper limit for the unlisted equity portfolio, as with real estate and infrastructure. Any upper limit should be set in such a way that Norges Bank avoids having to sell fund interests in the secondary market at unfavourable times.

Within the upper limits and other limits set by the Ministry of Finance, it will be delegated to Norges Bank to decide on how and how much to invest in unlisted assets. In the strategy plan for the GPFG, Strategy 25, the Executive Board's ambition is that 3-7 percent of the fund should be invested in unlisted and listed real estate under a combined strategy, and that we should continue to build a portfolio for renewable infrastructure. Investing in unlisted equities will not change this. At the end of June 2023, real estate and infrastructure accounted for 3.9[45] and 0.1 percent of the fund respectively.

As with the fund's other unlisted investments, the Ministry should permit investments to be made through separate legal entities and in different types of financial instruments. Ownership shares should be permitted to exceed the 10 percent limit set for listed companies.

Norges Bank's Executive Board
Norges Bank's Executive Board should be responsible for the investment strategy and operational guidelines for private equity investments. In accordance with this, the Executive Board will set limits for how much of the portfolio may be invested in private equity funds and co-investments. The Executive Board will also set limits for how much

[45] 2.3 percent of the fund was invested in unlisted real estate and 1.6 percent in listed real estate.

of the portfolio may be invested in different categories of private equity fund, such as buyout, venture and growth funds. There will also be limits for the maximum interest in any one fund and any one portfolio company, and a limit for how much may be managed by any one external partner. To manage country risk, the Executive Board will set a list of countries in which the fund's unlisted equity portfolio may be invested.

As with the fund's existing unlisted investments, the Executive Board should issue guidelines and principles for thorough due diligence ahead of investments in and alongside private equity funds. The aim of this due diligence should be to map all relevant investment risk and non-financial risk, while ensuring that the fund invests with recognised partners that have shown that they can create value for investors in a transparent and responsible manner.

In an early phase, it is natural that the Executive Board will pay particular attention to which partners the fund invests in and together with. The Executive Board will also issue requirements for the GPFG's reporting and responsible investments for private equity investments.

In this letter, we have outlined a strategy for investments in unlisted equities. If the Ministry decides to permit the fund to be invested in unlisted equities, Norges Bank will formulate a more detailed investment strategy and set a suitable return target. The return target will take into account that private equity investments will expose the fund to other types of risk besides equity market risk, such as liquidity risk. It is also challenging to precisely measure the risk of such investments, including equity market risk. Norges Bank's return target will therefore be set higher than the return on the stocks sold to finance these investments.

Norges Bank Investment Management
The responsibility for investment decisions is delegated to the Chief Executive Officer (CEO) of NBIM. Roles and responsibilities within NBIM are clearly defined.

The Executive Board believes that responsibility for carrying out due diligence, selecting partners, executing investments and monitoring partners should rest with NBIM. It should be required that new partners and fund investments/co-investments over a certain amount would need the approval of NBIM's CEO. Investments of an unusual nature or of great importance should be presented to the Executive Board.

Overall conclusion

Norges Bank considers it a natural evolution of the investment strategy for unlisted equity investments to be permitted on a general basis, and recommends that the investment universe is broadened. Unlisted companies are accounting for an ever more important part of the market portfolio and global value creation. Other sovereign investment funds and large pension funds, that emphasise transparency and responsible investment, have

significant private equity investments. A broader investment universe will provide more investment opportunities and help the fund benefit from a larger share of global value creation than today.

The goal for the management of the fund is the highest possible return after costs. Analyses of historical returns indicate that investments in private equity will give higher returns after costs than listed equity in the long term. Historical returns are no guarantee of future returns, but the GPFG's characteristics and reputation can provide access to the best private equity managers and lower costs compared to the average investor in private equity.

The benchmark index and restrictions in the management mandate set out what is considered acceptable risk for the fund's owner. If the Ministry permits investments in private equity, Norges Bank will organise the management of such investments to keep the equity market risk in the fund unchanged.

We have presented how we believe investments in unlisted equities should be made given the fund's characteristics and requirements for cost efficiency, responsibility and transparency. Norges Bank will build up a portfolio of unlisted equity investments gradually. If the Ministry permits private equity investments, we will formulate a detailed investment strategy and set a return target. The Executive Board will place particular emphasis on establishing principles that ensure that investments are made with recognised partners that have shown that they can create value for investors in a transparent and responsible manner.

Yours faithfully

Ida Wolden Bache　　　　Nicolai Tangen

Enclosures

Norges Bank

Enclosures

Enclosure 1: Trends relevant to the fund's investment strategy

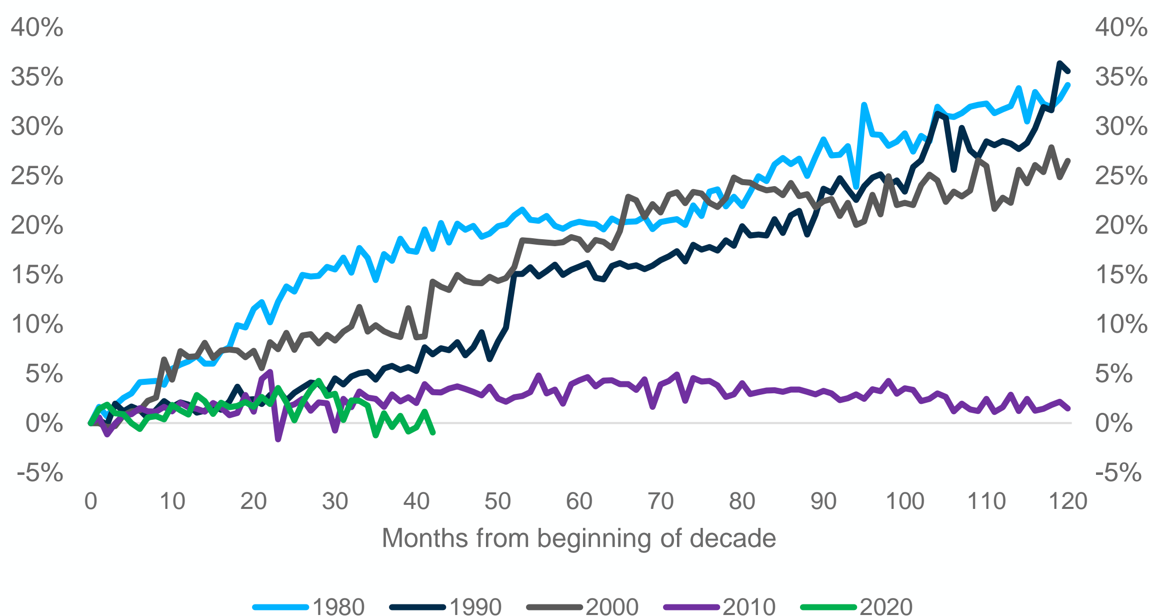
Chart 1: Weight of the ten largest companies in the FTSE Global All Cap index and the GPFG's benchmark index for equities, percent

Source: FTSE Russell and NBIM.

The number of listed companies worldwide has levelled off.[46] In large, developed markets such as the US, the UK and most countries in the euro area, the number of listed companies has long been in decline. The levelling off of the number of listed companies does not necessarily mean that the listed equity market is not growing. Historically, many small listed companies have been taken over by larger ones.[47] The companies acquired will disappear from the statistics for the number of listed companies, but their market value will be incorporated into the acquiring company. This means that the listed equity market can grow even if the number of listed companies falls. Chart 2 shows that this was the case in the 1980s, the 1990s and the 2000s. Since 2010, however, the listed equity market has not grown beyond what can be explained by movements in share prices.

[46] World Bank Development Indicators.
[47] Eckbo and Lithell (2023) make a merger-adjusted listing count of listed companies. They find that this count peaks around year 2000 and levels off or falls somewhat after that.

Chart 2: Cumulative difference between total market value and share price appreciation by decade



Source: World Bank, FactSet Analytics, MSCI and NBIM calculations.
Note: The chart shows the cumulative difference between gross market value and share price appreciation for the MSCI World index in five different decades. A rising curve means that the total market value of the index grew more quickly than can be explained by share price movements. A flat curve means that the listed equity market did not grow beyond what can be explained by share price movements. Monthly data from January 1980 to June 2023.

One long-term trend is for the companies coming to market to be larger than in the past.[48] There are a variety of explanations in the academic literature for why companies are choosing to remain in private ownership for longer. Recurring themes are the direct costs of the IPO, the loss of control and efficiency with more diverse ownership, regulatory changes, and increased access to capital in the private market.[49] The greater availability of capital in the private market means that raising capital is no longer necessarily the main aim of going public. An IPO is also an opportunity for private equity funds, founders, employees and other shareholders to realise their assets. From 2011 to 2021, 80 percent of US companies had a private equity fund among their owners when listing.[50]

<u>Public reporting at other international funds</u>

Canada Pension Plan Investments

At the end of 2022, Canada Pension Plan Investments (CPPI) had 34 percent of its capital invested in unlisted equities, equivalent to 134 US billion dollars. CPPI has a

[48] Jay Ritter, *IPO Statistics 2023*. 2022 deviates from earlier years with significantly less IPOs and smaller average size.
[49] See, for example, Stulz (2020) and Ewens and Farre-Mensa (2017).
[50] Jay Ritter, *IPO Statistics 2023*. 2020 deviates from earlier years with significantly less IPOs and less IPOs with private equity funds among the owners at listing.

diversified portfolio of unlisted equities, investing in and alongside various types of private equity funds. CPPI also invests directly into unlisted companies by itself.

CPPI’s website displays the different funds and portfolio companies it is invested in. Investments are grouped into direct investments, growth funds, Asian funds, secondary funds and other funds. For portfolio companies, CPPI shows the respective logo, location and date of investment together with a link to the company's website. For the funds CPPI is invested in, it shows committed or invested capital depending on the type of investment. For secondary funds, CPPI discloses which private equity funds it is invested in but not the portfolio companies.

In its annual report, CPPI presents private equity investments in the same manner as other investments. The private equity portfolio is grouped by geography and sector, with information on absolute returns, costs and net returns for different periods. Work on responsible investment is described in a separate annual report.

Sjätte AP-fonden
Sjätte AP-fonden (AP6) in Sweden invests exclusively in private equity. At the end of 2022, assets under management amounted to more than 6 billion US dollars.

In its annual report, AP6 describes its private equity portfolio in detail. It discloses how much is invested in different types of funds, such as buyout and secondary funds. It also discloses the absolute returns on the funds over the past year, five years and ten years. Net return is benchmarked to a return target for private equity from data provider Burgiss. The portfolio is also grouped by sector, region and fund-level portfolio manager. On its website, AP6 has an overview of the private equity funds it invests in and with, along with its percentage share of each fund.

AP6 describes its work on responsible investment and active ownership in the annual report. It participates in limited partner advisory committees at several funds. AP6 discloses how unwanted incidents at specific portfolio companies have occurred and what changes have been made in response. AP6 has an overall ESG assessment for the private equity funds, and shows that the integration of ESG has brought improvements over time. An increasing proportion of the private equity funds that AP6 is invested in have integrated ESG into their investment decisions, ownership and reporting. Furthermore, AP6 has several concrete goals for responsible investment and tracks which goals have been reached by the private equity funds.

Other examples
At the end of 2022, the Canadian Caisse de dépôt et placement du Québec (CDPQ) had 20 percent of its investments in private equity, equivalent to 60 billion US dollars. CDPQ publishes its ownership list annually for all private investments. The valuation of individual companies is commercially sensitive information and therefore not published.

Instead, CDPQ discloses the size of individual investments within one of eleven value ranges.

At the end of 2022, US pension fund CalPERS had 11 percent of its capital invested in private equity, equivalent to 50 billion dollars. CalPERS discloses estimated market values for all fund investments, including management fees to partners. Furthermore, CalPERS discloses the vintage year, committed capital, distributed capital, residual value, net internal rate of return and investment multiple for each fund.

Norges Bank

Enclosure 2: Value creation at private equity funds

Private equity funds can generate returns for investors in two ways: by investing in companies that increase in value during the time they are owned by the fund (multiple expansion) or by changing the way companies are run (operational improvements).[51]

Multiple expansion means that the fund invests in companies that are undervalued or achieve a higher valuation when sold. To succeed with multiple expansion, private equity funds carry out extensive analyses of numerous companies. Only 3 percent of all investment opportunities considered for buyout funds come to anything.[52] Operational improvements mean that the fund makes changes to the running of companies to increase value creation. This is made possible by private equity funds often having a controlling interest in the company. Private equity funds generally create value through three types of improvement: (i) governance engineering, (ii) operational engineering and (iii) financial engineering.

Governance engineering

The managers of private equity funds often make changes to portfolio companies' boards. They bring in people with a strong background in similar businesses and sit on the board themselves. Boards are often smaller than at equivalent listed companies.[53] The fund managers help recruit executives and aim to establish an alignment of interests by requiring directors, management and key personnel to invest in the company. Studies show that private equity funds contribute to more professional leadership.[54]

Operational engineering

Private equity funds use their industry knowledge and operating expertise to increase value creation at portfolio companies. Strategies for operational engineering depend on the company's needs and may entail changes to its business model and strategy, marketing or strategic acquisitions. With start-ups and growth companies, operational engineering focuses on growth, while at more mature companies, it typically helps increase efficiency.[55] Most studies find signs of operational improvements. In some cases, however, better financial results can be linked to lower service quality.[56]

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[51] For a more detailed description of how private equity funds create value, see NBIM Discussion Note 4/2023.

[52] See Gompers, Kaplan and Mukharlyamov (2016) and Gompers, Gornall, Kaplan and Strebulaev (2020).

[53] See Amornsiripanitch, Gompers and Xuan (2019).

[54] For example, Ewens and Marx (2018) find that venture funds accelerate the professionalisation of start-ups. Bloom, Sadun and Van Reenen (2015) find that governance policies at small companies improve while they are held by a private equity fund, especially in the case of family-owned companies. Bernstein and Sheen (2016) and Cohn, Nestoriak and Wardlaw (2021) find better health and safety performance.

[55] See Fracassi, Previtero and Sheen (2022) and Davis, Haltiwanger, Handley, Lipsius, Lerner and Miranda (2021).

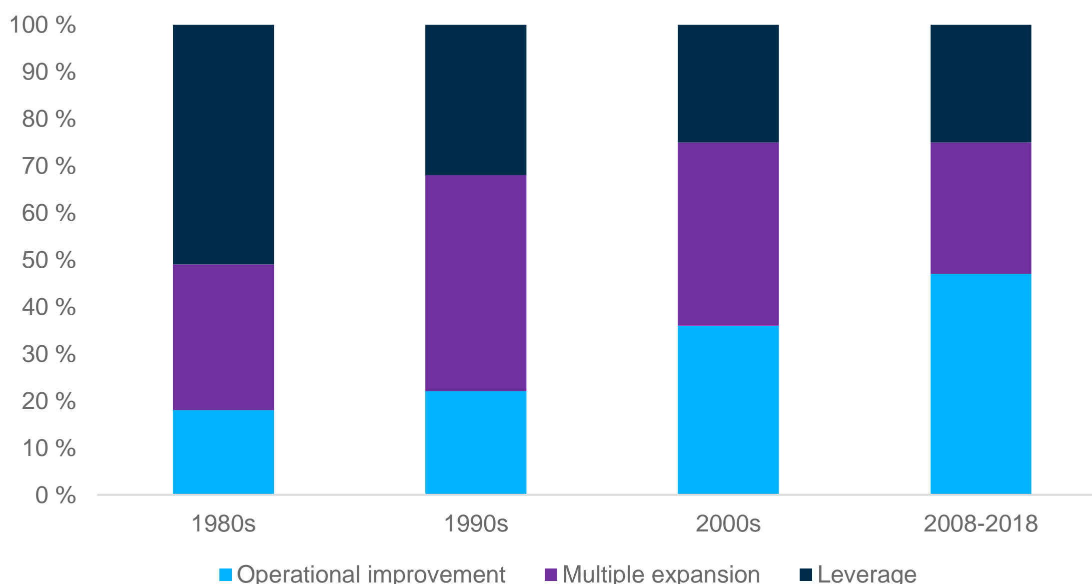
[56] See Sorensen and Yasuda (2023), Gupta, Howell, Yannelis and Gupta (2021) and Eaton, Howell and Yannelis (2020).

Financial engineering

The managers of private equity funds can make changes to the capital structure of companies by using leverage when purchasing them, changing their tax and funding structure, and redesigning financial contracts to balance economic incentives and control. This kind of financial engineering often goes hand in hand with governance engineering. Historically, higher leverage and lower cash balances have been associated with more efficient investment decisions.[57]

Chart 1 shows how the sources of value creation at portfolio companies have evolved over time. Multiple expansion and financial engineering were the most important drivers of value creation in the 1980s and 1990s. Since the 2000s, operational improvements have played an ever more important role in value creation. This trend is probably a result of a more mature industry and increased competition for investments. It is now standard practice at large private equity firms to recruit more people with industry expertise and the ability to make operational improvements.[58]

Chart 1: Sources of value creation at private equity funds



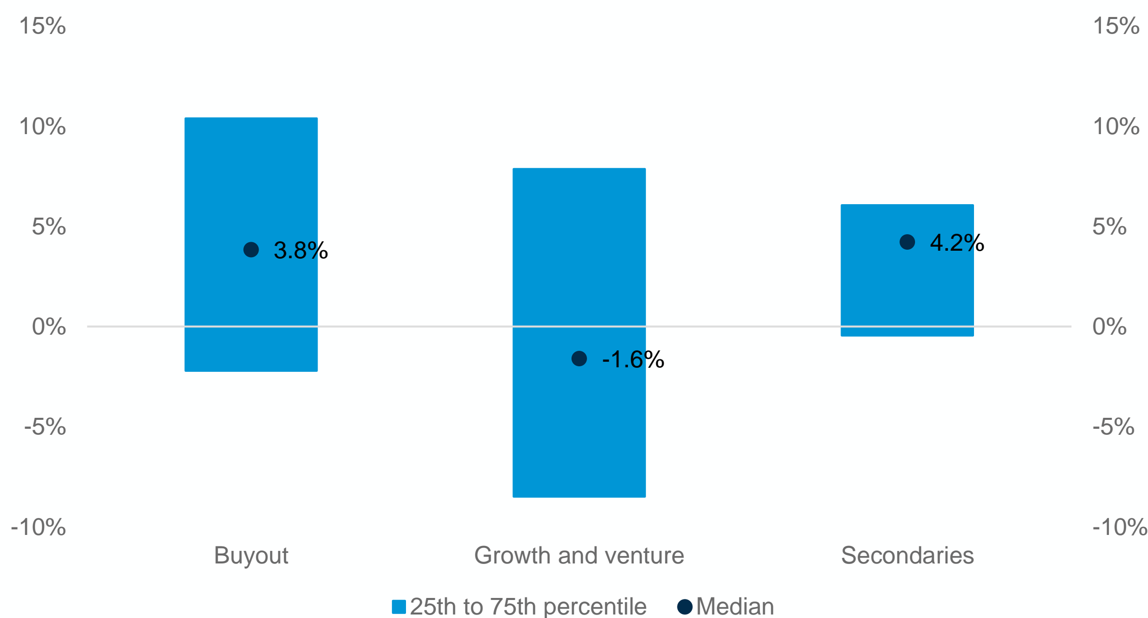
Source: Institute for Private Capital and BCG, based on the method in Gottschalg, Loos and Zollo (2004).

[57] See Jensen (1986) and Kaplan and Strömberg (2009).
[58] See Jenkinson et al. (2021).

Enclosure 3: Analysis of historical risk and return for investments in private equity
In a Discussion Note published on 14 September 2023, Norges Bank Investment Management (NBIM) reviews the academic literature and analyse the risk and return when investing in unlisted equities.[59] The analysis is based on private equity funds, which are the part of the market where the most data of satisfactory quality is available. This is also where a large proportion of the capital from institutional investors is currently allocated.

NBIM's analysis of returns after fees looks at four categories of private equity fund: buyout, venture, growth and secondary. The results are shown in Chart 1 and Chart 2.

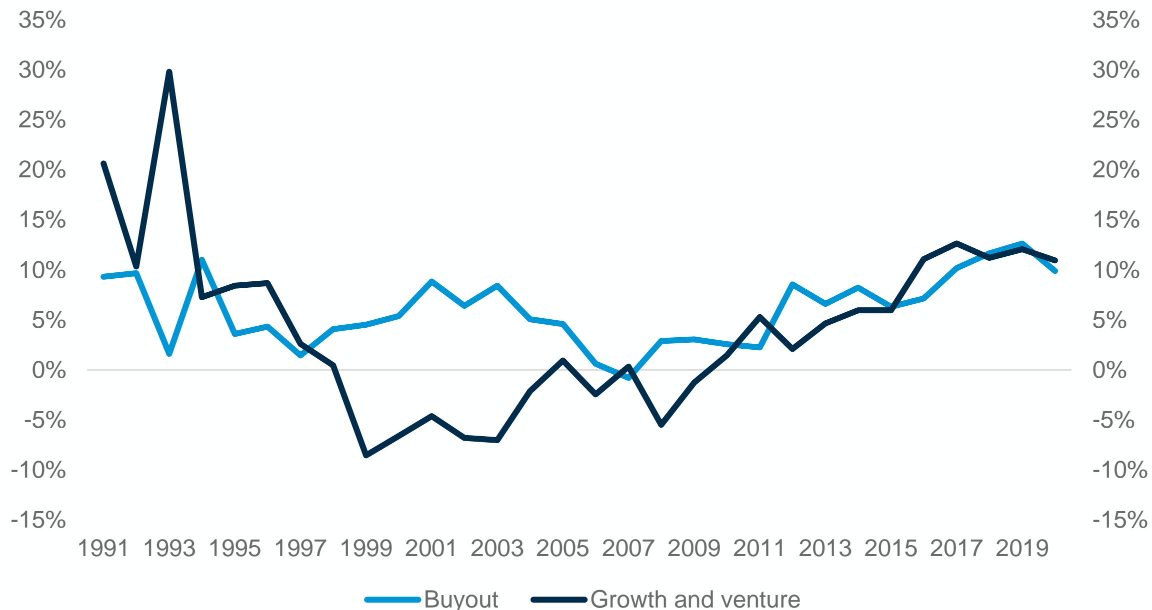
Chart 1: Direct alpha for different categories of private equity funds



Source: NBIM Discussion Note 4/2023..
Note: The calculations compare the return on private equity funds with investments in the broad listed equity market during the same period and with the same cash flows, expressed as an annual amount, known as direct alpha. For the listed equity market, NBIM uses the total return on the FTSE Global All Cap index. The analysis includes funds with vintage years from 1985 to 2016, and excludes vintages after 2016 as only a small proportion of their value will have been realised and distributed back to investors. The estimates for return after costs would have been higher if these more recent vintages had been included. Quarterly data from January 1985 to March/June 2023 (for further information, see Table 2 in Appendix B to Discussion Note 4/2023).

[59] For further information, see NBIM's Discussion Note 4/2023.

Chart 2: Direct alpha for different vintages and categories of private equity funds



Source: NBIM Discussion Note 4/2023.
Note: The calculations compare the return on private equity funds with investments in the broad listed equity market during the same period and with the same cash flows, expressed as an annual amount, known as direct alpha. For the listed equity market, NBIM uses the total return on the FTSE Global All Cap index.

Our analysis of buyout funds ties in well with a number of academic studies despite using different methods and data sets. Korteweg (2023) sums up the results of several studies. The average excess return for buyout funds across these studies is about the same as NBIM finds in its analysis. Studies that indicate lower historical returns base their analysis either on transactions in the secondary market or on investments by specific investors.[60] The former assume that investors do not hold their investments for the life of the fund, while the latter will be less representative than data sets consisting of multiple investors and funds.

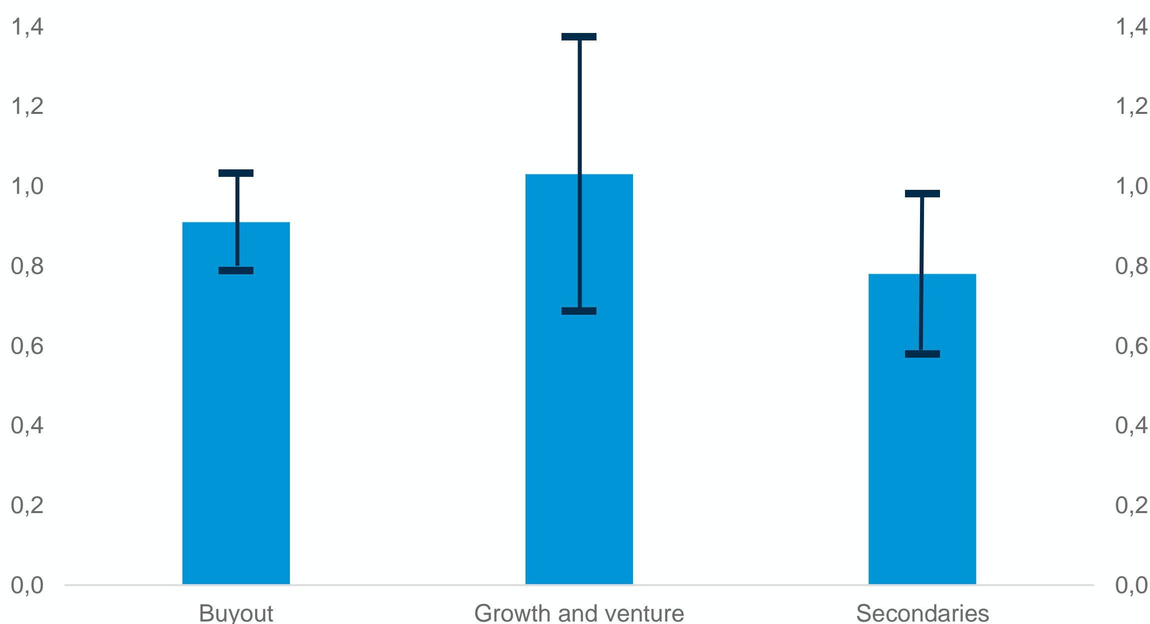
The calculations in the Discussion Note compare the net return on unlisted equities with listed equities. An allocation to unlisted equities will in most cases be matched by a corresponding reduction in the investor’s allocation to listed equities. The return in the listed market represents the opportunity cost of investing in unlisted equities and is therefore a good and relevant yardstick. Calculations that compare the net return on unlisted equities with listed equities do, however, implicitly assume that the equity market risk (beta) is the same for both.

To explore whether the excess return on buyout funds can be explained by greater equity market risk, NBIM calculates the equity market risk for investments in private equity

[60] See, for example, and Boyer, Nadauld, Vorkink and Weisbach (2023) and Robinson and Sensoy (2016).

funds. The calculations in Chart 3 indicate that buyout funds have similar equity market risk to a broad listed equity portfolio, while venture funds have slightly greater equity market risk.[61] Korteweg (2023) obtains similar results when comparing a number of academic studies. Studies based on gross returns find higher equity market risk than studies based on net returns. This is partly due to performance fees fluctuating with market developments and therefore dampening the sensitivity to stock market fluctuations, but also because the data sources are different. The broad, publicly available and widely used datasets from providers such as Burgiss and Preqin have data for net returns at the fund level. In Chart 4, we show the distribution of estimates of equity market risk that look at net returns in buyout funds from Korteweg (2023).

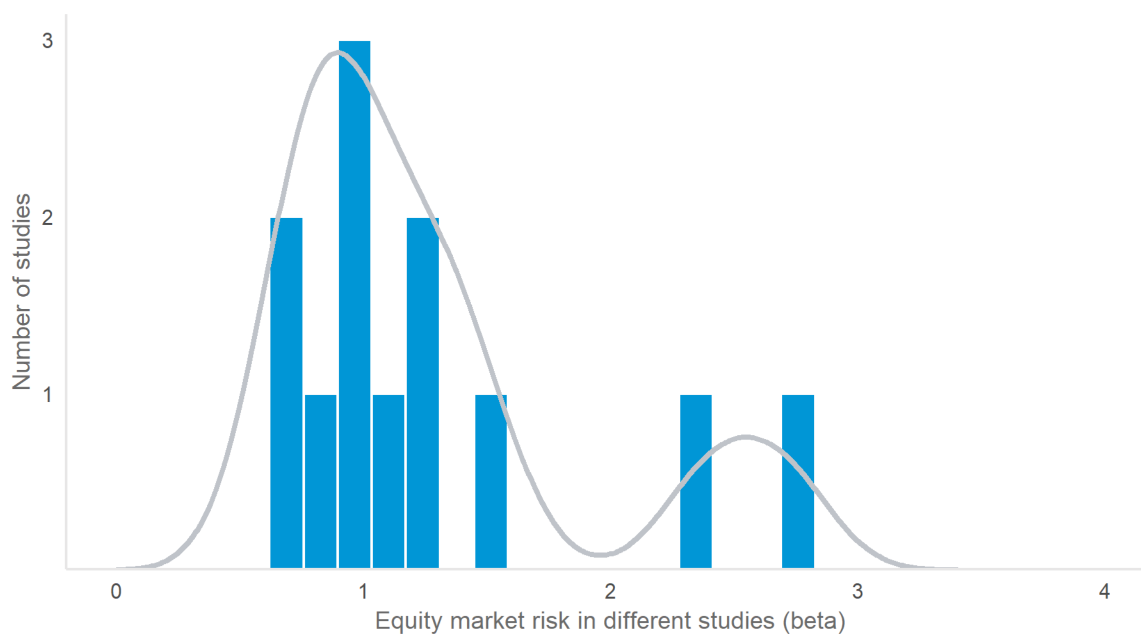
Chart 3: Equity market risk (beta) compared with the broad listed equity market for different categories of private equity funds



Source: NBIM Discussion Note 4/2023.
Note: Calculations of direct alpha assume that the market risk for unlisted and listed equity investments is the same. To test this assumption, NBIM estimates the market risk (beta) for different categories of private equity funds. The analysis corrects for possible lags between returns in listed markets and valuations of unlisted equity investments using the method proposed by Dimson (1979). NBIM uses a lag of six calendar quarters (Korteweg, 2022). The dark blue line represents a 95 percent confidence interval. For the listed equity market, NBIM uses the total return on the FTSE Global All Cap index. Quarterly data from 2000 to 2023.

[61] In the Discussion Note there is also adjustments for other types of risk, such as size and value, with no appreciable impact on the results.

Chart 4: Estimates of equity market risk (beta) for buyout funds in Korteweg (2023)

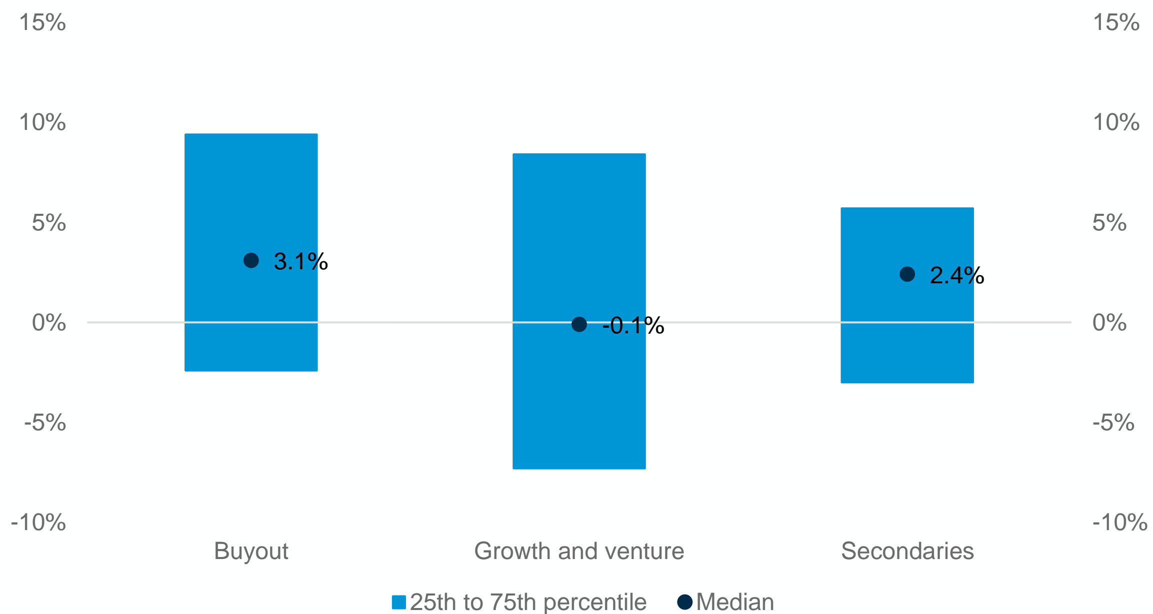


Source: Korteweg (2023). Based on 12 different studies.

The portfolio companies of large private equity funds are comparable in size to small, listed companies. Since small companies have historically had higher returns than large companies for long periods, it has been suggested to compare private equity returns with the returns on small, listed companies.[62] Chart 5 compares the net return on private equity funds with a broad portfolio of listed small-cap companies. The excess return for buyout funds is still significant.

[62] See for example Phalippou (2020).

Chart 5: Direct alpha for different categories of private equity funds compared with small listed companies



Source: Preqin, FTSE and NBIM calculations.
Note: The calculations compare the return on private equity funds with investments in small listed companies during the same period and with the same cash flows, expressed as an annual amount, known as direct alpha. For the listed equity market, we use the total return on the MSCI Global Small Cap index launched in January 2001. We include funds with vintage years from 2001 to 2016. We exclude vintages after 2016 as only a small proportion of their value will have been realised and distributed back to investors. Quarterly data from January 2001 to March/June 2023.

Enclosure 4: Implementation of investments in unlisted equities

Thorough due diligence

To succeed in investing in and alongside private equity funds, we need to identify solid partners that have shown that they can create value for investors in a transparent and responsible manner. The strategy outlined in this letter requires competence in manager selection. Norges Bank has built expertise in manager selection since 1998 and has good experience with this.

Before we invest in private equity funds, it will be important to have a broad knowledge of the manager's support and control functions, decision-making structure and decision makers, key personnel, incentive programmes for the departments involved, and approach to transparency and responsible investment, to name but a few. We will therefore visit and interview employees in different departments to form an understanding of the organisation. Due diligence and partnership agreements will help ensure that relevant partners share our interests along key dimensions such as transparency, governance and sustainability.

Part of this due diligence will cover the manager's performance in previous funds. Just as important as various return metrics is understanding the manager's processes and strategy for value creation at portfolio companies. We will analyse previous transactions, whether the strategy for value creation has actually been executed, and whether the strategy for each company was a success. The aim is to find out how likely it is that the manager will succeed again in the future.

Tax

As far as Norges Bank has been able to ascertain, investing in and alongside private equity funds will not result in material new tax issues beyond those with which we already have experience. As with the GPFG's existing unlisted investments, we will invest in and alongside private equity funds through subsidiaries of Norges Bank. We will organise these investments in a way that ensures cost efficiency and effective governance and control. Given Norwegian tax and company law, and the special rules for limited companies wholly or partly owned by Norges Bank in Section 2-40 of the Tax Act, any investments will be made through subsidiaries in Norway.

The management mandate states that the fund may be invested only in companies and fund structures in countries with which Norway has a tax treaty or countries from which Norway is entitled to demand tax information under other international treaties. This will be ensured in the partnership agreements entered into in advance of any investments.

Most private equity funds are registered in Luxembourg, Ireland or Delaware. We will not invest in fund structures registered in jurisdictions where the fund's reputation could be particularly negatively affected. Our expectations of companies when it comes to tax and tax transparency will not be affected by whether they are listed or unlisted.

Investing in the secondary market

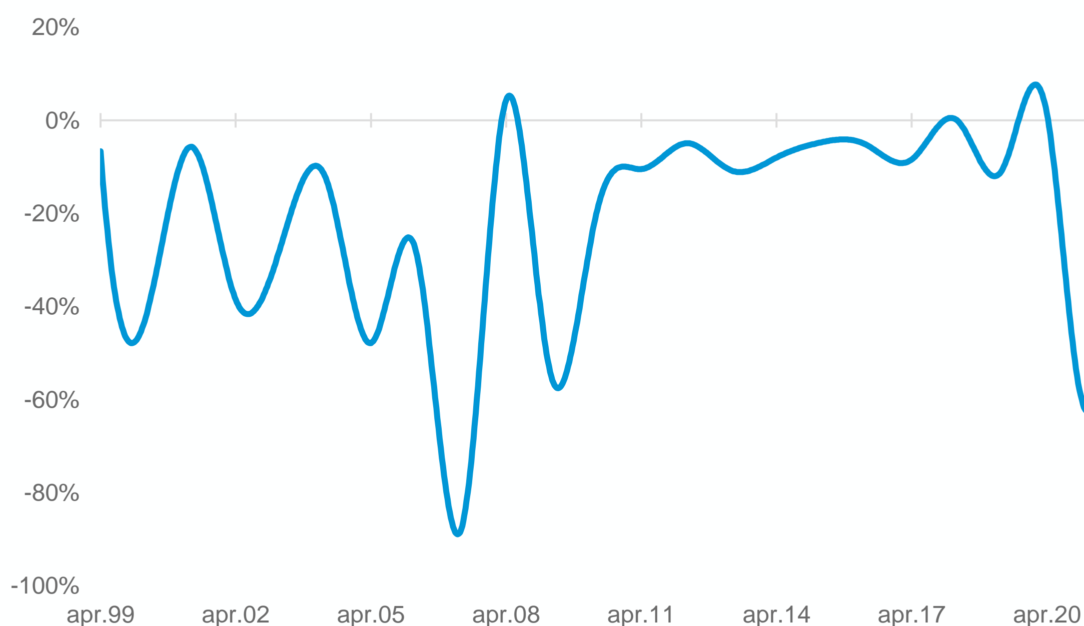
There are three main approaches to investing in the secondary market: direct investments, secondary funds and separately managed accounts.[63] Direct investments require substantial internal resources and very different expertise to manager evaluation. Secondary funds can further diversify risk but also mean additional fees, less control over which funds are invested in, and less transparency around the underlying companies. Separately managed accounts would appear to be the most appropriate approach for us, but this will require more detailed analysis if permission is given to invest in unlisted equities.

[63] A separately managed account means that a long-term management agreement is entered into between an investor and a private equity fund. The investor does not then invest in the private equity fund but in a selection of companies tailored to the aims of the agreement.

Enclosure 5: Valuation of unlisted companies
Accounting standards and internationally recognised principles require the portfolio companies of private equity funds to be valued at the best estimate of fair value. The fair value of unlisted companies is normally calculated on the basis of recently completed transactions, the market value of comparable listed instruments, or calculations of the present value of future cash flows. There is one audited appraisal required annually, and this is normally done at year-end.[64]

The introduction of accounting standards for valuing unlisted companies has contributed to more accurate valuations than in the past.[65] Chart 1 shows that the difference between the reported valuations of buyout funds' portfolio companies and their realised value at the time of sale has, on average, decreased. The expansion of the secondary market has also contributed to more frequent valuations, which has probably meant that valuations of unlisted companies have, on average, become more accurate over time.

Chart 1: Difference between reported valuations of buyout funds' portfolio companies and their fair value at the time of sale, percent



Source: Bain & Company based on Burgiss, *The truth will out: Is private equity overvalued?*, September 2022.
Note: The chart shows the extent to which unlisted companies are over- or undervalued in relation to fair value. Fair value is determined when the companies are sold. The analysis does not take account of whether the company is taken public, sold to another private equity fund or sold to a strategic buyer. A negative figure means that reported valuations are below the actual selling price, while a positive figure means that reported valuations are above it.

[64] Bain & Company, *Global Private Equity Report 2023*.
[65] FASB 157 was introduced in 2007, and IFRS 13 in 2013.

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Enclosure 6: References

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