Norwegian Ministry
of Finance

Summary

Meld. St. 13 (2017–2018) Report to the Storting (white paper)

The Government Pension Fund 2018

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Unofficial translation from Norwegian. For information only.

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The Government Pension Fund 2018

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Recommendations of the Ministry of Finance of 10 April 2018, approved by the Council of State on the same day. (Government Solberg)

1 Executive summary

The purpose of the Government Pension Fund is to support long-term considerations in the government's spending of petroleum revenues, as well as saving to finance pension expenditure under the National Insurance Scheme. The Fund's contribution to the financing of government expenditures will be of particular importance as the population ages and government finances are subjected to mounting pressure. An aging population will mean increased expenditure on pensions, as well as on health and care services, while government revenues at the same time will be weakened as the result of a smaller portion of the population working and paying tax. Sound long-term management of our joint savings in the Government Pension Fund will help ensure that Norway's petroleum wealth can benefit both current and future generations.

The Government Pension Fund comprises the Government Pension Fund Global (GPFG) and the Government Pension Fund Norway (GPFN). The funds are managed by Norges Bank and Folketrygdfondet, respectively, under mandates laid down by the Ministry of Finance.

The GPFG is an integral part of the fiscal budget and the fiscal policy framework. The government's petroleum revenues are transferred to the GPFG in their entirety, while spending via the fiscal budget over time shall follow the expected real rate of return on the Fund (the fiscal policy guidelines).

The Government Pension Fund is managed with an objective to achieve the highest possible return with an acceptable level of risk. Management shall be transparent, responsible, long-term and cost effective. There is broad political consensus that the Fund should not be used as a foreign policy or climate policy instrument.

This report concerns the management of the GPFG and the GPFN. It includes a presentation of fund performance in 2017 and a comprehensive review of Norges Bank's management of the GPFG. The report also discusses further development of the investment strategy and the responsible management framework.

Starting this year, the report will be named after the year in which it is published. The title has thus been changed to the Government Pension Fund 2018.

The investment strategy for the Fund

The investment strategy has been developed over time based on financial studies, practical experience and thorough assessments. Important strategic choices have been endorsed by the Storting (Parliament). This contributes to the sustainability of the chosen long-term strategy, also in periods of financial market turbulence.

The investment strategies for the GPFG and GPFN are set out in the management mandates for the funds, as laid down by the Ministry of Finance, with, inter alia, the preferred level of risk being reflected in the weighting of the equity and fixed-income benchmarks. The equity share of the GPFG is being gradually increased from 62.5 percent to 70 percent, in line with the Storting's deliberation of last year's report. The equity share stipulated for the GPFN is 60 percent. Fixed-income securities account for the remainder of the benchmark indices.

The investment strategy adopted for the Government Pension Fund is based on the premise that risk can by reduced by diversifying the investments across different asset classes, countries, sectors and companies. It is also based on the premise that financial markets largely are well-functioning, thus implying that it will be difficult to systematically outperform the general market. This approach suggests that investors should diversify their investments broadly and seek to minimise asset management costs.

Hence, the Government Pension Fund is managed close to the benchmark indices defined by the Ministry of Finance. These benchmarks can be closely mimicked at a low cost. This involves the investments being diversified across a large number of individual equities and fixed-income securities, intended to reflect the investment opportunities available in international financial markets. For the GPFG, more than 99 percent of the volatility of Fund returns can be attributed to the benchmark index. Costs are low compared to those of other large funds.

Norges Bank and Folketrygdfondet deviate somewhat from the benchmark indices. This enables the asset managers to track the benchmarks in a cost-effective manner, as well as to exploit distinctive characteristics of the funds to outperform the benchmark indices. The Ministry has in the mandate for the GPFG stipulated certain requirements that also entail deviations from the benchmark index, including, inter alia, on environment-related investments. Both Norges Bank and Folketrygdfondet have generated excess return over time by deviating from the benchmark index.

High returns in 2017

2017 was a year of high returns and historically low volatility in global financial markets. There was increasing economic growth, low inflation and low interest rates. For last year as a whole, the GPFG achieved a return of 13.7 percent, measured in the currency basket of the Fund. The return was positive for both fixed-income securities and real estate, but highest for equities. The market value at the end of 2017 was Norwegian kroner (NOK) 8,484 billion, net of management costs. Measured in NOK, the market value increased by 977 billion, predominantly as the result of favourable returns on the investments measured in foreign currencies.

Returns in the Nordic financial markets in 2017 were more or less in line with those in the rest of the world. Measured in NOK, the return on the GPFN was 13.2 percent. Equities generated a significantly higher return than fixed-income securities. The market value at yearend 2017 was NOK 240 billion.

Norges Bank and Folketrygdfondet seek to generate the highest possible return, net of costs, within the mandates laid down by the Ministry of Finance. Last year, the GPFG outperformed the benchmark index by 0.70 percentage points, and the annual average excess return since 1998 has been 0.28 percentage points. This amounts to a total of about NOK 140 billion, before asset management costs. In 2017, the GPFN outperformed the benchmark index by 0.46 percentage points, and the annual average excess return since 2007 has been 1.06 percentage points.

Measured as a proportion of assets under management, costs last year were 0.06 percent in the GPFG and 0.07 percent in the GPFN. This is within the limits stipulated by the Ministry of Finance.

Expected return and future developments in the value of the Fund

International financial markets have generated very high returns over the last few years. At the same time, volatility has been relatively low. There is reason to expect considerable volatility in the value of the Government Pension Fund over time. Norges Bank estimates annual expected fluctuations in the value of the GPFG at yearend 2017 at NOK 920 billion, measured by standard deviation.

This implies that annual fluctuations in fund value are expected to exceed this amount in one out of three years. Any Norwegian krone exchange rate changes are additional to this.

The low international interest rate level reduces the expected return on the Government Pension Fund going forward. A number of observers have noted that a significant share of the interest rate decline in recent years reflects structural changes in the world economy – thus being of a long-term nature. The Ministry of Finance estimates the expected real rate of return on the GPFG over time at about 3 percent with an equity share of 70 percent. The actual real rate of return on the Fund can be significantly higher or lower than this, both in individual years and over longer periods.

Lower oil and gas revenues also mean that growth in the value of the Fund is expected to level off in coming years. Production on the Norwegian continental shelf appears to have peaked, and oil prices have for the last few years been below the average over the last 10–15 years. This reduces the central government's net cash flow from petroleum activities. For many years, petroleum revenue inflows have boosted the GPFG capital year by year, also in periods of negative returns. Going forward, it should be expected that developments in the value of the Fund to a greater extent will be determined by returns in the international financial market.

When measured in Norwegian kroner, the value of the Fund is also affected by developments in the Norwegian krone exchange rate. The depreciation of the Norwegian krone can, when taken in isolation, be estimated to have increased the Fund's value by about NOK 1,000 billion since its inception. Most of this has happened over the last four years. The Norwegian krone exchange rate has no impact on the international purchasing power of the Fund.

Review of Norges Bank's management

The Ministry of Finance has since 2009 reviewed Norges Bank's management of the GPFG at the beginning of each term of the Storting. The objective of such reviews is to facilitate transparency and insight into Norges Bank's management of the Fund. This is important for inspiring confidence in such management, and may serve to strengthen the ability to retain the commitment to profitable, long-term investment strategies, also during periods of weak performance. The Ministry has commissioned several external evaluations as part of its review, including, inter alia, from an expert group and from Norges Bank.

The review in this report follows up on the Storting's petition resolution for an assessment of costs and benefits of the various investment strategies used by Norges Bank in its active management. The Ministry of Finance measures benefits by excess returns and costs by the risk and management cost impact of the strategies.

The expert group has assessed the excess return achieved by Norges Bank relative to the benchmark index defined by the Ministry of Finance. Various models and methods have been used to shed light on performance. In some analyses, the expert group seeks to distinguish between the return achieved by the asset manager by taking on systematic risk and returns that are the result of other choices. This can provide insight into how performance is achieved. The expert group's analyses suggest that part of the excess return appears to be the result of increased systematic risk taking. The mandate allows for Norges Bank to assume more or less risk than is inherent in the benchmark index.

An assessment of achieved performance also needs to take into consideration that the benchmark index return cannot be achieved at zero cost. Costs are incurred in making investments in line with the benchmark index; so-called passive management. The expert group notes that the return contributions of the manager should be measured after deduction of the extra costs associated with active management. It is possible to estimate how much of the costs would also have been incurred under passive management and how much have been incurred as the result of Norges Bank's deviations from the benchmark index, but such estimates are uncertain.

Overall, Norges Bank's management performance has been good. The total excess return over the period from January 1998 to June 2017 is estimated at between NOK 75 and 112 billion, depending on how costs are calculated. This illustrates the benefit of Norges Bank being able to deviate somewhat from the benchmark index to exploit the distinctive characteristics of the GPFG, such as size, long time horizon and low liquidity need. Such deviations offer scope for generating excess return, while at the same time enabling Norges Bank to handle ongoing index changes in a cost-effective manner.

The equity investments have generated the largest excess return contribution over the period as a whole. In terms of strategies, as measured over the period from 2013, the excess return has

predominantly been generated through external security selection in equity management and through market exposure strategies, including index adaptation, factor strategies and securities lending income. Some strategies have delivered small or negative overall performance contributions, including, inter alia, fixed-income investments over the period as a whole and allocation strategies over the sub-period from 2013. Allocation strategies include, inter alia, investments in countries outside the benchmark index. This general conclusion also applies when costs and risk are factored in. Internal security selection has over the most recent period delivered an excess return that more or less covers the asset management costs, but provides little financial compensation for estimated risk.

The GPFG is invested for the long term, and performance needs to be evaluated over time. The Ministry of Finance notes, at the same time, that the Executive Board of Norges Bank is responsible for Norges Bank's management of the GPFG being appropriately organised, within the limits stipulated by the Ministry. This also includes the choice of strategies, the assessment of the return and risk performance of such strategies over different time horizons and market conditions, as well as transparency and reporting on said strategies. Based on this division of responsibilities, external analyses and evaluations, as well as management performance as a whole, the Ministry is not proposing any change to the limit on deviations from the benchmark index in this report.

The expert group recommends more transparency in the determination and implementation of Norges Bank's internal benchmark indices. This will provide more insight into the performance of the various strategies, the exploitation of risk limits, the apportionment of costs and the asset management incentives. The Ministry will follow up on this in its dialogue with Norges Bank.

As part of the review of Norges Bank's management, the consultancy firm Inflection Point Capital Management (IPCM) prepared a report on global responsible investment best practices. This is an evolving field, but with major differences between investors in their commitment and approach to such issues. The consultancy report provides a useful overview and shows that responsible investment needs to be tailored to the purpose, size and political context of each fund. IPCM believes that there is not one joint approach, and highlights a set of best practice characteristics. The Ministry is of the view that these characteristics are largely reflected in the responsible investment practices of the GPFG.

Larger equity share and more risk taking in listed markets for the GPFG

The equity share of the strategic benchmark index is the single decision with the greatest impact on expected return and risk in the GPFG. The expected return on equities is higher than on fixed-income securities, thus implying a greater contribution to the objective of maximising the purchasing power of the Fund. At the same time, equities involve more risk. This increases the volatility of realised returns, as well as the risk of long-term losses.

In last year's report, the Ministry of Finance proposed an increase in the equity share of the strategic benchmark index for the GPFG from 62.5 percent to 70 percent. This was endorsed by the Storting. As a basis for deciding the equity share of the Fund, a comprehensive process had been initiated. The Ministry of Finance received, inter alia, advice from a government-appointed commission chaired by Knut Anton Mork and from Norges Bank. The Ministry also received input via a public consultation on the commission report.

A plan for the implementation of the new equity share has been established in consultation with Norges Bank. The Storting will be informed after the equity share of the strategic benchmark index has reached 70 percent. The Ministry of Finance will review the rebalancing rules in view of the new equity share.

The fixed-income investments in the GPFG

The fixed-income investments in the GPFG shall contribute liquidity, reduce the volatility of Fund returns, as well as facilitate the harvesting of risk premiums associated with, inter alia, interest rate risk and credit risk. The current fixed-income benchmark reflects a trade-off between these purposes. In view of the decision to increase the equity share to 70 percent, the Ministry of Finance proposed a review of the fixed-income benchmark in last year's report.

Norges Bank submitted its advice and assessments in letters to the Ministry of Finance in the autumn of 2017. Norges BankNorges Bank recommends a considerable narrowing of the benchmark index, to comprise only nominal government bonds with a maturity of less than 10.5 years that are issued by the US, the UK or eurozone

countries. This implies, inter alia, that corporate bonds and about 20 currencies would no longer be included in the benchmark index. In its advice, Norges Bank did not propose changing the investment universe.

The Ministry of Finance is of the view that the advice from Norges Bank entails several changes to the main principles underpinning the investment strategy. These include, inter alia, the principle of broad diversification of the investments in the benchmark index and, as a main rule, inclusion in the benchmark index of the risk factors to which exposure is wanted. The Ministry finds that additional analyses are needed and has therefore appointed an expert group to assess the fixed-income investments in the GPFG. The Ministry intends to present its assessment in the report on the Government Pension Fund in the spring of 2019.

Unlisted equities in the GPFG

The Ministry of Finance assesses the investment opportunities of the GPFG on a regular basis in view of, inter alia, research and financial market developments. This report addresses whether unlisted equities should be allowed in the GPFG on a general basis. In assessing this issue, the Ministry of Finance has commissioned several external analyses and evaluations from, inter alia, an expert group and Norges Bank.

Investors primarily gain access to the unlisted equity market via private equity funds. In such funds a manager is authorised to invest in and manage a small number of unlisted companies. The manager raises capital from a number of investors and seeks to generate a return before the private equity fund is dissolved, normally after ten years. This is done by restructuring the governance, management, capital structure and operations of the companies. The largest segment is leveraged buyout, which aim to improve the performance of established, profitable companies.

Unlisted equities can provide Norges Bank with additional investment opportunities in its management of the GPFG, but only via so-called active management. There are no benchmark indices for such investments that can be closely mimicked at low cost, and performance will depend on the specific investments chosen by Norges Bank. A key issue is whether distinctive characteristics of the GPFG may place Norges Bank at an advantage or a disadvantage in making investments through private equity funds, compared to other investors. Investing the GPFG directly in unlisted companies, which are not under the control of such funds, is not considered a viable option by the Ministry.

The size of the GPFG may confer a cost advantage. However, this is conditional upon a significant portion of the GPFG being invested in the unlisted equity market, predominantly through leveraged buyout. A minor portion of the investment opportunities for the GPFG would be in venture capital for start-up companies, for the reason that such funds tend to be small. At the same time, it is not cost effective to invest in a very large number of private equity funds. Another advantage for the GPFG is a low liquidity need. A strategy involving considerable investments being made during periods of market turbulence could nonetheless be challenging to implement in practice.

The Ministry believes that investments in unlisted equities would challenge key characteristics of the current management model, such as low asset management costs, closely tracking the benchmark and a high degree of transparency. This means that the issue of whether to allow this type of investment is of key importance to the nature of the Fund in the long run.

Low costs are a characteristic of the GPFG. External equity management costs in the listed market are about 0.5 percent, while the overall costs of the Fund are about 0.06 percent, measured relative to assets under management. In comparison, the annual cost of investing in private equity funds can be estimated at about 6 percent of assets under management.

The management of the GPFG closely tracks the benchmark, thus implying that the Fund is different from other investors in that it primarily takes systematic risk in listed markets, with a limited element of active management. This is reflected in the GPFG having a larger public equity allocation and a smaller allocation to unlisted investments than many other large funds. The majority of the Mork Commission's members emphasized this as an argument in favour of increasing the risk taking in the GPFG by increasing the equity share to 70 percent.

Transparency is an important prerequisite for broad support for, and confidence in, the management of the GPFG. Many private equity funds disclose little information about their activities, and unlisted companies are not subject to the same reporting requirements as listed companies. It is not clear to the Ministry that the same transparency can be achieved for investments in unlisted equities as for the other investments of the Fund. Necessary transparency requirements may nar-

row the investment opportunities for Norges Bank. Transparency and democratic anchoring also imply that the reputation of the GPFG is more vulnerable to non-financial risk than that of many other investors.

Whether to allow unlisted equity investments in the GPFG is a matter of weighing advantages and disadvantages. Allowing such investments can provide Norges Bank with additional investment opportunities in its operational management. The Ministry holds that advantages such as size and liquidity could give grounds for expecting a somewhat higher return than that of the average investor. However, such advantages are uncertain, and the contribution to overall risk and return of the GPFG would in any event be limited. At the same time, unlisted equity investments may affect the reputation of the Fund and challenge key characteristics of the current management model. The Ministry is also taking into account that the equity share is now being increased to a level where it may be inappropriate to expose the GPFG to other types of risk.

Based on an overall assessment, the Ministry of Finance does not propose that investments in unlisted equities should be allowed in the GPFG on a general basis. Moreover, the Ministry notes that Norges Bank may currently invest in unlisted companies whose board of directors has expressed an intention to seek a listing, which the Ministry will follow up on in its dialogue with Norges Bank.

Environment-related mandates and unlisted infrastructure investments in the GPFG

In the last two reports on the Government Pension Fund, the Ministry of Finance has addressed whether to allow unlisted infrastructure investments in the GPFG. These comprise various types of infrastructure that are available to investors in the unlisted market, from airports and toll roads to solar power plants and hospitals. The conclusion has been not to allow unlisted infrastructure investments at the present time. In the report submitted in the spring of 2017, it was noted, inter alia, that a transparent and politically endorsed sovereign fund like the GPFG is not well suited to carry the particular risks associated with such investments.

This conclusion was endorsed by the majority of the members of the Standing Committee on Finance and Economic Affairs in its deliberation of the report, subject to the following comment:

«The investment strategy for the GPFG has been developed gradually over time, and the majority refers to the ongoing efforts of the Gjedrem Commission with regard to the Central Bank Act, next year's in-depth review of Norges Bank's management and further market developments, which when considered as a whole make it appropriate to revert to the issue of expansion of the investment universe in the near future.»

The Ministry of Finance intends to follow up on the said comment of the Standing Committee on Finance and Economic Affairs by assessing whether unlisted renewable energy infrastructure investments can be effected within the scope of the special environment-related mandates, with the same transparency, return and risk requirements as apply to the other investments in the GPFG. In this context, the Ministry also intends to review the regulation of the environment-related mandates in general, including the size of the mandates.

Responsible investment

The Government Pension Fund has an overarching financial objective. Within this scope, the Fund shall also be a responsible investor. Strong long-term financial returns are assumed to depend on well-functioning markets and sustainable development. This applies, in particular, to a large, diversified, long-term investor whose returns primarily follow value added in the global economy.

The mandates for the GPFG and the GPFN refer to internationally acknowledged standards and principles for responsible investments. Norges Bank and Folketrygdfondet exercise the ownership rights of the funds. Important responsible management tools are, inter alia, the promotion of international standards and research, company dialogue, clarification of expectations, as well as the submission of proposals and the casting of votes in general meetings. A new expectations document on tax and transparency was published by Norges Bank in April 2017. An additional expectations document, on anti-corruption, was published in February 2018.

The Ministry of Finance has adopted ethically motivated guidelines for the observation and exclusion of companies from the GPFG. Certain criteria in the guidelines are based on products, such as tobacco, weapons and coal. Other criteria are based on conduct, such as serious human rights violations or severe environmental damage.

The Council on Ethics provides recommendations on exclusion and observation of companies. The decisions are made by Norges Bank. Norges Bank may in some cases opt for a different instrument than recommended by the Council on Ethics. The overarching objective is to identify the most appropriate instrument for each individual case. For the coal criterion, Norges Bank may make decisions without any recommendation from the Council on Ethics.

Climate is an important financial risk factor for the Government Pension Fund in the long run. The fund report submitted in the spring of 2017 included a comprehensive discussion of climate risk, which is integral to the management of the GPFG and the GPFN. This year's report discusses a climate risk reporting framework, based on the recommendations of an international working group (TCFD), and how such recommendations can be implemented by Norges Bank and Folketrygdfondet.

Ongoing initiatives

In November 2017, Norges Bank advised the Ministry of Finance on omitting the oil and gas sector from the equity benchmark for the GPFG, with a view to reducing oil price risk in central government wealth.

The issue raised by Norges Bank is complex and has many aspects. The Ministry of Finance intends to subject the advice to thorough and proper examination, as is the existing practice for all key choices in the management of the GPFG. In order to establish a comprehensive basis for decision making, the Ministry has therefore appointed an expert committee, circulated the advice from Norges Bank for public consultation and written to Norges Bank to obtain additional information. The Government intends to present its assessment to the Storting in the autumn of 2018.

In June 2017, a commission chaired by former central bank governor and former secretary general of the Ministry of Finance Svein Gjedrem submitted its proposal for a new Central Bank Act. The commission proposed that the Government Pension Fund Global (GPFG) be managed by a separate statutory entity demerged from Norges Bank. The commission also presented two alternative management models should the Fund be kept under Norges Bank. The Ministry of Finance will continue its follow-up of the proposal and revert to the Storting in due course.

Norges Bank is considering Norwegian instead of foreign holding companies for the unlisted real estate investments. This matter raises several issues that need to be examined before Norges Bank is in a position to make a decision. The Ministry of Finance will revert to this matter.

2 Selected topics

2.1 Unlisted equity investments

2.1.1 Introduction

The Ministry of Finance assesses the investment opportunities of the GPFG on a regular basis in view of research and market developments. The scope of Norges Bank for investing the Fund in unlisted equities is currently limited to unlisted real estate companies and companies whose board of directors has expressed an intention to seek a listing.

The issue of whether to allow the GPFG to invest in unlisted equities on a general basis was last assessed in the report on the Government Pension Fund in the spring of 2011. It was at that time noted, *inter alia*, that such investments entail high external asset management costs and higher risk than listed equity investments, without investors having been adequately compensated in the form of higher returns. It was also noted that unlisted equity investments are more challenging and require different expertise than the management of listed equity investments. It was noted, at the same time, that it would be appropriate to revert to this issue at a future date in view of, inter alia, new research and a detailed assessment of whether distinctive characteristics of the GPFG may place it at an advantage in such investments.

Whether to allow unlisted equity investments in the GPFG on a general basis is now being assessed anew, as announced in the report on the Government Pension Fund in the spring of 2017. This assessment does not encompass unlisted infrastructure investments.

The Ministry of Finance has as part of this effort commissioned several external analyses and assessments. An expert group comprising Professors Trond Døskeland and Per Strömberg has prepared a report on unlisted equity investments. The consultancy firm McKinsey has examined the scale and scope of such investments amongst other large institutional investors. Neither the expert group, nor McKinsey, has been asked to advise, or has advised, on whether to allow such investments. Norges Bank recommends in a letter of 8 January 2018 that the definition of the investment universe allow for unlisted equity investments, but emphasises that allowing for this would not automatically mean that Norges Bank will invest the GPFG in unlisted equities. The Ministry has also held a dialogue meeting with other experts from Norwegian research centres to shed light on various issues that should be given weight in the assessment.

The reports and the letter from Norges Bank are available on the Ministry of Finance website.

The discussion of unlisted equity investments is organised as follows: Section 2.1.2 provides a description of the unlisted equity market available to professional investors, whilst the size of, and developments in, this market are addressed in section 2.1.3. Cost, return and risk are discussed in section 2.1.4. External evaluations that are specific to the GPFG are summarised in section 2.1.5. The Ministry of Finance's assessments are set out in section 2.1.6.

2.1.2 The unlisted equity market

A large portion of the world's companies are neither listed, nor available to professional investors. Many of these companies are small, have few employees, few assets and limited scope for growth. Other companies may be large and profitable companies with growth opportunities, but are not for sale. Such enterprises are typically funded by bank loans and equity from their founders, their families or other close associates.

For purposes of the present discussion, the unlisted equity market is only comprised of investments that are available to professional investors.

In principle, institutional investors may themselves invest in, and run, unlisted companies. However, this requires different and more specialised skills than investments in listed companies. The expert group refers, inter alia, to the need for comprehensive due diligence review prior to making investments in unlisted companies, and extensive active ownership involvement once such investments have been made. Most

institutional investors therefore use external managers for such investments.

Unlisted equity investments are principally organised through so-called private equity funds[1]. In private equity, a manager (GP)[2] with specialised skills will invest in, and actively exercise ownership of, unlisted companies on behalf of an investor group or a partnership (LP)[3].

Investors commit themselves to providing a certain amount of capital, but have limited influence beyond the agreements concluded upon inception. The investor group is primarily comprised of institutional investors such as pension funds, sovereign wealth funds and insurance companies, but also high-net-worth individuals.

The expert group considers the emergence of private equity funds in the context of changes in ownership structure in the listed equity market. Over the last few decades, ownership of listed companies has become more fragmented, with fewer large owners that assume responsibility for the strategic choices of companies. Different views are expressed in the research literature as to the significance of this development, but it may according to the group intensify conflicts of interest, with senior executives of listed companies making different choices than those generating the highest return for the owners. The group is of the view that private equity funds may serve to reduce conflicts of interest by taking controlling stakes in unlisted companies, and thus being able to improve the profitability of such companies. New conflicts of interest may, at the same time, arise between investors and GPs.

Private equity fund investments are commonly classified into three main segments[4]:

- *Leveraged buyout funds* are the largest segment and represent about 60 percent of the unlisted equity market. Investments in this segment are focused on mature companies. The acquired companies are normally profitable, but GPs see a potential for higher efficiency and further growth. The average fund size of leveraged buyout funds is about USD 1 billion.
- *Venture capital funds* represent about 20 percent of the unlisted equity market. These funds provide funding for companies that need start-up capital, as well as established start-up companies and companies in an expansion phase. The joint characteristic of such companies is that these are at any early stage and often have a negative cash flow, but a large growth potential. The average fund size of leveraged venture funds is about USD 0.1 billion.
- *Growth equity funds* represent about 15 percent of the unlisted equity market, and invest in companies that are between the market segments for start-up and leveraged buyout funds. These companies tend to be profitable and offer a large growth potential, but need more capital to sustain their growth. The average fund size of leveraged growth equity funds is about USD 0.3 billion.

Private equity funds normally have a lifespan of about ten years, with investments in unlisted companies typically being made over the first six years. The objective over the subsequent four years is to divest from all of the companies at a higher value. Each private equity fund normally invests in 10–15 individual unlisted companies.

Although there are differences in terms of which types of company private equity funds invest in and how the GPs add value, the funds are structured around a joint model. Private equity funds acquire a large portion of the equity of selected companies in order to achieve controlling stakes. The strategy is for the GP to seek to increase the value of the companies through active ownership before divesting their holdings. Specifically, the expert group notes that GPs add value through governance engineering, financial engineering and operational engineering, see Box 2.1.

The acquired companies may previously have been listed, privately held or part of another company. Upon divestment, the companies may end up on a stock exchange, through either an IPO or a sale to a listed company, or remain unlisted, for example through a sale to another private equity fund or another unlisted company. The entire process from a company is acquired until the GP exits it tend to be completed within a period of three to seven years.

Private equity funds form part of a composite investment structure. The activities of the private equity fund itself tend to be limited, as its relies on the GP to make the investment decisions. The GP will, on its part, often be supported by an invest-

[1] The term «private equity fund» here also encompasses venture capital funds, in line with European terminology and the report from Professors Døskeland and Strömberg (2018). The term «investor» is here used to denote the institutional investor that invests in private equity funds («limited partner»).

[2] «General Partner»

[3] «Limited Partner»

[4] The size of the various market segments and the averages for various funds, as measured by committed capital, are estimated as at 30 November 2017; see Døskeland and Strömberg (2018).

Box 2.1 How do private equity funds add value?

The expert group Døskeland and Strömberg (2018) refers to research on private equity funds which indicates that GPs of start-up funds and leveraged buyout funds add value to the unlisted companies through active ownership. The group notes that the companies become, on average, more profitable, and refers, inter alia, to higher growth and more innovation in start-up companies, and to the products of such companies being launched more rapidly on the market. For companies acquired by leveraged buyout funds, the group observes increased productivity, but also some job losses on average.

Active ownership requires control over companies. Leveraged buyout funds tend to achieve such control by acquiring large equity stakes in companies, whilst for venture funds it is more common to take smaller equity stakes in the companies whilst at the same time concluding agreements with other shareholders.

The expert group notes that GPs primarily add value through three types of active ownership:

Governance engineering

GPs typically make changes to company boards, for example by appointing smaller boards comprising individuals with extensive background from similar enterprises, as well as representatives from the GP itself. These boards are, according to the expert group, more active than others in following up and monitoring companies, and often replace some of the senior executives. Moreover, GPs seek to establish the best possible alignment of interests by requiring board members, senior executives and key personnel to invest in the company.

Financial engineering

The investments made by private equity funds are highly leveraged, and the expert group notes, for example, that leveraged buyout funds will at all times borrow as much as possible. According to the group, high leveraging does, inter alia, facilitate better investment decisions in companies, whilst interest deductions result in lower tax. The group observes that private equity funds can take more financial risk than others, as these are experienced in handling high leveraging and control the companies in which they invest.

Operational engineering

GPs often make considerable changes to company operations. The expert group notes, inter alia, that GPs seek to professionalise the management of the companies in which they invest, as well as make operations more efficient by reducing costs and increasing productivity. In addition, venture capital fund GPs provide start-up companies with an extensive contact network, as well as entrepreneurship experience. Leveraged buyout fund GPs tend to have experience from financial transactions and often seek, according to the expert group, to develop market-leading companies by first achieving control over a large company, and then acquiring and amalgamating smaller competitors.

ment advisor, which performs much of the investment activities. The investment advisor proposes investments and provides other services to the GP. On the part of the GP, decisions are made by a designated board, comprised of members who are not affiliated with the investment advisor.

The intermediaries in such investment structures – the private equity fund and the GP – are normally registered in low-tax jurisdictions, with some even being registered in so-called closed jurisdictions. This facilitates, inter alia, taxation of any profits only on the part of the investor, if the investor is a taxpayer. The investment advisor company is normally registered in the jurisdiction in which it has its operations.

Most investors in the unlisted equity market invest in private equity funds, but other investment models may also be used; see Figure 2.1. Investors may delegate the selection of private equity funds to an external manager, via investments in so-called *fund of funds*. Such a model may facilitate greater diversification of risk, since the investor will hold a smaller portion of many private equity funds. At the same time, investments via fund of funds mean extra costs and less control of which private equity funds investments are made in.

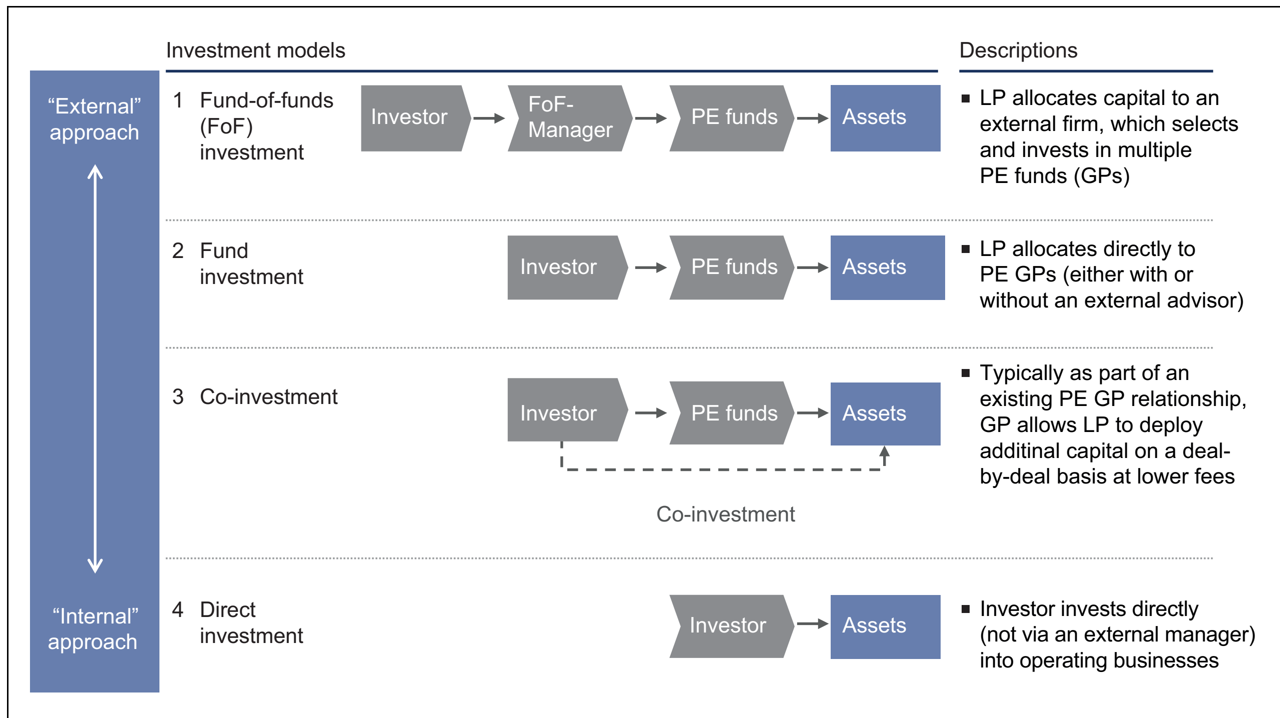

Figure 2.1 Unlisted equity investment models

Source: McKinsey (2017).

The investor may also acquire direct stakes in an unlisted company controlled by the GP, by way of so-called *co-investments*. Such investments are typically made as part of a strategic collaboration, with the investor also holding interests in the private equity fund. Shareholders' agreements are concluded to ensure that control over, and active ownership of, the unlisted company continues to be delegated to the GP. Asset management fees will not normally accrue on co-investments, thus reducing the asset management costs of the investor measured as a portion of invested capital. On the other hand, co-investments will require more expertise, and thus entail higher internal asset management costs for the investor. At the same time, co-investments afford the investor the opportunity to invest large amounts in selected individual unlisted companies.

A small number of institutional investors make themselves *direct investments* in unlisted companies. This requires more and very different internal expertise than investments in, and jointly with, private equity funds, but mean lower costs and more freedom in the selection of investments. When making direct investments, the investor is itself seeking to add value to the unlisted companies.

2.1.3 Size and developments

The scale of unlisted equity investments is limited as a portion of the global capital market available to investors. The consultancy firm MSCI (2016) estimated, at the request of the Ministry of Finance, that such investments accounted for about 2 percent of the investable capital market as at the end of the first half of 2015; see Figure 2.2. The magnitude of unlisted equity investments was at that time somewhat larger than MSCI's estimate for unlisted infrastructure, and somewhat smaller than its estimate for unlisted real estate.

It is generally difficult to quantify the size of the unlisted equity market. This is, inter alia, because much of the information pertaining to such investments is private and thus not readily accessible. Norges Bank and McKinsey both note that private equity fund investments as at the end of the first half of 2016 amounted to about USD 2,500 billion. The expert group estimates the size of the unlisted equity market at about USD 2,400 billion as at the end of June 2017. The group's estimate includes co-investments and direct investments, in addition to private equity fund investments. The group adjusts this estimate for capital committed to private equity funds, but not reinvested in unlisted companies by the GPs, so-called «dry powder». According to the expert group, the

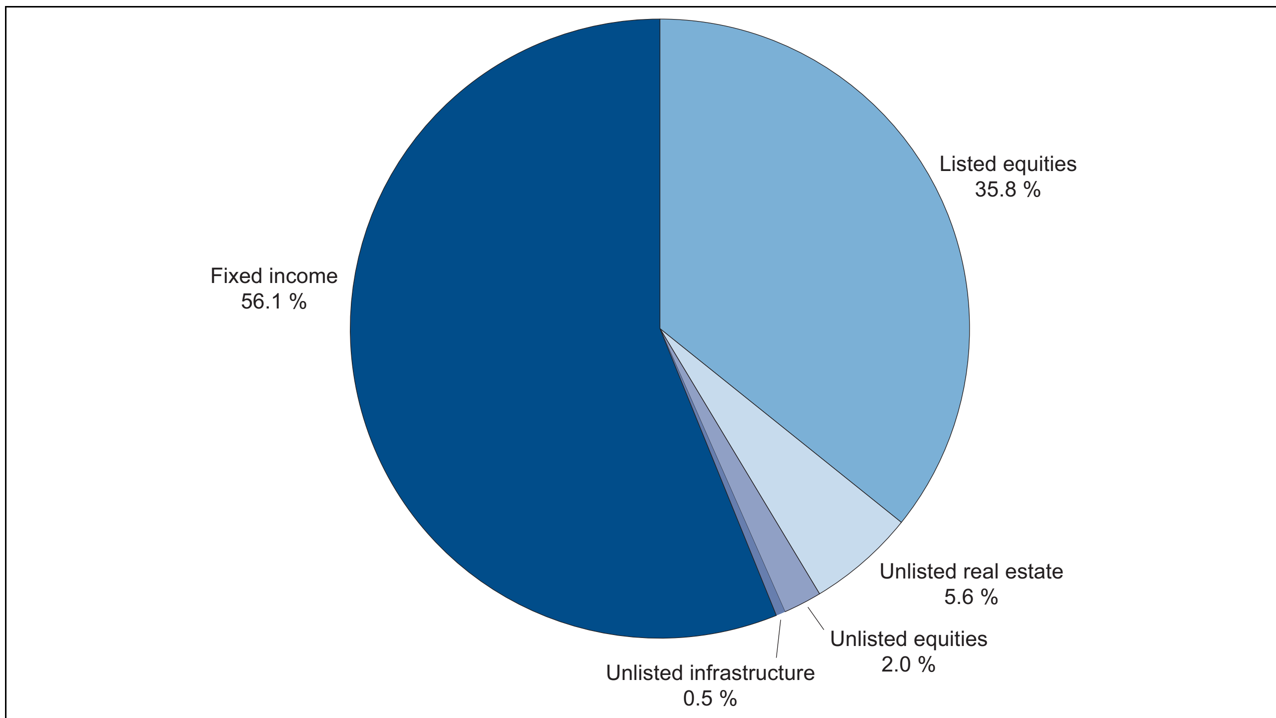

Figure 2.2 The global investable capital market specified by different assets as at 30 June 2015. Percent

Source: MSCI (2016).

investable market for the GPFG will be considerably smaller than this as the result of the size of the Fund; see section 2.1.5.

The expert group notes that the estimate for unlisted equity investments also corresponded to about 2 percent of the global capital market available to investors as at the end of 2017. Compared to the listed equity market, the magnitude of unlisted equity investments has increased gradually since the mid-1980s. The expert group notes that the value of the unlisted equity market represented about 5 percent of the global listed equity market as at the end of the first half of 2017, and estimates historical growth at about 0.2 percentage points per decade based on US figures.

There is no consensus within financial research as to the causes of this development. Both the expert group and McKinsey note that relatively high historical returns may have made the unlisted equity market more attractive, especially in a low interest rate situation in which many institutional investors are seeking higher returns to meet future liabilities. One contributory factor may also have been that the valuation of unlisted investments is less volatile than that of comparable listed investments, which may entail accounting benefits on the part of investors.

The total number of listed companies and new listings has declined in parallel with the increased magnitude of unlisted equity investments, especially in the US. The expert group refers to research indicating that the reduction in the number of listed companies is not caused by listed companies being acquired, to a greater extent than before, by leveraged buyout funds and then delisted, or by a large portion of listed companies being delisted in order to be merged with unlisted companies. Instead, this development is linked to an increase in economies of scale, as well as regulatory changes which have increased the costs of being listed. Small listed companies have over time been merged with larger listed companies. A larger number of small unlisted companies have also been merged with larger companies over time, rather than seeking their own listings.

Over the same period as the number of listed companies and new listings has declined, the value of the listed equity market as a whole has increased, also relative to the size of the economy. Hence, there is little indication that the proportion of economic activity taking place in listed companies has declined over time.

It is uncertain whether the increase in unlisted equity investments has impacted on the composition of the listed equity market. The expert group observes that some start-up companies appear to have responded to the increased supply of capital in

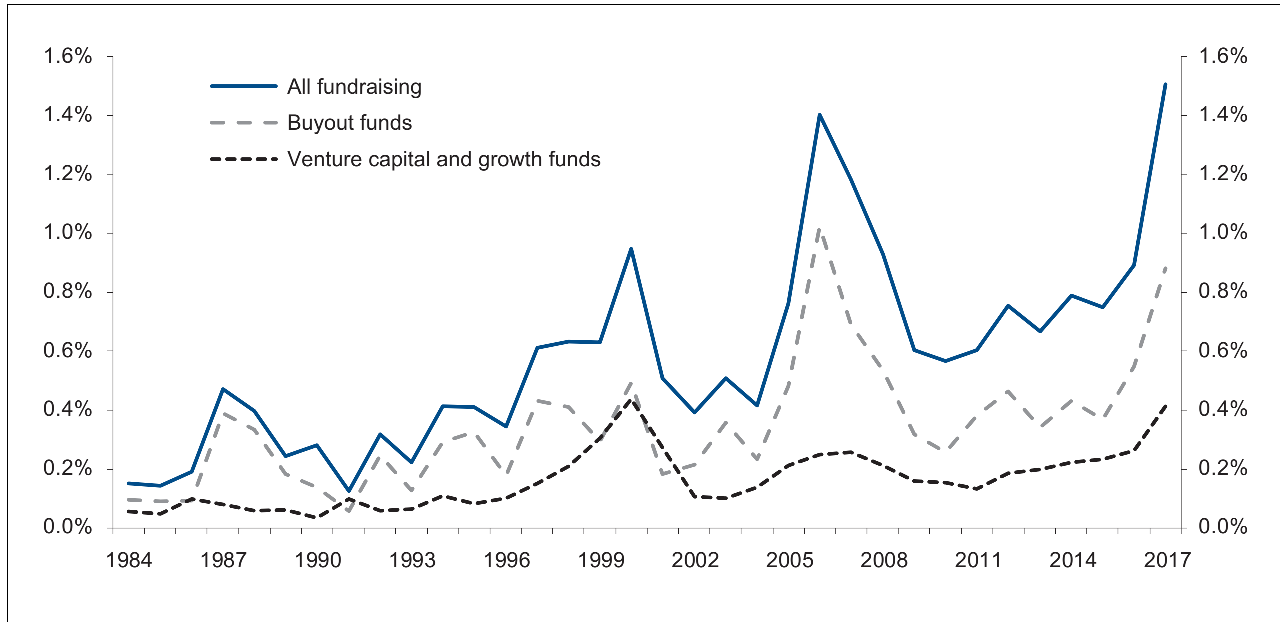

Figure 2.3 Annual capital committed to private equity funds in the US and Canada, in aggregate and specified by segment, measured as a portion of the market value of the listed US equity market. Percent

Source: Døskeland and Strömberg (2018).

the unlisted equity market by deferring a listing. Reference is made, at the same time, to new research indicating that start-up companies continue to account for a large and growing proportion of US listings. Such companies accounted for more than half of all listings over the period 2011–2016.

Increased economies of scale and regulatory changes may, according to the expert group, have resulted in reduced diversification of risk when only investing in the listed equity market. It would appear that fewer and larger listed companies, especially within the technology sector, are accounting for a growing proportion of value added in the listed equity market over time. It is noted, at the same time, that such concentration is not a new phenomenon. A small portion of listed companies can explain a large part of the historical excess return from investing in the listed US equity market.

Both the expert group and Norges Bank has compared private equity fund investments with the listed equity market. Norges Bank finds that private equity funds invest relatively more in sectors such as consumer services, health care and information technology, and relatively less in sectors such as finance. The expert group also highlights differences in geographical allocations. In comparison with the listed equity market, it would appear that private equity funds invest a larger proportion in China, and a smaller proportion in the US and developed markets in Asia. The group refers, at the same time, to historical sector comparisons in the listed equity market which suggest that such allocations may change considerably over time. Norges Bank notes that a broader investment universe may mean investments in other types of companies than those available in the listed equity market.

Total private equity fund investments may fluctuate significantly from year to year, and can respond more strongly to developments in other economic variables than the listed equity market; see Figure 2.3. The expert group notes, inter alia, that private equity funds attracted considerably more capital during the periods leading up to the large equity market slumps in 2001–2002 and in 2008, and considerably less during the subsequent periods, measured in relation to listed equity market developments. The group notes, at the same time, that private equity fund investments were at a historically high level as at the end of the first half of 2017, and that a large portion of these investments – about one third – comprise «dry powder».

Private equity fund investments can to some extent be traded in a secondary market. The expert group observes that secondary market liquidity has historically been low, both as a result of low transparency regarding private equity fund performance and because managers typically have the right to block investors' sale of fund units. Norges Bank states that there is currently a functioning secondary market for private equity fund units,

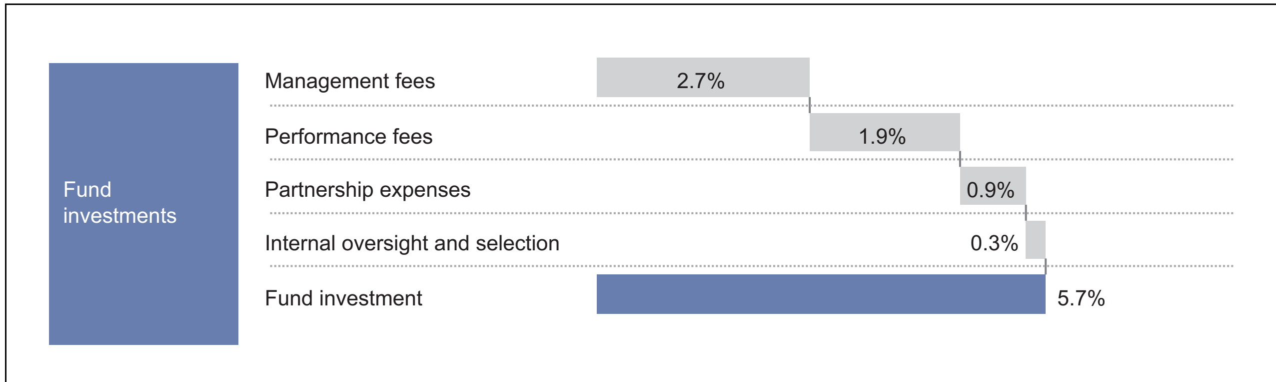

Figure 2.4 Cost structure of private equity fund investments, measured as a portion of assets under management. Percent

Source: McKinsey (2017).

although investors that are forced to sell fund units quickly will often have to accept that the sale is made at a discount. Such discount varies over time, between fund types and between GPs.

2.1.4 Cost, return and risk

Assessments of cost, return and risk for unlisted equity investments is more challenging than for listed investments. This is because less data is available, especially outside the US, and because many private equity funds do not publish their financial performance. Prices are not quoted on an ongoing basis for unlisted companies, thus implying that financial performance is not directly comparable to that of listed equities. Neither are unlisted companies subject to the same reporting requirements as listed companies.

Private equity funds have a complex cost structure. Private equity fund investments involve management fees, performance-related fees and indirect costs. Management fees to the GP typically represent between 1.5 percent and 2 percent of committed capital. In addition, the GP is compensated by way of a performance-related fee of about 20 percent of any profit in excess of a predefined hurdle rate. The expert group and McKinsey note that the said hurdle rate is determined independently of which return could alternatively be achieved in the listed equity market. Fees are also payable from the GP to the investment advisor. In addition, indirect costs will be incurred, including, inter alia, consultancy fees directly from the unlisted companies to the GP. Investors will also incur internal costs in the selection and oversight of private equity funds.

In total, the average annual cost of investing in private equity funds is estimated at about 6 percent of assets under management[5]. Such estimates are uncertain and will, inter alia, depend on specific agreements and achieved performance. McKinsey's estimate for average annual costs as a portion of assets under management is 5.7 percent; see Figure 2.4. The expert group refers to own analyses with more or less the same findings, and notes that annual costs may be about 6–7 percent of assets under management.

The cost structure of private equity funds can be highly advantageous for the GP. In order to reduce potential conflicts of interest between the GP and the LP one seeks to establish the best possible alignment of interests, both by requiring the GP itself to invest in the private equity fund and via a fund agreement that includes financial incentives. Conflicts of interest may nonetheless arise that can affect the returns of investors.

Investors can seek to reduce the costs of unlisted equity investments through negotiations with the GP, via co-investments and by making direct investments of their own. For investments in funds of funds, on the other hand, investors must expect higher asset management costs; according to McKinsey about 2 percent higher annually, measured as a portion of assets under management.

Private equity fund investors have, even after substantial costs, historically achieved somewhat higher returns than in the broad listed equity market.[6] Returns have nonetheless varied over time and between segments. The analyses of the

[5] The term «assets under management» refers, for private equity funds, to the estimated net asset value of the companies under management. The percentage cost will be lower if measured against the total capital committed by the investor to the private equity fund, which tends to be higher.

expert group encompass the US and Europe, for which most data are available, and stretch back to the 1980s. The analyses show that leveraged buyout funds have delivered relatively stable performance, with a return that has on average been about 20 percent higher than the listed market over the lifespan of the investments. This corresponds to an annual excess return of about 3 percentage points.[7] For venture capital funds, performance is driven by a number of individual funds with very high returns, especially in the US in the 1990s. For Europe and for other time periods, venture capital fund returns have been lower than those in the listed market. In aggregate, the excess return on venture capital funds has averaged about 35 percent over the lifespan of the investments, corresponding to an annual excess return of about 2 percentage points. However, Norges Bank observes that the excess return relative to the listed market appears to have declined somewhat in recent years, and that this has been interpreted as an indication of a more mature market and increased competition between private equity funds.

The expert group also highlights other return variations. Historically, there has been a tendency for GPs with strong performance in a private equity fund to have a higher probability of also registering strong performance in their next fund. The correlation has been particularly high for venture capital fund GPs, but it has declined in the 2000s. The expert group also refers to research indicating that the return is lower for private equity funds established in years with high supply of capital from investors, and higher in years with low access to capital. These characteristics suggest that an investor that picks the best GPs and invests countercyclically can potentially outperform the average investor.

The expert group highlights three types of risk that can explain the excess return on private equity funds. Firstly, unlisted equity investments involve exposure to liquidity risk. This refers both to investors' capital being locked into an investment that may be difficult to divest (market liquidity), and to private equity funds potentially drawing down committed capital from investors at unfavourable points in time (funding liquidity). Secondly, unlisted equity investments may involve higher market risk as the result of, inter alia, leveraging of the unlisted companies, as well as exposure to other systematic risk factors such as size and value. Unlisted equity investments may furthermore, according to the expert group, entail exposure to other risk factors that are specific to the unlisted equity market, but the group also notes that there is little research to support this.

The expert group is of the view that private equity fund investments will on average not provide investors with risk-adjusted excess return, so-called alpha. Higher return on private equity funds than on the broad listed equity market reflects higher risk. The group notes, at the same time, that there is no consensus in the research literature as to how private equity fund performance should be adjusted for risk. As prices are not quoted for unlisted companies on an ongoing basis, reported risk will be lower than for corresponding listed companies. Norges Bank also raises these issues and notes that whether investors have on average been adequately compensated for carrying the risk entailed by such investments remains a matter of debate.

In addition to financial risk, private equity fund investments are exposed to non-financial risk; see Figure 2.5. Sources of such risk may, first of all, be circumstances pertaining to the private equity fund itself. Private equity funds have traditionally not been particularly transparent about their investments, and parts of the fund structure are normally established in low-tax jurisdictions. In addition, investors are exposed to circumstances pertaining to the companies in which the private equity fund is investing. This includes all types of risk in the normal operations of a company, and especially risk during periods when the GP of the private equity fund is restructuring the operations of the company. The criticism levelled at private equity funds include job losses and non-sustainable business models, as highlighted by both the expert group and Norges Bank.

Investors can seek to handle non-financial risk through thorough assessments and specific agreements upon the establishment of the private equity fund. These may address transparency, tax structures and the scope for excluding investments in specific sectors or companies. There will nonetheless remain residual risk that may materialise over the lifespan of the fund. Private equity fund investors will be part owners of a fund structure with control of the underlying company, but with the exercise of ownership rights being dele-

[6] The expert group has used the performance measure «public market equivalent» or PME, which compares the return on private equity funds, net of costs, to investments in a broad, listed equity index over the same time period and with the same cash flow.

[7] Average annualised excess return has been calculated by way of the internal rate of return method; «direct alpha».

Not exhaustive

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

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

[1] FoF = Fund-of-funds

Figure 2.5 Non-financial risk of unlisted equity investments

Source: McKinsey (2017).

gated to the GP. Investors will thus be exposed to non-financial risk, but with limited scope for influencing risk management.

Non-financial risk may impose reputational losses on investors. The expert group notes that funds with high transparency and public attention will involve higher reputational risk, which may in itself influence the approach to such investments. In order to avoid further reputational loss upon the materialisation of risk, an investor may be forced to divest its entire interest in a private equity fund or, in case of co-investments, in specific companies. Investors may incur losses upon such divestment, especially during periods of low liquidity in the secondary market.

2.1.5 The GPFG and the management of unlisted equity investments

The expert group observes that investors with a portfolio of different private equity funds typically hold about 5 percent of their interests in each private equity fund. Interests in excess of 10 percent are avoided in order to diversify risk. Nor would investors want to be invested in too many private equity funds at the same time, since collaboration with, and follow-up of, the GP involves fixed costs. Such costs will be incurred irrespective of the size of the private equity fund. This may, according to the expert group, result in large institutional investors refraining from investment in small private equity funds with a fund size of less than USD 1 billion.

The expert group has on this basis estimated the size of the unlisted equity market investable for the GPFG, with investment opportunities involving smaller amounts being omitted. The group estimates the market investable for the GPFG at about USD 1,500 billion as at the end of the first half of 2017, corresponding to about 60 percent of the overall unlisted equity market estimate in section 2.1.3. Private equity funds account for about USD 1,200 billion of the expert group's estimate for the GPFG, whilst co-investments and direct investments represent about USD 180 billion and USD 160 billion, respectively.

The expert group observes that distinctive characteristics of the GPFG may entail both advantages and disadvantages in relation to unlisted equity investments, compared to other

investors. They discuss, in particular, the size, liquidity, responsible investment practices and transparency of the GPFG. Norges Bank observes that the size, long investment horizon and limited liquidity need of the GPFG suggest that the Fund may be well placed to invest in unlisted equities.

The expert group is of the view that the approach to unlisted equities should depend on the *size* of investors, as measured by capital available for management. For smaller investors, the group holds that best practice can be found among US endowment funds. These have historically invested a considerable share of their capital in unlisted equities, and have sought to outperform the average investor by selecting the best private equity funds, typically within the start-up segment. The expert group notes that such a strategy is difficult to emulate for larger investors for reasons of cost and risk diversification, and because one contributory cause of such performance is the alumni network of universities, which has historically provided access to the best US venture capital funds.

The expert group emphasises that it may for a large investor like the GPFG be more relevant to pursue a cost-reduction strategy, in line with best practice amongst other large pension funds and sovereign wealth funds. Such a strategy would require a large investment in unlisted equities in order to exploit bargaining power and economies of scale. If unlisted equity investments were to be allowed in the GPFG, the group observes that Norges Bank should start out making investments through private equity funds. The size of the Fund may mean that a reduction in the cost of such investments can be negotiated. Thereafter, Norges Bank should, according to the expert group, embark on a relatively swift accumulation of internal expertise to enable co-investments with private equity funds, thus facilitating further cost reduction. Norges Bank also notes that investments in, and jointly with, private equity funds appear to be the most relevant investment model.

Neither the expert group, nor Norges Bank, believes that the GPFG is currently particularly well suited for direct investments, i.e. independently acquiring large ownership stakes in unlisted companies. The expert group observes that a small number of institutional investors invest directly in unlisted companies in order to minimise costs, although this requires, inter alia, a high level of expertise and flexible remuneration, which it will be difficult to realise in the management of the GPFG.

The size of the GPFG affects, at the same time, the investment opportunities available to it in the unlisted equity market. The expert group observes that most unlisted equity investments which will be available to the GPFG are within the leveraged buyout segment (76 percent). There will be fewer investment opportunities within the growth and venture capital segments (12 percent and 7 percent, respectively). Private equity funds are on average significantly smaller within these segments, as measured by assets under management. Investments in small private equity funds are not particularly well suited for large investors, for cost and risk diversification reasons. The group's assessments of the composition of the investment opportunities available to the GPFG in unlisted equities appear to match the investments of other large institutional investors, as mapped by McKinsey; see Box 2.2.

Unlisted investments are generally *less liquid* than listed investments. The expert group is of the view that the GPFG may have a greater capacity to absorb liquidity risk than other investors. Periods of market turbulence may result in many investors having to sell fund units in the secondary market at a large discount. According to the expert group, this has historically offered opportunities for investing in private equity funds when the expected return from carrying liquidity risk is high.

The *responsible investment practices* of the GPFG may, according to the expert group, be an advantage within unlisted equity investments. Private equity funds may be attracted by the strong reputation of the GPFG in this regard and therefore be very accommodating in negotiations with Norges Bank. The expert group notes that this may be most notable with regard to leveraged buyout funds. It is noted, at the same time, that Norges Bank may find that the same practices represent a disadvantage with regard to venture capital funds, where some GPs may perceive transparency and responsibility requirements as a cost. This is especially applicable, according to the group, to those venture capital funds whose GP has historically delivered high returns, and does not have any problem in attracting capital.

Both the expert group and Norges Bank note that unlisted equity investments will expose the GPFG to non-financial risk. For private equity fund investments, such risk will be related, inter alia, to circumstances with regard to the GP itself, its employees and its processes. Norges Bank notes that thorough evaluations need to be made prior to any potential investment in private equity

Box 2.2 Unlisted equity investments amongst selected institutional investors

McKinsey (2017) has mapped the scale and scope of unlisted equity investments in twelve selected pension funds and sovereign wealth funds, of which six North American funds, four European funds (including two Scandinavian ones) and two Asian funds. As at the end of 2016, these institutional investors had, on average, 8.5 percent of their capital invested in unlisted equities. McKinsey reports that the proportion invested in unlisted equities was highest for the North American investors and lowest for the European ones. Moreover, private equity fund investments accounted for the majority of such investments. McKinsey highlights that most institutional investors also make co-investments in unlisted companies controlled by GPs, and that some of the largest investors, especially the North American ones, are increasingly making direct investments in unlisted companies on their own.

Figure 2.6 shows the composition of the unlisted equity investments of large institutional investors, across regions, sectors and segments. The figure shows that unlisted equity investments are spread across several sectors, and that North America is the region with the highest level of investment. All the examined investors primarily invest in, and jointly with, leveraged buyout funds, and only to a limited extent in venture capital funds. McKinsey observes that venture capital funds are generally smaller, as measured by assets under management, and that it is therefore difficult to scale up investments in this segment to suit large institutional investors.

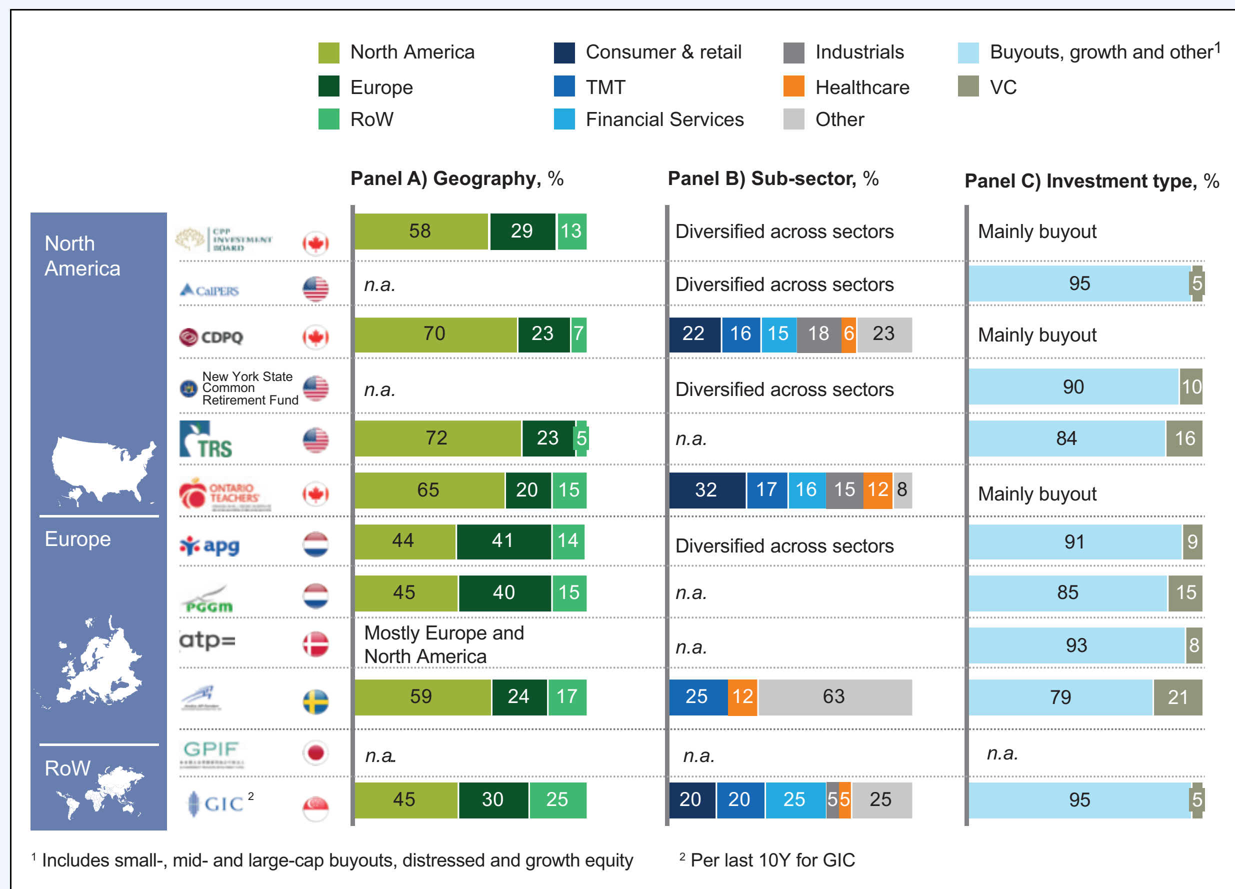

Figure 2.6 Composition of unlisted equity investments for selected large institutional investors as at the end of 2016. Percent

Source: McKinsey (2017).

funds, and that one may be able to draw on existing processes and experience from external equity management. For co-investments, Norges Bank will in addition have to conduct a broad risk assessment of the unlisted company it is considering an investment in.

There is a high degree of *transparency* in the management of the GPFG. The expert group notes that a high degree of transparency and public attention increases the non-financial risk of investing in unlisted equities. The risk may also increase as the result of the investments available to the GPFG being primarily in leveraged buyout funds, which have historically, according to the expert group, been facing reputational challenges.

Even with thorough evaluations in advance, circumstances may arise where Norges Bank needs to divest unlisted investments in the secondary market. This may happen out of regard for the reputation of the GPFG, or because a company in which the fund is directly or indirectly invested is excluded under the ethically motivated guidelines for observation and exclusion. The expert group notes that liquidity in the secondary market has historically been limited. Hence, such divestments may impose losses on the GPFG. Norges Bank also notes that there is reason to expect that any divestment may on average take somewhat longer time than divestments in listed companies.

The expert group is of the view that investments in, and jointly with, private equity funds primarily require expertise in screening GPs, assessment of the underlying company investments and the execution of transactions. The group observes that the GPFG should be able to attract the expertise necessary for this investment model, and refers, inter alia, to Norges Bank's experience from the management of unlisted real estate, as well as to individuals with this type of expertise not commanding as large pay packages as would apply in relation to direct investments. Norges Bank notes that one would be able to draw on expertise from external equity management to assess GPs, as well as on experience with unlisted real estate investments.

The expert group notes that unlisted equity investments are demanding in terms of governance structure and the division of responsibilities. The group emphasises that leading investors within this field of investment, both endowment funds and large pension funds, share some key characteristics. These include a flexible governance model with a high degree of delegation, a significant portion of the capital invested in unlisted equities, a countercyclical approach and a long-term perspective with less emphasis on short-term performance. Furthermore, the group emphasises that for unlisted equity investments it is important to embed and communicate expectations at all levels of the governance structure, since it may take up to ten years before performance can be properly evaluated. Large costs will be incurred during the establishment phase of such a program, which may typically be for the first 5–6 years. Furthermore, the group is of the view that methods should be developed for evaluating performance, against both risk-adjusted listed equity indices and indices for unlisted investments.

The Ministry of Finance indicated, in a letter of 29 June 2017 to Norges Bank, that no separate allocation will be stipulated for unlisted equity investments in the GPFG, instead such investments might potentially be made within the scope of Norges Bank's active management. Such deviations from the benchmark index are regulated via the limit on expected tracking error and other supplementary risk limits. In addition, the Ministry may specify an upper limit on what portion of the Fund may be invested in unlisted equities. Norges Bank observes that such limit might be put at about 4 percent of the Fund, if the Fund's percentage holding in the unlisted equity market is to be approximately the same as the Fund's average percentage holding in the companies included in the equity benchmark.

All in all, Norges Bank is of the view that the risk represented by unlisted equity investments could be appropriately delimited in the management mandate. Norges Bank adds that the detailed investment strategy for unlisted equity investments would in such case be laid down by the Executive Board at a later date, based on additional analyses and assessments.

Norges Bank states that unlisted equity investments are more similar to investment activities currently conducted by Norges Bank than was the case when the Ministry of Finance first permitted unlisted real estate investments. Norges Bank also observes that unlisted equity investments, within the limits outlined in Norges Bank's letter, will probably not materially increase asset management complexity beyond that already implied by parts of the GPFG being invested in unlisted real estate. If unlisted equity investments are permitted, Norges Bank will approach the investment opportunities and build expertise gradually, invest through and together with others in a responsible manner that attends to the ownership interests of

the GPFG, and share relevant information with the public. It is noted, moreover, that the need to hire additional personnel is expected to be limited to begin with, although co-investments will require somewhat more manpower.

Norges Bank also states that the Ministry of Finance should, if permitting unlisted equity investments in the GPFG, consider making the special unlisted real estate provisions applicable to unlisted equities as well. This includes, in particular, the scope for investing through other legal entities in order to protect the balance sheet of Norges Bank. This will, according to Norges Bank, be needed even for private equity fund investments.

2.1.6 The Ministry's assessments

Investors primarily gain access to the unlisted equity market via private equity funds. Such private equity funds involve a GP being authorised to invest in and manage a handful of unlisted companies. The GP raises capital from a number of investors and seeks to generate a return before the private equity fund is dissolved, normally after ten years. GPs add value by governance engineering, financial engineering and operational engineering. The largest segment is leveraged buyout funds, which aim to improve the performance of established, profitable companies.

Many large investors also invest directly in unlisted companies controlled by private equity funds. Such co-investments may involve lower costs, but also require more expertise on the part of investors. The most sophisticated investors may also opt for direct investments in unlisted companies that are not controlled by private equity funds. Both Norges Bank and the expert group emphasise that such direct investments on a stand-alone basis would not appear to be appropriate for the GPFG. The Ministry agrees with this assessment.

High costs imply that much of the value added in private equity funds accrues to the GPs. Historically, private equity fund investments have nonetheless provided investors with a somewhat higher return than investments in the broad listed equity market, net of costs. According to the expert group, leveraged buyout funds have delivered a relatively stable excess return to investors, whilst the excess return on venture capital funds is largely attributable to the strong performance of some US funds in the 1990s.

When adjusting for risk, it is the view of the expert group that the return on private equity funds is, all in all, in line with the broad listed equity market. The group emphasises that private equity funds involve higher risk than the broad equity market as the result of, inter alia, high leveraging, low liquidity and exposure to systematic risk factors. Norges Bank notes that whether investors have on average been adequately compensated for exposure to the risk entailed by such investments remains a matter of debate.

The Ministry notes that unlisted equities may provide Norges Bank with more investment opportunities, but only through active management. Unlisted equity investments cannot be managed passively. There exist no benchmark indices that can be closely replicated at a low cost. Performance will depend on Norges Bank's advantages and specific investment choices.

As with other active management, the performance achieved by different investors may vary significantly. A key issue is whether distinctive characteristics of the GPFG may place Norges Bank at an advantage or a disadvantage in making unlisted equity investments, compared to other investors. It is assumed that investors with advantages can outperform the average investor.

The Ministry is of the view that the *size* of the GPFG can serve to reduce costs. The expert group highlights cost reduction as a best practice on the part of other large institutional investors. This requires a significant portion of the GPFG to be invested in the unlisted equity market. Large investments may enable Norges Bank to negotiate lower costs with private equity funds. Co-investments in unlisted companies controlled by GPs may further reduce costs, and the size of the GPFG suggests that Norges Bank can exploit economies of scale by accumulating internal expertise on such investments.

Such an approach implies that any unlisted equity investments in the GPFG would primarily be in leveraged buyout funds, as with other large institutional investors. Only 7 percent of the investment opportunities of the GPFG would, according to the expert group, be in venture capital funds. This is because venture capital funds are often small, whilst it would not be cost effective to invest in a very large number of private equity funds. The Ministry notes that the size of the GPFG suggests that it would not be appropriate to focus on a strategy of attempting to pick the best private equity funds, an approach often adopted by smaller investors.

The Ministry also notes that a low *liquidity* need means that the GPFG can be invested in private equity funds when these have less access to

capital from other sources. Historically, the return has turned out to be higher on private equity funds established in years with low access to capital. Secondary market fund unit valuations may also be low during such periods, thus offering attractive investment opportunities for investors with access to capital. Such a strategy would, at the same time, entail Norges Bank having to invest relatively more in unlisted equities during periods of financial market turbulence and decline. The Ministry is of the view that such a strategy can be challenging to implement in practice, also because periods of financial market turbulence will in themselves serve to increase Norges Bank's utilisation of the scope for deviations from the benchmark index.

The Ministry believes that unlisted equity investments would challenge key characteristics of the current asset management model. Whether to allow this type of investment in the GPFG is not only a matter of investment opportunities, but also a matter of costs, the scope of active management and transparency. Hence, it is a matter of key importance to the nature of the Fund in the long run.

A key characteristic of the GPFG is *low costs*. The external equity management costs of the GPFG in the listed market are about 0.5 percent – while the overall costs of the Fund are about 0.06 percent – measured as a proportion of assets under management in 2017. In comparison, the annual cost of investments in private equity funds can be estimated at about 6 percent of assets under management. Experience suggests that it can be challenging to communicate and gain acceptance for high fees to external managers, even if the investments were to generate a net excess return on the part of the GPFG.

The investment strategy of the GPFG *closely replicates* the benchmark. The GPFG is distinguished from other funds in that it primarily takes systematic risk in listed markets, with a limited element of active management. This is reflected in the GPFG having a larger equity share and a smaller unlisted investment share than many other large funds. The majority of the Mork Commission's members invoked this as an argument in favour of increasing the risk taking in the GPFG by increasing the equity share to 70 percent, as endorsed by the Storting.

There may be a need for increasing the limit on deviations from the benchmark index if unlisted equity investments are allowed, as noted by Professors Dahlquist and Ødegaard in their review of Norges Bank's active management; see section 2.5. It might be more challenging to measure return and manage risk for unlisted equity investments than for listed investments. This would also make it more difficult to evaluate and communicate Norges Bank's active management performance.

Transparency is an important prerequisite for broad support for the management of the GPFG. The Ministry is of the view that it is uncertain whether the same overall transparency can be achieved for unlisted equity investments as for listed equity investments. Many private equity funds disclose little information about their activities, and unlisted companies are not subject to the same reporting requirements as listed companies. Generally, there will thus be less information on unlisted equity investments in the public domain than on listed investments. The Ministry assumes that unlisted companies would be included in the annual lists of the holdings of the GPFG, along with the listed companies in which the Fund is invested. Some private equity funds may not want their investments to be made public, or to comply with other transparency or responsible investment requirements. This particularly applies, according to the expert group, to venture capital funds, in which there may be considerable competition to invest. Consequently, transparency requirements, which would be a prerequisite, may also narrow the investment opportunities of the GPFG.

Furthermore, transparency and democratic endorsement requirements imply that the reputation of the GPFG is more vulnerable to non-financial risk. This encompasses both circumstances with regard to GPs and all types of risk in the normal operations of a company – especially risk during a period when the GP is restructuring the activities of the portfolio company. Such risk would, according to the expert group, be greater for investments in leveraged buyout funds, where the GPFG would find most of its investment opportunities. Norges Bank may assess risk before investing in private equity funds and seek to limit such risk through agreements. The selection of companies and the exercise of ownership rights will thereafter be delegated to GPs. Investments can probably be traded in the secondary market, for example if a company in which the GPFG is directly or indirectly invested is excluded from the investment universe of the Fund, but then in the form of entire fund holdings and in a low-liquidity market. The Ministry emphasises that any divestment must, according to Norges Bank, be

expected to take somewhat longer on average than the divestment of listed company holdings.

Unlisted equity investments are also demanding in terms of governance structure and the division of responsibilities. Many large institutional investors investing in unlisted equities have a governance model in which the owner delegates decisions relating to investment strategy and risk taking to the manager to a much greater extent than for the GPFG. The issue of whether to allow unlisted equity investments in the GPFG is therefore also an issue of what would be an appropriate structure for the asset management model. Allowing unlisted equities in the GPFG would be a long-term strategic choice requiring broad support, since considerable amounts would have to be invested and it may be difficult to subsequently divest holdings. All levels of the governance structure would need to appreciate that large costs would be incurred during the development of such an investment program, whilst the performance of each investment can only be properly evaluated after about ten years.

Whether to allow unlisted equity investments in the GPFG is a matter of weighting advantages against disadvantages. Allowing such investments can provide Norges Bank with additional investment opportunities in its active management. The Ministry holds that advantages such as size and liquidity would make it reasonable to expect the Fund to slightly outperform the average investor. However, such advantages are uncertain, and the contribution to overall return and risk in the GPFG would in any event be limited. At the same time, unlisted equity investments may affect the reputation of the Fund and challenge key characteristics of the current asset management model, such as transparency, low costs and an emphasis on systematic risk in listed markets. The Ministry is also taking into account that the equity share is now being increased to a level where it may be inappropriate to expose the GPFG to other types of risk.

Based on an overall assessment, the Ministry of Finance does not propose that unlisted equity investments should be allowed in the GPFG on a general basis. Besides, the Ministry notes that Norges Bank may currently invest in unlisted companies whose board of directors has expressed an intention to seek a listing, which the Ministry will follow up on in its dialogue with Norges Bank.

2.2 Environment-related mandates and unlisted infrastructure investments

In the last two reports on the Government Pension Fund, submitted in the spring of 2016 and the spring of 2017, the Ministry of Finance has addressed whether to allow unlisted infrastructure investments in the GPFG. These comprise various types of infrastructure that are available to investors in the unlisted market, from airports and toll roads to solar power plants and hospitals. As part of the basis for its assessments, the Ministry solicited advice and assessments from an expert group, an external consultant and Norges Bank.

The Government's conclusion was not to allow unlisted infrastructure investments at the present time. In the fund report submitted in the spring of 2017, it was noted, inter alia, that a transparent and politically endorsed sovereign fund like the GPFG is not well suited to carrying the particular risks associated with such investments.

The Government's conclusion was endorsed by the majority of the members of the Standing Committee on Finance and Economic Affairs in its deliberation of the report; see Recommendation No. 357 (2016–2017) to the Storting. However, the majority added the following comment:

> *«The investment strategy for the GPFG has been developed gradually over time, and the majority refers to the ongoing efforts of the Gjedrem Commission with regard to the Central Bank Act, next year's in-depth review of Norges Bank's management of the GPFG and further market developments, which when considered as a whole make it appropriate to revert to the issue of expansion of the investment universe in the near future.»*

The Ministry of Finance intends to follow up on the said comment of the Standing Committee on Finance and Economic Affairs by assessing whether unlisted renewable energy infrastructure investments can be effected within the scope of the special environment-related mandates, with the same transparency, return and risk requirements as apply to the other investments in the GPFG. In this context, the Ministry also intends to review the regulation of the environment-related mandates in general, including the size of such mandates.

The last time the Ministry reviewed the environment-related mandates was in 2014, about five years after the creation of such mandates. The

investments shall be subject to the same expected return and risk requirements as the other investments of the Fund. The environment-related mandates form part of Norges Bank's active management and draw on the scope for deviations from the benchmark index. As at the end of 2017, their market value was about NOK 75 billion.

The Ministry of Finance will revert to the Storting with assessments of the environment-related mandates and the prospects for investing in unlisted renewable energy infrastructure within the scope of these mandates.

2.3 The fixed-income investments

2.3.1 Background

The fixed-income investments of the GPFG serve three purposes: reducing the volatility of overall Fund returns, contributing liquidity and providing exposure to risk factors such as interest rate risk and credit risk.

The current fixed-income benchmark reflects a trade-off between these purposes and was specified on the basis of a 60-percent equity share. It is appropriate to review the trade-off anew in view of the decision to increase the equity share to 70 percent. The Ministry of Finance therefore announced, in the fund report in the spring of 2017, a review of the fixed-income benchmark. This includes, inter alia, an assessment as to whether more weight should be attached to the purposes of liquidity and volatility reduction.

This section outlines the status of the Ministry's work on a new fixed-income benchmark.

2.3.2 The current benchmark index

The fixed-income benchmark for the GPFG is stipulated by the Ministry of Finance and is based on index products provided by Bloomberg. It is comprised of a government bond portion (70 percent) and a corporate bond portion (30 percent); see Figure 2.7. The allocation between the two parts of the benchmark is fixed and is rebalanced to the chosen weights on a monthly basis. The fixed-income benchmark is exclusively comprised of so-called investment-grade securities. Bonds from Norwegian issuers or bonds issued in Norwegian kroner are not included in the benchmark index.

The composition of the *government bond portion* of the fixed-income benchmark is based on the currencies and individual securities included in the sub-benchmarks[8] chosen at any given time, and comprises nominal government bonds in local currency, inflation-linked government bonds and bonds issued by international organisations. The country weights are calculated on the basis of the size of the economies of the countries as measured by gross domestic product (GDP) and are rebalanced to their original weights on a monthly basis. Within each country, sub-segments and individual bonds are weighted in accordance with market weights.

Some country weights in the government bond portion have been supplemented by adjustment factors out of consideration for the investability of the benchmark index.[9] Unmodified GDP weights might result in high percentage ownership stakes in countries with high GDP relative to the size of the government bond market. The investability requirement is of particular importance in view of the size of the Fund.

The *corporate bond portion*[10] is comprised of corporate bonds and covered bonds issued in seven approved currencies[11]. The composition of the corporate bond portion of the fixed-income benchmark is based on market weights.

An appropriate basis for determining the composition of the benchmark indices for the GPFG is market size; see appendix. However, market weights may be a less appropriate basis with regards to investments in government bonds than in equities and corporate bonds. The overall supply of government bonds is influenced by the borrowing needs of individual states. Market weights imply a large and growing exposure to countries with large and growing government debt and does not necessarily facilitate good diversification of risk. When compared to market weights, country weights based on the sizes of economies as measured by gross domestic product (GDP) have been considered a relevant basis for allocating government bond investments; see the fund report in the spring of 2012.

The Ministry of Finance notes, at the same time, that the size of a country's economy is not a precise measure of the issuer's ability or willingness to repay bond loans. The mandate for the

8 Bloomberg Barclays Global Treasury GDP Weighted by Country Index, Bloomberg Barclays Global Inflation Linked and the «Supranational» sub-segment of Bloomberg Barclays Global Aggregate Index.

9 An adjustment factor of 0.25 has been applied to the country weights of Chile, Hong Kong and Russia, whilst other countries have a factor of 1.

10 Selected securities from the sub-segments «Corporates» and «Covered Bonds» in Bloomberg Barclays Global Aggregate Index.

11 USD, CAD, EUR, GDP, SEK, DKK, CHF.

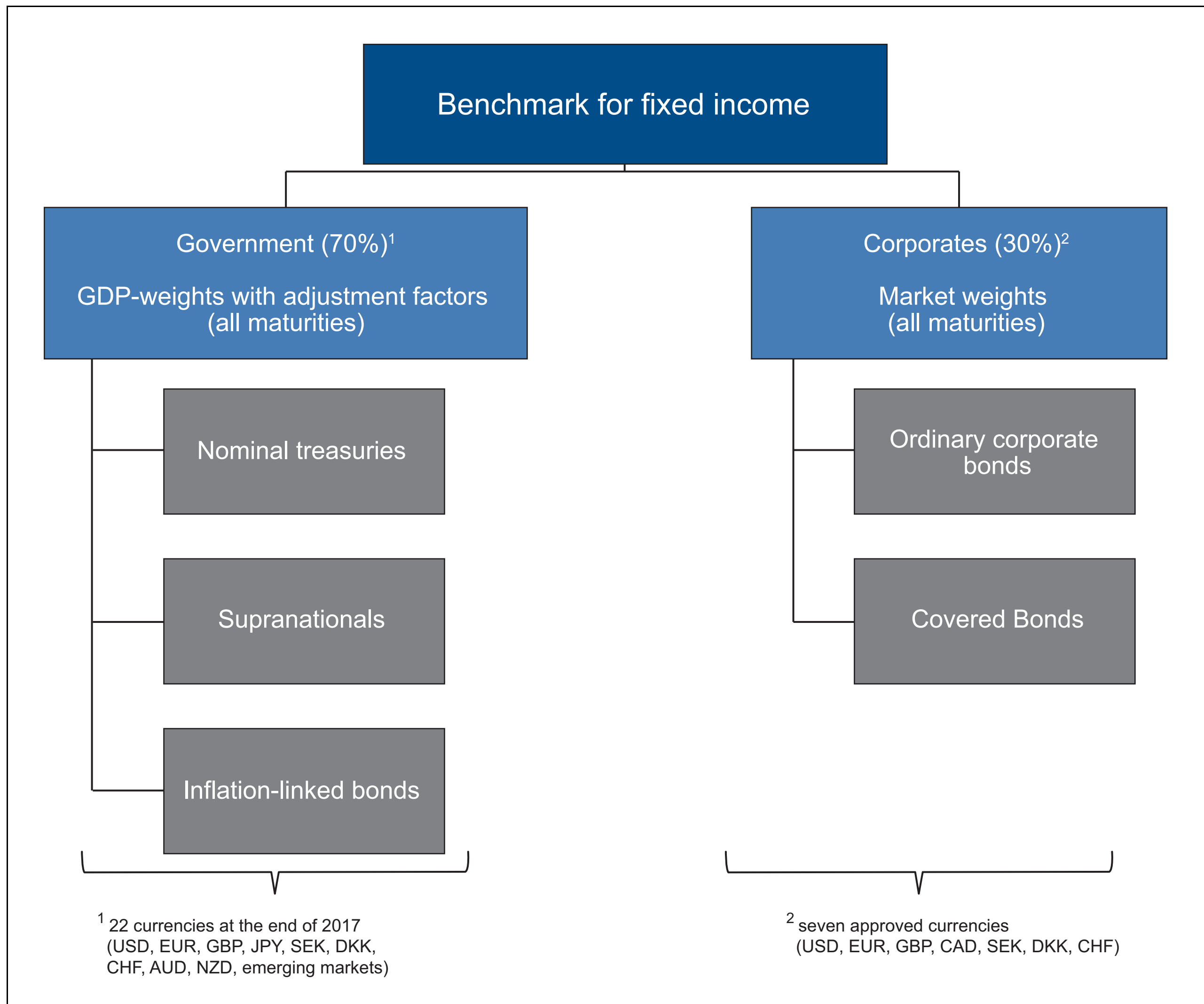

Figure 2.7 The current fixed-income benchmark

Source: Ministry of Finance.

management of the GPFG laid down by the Ministry therefore includes a requirement for Norges Bank to take into account differences in fiscal strength in the composition of the government bond portfolio. Key figures such as a country's debt-to-GDP ratio, budget balance and current account balance are often used as a measure of fiscal strength.

Furthermore, the mandate defines an investment universe for interest-bearing securities[12] which is broader than the fixed-income benchmark. Norges Bank may deviate from the benchmark index within the mandate's limit on expected tracking error, as well as other risk limits in the mandate. In order to prevent Norges Bank from having to immediately divest fixed-income securities upon these being omitted from the benchmark because their credit rating is downgraded, it is permitted for up to 5 percent of the fixed-income portfolio to be invested in high-yield bonds (credit rating lower than investment grade).

2.3.3 Norges Bank's advice on a new benchmark index

The Ministry of Finance has in letters of 9 June and 26 October 2017, respectively, requested Norges Bank to analyse and assess the framework governing the GPFG's investments in fixed-income securities. Norges Bank has submitted its advice and assessments in letters of 1 September 2017 and 14 December 2017, respectively. The let-

[12] Interest-bearing securities include, inter alia, bills, bonds and interest rate derivatives.

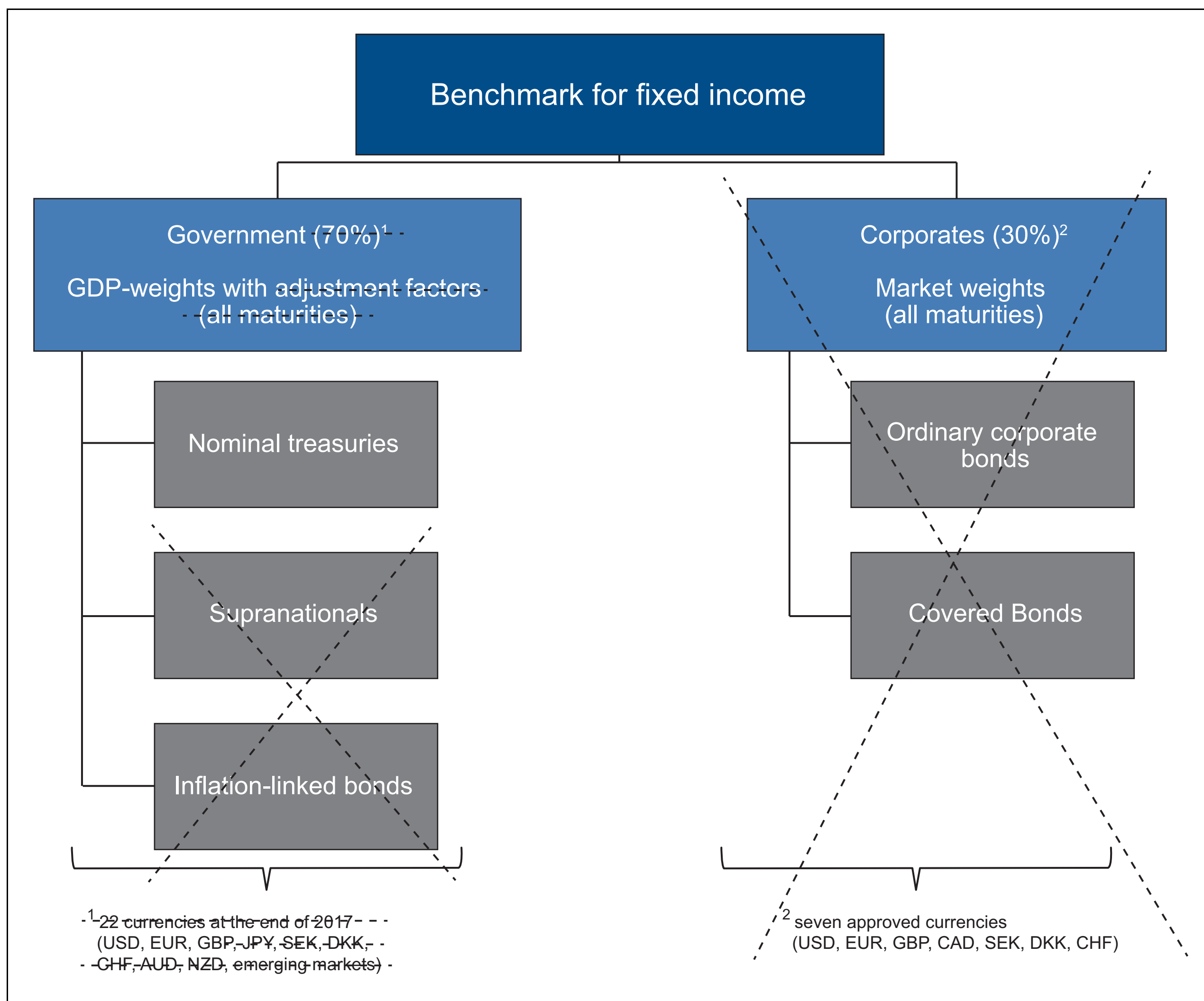

Figure 2.8 Diagrammatic presentation of Norges Bank's proposals for changes to the fixed-income benchmark

Source: Norges Bank.

ters are available on the Ministry of Finance website.

Norges Bank recommends extensive changes to the benchmark index. It proposes, inter alia, that the number of currencies be reduced from 23 to three, as well as a further narrowing of the benchmark to only include nominal government bonds issued in their own currency by the US, the UK and the eurozone countries[13]. Figure 2.8 provides an overview of Norges Bank's proposed fixed-income benchmark as compared to the current benchmark. In addition, it is proposed that the maturity of individual securities be capped at 10.5 years. Norges Bank does not propose any changes to the current investment universe.

Norges Bank's proposal for a reduction in the number of countries and currencies in the fixed-income benchmark is based on analyses conducted by Norges Bank. The analyses show that the long-term gain from diversification of risk in the form of a broad geographical spread is larger for equities than for fixed-income securities. Norges Bank's recommendation entails a fixed-income benchmark composition with about 50 percent in US dollars, about 40 percent in euros and the remainder in pound sterling.

Norges Bank proposes, furthermore, that corporate bonds, covered bonds, inflation-linked bonds and bonds issued by international organisations be omitted from the benchmark index.

[13] The benchmark included 23 currencies as at the date on which Norges Bank submitted its advice. South-African rand were omitted from the benchmark as at the end of November 2017 as the result of their credit rating being downgraded below investment grade.

Norges Bank's analyses indicate that a fixed allocation for corporate bonds will have little impact on return and risk in a portfolio with 70 percent equities. This is because of a presumed positive correlation between the risk premiums on corporate bonds and equities. The rationale behind the proposal to omit inflation-linked bonds and bonds issued by international organisations is that these segments are less liquid than nominal government bonds issued in own currency.

The rationale behind Norges Bank's recommendation to cap the maturity of fixed-income securities in the benchmark index at 10.5 years is that this would reduce uncertainty with regard to the GPFG's volatility risk without reducing expected return. The analyses of Norges Bank are based on the assumption that the maturity premium will be close to zero for the foreseeable future.

Besides, Norges Bank assumes that the current principle of applying GDP weights in the composition of the benchmark be maintained, but proposes annual rather than monthly rebalancing within the government bond portion to reduce transaction costs. GDP weights will, according to Norges Bank, facilitate a stable currency allocation in the fixed-income benchmark and limit the proportion of lending to heavily indebted eurozone countries.

2.3.4 The Ministry's assessments

Key principles underpinning the investment strategy

The composition of the fixed-income benchmark and the framework governing the fixed-income investments must reflect the purpose of the fixed-income investments of the GPFG and the key principles underpinning the investment strategy; see appendix. The Ministry is of the view that Norges Bank's advice on a new fixed-income benchmark implies several deviations from such key principles.

The principle that risk can be reduced through broad diversification is a central tenet behind the investment strategy and the design of the benchmark indices. Whilst the Fund's equity benchmark largely represents the global listed equity market, the fixed-income benchmark encompasses a somewhat more limited part of the investment opportunities. Some sub-segments have been omitted on the basis of, inter alia, assessments relating to market structure, concentration risk and whether the sub-market is suited for passive management; see the discussion in the report on the Government Pension Fund submitted in the spring of 2012.

The risk in the fixed-income benchmark is broadly communicated and endorsed. The Ministry is of the view that any risk factors one would want exposure to should, as a main rule, be included in the benchmark index. Consequently, there should not be too much of a divergence between the benchmark index and the investment universe for fixed-income securities. In addition, a high degree of overlap between the investment universe and the benchmark index implies that the benchmark is better suited for measuring Norges Bank's fixed-income management performance. Exposure to risk factors that cannot be incorporated in the benchmark index in a practicable manner may, if applicable, be achieved in the context of Norges Bank's active management.

Expert group

In view of the key role of the benchmark index in the governance and management of the GPFG, including the presumption of a moderate element of active management, the Ministry believes that there is a need for commissioning additional analyses before adopting a new strategic benchmark index.

On 21 March 2018, the Ministry appointed, against this background, an expert group to assess the fixed-income investments of the GPFG. The group is chaired by Professor Ralph Koijen, Professor of Finance at NYU Stern School of Business. In addition, the expert group includes Professor Jules van Binsbergen. Jules van Binsbergen is Professor of Finance at Wharton School, University of Pennsylvania. The terms of reference of the expert group are available on the Ministry website.

Certain changes to the current benchmark

In parallel with the effort of the expert group, the Ministry intends to make certain technical modifications to the fixed-income benchmark.

Full monthly rebalancing to GDP weights within the government bond portion has over time turned out to involve significant transaction costs, primarily because of exchange rate movements. Furthermore, full monthly rebalancing to GDP weights (measured in USD) may involve transaction costs in the various bond markets in the event of large exchange rate fluctuations. The Ministry will therefore consider making certain technical modifications to reduce the transaction

costs. Such modification will have no impact on overall risk in the Fund.

The index provider's minimum credit rating requirement for fixed-income securities included in the benchmark implies that government bonds from countries that are close to such minimum may enter or leave the benchmark in response to even minor changes in the credit rating. This has applied, in particular, to emerging economies. Turkey was, for example, included in the index in April 2014 and thereafter omitted again in the autumn of 2016. The Ministry will continue to address this issue in the ongoing effort relating to the fixed-income benchmark.

The process ahead

The Ministry aims to present its assessments in the report on the Government Pension Fund in the spring of 2019.

2.4 Investments in energy equities

Norges Bank has in a letter of 14 November 2017 advised the Ministry of Finance to omit the oil and gas sector from the equity benchmark for the GPFG. In its letter, Norges Bank suggests that such a change to the benchmark index will serve to reduce oil price risk in central government wealth. Norges Bank emphasises that the advice does not reflect any specific view on oil price development, future profitability or sustainability in the oil and gas sector.

The index provider FTSE Russell has announced that the sector Norges Bank has advised on omitting from the benchmark index will be designated as the energy sector from 1 January 2019. As classified by the index provider FTSE Russell, the sector encompasses energy activities in the broader sense, including integrated oil and gas companies, petroleum services companies and renewable energy companies. The equity investments of the GPFG in the energy sector account for about 4 percent of the Fund's overall investments, corresponding to just over NOK 300 billion.

The issue raised by Norges Bank is complex and has many aspects. The Ministry of Finance intends to subject the advice to thorough and proper examination, as is the existing practice for all key choices in the management of the GPFG. In order to establish a comprehensive basis for decision making, the Ministry has therefore appointed an expert group, circulated the advice from Norges Bank for public consultation and written to Norges Bank to obtain additional information.

The expert group is chaired by Øystein Thøgersen, Professor and Rector of the Norwegian School of Economics. Other members of the group are Chief Economist Harald Magnus Andreassen and former Chief Executive Officer Olaug Svarva.

The letters, the consultation paper and the terms of reference of the expert group are available on the Ministry of Finance website. The Government intends to present its assessment to the Storting in the autumn of 2018.

2.5 Review of Norges Bank's management of the GPFG

2.5.1 Introduction

The Ministry of Finance has since 2009 reviewed Norges Bank's management of the Government Pension Fund Global (GPFG) at the beginning of each term of the Storting. Such reviews were discussed in the fund reports submitted in 2010 and 2014. The Ministry is in this report presenting a new evaluation of Norges Bank's execution of the management assignment.

The purpose of conducting such reviews on a regular basis is, inter alia, to contribute to transparency in, and insight into, Norges Bank's management of the GPFG. The reviews are important to maintain confidence in the management of the Fund and may serve to strengthen the ability to maintain profitable long-term investment strategies, also during periods of weak performance.

The Ministry has since the previous review in 2014 stipulated more detailed risk reporting requirements, as well as a supplementary risk limit for large negative deviations from the benchmark index that can be expected to occur infrequently (tail risk). Furthermore, the limit on deviations from the benchmark index, as measured by expected tracking error, has been increased from 1.0 percentage point to 1.25 percentage points.

The Ministry of Finance commissioned, as part of the review, an expert group comprising Professors Magnus Dahlquist and Bernt Arne Ødegaard to evaluate Norges Bank's active management of the GPFG. Moreover, the consultancy firms McKinsey and Inflection Point Capital Management have been engaged to prepare reports on the costs incurred in managing the Fund and global responsible investment best practices, respectively. The latter report is discussed in section 2.6. The Ministry has also received analyses and assessments

Box 2.3 Costs of active and passive management

Investing fully in line with the benchmark index, so-called passive management, is not a zero-cost option. Passive management involves, inter alia, fixed costs. In addition, transaction costs are incurred upon the purchase and sale of securities, both in response to modifications of the benchmark index and upon capital flows to or from the Fund. The return on the benchmark index for the GPFG is not adjusted for such costs. Securities lending will, on the other hand, generate income that is additional to the return on the benchmark index.

The expert group comprising Professors Dahlquist and Ødegaard (2018) states in its report that a manager's return contribution should be measured after deduction of the additional costs of active management.

The costs incurred in the management of the GPFG in 2017 came to about 6 basis points, or just under NOK 5 billion.

It is possible to estimate how much of the costs would also have been incurred under passive management and how much have been incurred as the result of Norges Bank's active management. However, such estimates will be uncertain.

McKinsey has in its report estimated the asset management costs of notional passive management of the GPFG, based on data from other funds, gathered by CEM. Passive management costs are estimated to be in the range of 2.8–2.9 basis points. McKinsey has in this estimate not taken into account that there would most likely be administration cost savings when compared to the current management of the Fund. It states in its report that the estimate must therefore be considered cautious, and that somewhat lower management costs than those indicated by the estimate may be feasible. Norges Bank estimates, in its annual reporting for 2017, that the GPFG could over the last three years have been managed passively at a cost of three basis points. Neither transaction costs, nor securities lending income, are included in these estimates.

Norges Bank has estimated net additional costs of active management of the GPFG, including both transaction costs and securities lending income. Norges Bank estimates that the additional cost over the period from 1998 to 2017 was about one basis point per year, whilst the additional cost over the last five years was about four basis points per year. These additional costs cover a broad range of activities that would not form part of purely passive management. They include, inter alia, responsible investment, excess return strategies and cost-effective adaptation to the benchmark.

from Norges Bank. All the reports and Norges Bank's letter are available on the Ministry website.

The below discussion starts out with the excess return achieved by Norges Bank over the return on the benchmark index defined by the Ministry. It thereafter moves on to analyses seeking to shed light on how such excess return has been achieved, including exposure to various types of risk and the costs incurred. Assessments are also presented as to performance under the various investment strategies used by Norges Bank in its management of the Fund. This is in follow-up of the Storting's petition resolution no. 761 (2015–2016) of 3 June 2016:

> *«The Storting requests that next year's review also assess performance, and the relationship between costs and benefits, under the various investment strategies, in both the short and the long run, and propose any changes in view of such assessments in connection with the fund report for 2017.»*

The Ministry of Finance has in its follow-up of this resolution assessed benefits as measured by excess return, and costs as measured by relative risk and asset management costs.

The Ministry of Finance would like to point out that the mandate for the GPFG allows for Norges Bank to assume somewhat more or less risk than is implied by the benchmark index. The mandate also requires Norges Bank to seek to compose the investments in the equity and fixed-income portfolios in such a way that the deviations from the benchmark index entail a broad diversification of risk.[14]

Table 2.1 Average annual excess return in the management of the GPFG. Percentage points[1, 2]

	GPFG	Equity portfolio	Fixed-income portfolio
A. January 1998 – June 2017			
Excess return	0.29	0.49*	0.15
Costs	0.09	0.13	0.05
Excess return after the deduction of costs	0.20	0.36	0.11
B. January 2013 – June 2017			
Excess return	0.25	0.37	-0.03
Costs	0.05	0.07	0.03
Excess return after the deduction of costs	0.20	0.30	-0.06

1 A * indicates so-called statistical significance at the 5-percent level, i.e. that there is less than a 5-percent probability of getting this estimate if the unobservable true average excess return is zero.
2 Average annual excess return is here calculated as the arithmetic mean of monthly excess return figures, multiplied by 12.
Source: Dahlquist and Ødegaard (2018).

2.5.2 Excess return

The expert group has assessed the historical performance of Norges Bank in the management of the GPFG, with a special emphasis on performance over the last few years. Various analyses have been carried out for the entire period from January 1998 to June 2017 and for the sub-period from January 2013 to June 2017. For the most recent period, the group has had access to return, risk and cost data specified by what Norges Bank defines as key investment strategies. For the real estate investments, the group has assessed performance over the period from March 2011 to June 2017, as this covers periods when Norges Bank has invested in unlisted real estate.

The element of deviations from the benchmark index in the GPFG, or so-called active management, is moderate. The expert group refers to analyses indicating that the deviations only explain a minor portion of the historical volatility in the return on the Fund.[15] This suggests that the deviations are minor. Moreover, said portion has declined over time, thus indicating, according to the group, that the scope of active management has been reduced over time.

The calculations of the expert group show that Norges Bank has over the period from January 1998 to June 2017 achieved an average annual excess return of 0.29 percentage points for the GPFG as a whole. The net excess return after the deduction of total asset management costs was 0.20 percentage points. After the deduction of costs, performance was the same over the last four years as for the period as a whole; see Table 2.1.

The expert group notes in its report that parts of the asset management costs of the GPFG would have been incurred also if the Fund was only managed passively. The estimate of net value added, after the deduction of total asset management costs, is therefore held to be conservative.

The excess return was considerably higher in the equity portfolio than in the fixed-income portfolio, both over the entire period since 1998 and during the sub-period from 2013. This applies both before and after the deduction of asset management costs. For the sub-period, the return on the fixed-income portfolio was lower than the return on the benchmark index, i.e. a negative excess return.

The expert group highlights that the excess return on the equity portfolio during the sub-period from 2013 was caused by the selection of equities *within* countries, industries and sectors,

14 This is in the mandate worded as a requirement for the expected relative return to be exposed to several systematic risk factors.

15 The calculations of the expert group show that the benchmark index explains 99.4 percent of the volatility in the return on the Fund over the period from January 1998 to June 2017 and 99.6 percent over the period from January 2013 to June 2017.

whilst the variation in the portion invested in various countries, industries and sectors over time has delivered small, but negative, excess return contributions. They note that this shows that the excess return over this period is caused by the selection of individual equities, rather than the selection of countries, industries and sectors.

The expert group observes that data for long time periods are needed to assess whether achieved excess return is statistically significantly different from zero.[16] This is because there are often large variations in monthly return figures, and because a time period of close to two decades is considered short in this context. Based on the analyses of the expert group, it is only the estimate of average annual excess return on the equity portfolio for the entire period that is statistically significant.

2.5.3 Analyses of achieved excess return, with due regard for risk

Section 2.5.2 showed the contributions made by Norges Bank's management of the GPFG to the overall return on the GPFG. Below follows a discussion of analyses shedding light on achieved performance with due regard for risk.

The expert group has in its report used models utilised in the financial literature to explain historical performance. Such models distinguish between returns achieved by the manager by taking so-called systematic risk and returns attributable to other choices. The latter tends to be referred to as risk-adjusted excess return, so-called *alpha*. Risk-adjusted excess return estimates are uncertain, and the specific model chosen will be of considerable significance; see the discussion in the fund report in the spring of 2016.

In practice, systematic risk can be taken by, for example, investing a larger proportion in equities and fixed-income securities that tend to increase (decline) more in value than the average in the event of an upturn (downturn) in the equity and bond market than would be implied by the benchmark index. If the market gains in value over time, such a strategy is expected to generate an excess return. Another way of taking risk is to give the portfolio composition a bias towards other systematic risk factors. Such risk factors are a general label for various return patterns historically observed in the equity and bond markets. An example of such a factor is «value», which refers to companies with low valuations relative to company fundamentals having historically generated higher returns than companies with high valuations. Consequently, one can expect to achieve excess return over time by biasing investment composition towards such factors. Such strategies may at the same time involve a somewhat different and higher risk than is implied by the benchmark index.

Risk adjustment involves methods for adjusting the excess return to reflect such risk taking. A positive excess return caused by high risk will for example be deducted when calculating the risk-adjusted excess return in such analyses.

Excess return adjusted for market risk

The analyses of the expert group indicate that about half of the average annual excess return of 0.29 percentage points on the GPFG over the period from January 1998 to June 2017 can be explained by the element of market risk being higher than that implied by the benchmark index defined by the Ministry.[17] The estimated excess return after adjustment for such risk is 0.15 percentage points; see Table 2.2A. After deducting average asset management costs over the same period, the expert group estimates the net risk-adjusted excess return on the GPFG over this period at about 0.07 percentage points. As mentioned above, the group observes that parts of the asset management costs would also have been incurred under a notional passive management approach, and that the said figure must be considered a conservative estimate of net risk-adjusted excess return.

For the equity portfolio, the expert group has estimated risk-adjusted excess return at 0.40 percentage points and net risk-adjusted excess return at 0.27 percentage points; see Table 2.2A. The estimate is statistically significant. For the fixed-income portfolio, the risk-adjusted excess return is estimated at 0.07 percentage points, and 0.03 percentage points after the deduction of asset management costs.

The expert group estimates net risk-adjusted excess return on the GPFG at 0.13 percentage points over the period from January 2013 to June

[16] If it can be excluded, with reasonable certainty, that it is accidental that an estimated variable is different from zero, such variable is said to be significantly different from zero.

[17] Ang, Brandt and Denison (2014) referred to the Fund's high estimated exposure to the benchmark index during the financial crisis as a statistical artifact driven by high correlation between the equity and fixed-income benchmarks, and between the fixed income credit factors and the equity benchmark.

Table 2.2 Average annual risk-adjusted excess return in the management of the GPFG. Percentage points[1]

	January 1998 – June 2017		January 2013 – June 2017	
	Before costs	After the deduction of total asset management costs	Before costs	After the deduction of total asset management costs
A. Excess return adjusted for market risk				
GPFG	0.15	0.07	0.18	0.13
Equity portfolio	0.40*	0.27	0.22	0.15
Fixed-income portfolio	0.07	0.03	-0.02	-0.05
B. Excess return adjusted for factor risk				
GPFG	0.07	-0.02	0.17	0.12
Equity portfolio	0.39–0.41	0.26–0.28	0.23–0.26	0.16–0.19
Fixed-income portfolio	-0.20–0.10	-0.25–0.05	-0.03–0.17	-0.06–0.14

1 A * indicates statistical significance at the 5-percent level, i.e. that there is less than a 5-percent probability of getting this estimate if the unobservable true average excess return is zero.

Source: Dahlquist and Ødegaard (2018).

2017. For the equity and fixed-income portfolios, net risk-adjusted excess return over the said period is estimated at 0.15 and -0.05 percentage points, respectively. The estimated risk-adjusted excess return on the fixed-income portfolio is higher than the actual excess return. This indicates that the market risk in the fixed-income portfolio over this period has been lower than in the benchmark index.

Excess return explained by systematic risk factors

Financial literature has identified a number of systematic risk factors, or return patterns, which have historically generated excess return. Several models have been developed for purposes of explaining achieved performance by such risk factors. The expert group highlights a model with five systematic risk factors developed by Fama and French as a reasonable basis for such analyses of the equity portfolio. The model includes four systematic risk factors in addition to market risk.[18] The group observes that there is no professional consensus as to which factors should be used to calculate the excess return on bond investments after adjustment for various risk factors. The expert group has started out by using two systematic risk factors that capture interest rate risk and credit risk, respectively.[19]

The expert report notes that such analyses are important in order to understand the risk taking in asset management, although it is an open question whether the Fund should be credited for the active return generated by factors. It may, according to the group, be argued that the manager adds value through factor investing.

The expert group notes, moreover, that exposure to systematic factors cannot be achieved at zero cost because, inter alia, it requires ongoing rebalancing of the portfolio, which imposes transaction costs on the Fund. They are of the view that it can be interpreted as an accomplishment to achieve the desired exposure to systematic risk factors even if no risk-adjusted excess return net of costs is estimated.

18 See Dahlquist and Ødegaard (2018) for further discussion of the model and which return patterns the risk factors are intended to capture.

19 The risk factor «interest rate risk» captures the excess return from investing in government bonds with a long time to maturity, compared to government bonds with a short time to maturity. «Credit risk» captures the excess return from investing in corporate bonds, compared to more secure government bonds, adjusted for differences in maturity.

The analyses of the expert group show that the exposure to systematic risk factors in the management of the GPFG has varied over time. The group finds that parts of the excess return over the period from January 1998 to June 2017 can be explained by higher market risk and overweights in small-cap stocks, profitable companies and companies that invests aggressively, as well as more exposure to credit risk, compared to the benchmark index. For the sub-period from January 2013 to June 2017, parts of the excess return can be explained by higher market risk and a bias in the investments towards small companies. Moreover, the analyses indicate that the investments in the GPFG over this period have featured a smaller portion of bonds with a long time to maturity than the benchmark index.

As far as the *equity portfolio* is concerned, the analyses of the expert group show that the estimated excess return over both periods can be partly explained by higher market risk, while the bias towards other systematic risk factors has varied over time.

The analyses of the expert group suggest that the focus in Norges Bank's management of the *fixed-income investments* has changed significantly over time. For the period as a whole, they highlight, in particular, exposure to credit risk and refer to the negative performance during the financial crisis in 2008–2009, as discussed by Ang, Brandt and Denison (2014). For the sub-period, it would appear that the management of the fixed-income portfolio has adopted a different focus, and the group's analyses suggest that a major part of the risk taking has been in the form of a shorter maturity for the fixed-income investments than in the benchmark index. Such a focus implies that Norges Bank achieves an excess return if the interest rate level increases, and a negative excess return if the interest rate level decreases.[20]

Analyses of risk-adjusted excess return commonly assume that the exposure to each risk factor is constant. The analyses of the expert group show, however, that such exposures have varied over time in the GPFG, and the group states that this makes it difficult to interpret estimated risk-adjusted excess return for the entire period. The group therefore puts more emphasis on the findings for the sub-period.

About one third of the achieved excess return on the GPFG, averaging 0.25 percentage points per year over the period from 2013, can be explained by systematic risk factors. The expert group estimates the risk-adjusted excess return at 0.17 percentage points per year on average; see Table 2.2B. This estimate is not statistically significant. Average net risk-adjusted excess return on the GPFG is estimated at 0.12 percentage points per year by deducting the total asset management costs of the Fund over the same period.

Depending on which systematic risk factors are included in the analysis, the expert group has estimated the average annual risk-adjusted excess return on the equity portfolio over the period from 2013 at between 0.23 percentage points and 0.26 percentage points, and between 0.16 percentage points and 0.19 percentage points when deducting asset management costs; see Table 2.2B. For the fixed-income portfolio, estimated risk-adjusted excess return is, to a greater extent, dependent on the specific choice of model, but is estimated at between -0.03 percentage points and 0.17 percentage points per year, and between -0.06 percentage points and 0.14 percentage points after the deduction of asset management costs. The group notes that the chosen model with interest rate risk and credit risk appears not to capture all credit risk in the fixed-income portfolio, and points, inter alia, to exposure to bonds issued by emerging economies as a potential explanation. They find that none of the estimates of risk-adjusted excess return on the equity and fixed-income portfolios are statistically significant.

The GPFG has since 2013 featured lower interest rate risk than the benchmark index. Since the interest rate level has largely been declining over that period, this has been a loss-making strategy for the Fund. Negative excess return caused by lower risk than the benchmark index is added when estimating risk-adjusted excess return. The risk-adjusted excess return on the fixed-income portfolio in such analyses is therefore higher than the actually achieved excess return.

2.5.4 Value added measured in Norwegian kroner

The expert group has calculated the value added from Norges Bank's management of the GPFG, i.e. an estimate of the excess return measured in Norwegian kroner. Such an estimate converts

[20] Interest rate changes cause changes in the price of bonds. The longer the maturity of a bond, the larger the price change caused by a certain change in interest rates. Duration is the measure typically used in respect of a fixed-income portfolio, which is the average maturity of all bonds in the portfolio based on a weighting of all future interest and instalment payments. The longer the duration, the larger the capital gain or capital loss in the fixed-income portfolio in response to an interest rate increase or an interest rate decrease, respectively.

percentages into amounts.[21] This takes into account that a small percentage excess return earned on a large asset base may be more valuable than a large percentage excess return earned on a small asset base. Value added calculated before adjustment for costs can, according to the group, show how much value Norges Bank extracts from capital markets through active management, whilst value added net of costs seeks to estimate how much value accrues to the capital owner.

The calculations of the expert group show that the value added over the period from January 1998 to June 2017 can be estimated at NOK 112 billion, and NOK 65 billion over the period from January 2013 to June 2017; see Table 2.3A. Value added after the deduction of asset management costs is estimated at NOK 75 billion since 1998, and NOK 50 billion since 2013. The group emphasises that this must be considered a low estimate of the value added accruing to the capital owner, because costs would also have been incurred in passive management.

The main part of the estimated value added stems from equity management, with NOK 73 billion net of costs for the entire period and NOK 52 billion over the period from 2013; see Table 2.3A. After the deduction of costs, the analyses of the expert group show that fixed-income management made a negative contribution, estimated at NOK -1 billion since 1998 and NOK -7 billion since 2013. For the period from 2013, the estimated contribution from fixed-income management is negative also before the deduction of asset management costs.

The estimated contributions from the equity and fixed-income portfolio, respectively, are not necessarily equal to the total estimated value added for the GPFG. One reason for this could be that Norges Bank has opted for a different allocation between equities and fixed-income securities than in the benchmark index, which difference may itself have contributed to the value added.

The Ministry of Finance presents annual estimates of value added, as measured in Norwegian kroner, in the reports on the Government Pension Fund. The Ministry's own estimates show that accumulated value added over the period from January 1998 until the end of 2017 can be estimated at NOK 141 billion, whilst the value added over the period since January 2013 can be estimated at NOK 88 billion. The difference between these figures and the estimate of the expert group is primarily caused by Norges Bank achieving a high excess return on the equity portfolio in the second half of 2017, a period that is not included in the analyses of the expert group.

Risk-adjusted value added measured in Norwegian kroner

The expert group has also calculated the value added from Norges Bank's management of the GPFG after taking account of risk. The purpose is to estimate the portion of the value added, measured in Norwegian kroner, which cannot be attributed to systematic risk taking. The group has analysed the net value added both after adjustment for market risk and with due regard for other systematic risk factors. The group attaches most weight to the findings for the period from 2013, since the focus of Norges Bank's management of the GPFG, and thus the risk taking, has changed over time.

Tables 2.3B and 2.3C show that net value added can to a large extent be explained by a larger element of market risk, especially in fixed-income management. When adjusted for market risk and asset management costs, the analyses of the expert group show that net value added from Norges Bank's management of the GPFG can be estimated at NOK -1.5 billion over the period from January 1998 to June 2017. For the equity portfolio on its own, net value added is estimated at NOK 42 billion over the same period, whilst the contribution from the fixed-income portfolio is NOK -14 billion.

The estimated value added for the GPFG is not necessarily equal to the sum of the contributions from the equity and fixed-income portfolios. This is especially evident when adjusting for market risk, as measured by the benchmark index, over the period from January 1998 to June 2017.

For the period from January 2013 to June 2017, Norges Bank's value added in the management of the GPFG is estimated at NOK 32 billion, after adjustment for market risk. There is little change in the estimate if also taking account of other systematic risk factors. As with the entire period from 1998, the value added is estimated to come from equity management, whilst the contribution from fixed-income management is negative.

[21] The value added is calculated by multiplying the excess return in each month by the capital as at the beginning of the month. The excess returns are thereafter added up over all months. Norwegian kroner have been chosen as an illustration, but the estimate can also be calculated for other currencies.

Table 2.3 Accumulated value added from Norges Bank's management of the GPFG[1]. NOK billion

	January 1998 – June 2017		January 2013 – June 2017	
	Before costs	After the deduction of total asset management costs	Before costs	After the deduction of total asset management costs
A. Value added				
Total	111.7	75.4	65.1	49.7
Equity portfolio	99.3	72.7	63.0	51.6
Fixed-income portfolio	7.7	-0.9	-3.6	-6.6
B. Value added adjusted for market risk				
Total	34.8	-1.5	46.9	31.5
Equity portfolio	68.8	42.2	39.8	28.4
Fixed-income portfolio	-5.8	-14.3	-2.2	-5.2
C. Value added adjusted for factor risk				
Total	-10.2	-46.4	48.0	32.5
Equity portfolio	49.4	22.8	42.7	31.2
Fixed-income portfolio	-59.8	-68.3	-0.8	-3.8

1 The estimated value added for the GPFG is not necessarily equal to the sum of the contributions from the equity and fixed-income portfolios. This is especially evident when adjusting for market risk.

Source: Dahlquist and Ødegaard (2018).

2.5.5 Description of investment strategies

The expert group emphasises that characteristics of the GPFG, such as the broad diversification of its investments, its size and its long investment horizon, generally would make the Fund suitable for investment strategies that seek to achieve excess return relative to the average investor. Like earlier reports, the group specifically notes that the long investment horizon of the Fund makes it well placed to seek excess return from systematic risk factors.[22]

The expert group also notes that Norges Bank may seek to exploit other investors' purchases and sales of securities in connection with index changes to achieve an excess return. Passively managed funds must, inter alia, adapt to index changes by purchasing securities that are added to the benchmark index, and selling securities that are omitted, at the relevant time of the index changes. The report refers to research literature indicating that such index adaptations can result in predictable securities transactions on the part of some investors. Other market participants can achieve excess return by avoiding portfolio adaptations that are concurrent in time with the index changes or by offering liquidity to investors that have to trade.

More recent research may, according to the expert group, indicate that large institutional investors can achieve excess return by accumulating expertise within the selection of external managers, especially in emerging markets. Moreover, the group observes that the size and long time horizon of the GPFG can put Norges Bank at an advantage in selecting good external managers with local knowledge of the various markets.

The expert group notes that the size of the GPFG may limit Norges Bank's opportunities in

22 See Ang, Göetzman and Schäefer (2010) and Ang, Brandt and Denison (2014).

its management of the Fund, since several investment strategies are not scalable and may entail high transaction costs. It is observed, at the same time, that size may be an advantage for strategies involving index adaptation, securities lending and external management.

Several of the investment strategies referred to by the expert group are strategies currently used by Norges Bank. Norges Bank notes in its letter of 15 December 2017 that the investment strategies used in its management of the GPFG are classified into three main categories; allocation, security selection and market exposure, respectively. The strategies supplement each other in that they have different time horizons, are based on different analytical frameworks and are expected to generate excess return under different market conditions. Norges Bank has not addressed these issues in further detail or linked them to the specific Fund management strategies.

Allocation strategies

Norges Bank's allocation strategies involve allocation of the Fund's investments between asset classes and markets. The strategies include, inter alia, equity investments in new emerging markets («frontier markets») and investments in government bonds issued in currencies of emerging economies that are not included in the benchmark index defined by the Ministry of Finance. The strategies also include strategic allocations to systematic risk factors such as value, size and quality.

The mandate laid down by the Ministry of Finance requires the establishment of environment-related investment mandates, and also requires Norges Bank to seek to take account of differences in fiscal strength between countries in the composition of the government bond investments. These mandate requirements imply that Norges Bank must deviate from the benchmark index, and the adaptations are made as part of the allocation strategies. For the environment-related investment mandates, the decision as to which specific equities shall be underweighted in order to release capital for the environment-related mandates will form part of the allocation strategies, whilst actual management under said mandates forms part of external security selection; see below.

The Ministry's regulation of the real estate investments in the GPFG has been restructured with effect from 1 January 2017. The new regulation implies that the scale, scope and funding of the real estate investments are decided by Norges Bank, within the limit on deviations from the benchmark index, as measured by an expected tracking error of 1.25 percentage points, as well as an upper limit on unlisted real estate of 7 percent of the Fund's capital. The real estate investments are funded by selling a combination of local equities and fixed-income securities tailored to the relevant real estate investment. These sales also form part of Norges Bank's allocation strategies.

Internal security selection

The analyses of individual companies shall, according to Norges Bank, contribute to a sound basis for Norges Bank's responsible investment efforts. They shall also contribute to excess return by way of the information being used in active investment choices. Internal security selection strategies make use of this information to seek excess return by investing more or less in individual equities, relative to the weights in the benchmark index laid down by the Ministry of Finance. Norges Bank has focused these strategies on large companies in developed markets.

External security selection

External security selection strategies are focused in markets where, according to Norges Bank, it is infeasible to build internal capacity. Mandates are given to external managers with specialised skills within clearly defined investment fields. The majority of the Fund's investments in emerging equity markets, as well as all investments in frontier markets, are managed by external managers with a local presence.

Norges Bank also uses external managers for market segments whose characteristics are similar to those of emerging equity markets. These include, inter alia, market segments with small, illiquid and under-analysed companies in developed equity markets. External managers are also used for parts of the environment-related investment mandates.

Market exposure strategies

Market exposure strategies shall ensure that the desired market and risk exposure, as implied by other investment strategies, is implemented in a cost-effective manner. The management of the broad equity and fixed-income portfolios, the execution of ongoing securities trading, as well as the handling of cash, foreign exchange and

securities lending, form part of these strategies. Norges Bank seeks, inter alia, to achieve excess return over time by modifying the composition of the portfolio gradually and at other times than would be implied by more mechanical index adaptation.

Dynamic, systematic factor strategies are managed as part of market exposure strategies. The strategies have thus far been focused on equities. The factor strategies are additional to the exposure to systematic factors that forms part of the allocation strategies. Moreover, market exposure strategies seek to benefit from differences in the valuation of securities with similar properties. Norges Bank notes that these strategies may expose the Fund to shortfall risk and emphasises that this type of risk is monitored on an ongoing basis.

Market exposure strategies also include securities lending. Norges Bank lends parts of its holdings of equities and fixed-income securities to other investors in return for a fee. The borrower must at the same time put up collateral in respect of the value of the securities lent, in the form of cash or other securities.

2.5.6 The performance of Norges Bank's investment strategies

Data and reporting on strategies are available from 2013 onwards only, as the result of, inter alia, expanded reporting requirements from the Ministry of Finance. In addition, data further back in time are available for external security selection.

Norges Bank's reporting

Excess return, cost and relative risk can be broken down by the various strategies used by Norges Bank in management of the GPFG. Norges Bank implements and reports such breakdown by strategies in its annual reporting; see Table 2.4 for a summary of the information in the expanded return and risk reporting for 2017.

Table 2.4 shows that market exposure strategies contributed the most to the excess return over the four-year period 2013–2017, with a total of 0.22 percentage points on average per year. Income from securities lending accounted for 0.06 percentage points of this. Security selection strategies made a positive contribution, especially external equity management strategies. Allocation strategies made a negative contribution as the result of a negative excess return on fixed-income securities, which averaged 0.10 percentage points. Negative performance contributions were, according to Norges Bank, made by, inter alia, emerging market government bonds, lower duration and fiscal strength adjustments, whilst environment-related equity mandates made positive contributions.

All in all, the excess return contributions over the period 2013–2017 predominantly came from equity management, whilst the contributions from fixed-income management and real estate were close to zero.

Security selection strategies contributed the most to asset management costs over this period, partly because of the payment of performance-related fees to external managers. The conclusions with regard to which strategies contribute to the overall excess return on the Fund are not materially affected by the deduction of asset management costs.

One measure of the risk associated with the various investment strategies is their contribution to total relative risk in the GPFG, measured as both expected tracking error and tail risk. Norges Bank reports the relative contributions to risk as at the end of 2017, and not the average contribution for the entire period; see Table 2.4.

As at the end of 2017, allocation strategies contributed the most to relative risk in the GPFG. Unlisted real estate investments accounted for a major portion of this, but the other allocation strategies also contributed. Security selection made a smaller contribution to relative risk last year, with a somewhat larger contribution from internal strategies than from external ones. Out of the three main strategies, market exposure made the smallest contribution to relative risk, as measured by tracking error, but a relatively larger contribution to tail risk. This indicates that market exposure strategies may entail tail risk that could generate considerable negative excess return during periods of financial market turbulence, as also noted by Norges Bank.

The reporting from Norges Bank may also provide an indication of the ratio between return and risk for the various strategies. Such a comparison of performance in a period and relative risk at the end of such period will not reflect any changes in risk contributions over that period. The figures nonetheless suggest that the allocation strategies, with negative excess return and a large risk contribution, have delivered the weakest ratio between return and risk for the period. As far as security selection strategies are concerned, the figures suggest that the ratio

Table 2.4 Annual excess return contributions from various strategies over the period 2013–2017, as well as the contributions of such strategies to asset management costs, expected tracking error and shortfall risk as at the end of 2017. Percentage points

	Equities	Fixed-income securities	Real estate	Asset allocation	Total	Contribution to asset management costs[1]	Contribution to expected tracking error[2]	Contribution to expected shortfall risk[2]
Allocation strategies	-0.01	-0.10	0.01	0.03	-0.07	0.01	0.28	1.17
Security selection	0.14	-0.01			0.14	0.03	0.13	0.37
Internal strategies	0.03	-0.01			0.02	0.01	0.10	0.30
External strategies	0.11				0.11	0.02	0.06	0.19
Market exposure	0.13	0.08		0.01	0.22	0.02	0.08	0.44
Total	0.27	-0.02	0.01	0.04	0.29	0.06	0.33	1.49

[1] Contribution to the Fund's total asset management costs. Includes cost of both active and passive management.
[2] As at the end of 2017.
Source: Norges Bank.

between return and risk is better for external than for internal strategies. This may reflect stronger competition and fewer opportunities for profitable security selection in developed markets than in emerging markets. Market exposure strategies appear to have made the largest contribution to excess return and the smallest contribution to relative risk as measured by tracking error, but a somewhat larger contribution as measured by shortfall risk.

The assessments of the expert group

The expert group notes that Norges Bank attributes tailored internal benchmark indices to each investment strategy. These benchmarks typically comprise a large portion of the securities included in the investment universe for the specific strategy in question.

Potential interlinkages between the various investment strategies make it difficult, according to the expert group, to isolate and individually assess each of Norges Bank's active management strategies. The group notes that the internal benchmark indices are important to understand performance under the various strategies, the utilisation of risk limits, the allocation of costs, as well as incentives in the management of the Fund. More transparency in the determination and implementation of the internal benchmark indices would, according to the expert group, make it feasible to conduct more comprehensive analyses of the various investment strategies used by Norges Bank in its management of the Fund.

The expert group has, against this background, analysed performance under the various investment strategies as measured against Norges Bank's internal benchmark indices. The assessments are based on return figures for the period from January 2013 to June 2017, with the exception of internal security selection strategies in the fixed-income portfolio, for which figures for the period from October 2014 to June 2017 are used. External equity management performance is assessed separately, based on return figures from 1999 onwards.

The expert group notes that the various strategies appear to be, to some extent, specialised and to supplement each other. The excess returns on each of the three main strategies appear to be characterised by low correlation between each other and different exposure to systematic risk factors, within both the equity portfolio and the fixed-income portfolio. This may indicate, according to the group, that the strategies seek to achieve excess return in different ways. Furthermore, the analyses of the expert group show considerable differences in realised relative risk for the various strategies, as measured by the standard deviation of the excess return; see Table 2.5. The realised relative risk, as measured against the internal benchmark indices, appears to be highest for security

Table 2.5 Excess returns, costs, standard deviations and information ratios for various investment strategies, as measured against Norges Bank's internal benchmark indices. January 2013 – June 2017. Percentage points

	Excess return	Costs	Standard deviation	Information ratio
A: GPFG				
GPFG	0.25	0.06	0.39	0.64
Allocation strategies	-0.07		0.25	-0.27
Security selection strategies	0.64	0.18	1.42	0.45
Internal strategies	-0.06	0.07	1.76	-0.03
External strategies	2.88	0.48	2.02	1.43
Market exposure strategies	0.27	0.03	0.09	2.92
B: Equity portfolio				
Equity portfolio	0.37		0.47	0.79
Allocation strategies	-0.01		0.29	-0.04
Security selection strategies	0.91		1.67	0.54
Internal strategies	0.20		2.10	0.10
External strategies	2.88		2.02	1.43
Market exposure strategies	0.28		0.11	2.57
C: Fixed-income portfolio				
Fixed-income portfolio	-0.03		0.50	-0.06
Allocation strategies	-0.25		0.46	-0.54
Security selection strategies[1]	0.55		1.09	0.51
Internal strategies	0.55		1.09	0.51
External strategies	-		-	-
Market exposure strategies	0.27		0.17	1.58

[1] Figures for the period October 2014 – June 2017.

Source: Dahlquist and Ødegaard (2018) and Norges Bank.

selection strategies and considerably lower for allocation strategies and market exposure strategies. However, the table does not show how much capital has been allotted to the various strategies or to which extent the various strategies are correlated. Hence, it is not possible to determine how much each strategy has contributed to overall relative risk in the Fund. Besides, there may be discrepancies in the table between the contribution at the level of the Fund and the sum total of the sub-contributions from equities and fixed-income securities because, inter alia, the respective contributions are measured for different time periods as mentioned above.

The expert group notes that the analyses indicate that some of Norges Bank's strategies have had a skewed return distribution which may periodically generate significant losses, and observes that these strategies will draw more on Norges Bank's limit on expected tail risk.

Table 2.5 shows the so-called information ratio for the various investment strategies, which is defined as excess return divided by relative risk, represented by the realised standard deviation of

the excess return over the period. As measured in this manner, it may be noted from the table that Norges Bank has on average been well compensated for the relative risk in market exposure strategies, within both equity and fixed-income management. Norges Bank has not, on the other hand, been compensated for the relative risk in the allocation strategies. This applies, in particular, to fixed-income management. As far as security selection strategies are concerned, each percentage point relative risk has on average been compensated by about 0.5 percentage points of excess return, in both the equity portfolio and the fixed-income portfolio. In the equity portfolio, external security selection has been well compensated for the risk assumed, whilst the compensation for risk in internal security selection strategies has been low. Adjusting for costs has little impact on these observations.

Furthermore, the expert group highlights that analyses of external equity management over the period from January 1999 to June 2017 show that Norges Bank has been well compensated for the relative risk in this part of the management of the Fund. External equity management has over this period outperformed, on average, corresponding internal benchmark indices by about 2.1 percentage points in annual return terms. When measured in relation to realised tracking error, each percentage point of relative risk has on average been compensated by 0.8 percentage points of excess return over the period since 1999, as compared to 1.4 percentage points over the period from 2013.

The expert group notes that external equity management in the GPFG involves well-defined internal benchmark indices, which facilitate more thorough analyses and assessments. The excess return in external equity management is not, according to the expert group, caused by higher risk taking, and the group observes that average excess return is higher than suggested in Table 2.5 when adjusting for risk. Net of costs and risk adjustment, the excess return on the external mandates has averaged between 2 percentage points and 2.8 percentage points per year over the period since 2013, and between 2.1 percentage points and 2.2 percentage points per year over the period since 1999.

2.5.7 The Ministry's assessments of the review of Norges Bank's management of the GPFG

The mandate laid down by the Ministry of Finance for the GPFG allows for Norges Bank to deviate somewhat from the benchmark index, for purposes of achieving excess return and cost-effective execution of the management assignment. The scale of such deviations, so-called active management, is nonetheless limited. Analyses conducted by the expert group (Dahlquist and Ødegaard) indicate that the deviations Norges Bank make from the benchmark index laid down by the Ministry of Finance only explain a minor portion of the historical volatility in the overall return on the Fund, and that such portion has declined over time. As measured in this way, the management of the GPFG can be characterised as close to index investing.

The expert group has assessed the excess return achieved by Norges Bank in equity and fixed-income management over the period from January 1998 to June 2017. Special weight has been attached to the period from January 2013 to June 2017, for which the group has had access to more detailed figures on return, cost and risk, specified by individual strategies. Several methods and models have been used to shed light on the performance achieved by Norges Bank.

The expert group has estimated that Norges Bank's management of the GPFG has increased the value of the Fund by between NOK 75 and 112 billion over the period from January 1998 to June 2017, depending on what portion of the total asset management costs of the Fund is deducted. For the sub-period from January 2013 to June 2017, which is specifically highlighted by the group, Norges Bank's net value added is estimated at between NOK 50 and 65 billion. The Ministry has noted that this value added does predominantly stem from equity management, whilst the contribution from fixed-income management is weakly negative.

In order to explain historical performance, the expert group has, inter alia, used models distinguishing between return achieved by the manager by taking systematic risk, for example market risk, and return caused by other deviations. The latter is often referred to as risk-adjusted excess return; so-called *alpha*. The Ministry notes that such analyses are useful for purposes of retrospectively shedding light on how performance has been achieved. The group's analyses indicate that parts of the excess return achieved by

Norges Bank in the management of the GPFG can be explained by increased systematic risk taking. Norges Bank appears to have included a somewhat larger element of market risk in the Fund's portfolio than would be implied by the benchmark index, and the investment composition has to some extent been biased towards other systematic risk factors. The Ministry would , in this context, like to point out that the mandate from the Ministry of Finance allows for Norges Bank to assume somewhat more or less risk than is implied by the benchmark index.

The mandate also requires Norges Bank to seek to compose the investments in the equity and fixed-income portfolios in such a way that the deviations from the benchmark index entail a broad diversification of risk.[23] The Ministry of Finance stated, in the fund report in the spring of 2013, that the GPFG is well placed to be exposed to systematic risk factors. However, because of the size of the Fund, there is a need for tailoring how this can be implemented in practice with regard to investability and transaction costs. It is a challenging task to identify the most suitable adaptations, and which adaptations are most suitable may change over time. Consequently, it is challenging to incorporate such factors in the benchmark index. The Ministry noted that such deviations can best be implemented by the manager, which position was endorsed by the Storting.

Upon its deliberation of the fund report in the spring of 2016, the Storting requested, in petition resolution no. 761 of 3 June 2016, that the Ministry of Finance, in its review of Norges Bank's management of the GPFG, assess performance, and the relationship between costs and benefits, under the various investment strategies, in both the short and the long run, and propose any changes in view of such assessments.

The Ministry assumes, for purposes of this report, that benefits can be represented by achieved excess return, whilst asset management costs and how much risk is taken under the various strategies can be considered costs. The extent to which the various strategies draw on the limit on relative risk is a relevant risk measure for purposes of assessing individual strategies, but one should also consider the extent to which the various strategies draw on the limit on tail risk.

Allocation strategies have contributed negatively to the excess return on the GPFG over the period from 2013, especially because of negative contributions from the fixed-income portfolio. The Ministry has noted that Norges Bank's strategies for exploiting interest rate differences between certain emerging economies and the countries encompassed by the fixed-income benchmark have generated negative excess return over the period. The bias in the fixed-income investments towards bonds with a shorter time to maturity, in order to profit from a potential interest rate increase, has also delivered negative excess return over the period. The Ministry of Finance has in the mandate for the management of the GPFG required Norges Bank to take account of fiscal strength in government bond investments. The Ministry notes that such adjustments have, when taken in isolation, contributed to negative excess return, which should be considered in the context that this requirement is intended to highlight that one of the purposes of the government bond investments is to reduce the volatility of overall returns over time. Out of the three main strategies, allocation strategies contribute the most to relative risk, as reported by Norges Bank as at the end of 2017.

Security selection strategies within the equity portfolio have contributed positively to the excess return on the GPFG over the period from 2013. The Ministry notes that it is especially the external managers that have achieved excess return, as measured against their benchmark indices, even after the deduction of asset management costs. This also applies after risk has been taken into account. The Ministry has noted, at the same time, that Norges Bank's internal security selection strategies have contributed excess return corresponding, more or less, to the asset management costs incurred, although the strategies have beyond that provided little financial compensation for the risk taken. These findings may reflect that developed markets are more exposed to competition, with fewer opportunities for profitable security selection than emerging markets. Norges Bank focuses on large and medium-sized companies in developed markets in its internal security selection strategies, whilst emerging markets are largely delegated to external managers. The Ministry has noted that the company analyses conducted as part of the implementation of the internal security selection strategies contribute, in the assessment of Norges Bank, to a sound basis for responsible investment efforts.

[23] This is in the mandate worded as a requirement for the equity and fixed-income portfolios to be sought composed in such a way that the expected relative return is exposed to several systematic risk factors.

Market exposure strategies account for a considerable portion of the excess return in the management of the GPFG over the period from 2013. These are, inter alia, strategies intended to ensure cost-effective adaptation to changes in the benchmark index, dynamic management of systematic factor strategies and strategies exploiting differences in valuation between securities presumed to have similar characteristics. These strategies have delivered high compensation for the relative risk assumed, also net of costs. The Ministry notes, at the same time, that these strategies can in some periods generate considerable negative excess return.

The Ministry of Finance has noted that performance in Norges Bank's management of the GPFG has, all in all, been good. The overall excess return over the period January 1998–June 2017 is estimated at between NOK 75 and 112 billion, depending on how one adjusts for costs. The achieved value added can in itself make a contribution to the funding of government expenditure via the fiscal budget estimated at around NOK 2–3 billion annually, as measured by the expected return stipulated in the fiscal policy guidelines. This illustrates the benefit of Norges Bank being able to deviate somewhat from the benchmark index, in order to pay heed to the distinctive characteristics of the GPFG, such as size, long time horizon and low liquidity need. Such deviations offer scope for achieving excess return, whilst at the same time enabling Norges Bank to handle ongoing changes in the benchmarks in a cost-effective manner.

The Ministry of Finance has noted that the main excess return contributions stem from the equity investments. Breaking it down by individual strategies, as measured over the period from 2013, the excess return is predominantly generated by external security selection within equity management and by market exposure strategies. The Ministry has also noted that parts of the asset management activities have contributed little or negatively to overall performance. This applies, inter alia, to the fixed-income investments over the period as a whole and allocation strategies over the period from 2013. This overall observation holds true both before and after cost and risk are taken into account.

The GPFG is invested for the long term. The Ministry focuses on overall performance over time. Several of the strategies used by Norges Bank in its execution of the management assignment must be evaluated over a longer time horizon than a few years. The reviews conducted of Norges Bank's management of the GPFG on a regular basis contribute to risk and performance transparency, and can support its ability to maintain profitable long-term strategies, also during periods of negative excess return.

The Ministry of Finance would, at the same time, like to point out that the Executive Board of Norges Bank is responsible for Norges Bank's management of the GPFG being appropriately organised, within the limits laid down by the Ministry. This also encompasses the choice of asset management strategies, assessment of the return and risk associated with such strategies over different time horizons and market conditions, as well as transparency and reporting on said strategies.

The investment strategies used by Norges Bank in its management of the GPFG appear, according to the expert group, to be interlinked to some extent, which makes it challenging to isolate the contributions from the various strategies. The Ministry has noted that the group recommends more transparency in the determination and implementation of Norges Bank's internal benchmark indices. This will, according to the group, provide additional insight into performance under the various strategies, the utilisation of risk limits, the allocation of costs, as well as incentives in the management of the Fund. The Ministry will follow up on this in its dialogue with Norges Bank.

2.5.8 The Ministry's assessments of the limit on deviations from the benchmark index

The mandate for the GPFG defines the scope for deviation from the benchmark index by a limit on expected tracking error. The limit has been changed several times, most recently in 2016, when it was increased from 1 percentage point to 1.25 percentage points. Unlisted real estate was encompassed by such limit, on a par with other deviations from the benchmark index, with effect from 1 January 2017. The limit of 1.25 percentage points was not changed.

As at the end of 2017, Norges Bank was only utilising about one fourth of the limit on deviations from the benchmark index,as measured by expected tracking error; see Figure 2.9. One of the reasons for the low utilisation is a low level of measured risk in financial markets. If such risk were to increase, expected tracking error in the GPFG would probably also increase, even without Norges Bank making changes to the composition of the Fund's investments. A potential increase in

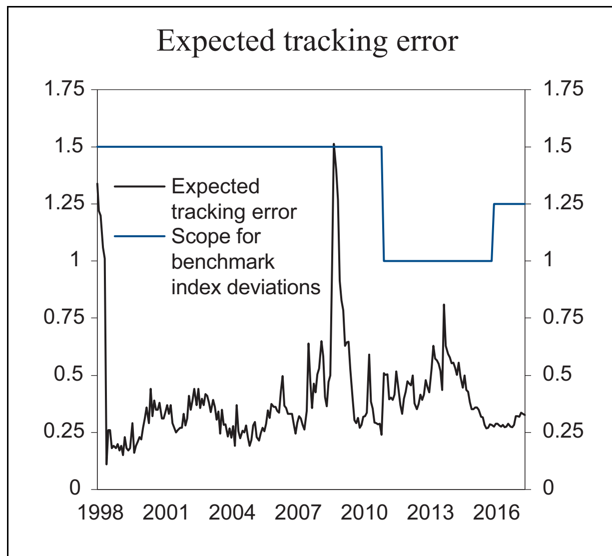

Figure 2.9 Expected tracking error and scope for benchmark deviations. Percentage points

Source: Dahlquist og Ødegaard (2018), Norges Bank.

the portion of unlisted real estate in the Fund will also entail a higher utilisation of the limit on deviations from the benchmark index.

The Ministry deems it appropriate that the limit on deviations from the benchmark index is not fully utilised during a period of low volatility in financial markets. This means that Norges Bank can avoid having to make expensive modifications to the investments if market risk were to suddenly increase. There will, at the same time, still remain a considerable margin up to the upper limit on expected tracking error, even in the event of a significant increase in market volatility.

There may be several reasons why Norges Bank's utilisation of the limit is low, also when adjusting for low market volatility. The Fund's size may result in Norges Bank having difficulties in identifying profitable, scalable investment opportunities by deviating from the benchmark index. It may also be that Norges Bank is seeking to exploit time variation in risk premiums, and takes the view that the current market situation requires low risk taking. Norges Bank may, furthermore, want to utilise the limit to increase the portion of unlisted real estate beyond the current level of 2.6 percent of the value of the Fund.

. The Ministry's assessment of the historical performance in Norges Bank's management of the GPFG is that Norges Bank has, all in all, made a positive contribution to the value of the Fund, also after the deduction of costs. The Ministry deems it appropriate for Norges Bank to have scope for deviating somewhat from the benchmark index in order to be able to utilise distinctive characteristics or accumulated strengths of the Fund to achieve a higher return than the benchmark index. The scope for deviations also facilitates cost-effective adaptation to the benchmark index.

Both the expert group (Professors Dahlquist and Ødegaard) and Norges Bank recommend keeping the current tracking error limit unchanged, given the current investment strategy. The Ministry agrees with this recommendation and is not proposing any changes to the limit on deviations from the benchmark index at the present time. It may be added that the Ministry deems it appropriate for the limit on deviations to be considered in connection with the reviews of Norges Bank's management of the GPFG, as conducted on a regular basis.

2.6 Report on global responsible investment best practices

2.6.1 Introduction

The Ministry of Finance aims for the responsible management of the GPFG to be in line with leading practice internationally. The Ministry has, as part of the review of Norges Bank's management of the GPFG, commissioned the consultancy firm Inflection Point Capital Management (IPCM) to prepare a report on global responsible investment leading practices.

IPCM was requested to assess leading responsible investment practice in other large funds with which the GPFG can be compared. The asessment should include a description of how responsible investment efforts are organised within the funds, as well as the funds' policy, guidelines, tools and use of resources. Furthermore, IPCM was asked to assess the extent to which active management is a prerequisite for, or improves, an investor's ability to act as a responsible investor. The terms of reference did not call for an evaluation of the responsible investment efforts of the GPFG.

The report from IPCM is based on interviews with key personnel in 18 selected funds that are considered leading responsible investment practitioners.[24] In addition, 11 individuals deemed by IPCM to be experts in the field were interviewed, including academics, consultants and people with experience from the investment industry, regula-

[24] The report is available on the Ministry of Finance website.

tory authorities, international organisations, standard setters and civil society.

2.6.2 The Ministry's assessments

Responsible investment is a field in development. Investors are increasingly focused on environmental, social and corporate governance issues. There nonetheless remain major differences in commitment and approach to such issues. The Ministry is of the view that the report from IPCM provides a useful overview of the status of international responsible investment efforts. The Ministry has noted, at the same time, that the report is based on interviews conducted by the consultant, in which the interviewees express their views based on their own experience.

The Ministry of Finance notes that IPCM is of the view that responsible investment needs to be tailored to each investor, including purpose, mandate, size and political context, and that there is not one joint approach to best practice. IPCM identifies certain characteristics which leading funds within the field have in common, but notes, at the same time, that none of the funds interviewed in connection with the report had all of these characteristics.

The Ministry aims for the responsible investment practices for the GPFG to be in line with best practice internationally. It is the assessment of the Ministry that many of the characteristics highlighted by IPCM are also reflected in the responsible investment practices of the GPFG. The strategy for, and the implementation of, responsible investment practice is tailored to the distinctive characteristics of the Fund as a large, long-term and universal owner, for example by emphasising standard setting, research support and broad initiatives. Company dialogue and voting are key tools and Norges Bank's reporting shows a systematic approach to risk monitoring of factors associated with environmental, social and corporate governance issues.

The Ministry of Finance will continue its commitment to keeping abreast of leading responsible investment practices.

2.7 Climate risk reporting

2.7.1 Background

For a broadly diversified long-term fund like the GPFG, the return over time will be closely linked to value creation in the world economy. Correspondingly, the return on the GPFN will be largely in line with value creation in the markets in which the GPFN is invested. Climate risk in the form of climate change, climate policy and their effects on technological development may have implications for the long-term returns. Knowledge and awareness of the financial risk resulting from climate change, but also the investment opportunities occasioned thereby, are therefore important in the management of the two funds.

The fund report submitted in the spring of 2017 included a broad discussion of climate risk. The report noted, inter alia, that climate risk has for many years been an integral component in the management of the GPFG and the GPFN, and the efforts of Norges Bank and Folketrygdfondet in that regard were outlined.

The below discussion addresses climate risk reporting frameworks. It starts out from the recommendations of an international working group and how these are followed up in the management of the Government Pension Fund. The Task Force on Climate-related Financial Disclosure (TCFD) was a working group appointed by the Financial Stability Board.[25] The working group published its final report on 29 June 2017.

The recommendations of TFCD aim to facilitate better, more accessible and more comparable climate risk reporting. The report from the working group outlines a climate risk reporting framework and can be split into four themes of relevance to companies across sectors, countries and regions: governance, strategy, risk management, as well as metrics and targets. In addition, the working group makes separate recommendations for specific sectors and industries, including, inter alia, the financial sector, including capital owners and asset managers. A key recommendation of the group is that companies should analyse their business models against various climate policy scenarios, including a scenario in which global warming is limited to 2 degrees or less above pre-industrial levels.[26]

The Ministry of Finance requested, in a letter of 2 October 2017, Norges Bank and Folketrygdfondet to assess whether the recommendations of the working group will have implications for their climate risk efforts. The below discussion is based on the reply letters from the managers.[27]

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[25] The Financial Stability Board (FSB) was established by the G20 countries.

[26] The Paris Climate Agreement aims for global warming to be limited to well below 2 degrees above pre-industrial levels, whilst seeking to limit global warming to 1.5 grader.

[27] The letters are available on the Ministry website.

2.7.2 Norges Bank's climate risk reporting efforts

Norges Bank has in a letter of 21 February 2018 outlined its assessments of the TFCD recommendations. Norges Bank endorses the recommendations and joined a declaration in support of these in connection with the climate summit[28] in Paris in December 2017. Besides, Norges Bank contributed to the TFCD effort by submitting consultative comments. Norges Bank expressed its support for the group's efforts, but also identified certain informational and methodological challenges in the operationalisation of the recommendations.

Norges Bank is of the view that the recommendations support those aspects of companies' climate efforts and reporting emphasised by Norges Bank over time. Climate change in general has been a strategic focal area for Norges Bank in its management of the GPFG since 2006. In 2009, Norges Bank published an expectations document on climate change, which is aimed at the companies in which the Fund is invested and outlines the principles underpinning its exercise of ownership rights. The contents of the expectations document largely reflect the TFCD recommendations, especially the emphasis on the role and responsibilities of the board of directors, as well as expectations that companies will integrate climate assessments in their strategic plans, risk management and reporting. In 2017, Norges Bank made certain changes to the expectations document to further align it with the recommendations of the working group.

The working group is of the view that climate risk reporting of financial significance shall be integrated in ordinary company reporting. Norges Bank has assessed the climate reporting of companies in selected sectors since 2010, and is in regular contact with companies that have room for improvement in their reporting. In 2017, Norges Bank initiated a dialogue with selected major banks on climate reporting and how these will be following up on the recommendations of the working group. Norges Bank has also sought to have the recommendations reflected in established company climate reporting frameworks, including in reporting to the CDP initiative on transparency about companies' environmental impact.[29]

In addition to supporting reporting by companies, Norges Bank has since 2015 been focusing on developing its own database of information on environmental, social and corporate governance issues. In 2015, Norges Bank also published its first estimates of greenhouse gas emissions in the equity portfolio, and has subsequently expanded this analysis to corporate bonds. Norges Bank notes that the Fund's carbon footprint has been reduced over time, but also points out that emission figures alone do not provide a complete basis for the assessment of climate risk. The risk assessments have therefore been supplemented with other factors, including water intensity, air pollution and the age of the carbon capture and storage facilities.

Norges Bank observes that only a small number of companies currently report scenario analyses. Norges Bank will in 2018 continue its efforts relating to such analyses for selected sectors, markets and companies. Moreover, Norges Bank participates in a working group under the auspices of the United Nations Environment Programme which is charged with preparing guidance notes for investors on the recommendations of the working group.

2.7.3 Folketrygdfondet's climate risk reporting efforts

Folketrygdfondet supported, in a letter of 15 February 2018, the intention behind the TFCD recommendations. It is highlighted as positive and important that the recommendations address both how companies are affected by climate risk and how they affect the climate. Folketrygdfondet notes that company reporting in line with the recommendations of the working group is expected to provide investors with better information on climate risk exposure and handling at the company and sectoral level.

One of the recommendations is that investors shall encourage companies to make better climate risk disclosures. Folketrygdfondet has raised climate risk in its active ownership efforts for a number of years, and encourages the companies in which the Fund is invested to report on their emissions, prepare strategies and targets, as well as introduce measures that will make them less exposed to climate risk.

Folketrygdfondet also refers to its expectations document on companies' climate approach, and notes that this is in line with the recommendations of the working group. This includes, inter alia, the recommendation that companies facing material climate-related threats and opportunities should describe how business models and strategies may be affected, and also that such compa-

[28] One Planet Summit.
[29] Formerly the Carbon Disclosure Project.

nies should report relevant indicators and metrics as part of their financial reporting.

Folketrygdfondet has been preparing emissions analyses of the equity portfolio since 2013. Emissions analysis contributes to both improved understanding of the financial risk associated with a change in emissions prices, as well as better insight into companies' preparedness for handling climate risk. Folketrygdfondet notes that emissions analysis nonetheless has its limitations, and the analysis does not provide any insight into how the portfolio companies are positioned for the impact of legislative amendments or transition risk.

TFCD recommends handling these weaknesses by using other tools in addition to emissions analyses, for example scenario analyses. Folketrygdfondet notes that it is necessary to develop a robust method for climate-related scenario analyses in order for this information to be perceived as useful and relevant to investors and companies. The working group also observes that the preparation and use of climate-related scenario analysis is still in an early phase, and encourages further development of practices. Folketrygdfondet states, furthermore, that it will engage in relevant external initiatives to contribute to the development of a robust approach to investors' identification, management and reporting of material climate risk.

2.7.4 The Ministry's assessments

The objective of the investments in the Government Pension Fund is to achieve the highest possible return at an acceptable risk. There is a broad political consensus that the Fund shall not be used as a foreign policy or climate policy tool. The assessments in this section thus reflect a financial perspective.

Climate is an important financial risk factor for the Government Pension Fund over the long term. This applies to climate change, climate policy and their effects on technological development. The Fund is large, has a long time horizon and has investments spread across several thousand companies. It is therefore particularly exposed to systemic risk, inasmuch as economic growth and overall company earnings are affected by, inter alia, climate change. The mandates for the management of the GPFG and the GPFN are based on the premise that good long-term returns depend on sustainable development and well-functioning markets.

Information is a prerequisite for markets functioning well, thus implying that climate risk is reflected in securities prices and in financial markets. This will again affect company investments and the overall allocation of capital. Climate risk reporting and the recommendations of the TCFD working group are important in this regard. The efforts of the Norwegian climate risk commission may also be of relevance to the development of standards and reporting practices.

The Ministry of Finance notes that both Norges Bank and Folketrygdfondet support the recommendations of the working group on climate risk reporting. The recommendations largely reflect the expectations already established by Norges Bank and Folketrygdfondet on reporting from the companies in which they are invested, as set out in their respective expectations documents on climate. The expectations documents outline the basis for the exercise of the ownership rights of the funds. Climate risk in the broader sense has long formed an integral part of the management of the GPFG and the GPFN.

Norges Bank and Folketrygdfondet are currently estimating the greenhouse gas emissions of the companies in the portfolio. This is a useful starting point, but an incomplete basis for the assessment of climate risk, as also noted by the managers themselves. Such analyses will not capture, inter alia, how the companies are positioned for handling various climate scenarios.

The working group recommends scenario analyses to gain a better understanding of how business models and strategies are affected by climate risk, including by a scenario in which global warming is limited to 2 degrees or less above pre-industrial levels. The Ministry of Finance agrees that scenario analyses may contribute relevant information. The Ministry has noted, however, that companies' pursuit of such analyses is in an early phase, as also emphasised by the working group itself. Norges Bank observes that few companies currently report such analyses. Folketrygdfondet emphasises that a robust method needs to be developed in order for the information to be perceived as useful and relevant for companies and investors.

The Ministry expects Norges Bank and Folketrygdfondet to continue their climate risk reporting involvement in view of the recommendations of the working group by, inter alia, contributing to the development of standards and reporting practices.

3 Appendix

3.1 The current investment strategy

3.1.1 Background

The government is saving the revenues from petroleum activities in the Government Pension Fund Global (GPFG) on an ongoing basis. Such savings are fully integrated in the fiscal budget; see Box 3.1. Annual withdrawals from the Fund; the non-oil deficit, are determined in the fiscal budget. The deficit shall, over time, follow the expected real rate of return on the GPFG (the fiscal policy guidelines).

The Fund is a financial investor. The objective for the investments is to achieve the highest possible return, net of costs and measured in foreign currencies, given an acceptable level of risk. The investment strategy is expressed in the mandate laid down by the Ministry of Finance for the GPFG, whilst operational implementation of the mandate falls within the remit of Norges Bank; see section 3.1.7.

The strategy is derived from the purpose of the Fund and its distinctive characteristics, assumptions as to the functioning of financial markets, as well as the strengths of the asset manager. It has been developed over time on the basis of public domain knowledge, research, practical experience and thorough assessments. The strategy is summarised in Figure 3.1.

The benchmark indices defined by the Ministry of Finance are closely replicated in the management of the GPFG. More than 99 percent of the volatility in the return of the Fund can be explained by volatility in the benchmark index. Although the scope for deviations from the benchmark index is limited, Norges Bank has over time achieved excess return in its management of the Fund.

Transparency is important and a prerequisite for widespread confidence in the management of Norway's national savings in the GPFG. Important decisions are endorsed by the Storting. Broad support for the key features of the management of the Fund facilitates consistent adherence to the long-term investment strategy, also during periods of financial market turbulence.

3.1.2 Broad diversification of the investments

A key premise underpinning the investment strategy for the GPFG is that risk can be reduced by broad diversification of investments. Risk is reduced when investments are diversified across asset classes, countries, sectors and individual companies. This makes the Fund less vulnerable to events that impinge on individual equities or individual markets. Such an approach makes it feasible to eliminate major parts of the risk that is specific to individual investments, also called unsystematic risk, and contributes to improving the ratio between expected return and risk in the Fund.

The principle of broad diversification of the investments is reflected in the Ministry's choice of equity and fixed-income benchmarks in the mandate for the management of the GPFG. The benchmark indices comprise several thousand individual equities and bonds and are intended to reflect the investment opportunities in international financial markets; see Figure 3.2. The indices specify an allocation across countries, sectors, individual companies and bonds. They are composed in such a way as to enable investors to readily replicate them closely and at a low cost. The chosen index providers are leading internationally and have established their own criteria for which markets, companies and issuers to include in the benchmark indices.

The equity benchmark is based on an index from FTSE Russell and includes all countries, with the exception of Norway, classified by the index provider as developed markets, advanced emerging markets or secondary emerging markets. The allocation of investments internally in each region is based on the size of the listed equity markets in the countries included in the index. The allocation between regions deviates somewhat from market weights in that a larger portion is invested in Europe and a smaller portion in the US and Canada. The chosen geographical allocation is outlined in the report on the Government Pension Fund submitted in the spring of 2012.

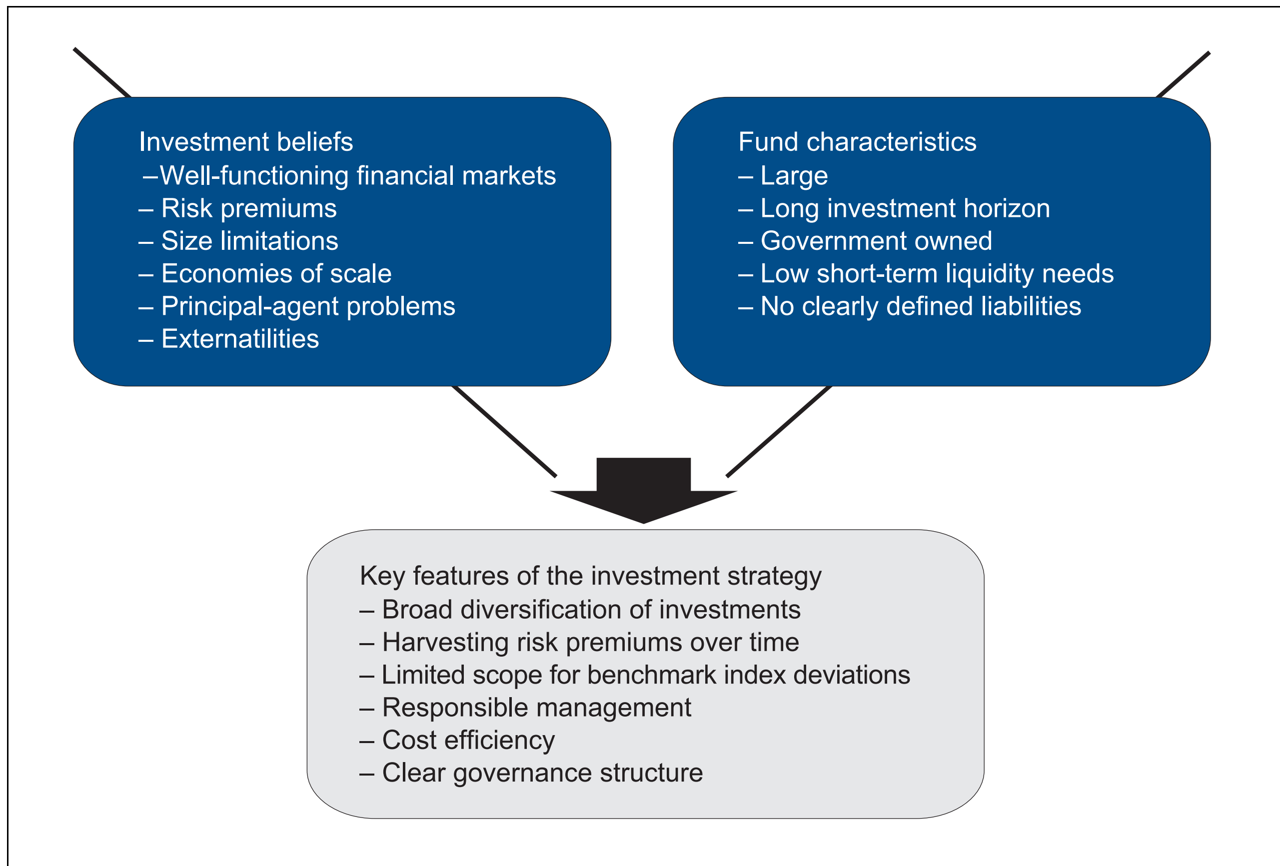

Figure 3.1 Assumptions of the Ministry of Finance as to the functioning of markets, distinctive characteristics of the GPFG and the investment strategy

Source: Ministry of Finance.

The fixed-income benchmark is based on indices provided by Bloomberg Barclays, and comprises sub-benchmarks for government bonds and corporate bonds. The Ministry has stipulated an allocation of 70 percent government bonds and 30 percent corporate bonds across the two sub-benchmarks. Norwegian fixed-income securities are omitted from the benchmark. Whilst the allocation of investments within the sub-benchmark for corporate bonds is based on market weights, the allocation within the sub-benchmark for government bonds is based on the relative size of the economies as measured by GDP. At the same time, certain adjustments have been made in order to, inter alia, ensure broad geographical diversification of the investments. See section 2.3 for further details on the benchmark index and fixed-income investments.

3.1.3 Reaping of risk premiums

Broad fluctuations in the market prices of equities, currencies, commodities and interest rates are generally referred to as market risk or systematic risk. According to financial theory, investors can expect to be compensated for accepting this type of risk. The expected excess return is termed a risk premium. Investors need to accept risk over time in order to achieve a satisfactory expected return. Higher risk implies a higher expected return, but also larger fluctuations in the value of the investments and a higher probability of long-term loss.

A key risk premium is the equity premium, i.e. the expected excess return from investing in equities rather than fixed-income securities. Correspondingly, those investing in fixed-income securities can expect a compensation; a so-called credit premium, depending on how high the risk is that the borrower will default on its obligations. The magnitude of these premiums is uncertain and may vary over time. The investment composition reflects investors' trade-off between expected return and risk.

Investors differ in their time horizons for investments and in their capacity to absorb risk.

Box 3.1 The fund structure and the fiscal policy framework

The ongoing inflow of capital to the GPFG predominantly represents a conversion of the petroleum wealth on the Norwegian continental shelf into financial wealth abroad. The oil and gas revenues accruing on an ongoing basis differ from other central government revenues in that these represent a conversion of wealth. Moreover, these revenues are highly volatile and will come to an end at some point in the future.

A key objective of the GPFG and the fiscal policy guidelines is to facilitate permanently high value creation and stable development in the mainland economy. To this end, the central government's net cash flow from petroleum activities is transferred to the Fund in full. An amount is withdrawn from the Fund annually pursuant to a resolution passed by the Storting to cover the deficit in the remainder of the fiscal budget (the non-oil budget deficit). Since 2001, the following guidelines have applied to withdrawals from Fund (the fiscal policy guidelines):

- The spending of fund revenues shall, over time, follow the expected real rate of return on the GPFG.
- Considerable weight shall be attached to the smoothing of fluctuations in the economy to ensure good capacity utilisation and low unemployment.

The Fund and the fiscal policy guidelines serve to shelter the fiscal budget from short-term petroleum revenue fluctuations and provide fiscal policy room for manoeuvre, thus enabling economic setbacks to be countered. At the same time, petroleum revenue spending via the fiscal budget becomes an integral part of a comprehensive budget process. As long as the central government does not accumulate debt by funding expenditure through borrowing, the capital in the GPFG will reflect real financial savings on the part of central government. The fiscal policy framework facilitates preservation of the real value of the Fund for the benefit of future generations. Whilst the capital of the Fund can only be spent once, the real return may fund a permanently higher level of central government expenditure. The fiscal policy guidelines support the long time horizon of the Fund.

The central government, as owner of the GPFG, aims to preserve the principal of the Fund over time, thus enabling future generations to benefit from the petroleum revenues as well. The probability of large and unexpected withdrawals from the Fund is held to be relatively low. Its long investment horizon makes the GPFG well placed to carry risk that requires a long time horizon. This is exploited in order to, inter alia, reap the expected excess return from investing in equities rather than fixed-income securities. The equity investments mean that the Fund is benefiting from global economic growth and value creation, and these are expected to make major contributions to the return on the Fund over time. Fixed-income securities are expected to generate a lower return than equities, but also lower risk. The role of fixed-income investments in the Fund is to reduce overall return variations, improve liquidity and reap risk premiums.

For the GPFG, the share invested in equities is the choice with the greatest impact on total return and risk in the Fund. Said share is indirectly determined by combining the equity and fixed-income benchmarks into an overall *strategic benchmark index* for the Fund. In 2017, the Storting endorsed an increase in the equity share of the strategic benchmark index for the GPFG from 62.5 percent to 70 percent. The phase-in is to be carried out over time in accordance with a plan established in consultation with Norges Bank. Once the plan has been implemented, fixed-income securities will represent 30 percent of the strategic benchmark index.

The market prices of equities and fixed-income securities fluctuate considerably, and will often develop differently over time. Given these constant price changes, maintaining a fixed allocation between equities and fixed-income securities is considered inexpedient, not least because this would entail unnecessary transaction costs for the Fund. An *actual benchmark index* has therefore been stipulated, in which the equity and fixed-income shares may deviate from their long-term weights, subject to a specified limit. Figure 3.3 shows how the strategic and actual benchmark indices for the GPFG were composed as at the end of 2017.

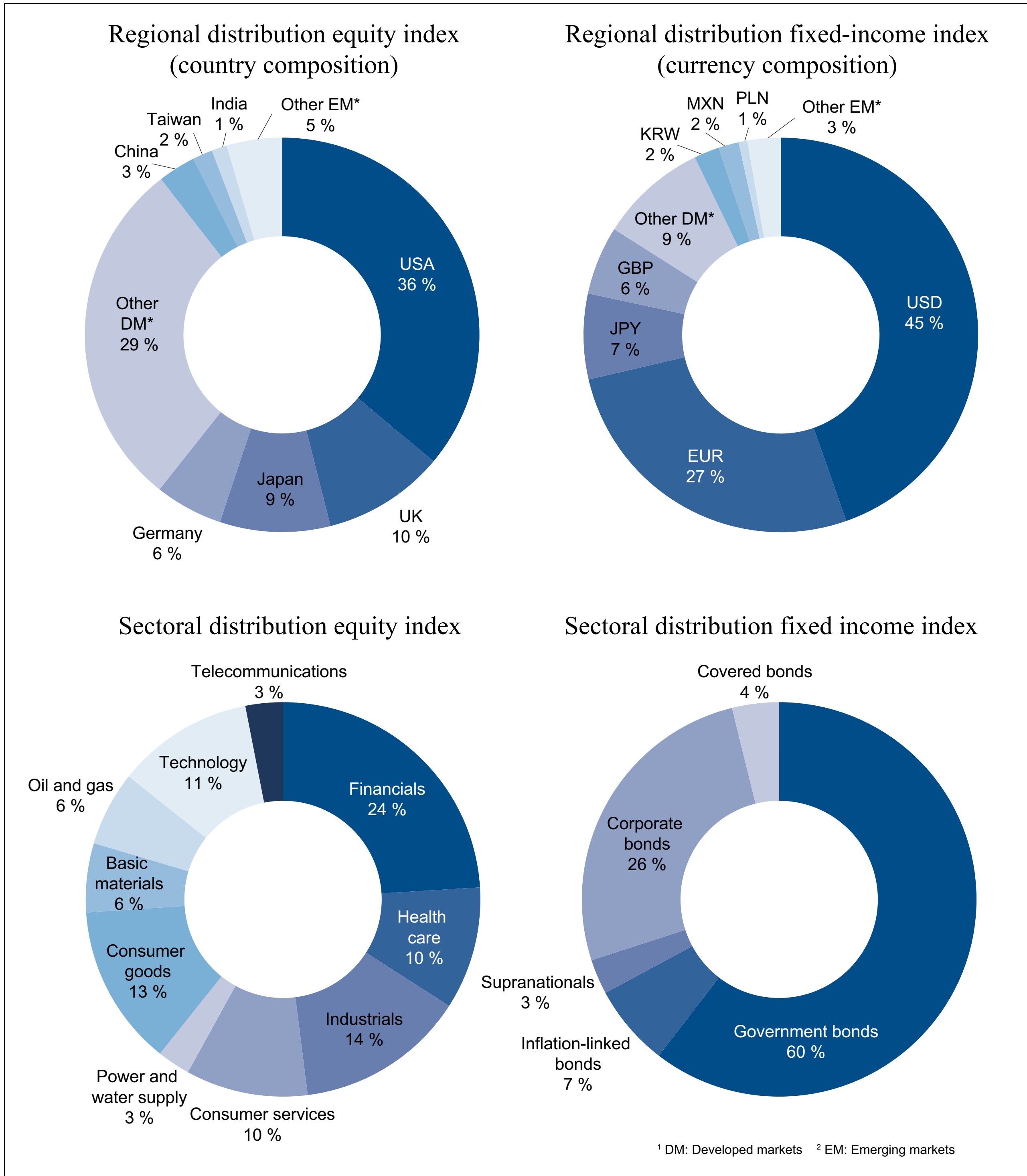

Figure 3.2 Allocations of the equity and fixed-income benchmarks across geographical regions and sectors as at 31 December 2017

Source: Barclays, FTSE Russell, Norges Bank and the Ministry of Finance.

If the equity share in the actual benchmark index is materially higher or lower than the strategic allocation, this may result in different risk and expected return characteristics than those originally endorsed through the choice of equity share. The Ministry of Finance has therefore adopted rules on rebalancing of the equity share when the deviation exceeds a certain limit (four percentage points). Rebalancing also gives the investment strategy a certain counter-cyclical element, in that over time the Fund purchases the asset class which in relative terms has depreciated substan-

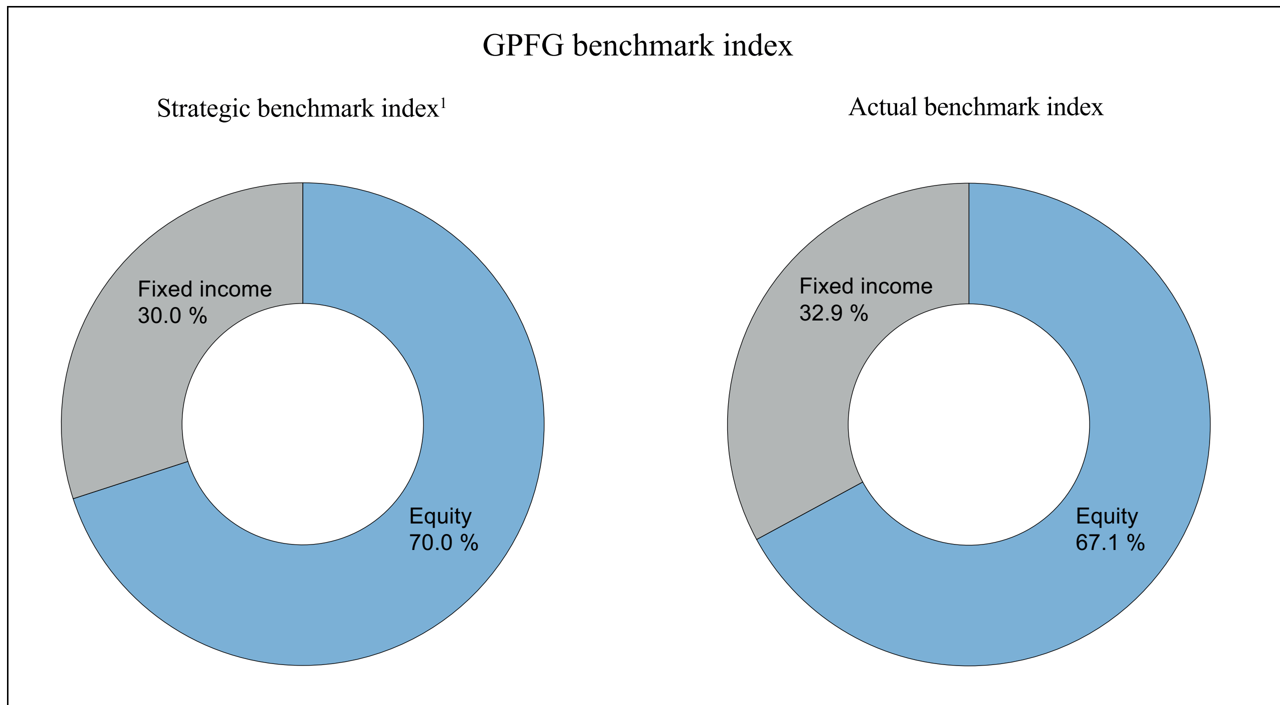

Figure 3.3 Composition of the strategic and actual benchmark indices for the GPFG as at the end of 2017

[1] The equity share is being increased to 70 percent; see section 3.1.

Source: Norges Bank and the Ministry of Finance.

tially in value and sells the asset class which has appreciated strongly in relative terms. Special rebalancing rules apply over the period when the equity share of the GPFG is being increased to 70 percent.

3.1.4 Limited scope for deviations from the benchmark index

The investment strategy for the GPFG is premised on financial markets largely being well-functioning. Competition between market participants is generally high, and new publicly available information is thus assumed to be rapidly reflected in securities prices. Hence, systematically outperforming the general market, i.e. the average investor, in well-functioning markets will be difficult. This suggests that investors should diversify their investments broadly and seek to minimise asset management costs.

Some investors may nonetheless have distinctive characteristics or advantages which allow them to achieve an excess return over time. Size is a distinctive characteristic of the GPFG, which may make the Fund suited for reaping economies of scale. Size may, at the same time, be a disadvantage, since some strategies are difficult to scale up and since it is more challenging to make large changes to the portfolio within a short period of time without incurring high transaction costs.

The mandate laid down by the Ministry of Finance for the GPFG allows Norges Bank to deviate somewhat from the benchmark index. The purpose of such deviations is to utilise the distinctive characteristics and advantages of the Fund to achieve excess return and cost-effective implementation of the strategy. Deviations from the benchmark index require market knowledge and proximity, and implementation has therefore been delegated to Norges Bank.

The scope for deviations from the benchmark index is specified in terms of expected tracking error in the mandate, and is stipulated at 1.25 percentage points. Expected tracking error expresses how much the return is expected to deviate from the benchmark index in a normal year.

The mandate also defines which assets can be included in the Fund (the investment universe) and stipulates other requirements intended to curtail the risk associated with deviations from the benchmark. Norges Bank may, inter alia, only invest outside Norway, only in tradable debt instruments and only in equities which are listed or planned listed on recognised market places. The Fund may only own up to 10 percent of the

voting shares of any one company.[1] There are, moreover, provisions intended to ensure considerable overlap between the benchmark index and the actual investments.

This strategy implies that the benchmark index largely reflects the investment opportunities open to the Fund. The benchmark specifies the desired allocation of the equity and fixed-income investments. This distinguishes the GPFG from some other large funds, for which the role of the benchmark index is to define overall risk limits, whilst the detailed investment composition is delegated to the manager. As far as the GPFG is concerned, the strategy implies that the return is predominantly determined by the benchmark index. More than 99 percent of the historical fluctuations in the return on the Fund can be explained by fluctuations in the return on the benchmark index.

The mandate allows for Norges Bank to invest a minor portion of the Fund in unlisted real estate. It is more difficult to measure return and manager risk in the unlisted market than in the listed market. There are no good benchmark indices, and the investments cannot be diversified broadly via small ownership stakes in a large number of properties in a simple and cost-effective manner. Achieved performance will depend on the manager's strengths and specific investment choices. The unlisted real estate investments have therefore, based on an overall assessment, been made subject to the limit on expected tracking error, alongside other deviations from the benchmark index. The scale and scope of the real estate investments are determined by Norges Bank. As far as these investments are concerned, the benchmark index cannot be replicated closely and at a low cost.

The mandate for the GPFG imposes extensive reporting requirements on Norges Bank with regard to return, risk and cost, also for individual strategies used in its management of the Fund. The equity and fixed-income benchmarks are broadly composed and can, as a general rule, be closely replicated, and at a low cost. This makes them well suited to measuring achieved performance. The performance of the equity and fixed-income portfolios is measured against the respective benchmark indices. The performance of these portfolios may be affected by which equities and fixed-income securities are divested in order to fund the purchase of unlisted real estate. The contribution from such funding shall therefore be specified separately. The overall benchmark index is a performance measure for the investments of the GPFG as a whole.

3.1.5 Responsible investment

The GPFG shall be a responsible investor, within the overarching financial objective. The mandate laid down by the Ministry is based on the premise that good financial returns over time will depend on well-functioning markets and sustainable development. There is a broad political consensus that the Fund shall not be used as a foreign policy or climate policy tool.

The GPFG can, as a responsible and global investor, contribute to reducing externalities that may arise as the result of the production or consumption of one market participant affecting others, positively or negatively, without this being reflected in prices. One example is pollution in the event of inadequate regulation on the part of the authorities. For a large, long-term investor like the GPFG, with ownership stakes in thousands of companies globally, externalities from one company in the portfolio may reduce the return or earnings of other companies in the portfolio over time. It is thus in the self-interest of an investor like the GPFG to take such potential interaction effects into account.

3.1.6 Cost effectiveness

A number of circumstances facilitate low costs in the management of the GPFG. The investment strategy involves the Fund being predominantly invested in listed equities and fixed-income securities, whilst the scope for deviations from the benchmark index is limited. Moreover, the size of the Fund enables economies of scale to be achieved and internal expertise to be developed. Costs will generally increase in response to any increase in active management and unlisted investments, and the same applies to any increase in the portion of the management activities conducted externally. Asset management costs, measured as a portion of fund capital, will therefore be lower for a large fund than for a small fund.

The Ministry of Finance and the Storting have emphasised that the management of the GPFG shall be cost effective. The mandate laid down by the Ministry instructs Norges Bank to seek the highest possible return net of costs. The actual asset management costs of Norges Bank are covered up to a maximum limit stipulated annually by

[1] An exception has been made in respect of real estate companies.

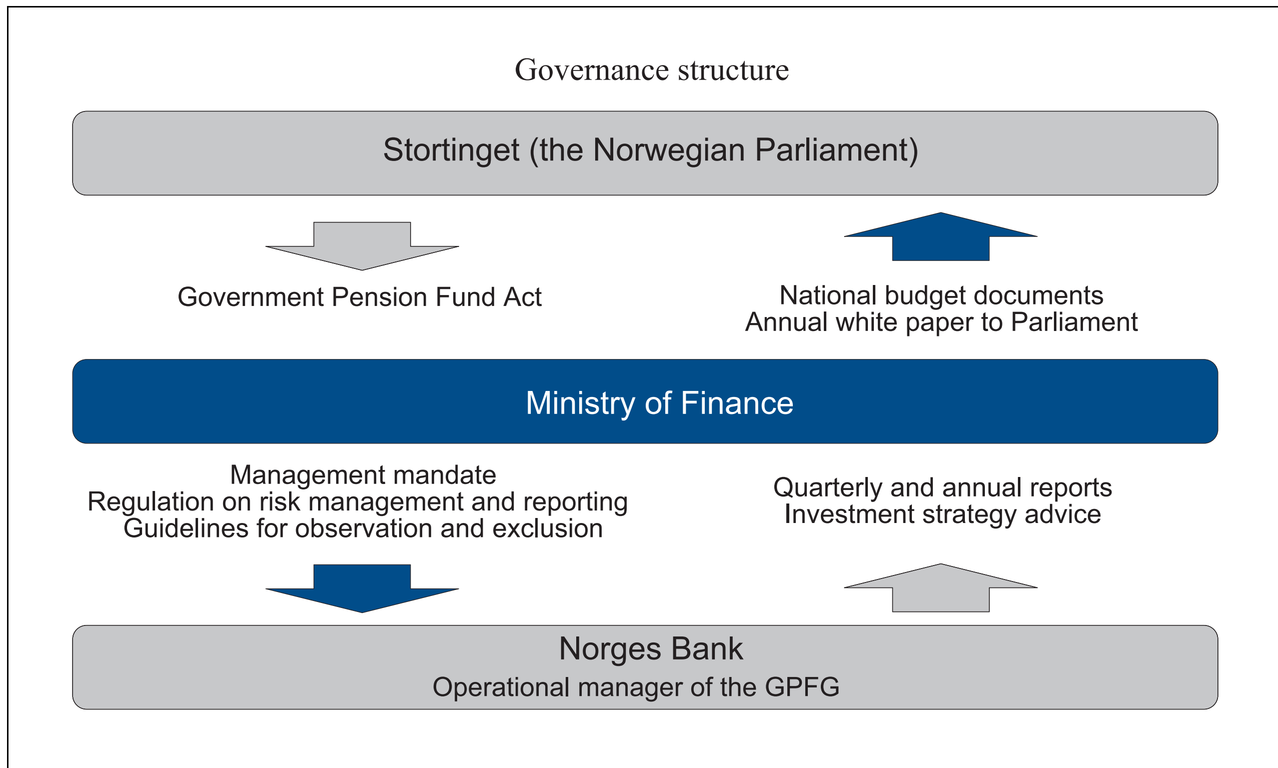

Figure 3.4 Governance structure of the GPFG

Source: Ministry of Finance.

the Ministry of Finance. Such limit is specified as a portion of the assets under management. The Supervisory Council of Norges Bank adopts, within such limit, a budget for Norges Bank's management of the GPFG, measured in Norwegian kroner, based on a proposal from the Executive Board of Norges Bank. Comparisons with other large funds show that the asset management costs of the GPFG are low, measured as a portion of assets under management.

However, the objective is high net returns, not low costs as such. In order to assess Norges Bank's management of the GPFG, one needs to assess both the costs and the excess return achieved over time. Notional passive index management would somewhat reduce asset management costs, but also implies less scope for seeking excess return and meeting other requirements under the mandate. Such a comparison also needs to take into account that the return on the benchmark index cannot be achieved at zero cost as the result of, inter alia, the transaction costs associated with securities trading.

3.1.7 Clear governance structure

The Storting has, under the Government Pension Fund Act, made the Ministry of Finance responsible for the management of the GPFG, while Norges Bank is responsible for operational implementation. The Storting, the Ministry of Finance and Norges Bank have different roles in the management of the GPFG. A clear division of roles between the various governance levels, from the Storting down to the individual portfolio manager, clarifies responsibilities. Tasks and authorisations are delegated downwards in the system, whereas performance and risk are reported upwards; see Figure 3.4. Regulations and delegations necessarily become more detailed further down in the hierarchy. Each part of the system has its own supervisory unit which receives reports from, and supervises, its subordinate unit. The exception to this principle is that the Executive Board of Norges Bank is subject to the supervision of the Supervisory Council, a governing body appointed by the Storting, which also appoints Norges Bank's auditor.

The governance structure must ensure that the investment strategy and risk profile of the Fund are supported by the owner, represented by the Government and the Storting. Major strategic choices in the management of the Fund are therefore endorsed by the said bodies prior to implementation. This is effected through, inter alia, the deliberation of the annual fund reports. Broad

Box 3.2 International standards and principles

The mandates for the GPFG refer, in particular, to three international sets of standards and principles intended to address environmental, social and corporate governance considerations.

OECD Guidelines for Multinational Enterprises

The OECD Guidelines for Multinational Enterprises are voluntary recommendations intended to promote responsible conduct in all business sectors. The guidelines were launched in 1976, and most recently updated in 2011. They are not legally binding, and individual enterprises should independently assess how the guidelines can be implemented.

The guidelines aim for companies to contribute positively to economic, environmental and social conditions worldwide. They stipulate principles and internationally recognised standards for responsible business conduct. The guidelines encourage companies to avoid causing or contributing to negative social or environmental effects through their own operations, and to follow-up cases in which such effects do occur. Guidance is also provided on how companies should follow up on their business relations and supply chains. The guidelines also ask companies to conduct due diligence assessments to ensure that obligations are met. For certain selected sectors, the OECD has prepared specific and more practical guidance notes for such due diligence assessments.

Countries that have adopted the OECD guidelines are obliged to establish a national contact point for responsible business conduct. The contact points are mandated to spread knowledge about the guidelines and offer dialogue and mediation in individual cases. The Norwegian contact point is an independent specialist body subject to the administrative oversight of the Ministry of Foreign Affairs.

UN Global Compact

The UN Global Compact is currently the world's largest corporate social responsibility initiative, with more than 12,000 participants in about 170 countries. The initiative is voluntary and focuses primarily on the commercial sector. Companies are encouraged to comply with 10 universal principles relating to human rights, labour rights, the environment and anti-corruption. In addition, participants shall report annually on their efforts to implement the principles in their operations. The results are published in the annual Global Corporate Sustainability Report.

The principles are based on the Universal Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the UN Declaration Against Corruption and Bribery in International Commercial Transactions. The principles are general in nature and state, inter alia, that businesses should respect fundamental human rights, should uphold the freedom of association and collective bargaining, and eliminate all forms of forced and compulsory labour, child labour and discrimination with respect to employment and occupation. Furthermore, businesses should support a precautionary approach to environmental challenges and promote the environment, development and environmentally friendly technologies. They should also combat all forms of corruption, including extortion and bribery.

G20/OECD Principles of Corporate Governance

The G20/OECD Principles of Corporate Governance discuss the distribution of roles and responsibilities between the owners, the board of directors and the senior executives of a company. The principles are designed to promote a common understanding of best practice in areas such as transparency and disclosure, equitable treatment of shareholders, and the responsibilities and liabilities of the board of directors.

The principles are based on the view that good governance over time promotes growth in company value, access to financing and well-functioning capital markets. Effective corporate governance and capital allocation will in turn promote welfare and general economic growth. The revised principles were launched in 2015 and were endorsed by the G20.

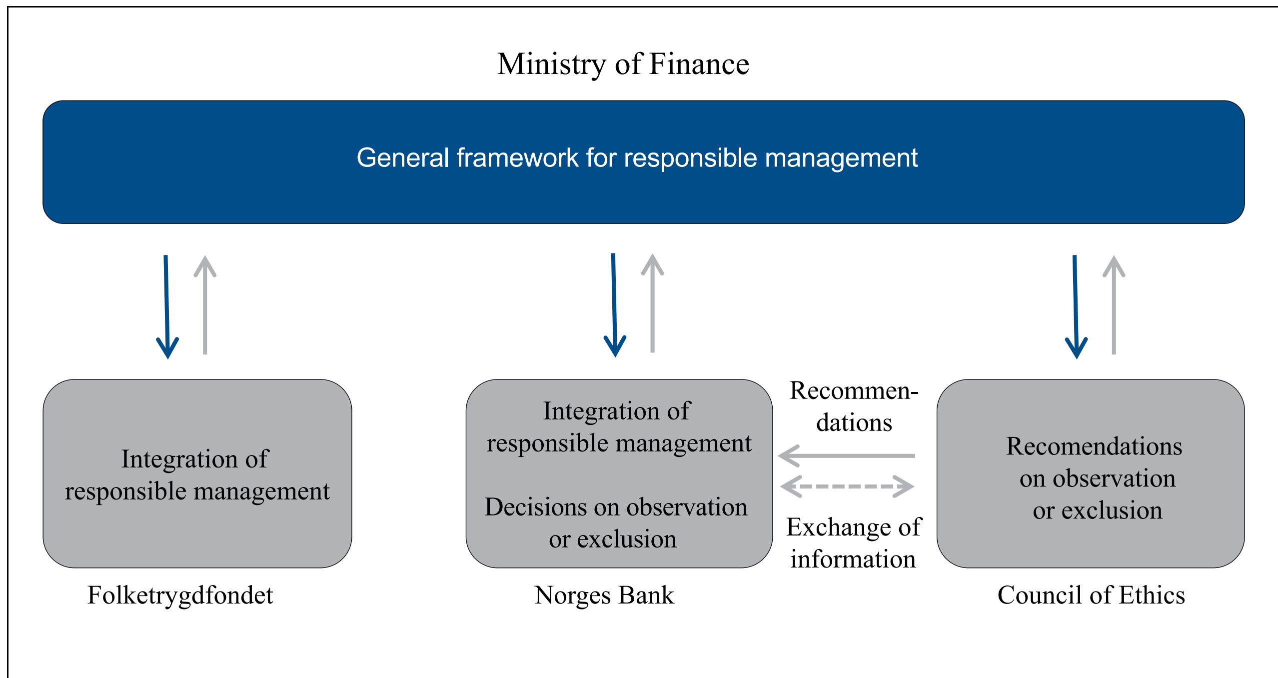

Figure 3.5 Responsible investment roles and responsibilities

Source: Ministry of Finance.

endorsement and appreciation of the risk profile of the Fund facilitates consistent adherence to the investment strategy, also during periods of financial market turbulence. Experience from the financial crisis in 2008–2009 shows that it can be more challenging to identify, communicate and obtain support for risk in active management than for risk implied by the benchmark index. This is reflected in the strategy for the Fund inasmuch as the risk taking is predominantly determined by the chosen benchmark index.

The governance structure must at the same time be sufficiently flexible, through the delegation of authority, to enable ongoing operational investment decisions to be made close to the markets in which the Fund is invested. It is neither desirable, nor feasible, for the operational management of the GPFG to be regulated and managed in detail by the Ministry of Finance. The mandate expresses the overarching investment strategy and limits. Norges Bank is required under the mandate to make investment decisions independently of the Ministry. Such independence also pertains to the exercise of the ownership rights implied by the investments. This division of responsibilities is broadly endorsed by the Storting.

In Norges Bank, responsibility for adopting the investment strategies and for other key choices lies with the Executive Board, whilst daily operations are delegated to the head of Norges Bank Investment Management (NBIM).

As a more general observation, the delegation of authority implies that the governance structure must also serve to reduce potential conflicts of interest that may arise because the person issuing an assignment (the principal) and the decision-maker (the agent) may generally have conflicting interests or different information (so-called principal-agent problems). Such conflicts of interest may arise at different levels, for example between the owners and the board of directors of an enterprise, or between the board of directors and the senior executives. In asset management there may be conflicts of interest between the capital owner and the asset manager. As far as the GPFG is concerned, the governance structure must, in addition to contributing to the maximum alignment of interests between the owner and the manager, also facilitate a high degree of transparency.

Box 3.3 Guidelines for Observation and Exclusion from the GPFG

The Ministry of Finance has adopted ethically motivated guidelines for the observation and exclusion of companies from the GPFG. The guidelines include exclusion criteria that are based on what the companies produce (products) or on their conduct. Companies may be placed under observation if there is doubt about whether the exclusion conditions are met. The Fund is also prohibited from investing in bonds issued by certain sovereign states.

The product criteria

The Fund *shall* not be invested in companies which themselves or through entities they control:

- produce weapons that violate fundamental humanitarian principles through their normal use;
- produce tobacco;
- sell weapons or military materiel to sovereign states in whose government bonds the Fund is barred from investing (the government bond exemption); or
- have a significant element of thermal coal in their operations.

The weapons criterion encompasses chemical weapons, biological weapons, anti-personnel mines, undetectable fragmentation weapons, incendiary weapons, blinding laser weapons, cluster munitions and nuclear arms.[1] Moreover, the Fund shall not be invested in companies that develop or produce key components for these types of weapons.

The tobacco criterion is limited to the actual tobacco product, and does not include associated products such as filters and flavour additives or the sale of tobacco products. All companies that grow tobacco plants or process tobacco into end products, whether directly or through entities they control, shall be excluded. Tobacco is a product distinguished by its normal use entailing a risk of severe illness and death. This is reflected in strict regulations, both nationally and internationally. In 2009, when it was decided to exclude tobacco producers from the GPFG, an international tobacco control convention had been adopted.

The product-based coal criterion implies that observation or exclusion can be decided for mining companies and power producers which themselves or through entities they control derive 30 percent or more of their revenue from thermal coal or base 30 percent or more of their operations on thermal coal.

There is a broad political consensus that there should be a high threshold for excluding an entire sector from the Fund. In Recommendation 290 (2014–2015) to the Storting, the Standing Committee on Finance and Economic Affairs stated, in its deliberation of investments and policy initiatives targeting coal and petroleum companies, that it is not considering further product exclusions for other operations/sectors in this regard.

Conduct criteria

Observation or exclusion *may* be decided for companies where there is an unacceptable risk that the company contributes to or is responsible for:

- serious or systematic human rights violations, such as murder, torture, deprivation of liberty, forced labour or the worst forms of child labour;
- serious violations of the rights of individuals in situations of war or conflict;
- severe environmental damage;
- acts or omissions that on an aggregate company level lead to unacceptable greenhouse gas emissions;
- gross corruption; or
- other particularly serious violations of fundamental ethical norms.

[1] See the Revised National Budget 2004.

3.2 The current framework for responsible investment

The Government Pension Fund is a financial investor. The objective is the highest possible return, given an acceptable level of risk. The Fund shall be a responsible investor, within the overarching financial objective. The Ministry of Finance has in the mandate for the GPFG adopted the premise that good long-term returns are held to depend on sustainable development and well-functioning markets. Such an interrelationship is assumed to be of particular importance to a large, diversified long-term fund like the GPFG, whose return will over time be determined by global value creation.

The Fund's role as a responsible investor is reflected in guidelines and limits for Norges Bank's responsible management of the GPFG. The mandates for the Fund refer to international principles and standards, such as the UN Global Compact, the G20/OECD Principles of Corporate Governance and the OECD Guidelines for Multinational Enterprises; see Box 3.2. Norges Bank applies these standards in its responsible investment practice. Norges Bank also participates in the further development of such international standards.

The Ministry of Finance and Norges Bank have joined the Principles for Responsible Investment (PRI). The initiative is focused on asset owners, asset managers and professional collaboration partners, and is supported by two UN partners: the Global Compact and the UN Environment Programme Finance Initiative (UNEP FI). The PRI encompasses six responsible investment principles, including respect for the environment, society and corporate governance.

Norges Bank makes investment decisions and exercises ownership rights independently of the Ministry, in line with established mandates and guidelines. It is neither desirable, nor feasible, for the operational management of the Fund to be regulated and managed in detail by the Ministry of Finance. Such a division of responsibilities is broadly endorsed by the Storting. Figure 3.5 shows the distribution of responsible investment roles and responsibilities in the Government Pension Fund.

The Ministry of Finance has adopted ethically motivated guidelines for the observation and exclusion of companies from the GPFG; see Box 3.3. Certain criteria in the guidelines are based on the products produced by companies, such as tobacco, weapons and coal. Other criteria are based on the conduct of companies, such as serious human rights violations and severe environmental damage. The Executive Board of Norges Bank makes decisions on the observation and exclusion of companies from the Fund, based on recommendations from the Council on Ethics. An exemption is made for the product-based coal criterion, for which Norges Bank can make decisions without a recommendation from the Council on Ethics.

The mandate from the Ministry of Finance implies that the GPFG cannot be invested in interest-bearing instruments issued by states that are subject to large-scale UN sanctions or other international initiatives of a particularly large scale and where Norway supports the initiatives. The Ministry of Finance decides which countries are encompassed by this provision. The list of excluded countries is reviewed on a regular basis, as international sanctions and initiatives are changed over time. North Korea and Syria are currently excluded from the investment universe under this provision.

Environmental, social and corporate governance issues form an integral part of the management of the GPFG. Key responsible investment tools include the promotion of principles and expectations based on internationally recognised standards. Furthermore, Norges Bank pursues dialogue with companies on relevant issues and matters, while also voting in general meetings of companies in which the funds are invested. Risk management is also a key responsible investment focus.

The Ministry of Finance

r e c o m m e n d s :

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