



NORWEGIAN MINISTRY OF FINANCE

Meld. St. 21 (2014–2015) Report to the Storting (white paper)

# The Management of the Government Pension Fund in 2014





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# The Management of the Government Pension Fund in 2014

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*Recommendations of the Ministry of Finance of 10 April 2015,  
approved by the Council of State on the same day.  
(Government Solberg)*



*Part I*  
*The Management of the Government*  
*Pension Fund*



## 1 Introduction

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 set by the Ministry of Finance. The asset managers make investment decisions and exercise ownership rights independently of the Ministry, within the limits defined by the mandates.

In this report, the Ministry presents management performance and assessments of the Government Pension Fund for 2014. Further development of the investment strategy for the Fund is discussed. An account is also given of the management framework follow-up.

### *Strong performance in recent years*

The Government Pension Fund performed well in 2014. The nominal return before asset management costs was 7.6 percent for the GPFG, as measured in foreign currency, and 10.7 percent for the GPFN, as measured in Norwegian kroner.

This performance reflects positive price developments in stock and bond markets, both internationally and in Norway. Last year, asset management at Norges Bank delivered a negative excess return relative to the benchmark index adopted by the Ministry for the GPFG. Assets management at Folketrygdfondet contributed a positive excess return. At the end of 2014, the overall value of the Government Pension Fund was about NOK 6,616 billion, reflecting an increase in value of NOK 1,411 billion over the year.

From January 1998 to December 2014, the average annual nominal return was 5.8 percent for the GPFG and 7.3 percent for the GPFN, before asset management costs. At the same time, return fluctuations have been significant. Norges Bank and Folketrygdfondet have achieved average annual gross excess returns in their asset management of 0.25 and 0.53 percentage points, respectively, over the said period.

In 2014, the asset management costs of the GPFG and the GPFN accounted for 0.06 percent and 0.08 percent of fund assets, respectively. The

Ministry is committed to cost-effective asset management. Comparisons with other funds show that the asset management costs of both the GPFG and the GPFN are low, measured as a portion of assets under management.

The fiscal policy guideline calls for the petroleum revenues to be phased gradually into the Norwegian economy, more or less in line with developments in the expected real return on the GPFG. The expected long-term annual real return on the GPFG is estimated at 4 percent. The average *actual* annual real return on the Fund, i.e. the nominal return adjusted for inflation and asset management costs, has been 4.0 percent from January 1997 to December 2014. Since 1998, when equities were included in the benchmark index, the average annual real return has been 3.8 percent.

Whilst the overall return on the investments of the Government Pension Fund fluctuates considerably from year to year, the recurring income in the form of dividends, coupons and rental income is more stable. In 2014, the recurring income of the GPFG was just below 3 percent of fund assets, whilst it was just below 5 percent of fund assets for the GPFN.

The overall value of the GPFG has increased by NOK 3,119 billion over the last three years, cf. figure 1.1. The achieved return accounts for NOK 1,683 billion of this increase, whilst the net inflow of petroleum revenues increased the value of the Fund by NOK 670 billion. Depreciation of Norwegian kroner has, when taken in isolation, increased the value as measured in Norwegian kroner by NOK 774 billion, but changes in value as the result of Norwegian kroner exchange rate fluctuations do not affect the international purchasing power of the Fund. Total asset management costs over these three years were about NOK 8 billion.

### *Considerable uncertainty as to developments in the value of the Fund over the next few years*

Returns in recent years have been very favourable, relative to the expected rate of return over

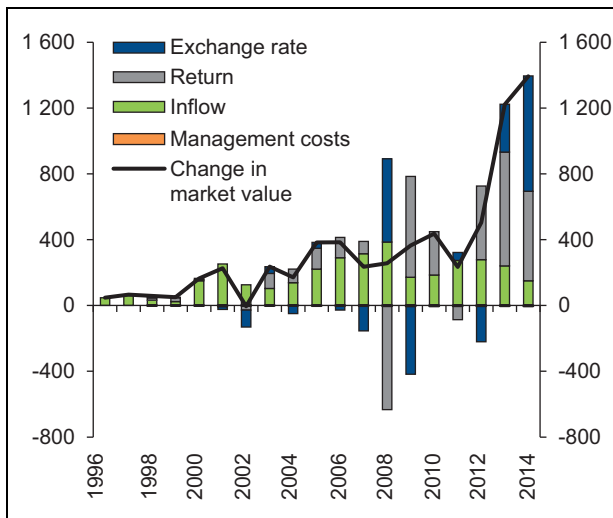


Figure 1.1 Developments in the market value of the GPFG over the period 1996–2014, attributed to inflow, return, exchange rate and asset management costs. NOK billion

Sources: Norges Bank og Finansdepartementet.

time. This reflects strong growth in the prices of both equities and bonds. A number of factors serve to highlight the significant uncertainty as to developments in the value of the Fund over the next few years.

Bond yields are currently very low, also for bonds with a long maturity. In the short and medium run, the expected real rate of return on the fixed-income portfolio of the Fund will be influenced by the currently observed real yields. The low market yields mean that the coupons are low. The scope for further capital gains on the bonds in the portfolio is limited, whilst the scope for capital losses in the event of rising interest rates is significant. Since large portions of the GPFG and the GPFN are invested in bonds, it must be expected that the low current market yields will reduce the overall return on the Fund for a certain period. Favourable long-term bond returns will require reinvestment of the portfolio at higher market rates.

In addition to the return on investments, developments in the value of the GPFG will depend on the inflow to the Fund. Net inflow, i.e. gross inflow less outflow to cover the non-oil deficit in the fiscal budget, has declined gradually in recent years. In 2014, the net inflow of new capital to the GPFG was the lowest for a decade. Inflows in coming years depend on, inter alia, oil price developments, which are subject to considerable uncertainty. Section 2.5 of this report discusses long-term projections for the real value of the GPFG

and net inflow, as well as the uncertainty associated with these two variables.

The GPFG has over time become an important source of government expenditure funding. For 2015, it is estimated that the transfer from the Fund will cover about 11 percent of total expenditure via government budgets.

In the autumn of 2014, the Ministry of Finance appointed a committee to consider the application of the fiscal policy guideline. The mandate to the committee identifies a number of challenges facing the Norwegian economy and public finances. The mandate also notes that one may experience a period of somewhat lower capital returns. The value of the Fund has increased steeply in recent years, and its assets currently correspond to about 2½ years of value added in the mainland economy, as measured by trend GDP for Mainland Norway. Consequently, fluctuations in the value of the Fund and in the return on the Fund may be significant relative to the magnitude of other government revenues and the size of the Norwegian economy, and especially relative to underlying growth in the mainland economy from one year to the next. The committee shall submit its report by the end of June 2015.

One needs to be prepared for significant year-to-year fluctuations in the return on the Government Pension Fund. Norges Bank has calculated that expected fluctuations in the value of the GPFG, as measured by the standard deviation of annual nominal returns, are equivalent to 8.2 percent or about NOK 530 billion based on the market value of the Fund as at yearend 2014. Alternatively, one may look at the lowest and highest percentage annual nominal returns experienced thus far, which are -23 percent in 2008 and 26 percent in 2009, respectively, as measured in the currency basket of the Fund. Based on the value of the Fund as at yearend 2014, this corresponds to an annual decrease in value of close to NOK 1,500 billion or an annual increase in value of almost NOK 1,700 billion.

#### *Changes to the investment strategy*

It is the ambition of the Government that the Government Pension Fund shall be the best managed fund in the world. This means aiming for the adoption of best practice internationally in all aspects of asset management. The investment strategy of the Fund has, in line with this, been developed gradually over time and is based on thorough professional assessments and analyses. Any material changes to the management of the Fund are sub-

mitted to the Storting. Such an approach provides a robust basis for sound long-term management of the Government Pension Fund.

The Ministry's development of the investment strategy is premised on how different investment choices are assumed to influence the long-term relationship between expected return and risk. Individual investment strategy decisions may have a major impact on the actual return on the Fund. The Ministry has attached considerable weight to anchoring the investment strategy in financial theory, research and accumulated experience. The Ministry also receives advice as well as commissions analyses from international experts on a regular basis. Moreover, Norges Bank and Folketrygdfondet have both a right and a duty to advise the Ministry on any need for changes to the management of the Fund.

Report No. 19 (2013–2014) to the Storting – The management of the Government Pension Fund in 2013, presented a review of Norges Bank's management of the GPF, based on advice and analyses from Norges Bank and a group of experts. The Ministry stated, *inter alia*, that it would revert to the issue of the limit on Norges Bank's deviations from the benchmark index adopted by the Ministry. Section 2.2 discusses the need for some scope for deviations from the benchmark index. Such scope for deviations provides the asset manager with an opportunity to improve the composition of the Fund's investments. The Ministry proposes, in this report, that the limit on deviations as measured by expected tracking error be increased from 1 to 1.25 percentage points. This is a cautious increase which may somewhat improve the performance of the Fund over time, but which may at the same time somewhat increase return fluctuations. This higher limit will be accompanied by new requirements in the mandate for the GPF on, *inter alia*, supplementary reporting of the risk involved in asset management. However, it is no longer intended that tracking error as the result of rebalancing of the equity portion should be excluded from the limit, cf. Report No. 19 (2013–2014) to the Storting and section 2.4.

In 2008, the Ministry of Finance decided to permit investment of up to 5 percent of the GPF in real estate, cf. Report No. 16 (2007–2008) to the Storting – The management of the Government Pension Fund in 2007. As at yearend 2014, 2.2 percent of the Fund was invested in real estate. Norges Bank has stated, in its strategy plan for 2014–2016, that it has an objective to invest one percent of the Fund in real estate each year for the

next two years. This implies that such investments will approach the 5-percent upper limit within a few years. In December 2014, the Ministry announced that it would carry out a review of whether the upper limit on real estate investments should be changed, and whether the Fund should be permitted to invest in unlisted infrastructure. Section 2.3 discusses this review. The Ministry will consider how real estate and infrastructure investments may serve to improve the ratio between expected return and risk in the GPF. Furthermore, the Ministry will assess the manner in which such investments can be regulated in the mandate of Norges Bank. If unlisted infrastructure investments are permitted on a general basis, investments in unlisted renewable energy infrastructure and in unlisted infrastructure in emerging markets will also become part of the investment universe of the GPF.

Last year's report proposed an increase in the renewable energy investments of the GPF by expanding the range for environment-related investment mandates to NOK 30–50 billion. This was endorsed by the Storting, cf. Recommendation 200 (2013–2014) to the Storting. It was also stated in the report that the Ministry would initiate an assessment of the effects of further expansion of the investments within renewable energy, and that such assessments would be based on these investments being subject to the same asset management requirements as apply to other investments of the GPF. This is discussed in section 2.6, which proposes that the scope for environment-related investment mandates be expanded to NOK 30–60 billion. Reference is also made to the assessment of whether investments in unlisted infrastructure, including renewable energy infrastructure, should be permitted, cf. section 2.3. A major part of the renewable energy investment opportunities are in the unlisted market.

In April 2014, the Ministry of Finance appointed an expert group to assess the investments of the GPF in coal and petroleum companies and the policy instruments used *vis-à-vis* such companies. The mandate referred to Recommendation No. 141 (2013–2014) to the Storting and to the Storting's deliberation of the said Recommendation. The expert group was requested to evaluate whether the exclusion of coal and petroleum companies appears to be a more effective strategy than the exercise of ownership rights and the exertion of influence. The group was also requested to advise on potential criteria for the exclusion of this type of companies. The report of the expert group was submitted in December



2014 and has been circulated for public consultation. Section 2.7 outlines the advice from the group, the consultative comments and the Ministry's assessments. The Ministry proposes, inter alia, the introduction of a new conduct-based criterion, aimed at the greenhouse gas emissions of companies, in the Guidelines for Observation and Exclusion. In addition, the Ministry proposes strengthening the follow-up of Norges Bank's active ownership and risk assessments in relation to climate change.

The Ministry announced, in last year's report, that it intended to launch, during the course of 2014, an initiative to shed additional light on the risk to the long-term return on the Fund posed by climate change. The Ministry's analysis of climate risk is discussed in section 2.8.

The Ministry has previously noted that it intends to evaluate Folketrygdfondet's management of the GPFN on a regular basis, as is also done for the GPFG. Section 3.2 presents a review of the management of the GPFN. The review shows that Folketrygdfondet has achieved good performance over time in its management of the GPFN. No changes are proposed to the scope for deviations from the benchmark index for the GPFN, which is defined by a 3-percentage point limit on expected tracking error.

It was noted, in connection with the publication of Report No. 19 (2013–2014) to the Storting, that the Ministry would consider whether it should be permitted to invest parts of the GPFN in unlisted real estate and infrastructure. Section 3.3 outlines advice and assessments received by the Ministry from Folketrygdfondet. The Ministry will continue to examine this issue and consider how investments in unlisted real estate and infrastructure may potentially be regulated in the mandate given to Folketrygdfondet.

The Ministry will perform a corresponding assessment for the GPFG, cf. section 2.3. One aspect of such assessment will address the outline of the mandate given to Norges Bank and the scope for managing unlisted investments on the basis of a so-called opportunity cost model. This is also the model recommended by Folketrygdfondet for real estate and infrastructure in the GPFN. The Ministry intends to revert with assessments of investments in unlisted real estate and infrastructure for both the GPFN and the GPFG in the report on the Government Pension Fund in the spring of 2016.

### *Responsible investment*

The Government is committed to transparency and ethical awareness in the management of the Government Pension Fund. The Fund shall, in line with this, be a responsible investor within its overarching financial objective. The Ministry operates on the assumption that good long-term return depends on sustainable development in economic, environmental and social terms, as well as on well-functioning and legitimate financial markets. The emphasis on integrating environmental, social and corporate governance considerations in the investment activities of Norges Bank and Folketrygdfondet has increased over time. Ethical guidelines for the management of the GPFG were introduced in 2004. These have since been updated and revised.

The division of responsible investment roles and responsibilities between the Ministry of Finance, Norges Bank and the Council on Ethics in relation to the GPFG has changed with effect from 1 January 2015. This results from a process to strengthen the long-term responsible management of the Fund, and follows up on the Storting's deliberation of last year's report on the Government Pension Fund, cf. Recommendation 200 (2013–2014) to the Storting. Decisions on the observation and exclusion of companies from the GPFG are now made by Norges Bank, based on advice from the Council on Ethics. The members of the Council on Ethics are appointed by the Ministry of Finance at the recommendation of Norges Bank. The new framework and the new division of responsibilities facilitate improved integration of the responsible investment tools, such as standard setting, active ownership, risk management and the exclusion of companies. Moreover, the framework facilitates communication and coordination between the Council on Ethics as advisor and Norges Bank as asset manager and decision maker. The amendments to the framework are discussed in section 5.2.

The criteria for observation and exclusion are determined by political authorities. Some of the criteria are based on which products companies produce, such as cluster munitions and nuclear arms. Other criteria are based on the conduct of companies, such as an unacceptable risk that a company contributes to, or is itself responsible for, serious human rights violations, gross corruption or severe environmental damage. As at the end of February this year, 60 companies were excluded and one company was placed under observation on the basis of these criteria.

The active ownership activities of Norges Bank and Folketrygdfondet are based on internationally recognised standards from, inter alia, the UN and the OECD. Norges Bank has in recent years divested from 114 companies whose business models is considered unsustainable in the long run. Such divestment takes place within the stipulated limit on deviations from the benchmark index. Section 4.4 discusses the responsible investment practices of the Government Pension Fund.

*Transparent management and a strategy with widespread support*

Transparency is a prerequisite for securing widespread confidence in the management of the Government Pension Fund. It follows from the mandates of Norges Bank and Folketrygdfondet that management shall be subject to the greatest possible degree of transparency within the limits defined by a sound execution of the investment mandate. The GPFG is considered one of the most transparent funds in the world.

Reporting on the management of the Government Pension Fund has been enhanced over time. Norges Bank and Folketrygdfondet report quarterly on asset management performance for the GPFG and the GPFN, respectively. Norges Bank and Folketrygdfondet publish monthly return data in connection with their quarterly reporting, and report on the utilisation of the risk limits defined by the Ministry, the Executive Board of Norges Bank and the Board of Directors of Folketrygdfondet, respectively. Norges Bank publishes quarterly analyses of how asset management is informed by systematic risk factors. Moreover, Norges Bank publishes its voting in the general meetings of individual companies, whilst Folketrygdfondet publishes any votes cast against proposals submitted by the company boards of Norwegian companies on an ongoing basis. From 2015, Norges Bank publishes a separate annual report on responsible investment, whilst Folketrygdfondet has chosen to integrate this into its regular annual report.

Financial reporting for both the GPFG and the GPFN is based on the International Financial Reporting Standards (IFRS), which require, inter alia, extensive and detailed notes. Public reporting on the purpose of the Fund and its management performance is in line with the so-called Santiago Principles for sovereign wealth funds, which are endorsed by Norway.

The Ministry is committed to further development of the reporting on the management of the

Government Pension Fund. Section 2.2 refers, for example, to new reporting requirements. It is important, at the same time, to ensure that enhanced transparency does not impose unnecessary costs on the Fund, for example as the result of other market participants seeking to profit from the transparency characterising the management of the Fund. Consequently, there is not full transparency in advance of changes to the Fund's investments or concerning ongoing dialogues with individual companies.

The main principles underpinning the management of the Government Pension Fund reflect a broad political consensus. The Ministry seeks to facilitate a broad-based debate on important aspects of the investment strategy of the Fund. Material changes to the strategy are submitted to the Storting. A thorough decisionmaking process is a particular strength of the investment strategy. Widespread support for key aspects of the management strategy makes an important contribution to enabling us to adhere to the long-term strategy, even during times of financial market volatility. Sound long-term management is necessary to ensure that the revenues from the petroleum resources will benefit both future and current generations.

The investment strategy is premised on the necessity of taking risk to achieve a satisfactory expected return over time. The asset manager makes a number of choices in its operational implementation of asset management, concerning, inter alia, the composition of the actual investments of the Fund, to realise the objective of maximising returns. In retrospect, some of these choices may appear to have been favourable, whilst others may appear to have been less so. Nor can it be expected that the asset manager's deviations from the benchmark index will serve to increase the return on the Fund in all sub-periods. The emphasis of the Ministry, in its follow-up of the management of the Government Pension Fund, is on developments in *overall* performance and costs over time. The Ministry commissions, for purposes of such assessments, analyses of the returns and costs in the management of the GPFG and the GPFN, relative to other funds internationally, cf. above. Regular asset management review by the Ministry of Finance also increases the focus on, and understanding of, performance in the management of the two funds.

The Ministry emphasises that the risk in the management of the Fund must be managed, controlled and communicated in a clear and effective manner. It is, at the same time, not possible to mea-

sure risk by means of only one single figure or one single risk model. Experience shows that it is challenging to identify all forms of risk. The mandate from the Ministry therefore requires Norges Bank and Folketrygdfondet to establish supplementary risk limits in addition to the limit on deviations from the benchmark index. Moreover, it is a requirement that risk measurement shall seek to capture all relevant market risk. Section 4.3 addresses verifications of return data and independent assessments of the framework and processes for the management and control of risk.

#### *Key principles and current developments*

Overall responsibility for the GPFG lies with the Ministry of Finance, whilst operational management is effected by Norges Bank under a mandate set by the Ministry and endorsed by the Storting. The Supervisory Council appointed by the Storting supervises the activities of the Bank, including its management of the GPFG.

The overarching objective for the investments is to achieve the maximum possible return, given a moderate level of risk. This enables more wel-

fare to be financed over time via the return on the Fund. There is a broad political consensus that the Fund is not a foreign-policy or environmental-policy instrument. The experts Ang, Brandt and Denison, who last year reviewed Norges Bank's management of the GPFG, noted that instructions to pursue non-financial objectives in asset management may entail costs in the form of impaired welfare for future generations. This is substantiated by experience from other funds.

The management of the GPFG is undergoing continuous development. The Fund is growing and has over time become a significant owner in many companies. A number of stakeholders have expectations as to how such ownership role should be exercised in the best possible manner. Unlisted real estate investments further involve a higher degree of delegation to the asset manager. Moreover, the Ministry has commissioned an assessment as to whether unlisted infrastructure investments should be permitted. The Government is committed to ensuring that the governance and control structure for Norges Bank is developed in line with the duties of the Bank.

## 2 The investment strategy for the Government Pension Fund Global

### 2.1 The current investment strategy

#### 2.1.1 Background

The State saves its net current revenues from petroleum activities in the Government Pension Fund Global (GPFG). The annual withdrawal from the Fund is determined through the fiscal budget process. The fiscal policy guideline is aimed at phasing the petroleum revenues gradually into the economy, more or less in line with developments in the expected real return on the GPFG. Whilst the capital of the Fund may only be spent once, the real return can fund a permanently higher level of government expenditure. The fiscal policy framework suggests an investment horizon that in principle is infinite. The fund structure is described in more detail in box 2.1.

The Ministry is committed to ensuring a high degree of transparency in the management of the GPFG. Transparency is a prerequisite for widespread support for the fund concept, as well as for robust and sound long-term management. Widespread support for the basic tenets underpinning the management of the Fund facilitates consistent implementation of the long-term investment strategy, also during periods of considerable financial market turbulence. Ability to maintain the long-term strategy in times of volatility is essential to achieve a good long-term return.

The objective for the investments of the GPFG is to achieve the highest possible financial return, given a moderate level of risk. The investment strategy for the GPFG has been developed gradually and is based on comprehensive professional assessments. Key investment strategy choices have been submitted to the Storting. Changes to the investment strategy have been considered from the perspective of how different investment choices are expected to affect the long-term ratio between risk and return.

Developments in the investment strategy for the GPFG are outlined in figure 2.2. The figure provides a timeline for when changes to the invest-

ment strategy were adopted. Implementation has in some cases taken several years. The increase in the equity portion of the Fund from 40 percent to 60 percent was, for example, implemented over a period of two years until the summer of 2009.

The Government Petroleum Fund was established in 1990, upon the enactment of the Petroleum Fund Act by the Storting. The first transfer of capital to the Fund was made in May 1996 against the background of a fiscal account surplus for 1995. Until 1998, the fund capital was managed in the same way as Norges Bank's foreign exchange reserves at the time. This meant that the GPFG was at the beginning exclusively invested in government bonds and government-guaranteed investment grade securities from eight countries.

In 1998, equities were included in the benchmark index for the Fund, with an initial portion of 40 percent. The rationale behind such inclusion is that equities are expected to deliver a higher return than bonds over time. One may, at the same time, achieve a diversification of risk by investing in several asset classes. The investment universe was expanded to include 21 countries. Two years later, in 2000, some emerging markets were included in the equity benchmark. The fixed-income benchmark was from 2002 expanded through the inclusion of non-government guaranteed bonds, based on the assessment that a broader benchmark index for fixed income instruments is more representative of the investment opportunities available to the Fund and may deliver a somewhat higher return.

In 2001, the Ministry introduced an arrangement for the exclusion of investments deemed to be in violation of international law, based on advice from the Petroleum Fund's Advisory Commission on International Law. Exclusion of individual companies is one of several responsible investment tools. In 2004, ethical guidelines for the Fund were adopted. The ethical guidelines were evaluated in 2009. Such evaluation resulted in new responsible investment guidelines. Following the

### Box 2.1 The fund structure

The accrual of capital in the GPFG is largely a conversion of oil and gas resources in the North Sea and the Norwegian Sea into foreign financial assets. Consequently, the current revenues from petroleum activities differ in nature from other government revenues, inasmuch as these are partly mirrored by a reduction in the petroleum wealth of the State. There are, at the same time, considerable variations in such ongoing revenues, especially as the result of oil price fluctuations.

Figure 2.1 illustrates the relationship between the GPFG and the fiscal budget. A key objective of the GPFG and the fiscal policy guideline is to facilitate permanently high value

creation and stable development in the mainland economy. To this end, the net revenues of the State from petroleum activities are transferred in their entirety to the Fund, which is invested abroad. An amount is transferred back to the fiscal budget annually pursuant to a resolution passed by the Storting, to cover the non-oil budget deficit, as such deficit is estimated in the newly balanced budget. The allocation of capital to the Fund forms part of an integrated budget process. As long as the State does not accumulate debt by borrowing to fund expenditure, developments in the GPFG will reflect true financial savings on the part of the State.

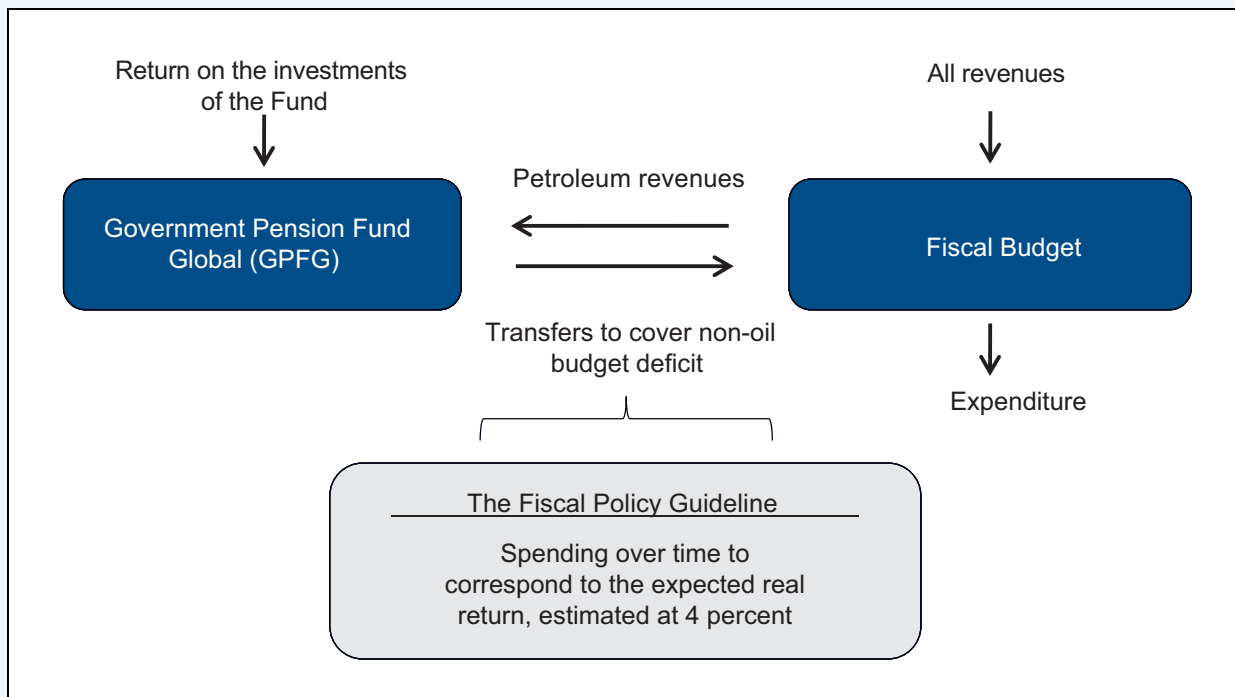


Figure 2.1 The relationship between the GPFG and the fiscal budget

Source: Ministry of Finance.

The fiscal policy guideline is aimed at phasing the petroleum revenues gradually into the economy, more or less in line with developments in the expected real return on the GPFG. The expected long-term real return is estimated at 4 percent. The fiscal policy guideline and the fund structure are conducive to sheltering the fiscal budget from petroleum revenue fluctuations. At

the same time, the fiscal policy guideline supports preservation of wealth over time, thus serving to safeguard welfare for future generations. Whilst the capital of the Fund can only be spent once, the real return may fund a permanently higher level of government expenditure. The fiscal policy guideline supports the long time horizon of the Fund.

1996	First capital inflow to the Fund
1998	Equities included in the benchmark index, with a 40 percent weight
2000	Some emerging markets included in the equity benchmark
2002	Decision to include non-government guaranteed bonds in the fixed-income benchmark
2004	Ethical guidelines adopted
2007	Decision to increase equity portion from 40 to 60 percent Small-cap added to the equity benchmark
2008	Decision to invest up to 5 percent in real estate Inclusion of all advanced and secondary emerging markets (as per FTSE's classification) in the equity benchmark
2009	Evaluation of ethical guidelines
2010	Real estate investment guidelines adopted Review of Norges Bank's management of the GPFG
2011	First investment in real estate
2012	New fixed-income benchmark New geographical distribution of the equity benchmark New rebalancing rules
2014	Review of Norges Bank's management of the GPFG Changes to the responsible investment framework

Figure 2.2 Development of the GPFG investment strategy

Source: Ministry of Finance.

Storting's deliberation of last year's report, the Ministry of Finance laid down new guidelines for observation and exclusion of companies from the Government Pension Fund Global with effect from 1 January 2015. Changes were made to the mandate to Norges Bank at the same time. The responsible investment practices and the changes that entered into effect at the beginning of this year are discussed in section 4.4 and in chapter 5.

In 2007, it was decided to include the small-cap segment in the equity benchmark and to increase the equity portion from 40 percent to 60 percent.

The rationale behind a higher equity portion was the expectation that it would contribute to a higher long-term return, whilst the risk would still remain acceptable. In 2008, the equity benchmark was expanded through the inclusion of all emerging stock markets defined by the index provider; FTSE, as advanced emerging and secondary emerging markets<sup>1</sup>.

In 2008, it was also decided to allow for up to 5 percent of the GPFG to be invested in real estate through a corresponding reduction in the fixed-income portion of the benchmark index. Real

estate investment guidelines were adopted on 1 March 2010; cf. Report No. 10 (2009–2010) to the Storting – The management of the Government Pension Fund in 2009. The initial investments were made in major European cities. The mandate for the GPFG was amended with effect from 1 January 2013, to enable the real estate portfolio to be invested globally. Norges Bank states, in its strategy plan for the period 2014–2016, that it aims to develop a global, but concentrated, real estate portfolio. The strategy for the real estate investments is to focus on core retail and office properties in a limited number of large cities as well as on investments in global distribution networks. Norges Bank will during the strategy period consider real estate investment opportunities in global cities outside the US and Europe. The management of the real estate portfolio is discussed in section 4.1.

A comprehensive review of Norges Bank's management of the GPFG was conducted in 2010. The review resulted in a number of changes to the framework for the Bank's management of the Fund. Regular asset management evaluations were announced at the same time. An additional review of the Bank's management of the Fund was conducted in 2014; cf. Report No. 19 (2013–2014) to the Storting.

A number of changes to the equity and fixed-income benchmarks were proposed in Report No. 17 (2011–2012) to the Storting – The management of the Government Pension Fund in 2011. Until 2011, the investments of the Fund were strongly biased towards Europe, based on an assessment of, inter alia, exchange rate risk. Recent research on long-term exchange rate risk suggested that such a bias was no longer justified, and new equity and fixed-income benchmarks were adopted in 2012, with less emphasis on such risk considerations. The purpose of the changes was to further broaden the geographical distribution of the investments of the Fund. The transition to the new geographical distribution for the equity and fixed-

income benchmarks has now been completed. In Report No. 17 (2011–2012) to the Storting, the Ministry estimated, based on market values as at yearend 2011, that the new geographical distribution of the equity and fixed-income benchmarks would result in America/Africa/Middle East accounting for about 40 percent of holdings, with Europe and Asia/Oceania representing 41 percent and 19 percent, respectively. The emerging market portion was estimated at about 10 percent of the benchmark index. The Ministry noted in the report that the proportions accounted for by the various regions under the new benchmark index would depend on market developments, relative GDP developments, as well as the inclusion, or exclusion, of new markets into, or from, the benchmark index. As at the beginning of 2015, the distribution of the benchmark index across America/Africa/Middle East, Europe and Asia/Oceania, was about 44 percent, 38 percent and 18 percent, respectively. Emerging markets accounted for about 9 percent.

### **2.1.2 Main features of the investment strategy**

The role of the Fond is that of a financial investor, and the overarching objective for the investments is to achieve the highest possible international purchasing power, given a moderate level of risk. The mandate from the Ministry of Finance expresses the long-term investment strategy for the Fund, including the strategic benchmark index of the Fund. The strategic benchmark index comprises separate equity and fixed-income benchmarks, as well as the real estate portfolio. The strategic benchmark index defines a fixed equity portion of 60 percent. The equity portion has been selected on the basis of the long-term trade-off between expected return and risk. The real estate portfolio is in a development phase, and represented 2.2 percent of the Fund at yearend 2014. Bonds accounted for the remaining 37.8 percent of the strategic benchmark index.

The actual benchmark index is based on the strategic benchmark index. However, movements in the value of the different asset classes imply that the equity portion of the actual benchmark index will deviate from the strategic weights. In order to prevent excessive deviations in the equity portion of the actual benchmark index relative to the strategic weight, the Ministry has adopted rebalancing rules for the equity portion of the benchmark index. The rebalancing rules are discussed in section 2.4. The actual benchmark index

<sup>1</sup> The term “emerging markets” is not linked to any specific geographic region, but to markets in countries at a certain level of financial development. A distinction is normally made between advanced emerging markets, secondary emerging markets and so-called frontier markets. The index provider FTSE classifies stock markets by criteria like data quality, free capital flows, national income per capita, number of listed companies, number of sectors, quality of securities pricing, size of stock market relative to the country's gross domestic product and foreign ownership restrictions. The efficiency of settlement systems, liquidity and maturity of markets, total market capitalisation, as well as the scope for exercising ownership rights, are also of relevance to the classification.



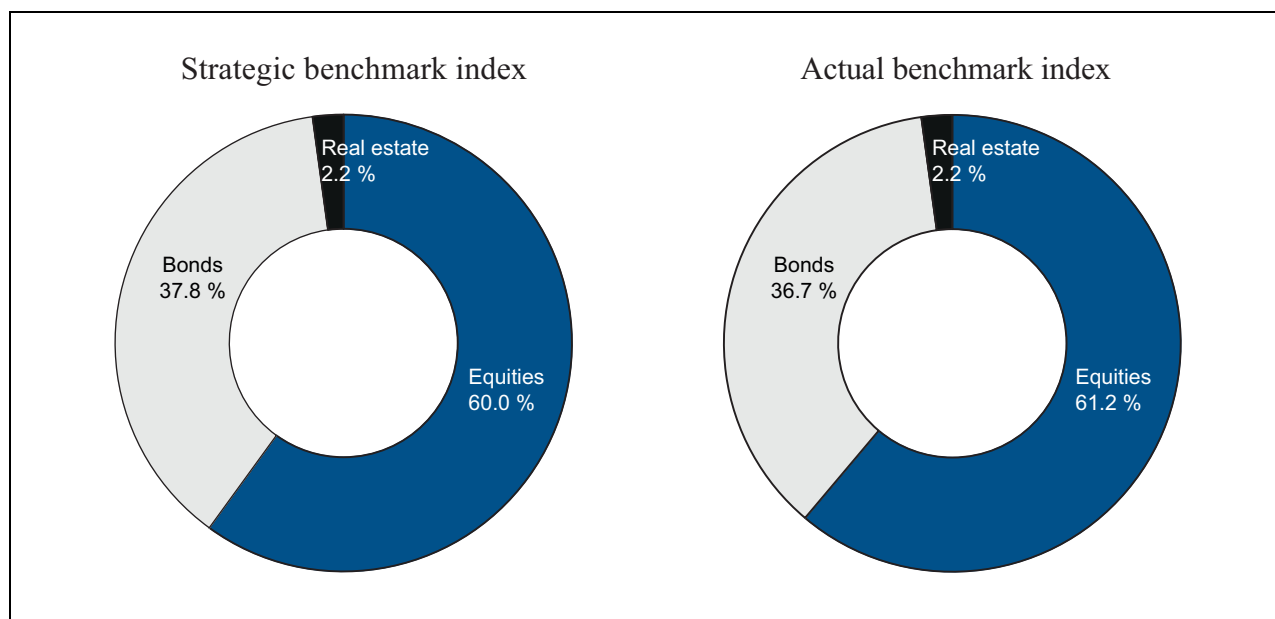


Figure 2.3 Composition of the strategic and actual benchmark indices for the GPFG at yearend 2014. Percent  
Source: Ministry of Finance.

forms the basis for relative risk and return measurement in the management of the GPFG. Figure 2.3 shows the composition of the strategic and actual benchmark indices as at yearend 2014.

The equity and fixed-income benchmarks of the Fund are based on broad and readily available indices from leading index providers. The benchmark index adopted for the Fund's equity investments is prepared by FTSE Group and includes all countries, apart from Norway, classified by the index provider as developed markets, advanced emerging markets and secondary emerging markets. As at yearend 2014, the index included 24<sup>2</sup> developed and 22 emerging markets. The fixed-income benchmark is provided by Barclays and comprises 70 percent government bonds and 30 percent corporate bonds. The composition of the fixed-income benchmark is based on the currencies included in the relevant sub-indices prepared by Barclays, with the exception of Norwegian kroner. As at yearend 2014, the fixed-income benchmark of the Fund comprised 23 currencies, 12 of which are emerging market currencies.

The distribution of the benchmark indices across countries and geographical regions is based on a principle of market weighting for equities and corporate bonds, whilst for government bonds it is based on the relative size of countries' economies,

as measured by gross domestic product (GDP weights). The regional distribution of the equity and fixed-income benchmarks is supplemented by certain adjustment factors. A detailed description of the benchmark index composition is included in the mandate to Norges Bank, which is available on the Ministry's website. See also Report No. 17 (2011–2012) to the Storting. Figure 2.4 shows the distribution of the equity and fixed-income benchmarks across geographical regions and sectors as at the beginning of 2015.

The Ministry's work on the further development of the investment strategy is premised on the objective of the maximum possible return, within a moderate level of risk. Given that the time horizon of the Fund is long, the main emphasis is on the assessment of long-term risk and return. The strategy is derived from the purpose of the Fund and its distinctive characteristics, the comparative advantages of the asset manager, as well as the investment beliefs of the Ministry, cf. figure 2.5. The background to the investment beliefs of the Ministry is described in more detail in box 2.2.

One key assumption underpinning the investment strategy for the GPFG is that risk in the Fund can be reduced through *broad diversification of investments*. Overall risk may be reduced by spreading investments across a number of securities. Such diversification benefits improve the ratio between risk and return in the portfolio. The investments of the GPFG have over time

<sup>2</sup> Belgium and Luxembourg are classified by FTSE as one stock market (thus implying that the number of countries is 25).

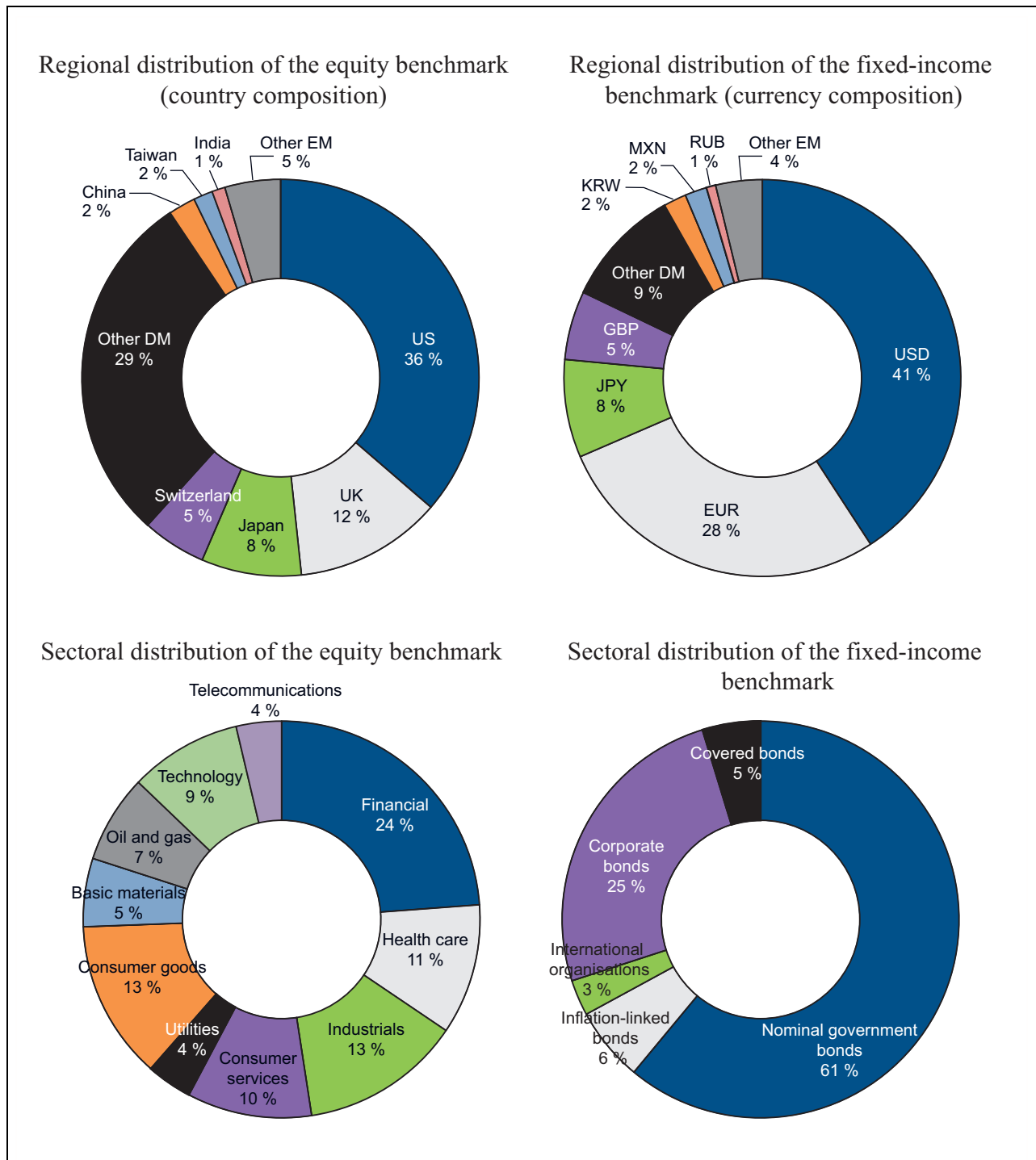


Figure 2.4 Distribution of the benchmark indices across geographical regions and sectors as at the beginning of 2015 (DM = developed markets, EM = emerging markets). Percent

Sources: Norges Bank and the Ministry of Finance.

been diversified across equities, bonds and real estate. Furthermore, the equity and fixed-income investments are spread across markets in many countries. Within each market the investments are diversified across numerous companies and issuers. At yearend 2014, the equity investments of the GPFG were spread across more than 9,000

securities relating to 66 individual countries. The fixed-income portfolio comprised bonds from 1,143 different issuers across 31 currencies. In aggregate, the equity and fixed-income investments were distributed across 75 countries and 47 currencies as at yearend 2014.

### Box 2.2 Investment beliefs

#### *Well-functioning financial markets*

The investment strategy of the GPFG is premised on the financial markets largely being well-functioning in the sense that any new information in the public domain is quickly reflected in financial asset prices. In well-functioning markets it will, as a main rule, be difficult to outperform the general market.

#### *Risk and factor premiums*

The risk associated with developments in the overall stock market is often labelled market risk. Investors who are willing to accept market risk expect to be compensated in the form of a higher expected return than the return on presumably more secure investments. The expected excess return is called the equity risk premium and is the key risk premium for equities.

A number of equity return patterns have been uncovered over time. Research indicates that various stock characteristics appear to influence developments in value over time. It is common practice to look at properties like value, size, momentum, liquidity and volatility. These properties seem to have contributed to the explanation of historical returns on a broad range of equities and therefore tend to be termed systematic factor premiums. Such factors were presented and discussed in Report No. 27 (2012–2013) to the Storting.

Risk premiums in the bond market are, inter alia, related to the maturity of bonds (term premium) and to the risk that the issuer defaults on its obligations (credit risk).

#### *Economies of scale*

The size of the Fund is expected to give rise to economies of scale in asset management. All else being equal, asset management costs measured as a portion of the fund capital will be lower for a large fund than for a small fund. Economies of scale also facilitate the development of expertise in all aspects of asset management, which will be of benefit if the investments of the Fund are to be expanded to include new markets, countries and financial instruments.

#### *Size limitations*

A large fund like the GPFG may find it challenging to implement portfolio adjustments within a short space of time. Moreover, it may be difficult to expand the scale of its positions in small asset

classes, as well as for certain investment strategies. This implies that certain strategies are not available to the Fund.

#### *Principal-agent problems*

Principal-agent problems describe situations in which there is not a complete alignment of interests between the person issuing an assignment (the principal) and the person performing such assignment (the agent). In cases characterised by asymmetric information on the part of the principal and the agent, the agent may make choices that are not necessarily in the interest of the principal. In the capital markets, such situations may generally arise both between the asset owner and the asset manager and between the asset manager and the senior executives of the companies in which investments are made. This highlights the need for a clear mandate and a sound governance model for the Fund. Active ownership in accordance with recognised corporate governance principles may serve to reduce principal-agent problems between the owner and the senior executives of the companies in which the Fund is invested.

#### *Externalities*

Externalities refer to production or consumption costs or benefits that are not incurred by, or do not accrue to, the decision maker. An example of a negative externality is costs relating to environmental damage. The profitability of a company does not necessarily reflect the social costs of damage to the environment caused by its production. An unpriced cost means that the socio-economic cost is higher than what is paid by the producer itself. Consequently, externalities result in market failure and inefficient resource utilisation compared to scenarios in which the full socio-economic cost is reflected in prices. However, it is to the advantage of a long-term, universal owner<sup>1</sup> for externalities to be reflected in company decisions. Good long-term return on the overall portfolio of the Fund is assumed to depend on sustainable development in economic, environmental and social terms.

<sup>1</sup> A universal owner (UO) is defined as an owner whose investments are diversified across a large number of companies in numerous industries and countries. Hence, a UO indirectly owns a portion of the world's productive capital. Moreover, a UO will often have a very long time horizon. The size, long time horizon and broad social foundation of the GPFG mean that the Fund belongs to the UO category.

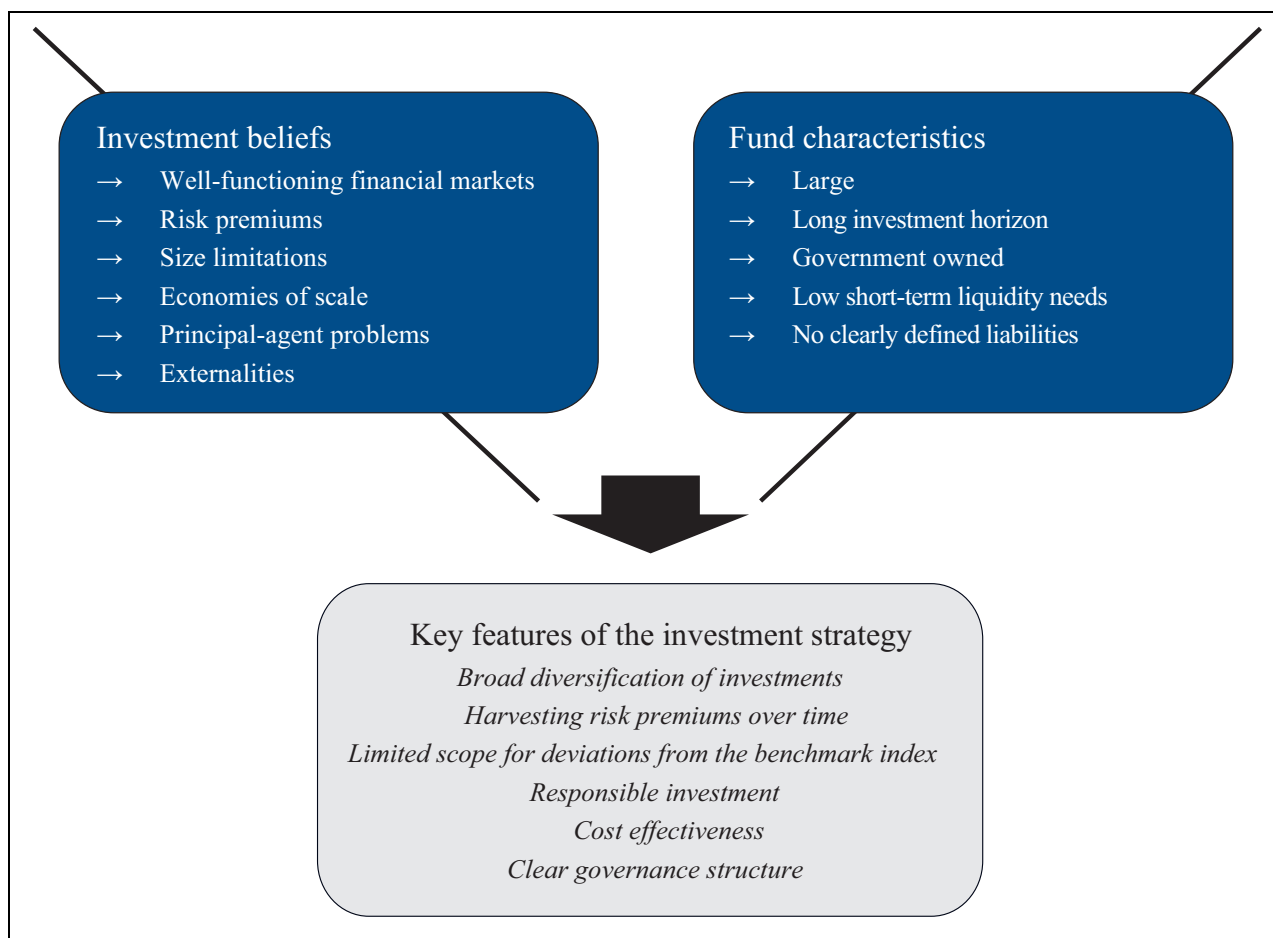


Figure 2.5 Overview of investment beliefs and the distinctive characteristics of the Fund underpinning the investment strategy for the GPFG

Source: Ministry of Finance.

Another key aspect of the Ministry's investment beliefs is that investors expect a compensation for assuming risk that cannot be eliminated through broad diversification. This expected excess return is called a *risk premium*. Equities are, for example, more risky than bonds. There are well-documented reasons for expecting that investors will be rewarded for accepting such risk, in the form of a higher expected return on equity investments. However, the magnitude of such excess return, or equity premium, is uncertain. Other risk premiums are related to the maturity of bonds (term premium) and the risk that the bond issuer defaults on its obligations (credit risk).

Furthermore, the Ministry assumes that the financial markets are generally well-functioning, with high competition between market participants. This means that the average investor will not, as a main rule, outperform the market, thus suggesting that investors without comparative advantages should broadly diversify their invest-

ments, whilst at the same time minimising asset management costs.

The GPFG is a large, long-term investor with a high ability to absorb risk. The distinctive characteristics of the Fund mean that it is better placed than many other investors to exploit economies of scale in asset management and to accept risk that requires a long time horizon. The high ability to absorb risk is utilised to harvest the expected excess return from investing in equities rather than bonds. A long investment horizon and potential economies of scale enable the Fund to invest in, inter alia, unlisted real estate. Unlisted investments require a long investment horizon, because such investments typically are less liquid and involve higher transaction costs than listed equities and bonds.

Based on the investment beliefs and the distinctive characteristics of the Fund, the Ministry has adopted a broad benchmark index comprising listed equities and bonds, as well as an allocation to real estate. The benchmark index largely

reflects the investment opportunities offered by global stock and bond markets. Hence the return on the Fund is primarily determined by general market developments. The mandate laid down by the Ministry to Norges Bank does, at the same time, provide the Bank with a *limited scope for deviations from the benchmark index*.

The asset management framework emphasises *responsible investment practices*. The GPFG is a policy instrument for ensuring that future generations obtain a reasonable share of the country's petroleum wealth. This entails a responsibility for managing the Fund such as to generate the highest possible long-term return. Good long-term return is considered dependent on sustainable development in economic, environmental and social terms, as well as on well-functioning, legitimate and efficient markets. Responsible investment is a prerequisite for the support of the Norwegian population in the management of the Fund. Weight has also been attached to using the available responsible investment measures in a coordinated, predictable and consistent manner. The role of the Fund as a responsible investor is reflected in, inter alia, the management mandate, as well as in the guidelines for observation and exclusion from the Government Pension Fund Global.

The mandate stipulated to Norges Bank requires the Bank to seek to maximise the return net of *costs*. This is consistent with the stated aim of exploiting economies of scale in asset management. At the same time, the objective is not low costs *per se*, but high net returns. Comparisons with other large funds show that Norges Bank's management costs are low. Over time, management costs as a proportion of the fund capital have declined, cf. the discussion in section 4.1. Management costs in unlisted markets vary more than in listed markets and may be high. Investments in unlisted real estate may, when taken in isolation, result in somewhat higher management costs, measured as a portion of fund assets, in coming years.

The management of the GPFG is premised on a *clear governance structure*, in which the Storting, the Ministry of Finance, the Executive Board of Norges Bank, the asset management unit NBIM, as well as internal and external asset managers all have different roles and responsibilities, cf. the discussion in Report No. 15 (2010–2011) to the Storting – The management of the Government Pension Fund in 2010.

## 2.2 The framework for Norges Bank's management

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### 2.2.1 Introduction

Report No. 19 (2013–2014) to the Storting – The management of the Government Pension Fund in 2013, presented a review of Norges Bank's management of the GPFG. The review was based on, inter alia, advice and analyses obtained by the Ministry from a group of internationally recognised experts (Andrew Ang, Michael W. Brandt and David F. Denison), as well as from Norges Bank. The advice from the experts and Norges Bank was discussed in the report and is available on the Ministry's website. Both the experts and Norges Bank recommended an increase in the limit on deviations from the benchmark index adopted by the Ministry, as measured by so-called expected tracking error.<sup>3</sup> It was noted that a higher limit would offer the Bank more scope for improving the composition of investments, relative to the benchmark index, which in the view of the expert group would improve the ratio between return and risk.

The advice received by the Ministry included a proposal for a so-called opportunity cost model. Such model would see the current equity and fixed-income benchmark being used as a benchmark index for all investments of the Fund, including unlisted real estate. The experts recommended that the scope of Norges Bank for taking significantly more or less market risk than the benchmark index should be restricted through a tracking error limit. The Ministry's follow-up of this proposal is discussed in section 2.3.

The experts recommended that the overall limit on deviations be increased to 1.75 percentage points. Norges Bank proposed increasing the limit to 2 percentage points.

The Ministry wrote, in last year's report, that it would follow up on the advice received, including the limit on deviations, and revert to the matter in the report on the Government Pension Fund in the spring of 2015. The Ministry held, as part of such follow-up, a seminar in the autumn of 2014, where the report from Ang, Brandt and Denison was presented and discussed, with participation from both international and national experts.

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<sup>3</sup> Expected tracking error is a statistical measure of expected fluctuations in differential return between the GPFG and the benchmark index adopted by the Ministry. The risk measure says something about the extent to which the return on the GPFG is expected to deviate from that on the benchmark index.

The presentation below will address the background to the division of responsibilities between the Ministry and Norges Bank, considerations of relevance to the preferred limit on deviations from the benchmark index, the reporting on Norges Bank's deviations from the index, as well as the Ministry's assessments.

### 2.2.2 The division of responsibilities between Norges Bank and the Ministry of Finance

The Ministry of Finance has adopted a strategic benchmark index comprising listed equities and bonds, as well as real estate, cf. section 2.1. The benchmark index rests on a solid professional foundation, and reflects a desired long-term allocation of capital across asset classes, geographical areas and currencies.

The benchmark index is comprised of readily available and leading market indices for equities and bonds, prepared by recognised index providers. These indices are standardised products, reflecting a number of subjective choices and priorities made by the index providers as to how markets and securities shall be represented in the indices. One such choice is that investors shall be able to purchase a stake in the securities in the index without incurring large transaction costs. This implies that readily tradable securities are accorded priority in composing the indices. Consequently, such indices can, as a main rule, be closely mimicked by investors at low cost. Investments in line with indices of this type offer broad diversification of risk and will, in general, constitute a good basis for measuring the value added by the asset manager for the capital owner by deviating from the index.

Financial markets are characterised by intense competition, and it is challenging to add value on top of broad market indices. Since the indices are tailored to typical investors, the distinctive characteristics of the GPFG, such as size and a long investment horizon, suggest that there is some scope for deviations from the benchmark index. The distinctive characteristics mean that the GPFG is better positioned than many other investors to exploit economies of scale in asset management and to take risk that requires a long investment horizon. Moreover, the size of the Fund makes it challenging to implement large changes to its investment composition in order to adapt the portfolio to ongoing changes in the index.

Improving the investment composition beyond the benchmark index adopted by the Ministry requires specialist expertise, proximity to markets

and an organisation capable of making time-critical decisions. Norges Bank is better placed to make such adaptations than the Ministry, and responsibility for improving the composition of the Fund is therefore delegated to Norges Bank, within the limits in the mandate set by the Ministry. The limit on deviations from the benchmark index as measured by expected tracking error restricts the scope of Norges Bank for taking significantly more or less market risk in its asset management than is implied by the benchmark index. At the same time, the limit on deviations shall ensure that Norges Bank has sufficient leeway to improve the composition of the Fund beyond the benchmark index.

Norges Bank has a focus on analysing how the risk and return characteristics of the GPFG can be improved. Such analyses are documented in the form of a series of discussion notes published on the Bank's website ([www.nbim.no](http://www.nbim.no)). Norges Bank employs various operational management strategies to improve the ratio between expected return and risk. These include strategies to:

- ensure cost-effective adaptation to the benchmark index;
- diversify investments more broadly than the benchmark index; and
- exploit factor strategies and make good security selections.

#### *Cost-effective adaptation to the benchmark index*

Norges Bank seeks to outperform the benchmark index through cost-effective execution of the management mission. Ongoing changes to indices result, for example, in high trading volumes for the securities affected by such changes, which may influence the prices of the said securities in the short run. Norges Bank may prevent the Fund from incurring unnecessary costs by implementing portfolio changes at a different time than the actual index changes. Moreover, it is not necessarily appropriate for an investor to hold the complete set of securities in the index at all times. Such an assessment must be based on a trade-off between the costs of acquiring a stake in all the bonds of a single issuer or holding all the equities in an industrial sector and the gains from somewhat greater diversification of risk.

#### *Improved diversification of the investments*

Some markets are not sufficiently developed or mature to meet the requirements applied by index providers for inclusion in the broad market indices. These include so-called frontier markets, which are

less developed than other emerging markets. The requirements for inclusion in the indices are, inter alia, related to liquidity, market place infrastructure and minority shareholder rights, cf. section 2.1. The mandate for the GPFG allows the Bank to invest in markets that are not included in the benchmark index. However, the Bank is required to approve all markets in which investment is made. Norges Bank has invested, after thorough assessment, in a number of less developed emerging markets (frontier markets). The Bank has also chosen not to invest in other markets on the grounds that these are held to be insufficiently developed and that making investments in these markets would involve too much risk. Assessment of individual markets requires specialist expertise and proximity to such markets.

#### *Factor strategies*

The composition of the equity benchmark is primarily based on market weights. This means that the equities with the highest market value are accorded the most weight in the index. The composition of market-weighted indices reflects the market's pricing of equities. Hence, the indices represent the capital available for purchases and sales. Research has demonstrated that market-weighted indices have been outperformed by investing more in assets with specific characteristics, such as low market value, price and liquidity. Such characteristics are referred to as factors, and systematically tilting investments towards such characteristics is called factor strategies. The excess return from factor strategies can reflect higher risk, but also incorrect pricing in the market as a result of institutional settings and certain behavioural patterns amongst market participants. The Ministry has previously received advice from leading international experts to the effect that the Fund should seek to reap excess returns from factor strategies.

In Report No. 27 (2012–2013) to the Storting – The management of the Government Pension Fund in 2012, the Ministry presented extensive analyses of the risks and returns from pursuing various factor strategies for large equity portfolios. The analyses showed, inter alia, that such strategies can entail long periods of outperformance or underperformance relative to the benchmark indices, and significantly underperform benchmark indices during periods of market slumps. The analyses showed, at the same time, that factor strategies have historically improved the ratio between risk and return for an investor like the GPFG. The

Ministry concluded that the distinctive characteristics of the GPFG make the Fund well suited to exploit factor strategies, although such strategies should not be incorporated into the benchmark index from the Ministry. The Ministry emphasised that it is necessary to tailor such strategies to the Fund, because its size may give rise to large transaction volumes and transaction costs. It was noted that it is challenging to identify the most suitable adaptations, and also that the adaptations deemed most suitable may change over time. The conclusion was that the Ministry's compilation of the benchmark index for the GPFG is not a suitable process for making such decisions. The Ministry also stated the following:

“To the extent that systematic risk factors are to be exploited, it should therefore be done within the scope of Norges Bank's management framework. The Bank may design factor strategies based on the characteristics and advantages of the Fund, including the size and long time horizon. The design of such strategies forms an important part of the management mission of the Bank.”

These assessments were endorsed by the Storting, cf. Recommendation No. 424 (2012–2013) to the Storting.

#### *Security selection*

Considerable research has been conducted into whether asset managers can add value through security selection. Research on historical data indicates that performance in this type of active management is influenced by, inter alia, competition in the specific markets in which investments are made. Since competition varies between markets and over time, the scope for achieving excess returns may also vary.

Norges Bank has focused such part of asset management on those markets it believes offer the best prospects for generating excess returns. Such assessments require specialist expertise and proximity to markets, and should be made by Norges Bank. The scope for deviations from the benchmark index enables the Bank to make these assessments.

Andrew Ang, William Goetzmann and Stephen Schaefer noted, in their report prepared for the Ministry in 2009, that US equity funds have historically outperformed their chosen benchmark indices, although such funds have retained a major part of such excess returns for themselves by



charging their customers generally high fees and costs. Norges Bank has significantly lower costs than the average equity fund. This suggests that the Bank may be better placed to realise excess returns after costs than are other investors. Ang, Brandt and Denison also note, in their report from 2014, that the long time horizon of the Fund enables Norges Bank to establish long-term management strategies, without the risk of having to divest securities at unfavourable times. They are of the view that a well-qualified management organisation, low costs and good trading systems are prerequisites for generating excess returns from security selection over time. Ang, Brandt and Denison note, at the same time, that Norges Bank, as a government body, may be subject to restrictions that affect its ability to attract expertise when compared to, for example, investment banks and private equity funds.

### **2.2.3 Norges Bank's management strategies**

Norges Bank has, in letters of 13 December 2013 and 31 January 2014, respectively, as well as in the strategy plan for the period 2014–2016, described how the Bank executes its management mission.

The Bank emphasises, in the strategy plan, that it will increase the diversification of risk in the Fund by, inter alia, investing in equities in additional emerging markets and expanding the number of currencies in the fixed-income portfolio relative to the benchmark index. The Bank will also further develop the asset management by tilting the composition of the Fund's investments towards certain factors. Norges Bank intends to expand capacity within equity and credit analysis, both to increase the number of companies that are analysed thoroughly and to explore opportunities within new credit market segments.

The Bank has in recent years developed internal reference portfolios aimed at, inter alia, improving the risk and return characteristics of the benchmark index adopted by the Ministry, as well as diversifying risk and profiting from factor strategies. The Bank has documented the professional basis for a number of these strategies in designated discussion notes that identify the challenges posed by standard market indices.

Norges Bank's internal reference portfolios are tools used in composing the best possible portfolio. The Bank's strategies for security selection are measured against the internal reference portfolios. The Bank has also established a number of different securities strategies intended to exploit the Fund's long time horizon, large capital

base and scope for accumulating special expertise. The security selection strategies are concentrated on markets and sectors deemed by the Bank to offer the best excess return prospects.

Ang, Brandt and Denison express support, in their report, for Norges Bank's orientation of its management of the GPF. They also note that the Bank has made a number of changes in the wake of the financial crisis, including a significant reduction in the use of leverage and derivatives within fixed-income management. The experts also approve of Norges Bank's development of internal reference portfolios, and believe this to represent an important asset management improvement.

Norges Bank recommends, in a letter of 31 January 2014, a limit on expected tracking error of 2 percentage points, which includes deviations from the benchmark index as the result of real estate investments. Such a limit will, according to the Bank, enable it to perform its management mission in a manner that exploits the Fund's distinctive characteristics and supports the overarching asset management objective.

Norges Bank notes that expected tracking error suffers from a number of weaknesses as a management parameter. The Bank believes that one should in the longer run consider whether to instead base the management of the Fund on a measure of absolute risk.

### **2.2.4 The limit on deviations from the benchmark index**

Scope for deviations from the benchmark index enables Norges Bank to seek to improve the return and risk characteristics of the GPF. Consequently, the limit on deviations from the benchmark index should be considered from the perspective of expectations as to excess return and risk.

The limit on deviations should further be tailored to the advantages of Norges Bank and its prospects for generating excess return. A limit that fails to adequately reflect such advantages will entail costs in the form of a lower expected return over time.

The ability of an asset manager to generate excess return through deviations from the benchmark index is often measured by the information ratio (IR). IR is calculated as the ratio between excess return and tracking error. A high IR is interpreted to mean that the asset manager has achieved a high excess return by deviating from the benchmark index, and may indicate that the

asset manager offers advantages and prospects for generating excess return also in future.

Norges Bank has over the period 1998–2014 achieved an average annual gross excess return of 0.25 percentage points and an information ratio of 0.34. This means that the Fund has for each percentage point tracking error on average been compensated by a return that is 0.34 percentage points higher than that on the benchmark index, before the deduction of asset management costs. The expert report from Ang, Brandt and Denison (2014) notes that Norges Bank is well positioned to achieve an annual information ratio of 0.35-0.5 in the long run. This is based on a review of its asset management and historical performance from January 1998 to June 2013. The experts recommend that the limit on deviations from the benchmark index should be increased from 1 to 1.75 percentage points. This suggests an annual average excess return of about 0.4-0.6 percentage points if the exploitation of the limit remains at about the average level historically. The future excess return estimate of the expert group corresponds well with the historical performance of Norges Bank, and would at the current value of the Fund have amounted to an annual gross excess return of about NOK 30-40 billion.

The limit on deviations also needs to be considered from the perspective of how deviations are expected to influence overall risk in the Fund. There has historically been a close correlation between fluctuations in the return on the GPFG and fluctuations in the return on the benchmark index, cf. the discussion in section 4.1. It was calculated in the report from Ang, Brandt and Denison that more than 99 percent of the fluctuations in the return on the Fund over the period from January 1998 until the end of June 2013 could be explained by fluctuations in the return on the benchmark index. This means that the Bank generally traces the index closely in its management of the Fund. Historically, fluctuations in the return on the Fund have been slightly larger than that of the return on the benchmark index, as measured by standard deviation. This illustrates that a higher limit on deviations from the benchmark index may result in somewhat higher volatility in the overall return on the Fund.

A higher limit on deviations will result in a slightly higher risk of periods of underperformance relative to the benchmark index. As with other aspects of the investment strategy, the risk of negative excess return must be considered against the expected excess return over time and the uncertainty of such estimates.

The report from Ang, Brandt and Denison notes that the current limit on deviations from the benchmark index is very low. The experts expect, against the background of their review of Norges Bank's performance and asset management strategies, that a higher limit on deviations, in addition to generating significant excess return, will also improve the ratio between absolute return and risk in the GPFG.

The experts recommend the continued use of a limit on expected tracking error to regulate Norges Bank's scope for deviations from the benchmark index. However, they propose that an increase in the tracking error limit should be accompanied by supplementary risk limits that are more suited for curtailing the risk of large losses that are expected to incur infrequently. The experts also recommend expanded reporting on the risk assumed in asset management.

### **2.2.5 Reporting**

The Ministry has in the mandate for the GPFG stipulated that there shall be the greatest possible degree of transparency in the management of the GPFG within the limits defined by a sound execution of the investment mandate. Transparency serves to ensure widespread support for the fund structure, as well as for its management, and reinforces the basis for adhering to profitable strategies during periods of negative excess returns. It is therefore important to report on the risk of loss in both the short and the long run. Developments in the benchmark index adopted by the Ministry almost fully explain the risk in the Fund, as measured by the volatility of returns. Consequently, the benchmark index is a very important basis for assessing the Fund's performance. Moreover, the reporting on the Fund's performance should include the risk of, and returns from, Norges Bank's deviations from the benchmark index. The Ministry reports on risks and returns in the annual report on the management of the Government Pension Fund and has stipulated a number of requirements as to the contents of Norges Bank's public reporting, including a requirement for the reporting to provide a true and fair summary of fund performance, asset management costs, asset management strategies, value added in operational management and relevant risk in asset management, including the utilisation of risk limits. Norges Bank publishes quarterly and annual reports, data, analyses, etc., on its website ([www.nbim.no](http://www.nbim.no)).

The benefits from detailed and ongoing asset management reporting must, at the same time, be balanced against the costs of such reporting. Costs may, for example, be related to other investors exploiting the asset management transparency to profit from the Fund's transactions or otherwise place restrictions on Norges Bank's asset management implementation. Besides, transparency may carry a cost if too detailed and continuous reporting results in performance being evaluated on the basis of data or methods that are not relevant.

A long time horizon may give the GPFG an advantage over other investors, cf. above. However, investment strategies that seek to exploit a long time horizon, such as factor strategies, may involve periods of underperformance relative to the general market. Such may, in particular, be the case during periods of market turbulence and major slumps in financial markets. Performance reporting and assessment should therefore focus on developments over time, and not exclusively on performance in individual years. Frequent performance reporting may in some situations result in excessive attention being paid to short-term fluctuations, and may prevent the asset manager from choosing profitable long-term strategies.

Deviations from the benchmark index imply, at the same time, that some investments will have turned out to be profitable, and others unprofitable, in retrospect. Consequently, performance reporting and assessment should focus on presenting aggregate performance rather than highlighting gains or losses on individual investments.

The Ministry annually reviews and presents assessments of risks and returns in the management of the Government Pension Fund, cf. chapter 4. In addition, the Ministry conducts asset management reviews on a regular basis, during which advice and analyses are obtained from independent professional experts internationally.

Performance reporting should provide insight into whether the asset manager has generated a higher return than could alternatively have been achieved by the capital owner itself, for example by increasing risk through adjustments to the benchmark index. Ang, Brandt and Denison refer to the mandate given to Norges Bank and argue in favour of evaluating the Bank's asset management on the basis of excess return as measured against the benchmark index. The report includes, at the same time, several analyses of the relationship between excess return and various factors. There exists no single model or set of assumptions that unambiguously explains how risk has influenced

returns. Financial research therefore uses several approaches and models, all of which are premised on different assumptions and deliver different outcomes. This suggests that caution should be exercised in interpreting estimates from such models, and that several approaches should be used to shed light on performance.

The report from Ang, Brandt and Denison notes that the high degree of transparency in the management of the GPFG is one of the strengths of the Fund. It is noted that the GPFG is one of the most transparent funds in the world, with extensive asset management reporting. Norges Bank's asset management reporting is close to that proposed by the experts, but it is suggested that the reporting could be more detailed with regard to return and risk relative to the benchmark index adopted by the Ministry. It is suggested, as an example, that the reporting of excess return and risk may distinguish between contributions from factor strategies and increased diversification of risk in the internal reference portfolios as the result of additional selection of securities.

#### **2.2.6 The Ministry's assessments**

In 2014, the Ministry was advised by Norges Bank and a group of internationally recognised experts (Andrew Ang, Michael W. Brandt and David F. Denison) that Norges Bank should be offered somewhat more scope for improving the composition of the Fund's investments. They therefore proposed an increase in the limit on deviations from the benchmark index adopted by the Ministry. The experts are of the view that the distinctive characteristics of the Fund should be exploited more extensively through index refinement, systematic tilting of the portfolio towards certain factors, as well as improvement on the index portfolio through security selection. This type of asset management focus requires specialist expertise, proximity to the market and an organisation capable of making time-critical decisions, and should thus fall under the auspices of Norges Bank, and not of the Ministry. Norges Bank recommends an increase in the limit and notes that this will enable the Bank to perform the management mission in a manner that exploits the distinctive characteristics of the Fund and furthers its overarching asset management objective.

Ang, Brandt and Denison note that Norges Bank has historically achieved good performance and that the Bank is, in their view, well placed to add significant value to the Fund if the limit on deviations is increased. The investments in ques-

tion would improve the ratio between risk and return beyond that achievable by the Ministry by modifying the composition of the benchmark index. A higher limit on deviations may, at the same time, slightly increase the volatility of Fund returns. Historically, emerging market investments, factor strategies, as well as stock and bond picking by Norges Bank, have resulted in somewhat larger fluctuations in Fund returns, relative to the benchmark index, especially during periods of stock market slumps. There have also been several periods of underperformance relative to the benchmark index. A higher limit on deviations from the benchmark index means that one needs to be prepared for such volatility. However, its long time horizon makes the Fund well positioned to withstand such short-term risk.

The scope for the environment-related investment mandates was almost doubled with effect from the beginning of the year, and this report proposes a further expansion of the mandates. The mandate for the GPFG was further amended in 2012 to require the Bank to take account of fiscal strength in the management of the government bond portfolio. These provisions reduce, when taken in isolation, the scope for additional deviations. Increasing the maximum tracking error compensates for the restrictions on the Bank's room for manoeuvre otherwise implied by the said provisions. Furthermore, the Ministry noted, in last year's report, that new rules on rebalancing of the equity portion implied, when taken in isolation, a slight increase in the scope for other deviations. The changes outlined in section 2.4 mean that such will no longer be the case. New rebalancing rules imply that the Bank will to some extent need to take into account that rebalancing may reduce the residual tracking error limit. Norges Bank's divestment of holdings in individual companies based on sustainability risk assessments will also reduce the scope for additional deviations.

The Ministry proposes, in this report, to increase the limit on deviations from the benchmark index as measured by expected tracking error from 1 to 1.25 percentage points. The mandate stipulates that Norges Bank shall organise asset management with a view to keeping expected tracking error within the limit. The somewhat higher limit on expected tracking error facilitates a cautious increase on the part of the Bank in the deviations from the benchmark index in the equity and fixed-income portfolios. This will be accompanied by a slight increase in the Ministry's excess return expectation. The higher limit may, at the same time, somewhat increase return discrepan-

cies, also over multi-year periods. The Ministry will, simultaneously with the expansion of the scope for deviations, introduce new provisions requiring Norges Bank to define supplementary risk limits for large losses that are expected to occur infrequently and to report in more detail on the risk assumed in asset management. Ang, Brandt and Denison recommend such supplementary risk limits, but identify a number of technical and operational challenges in that regard. They note, inter alia, that it will be difficult to calculate this type of risk and that such supplementary limits will not necessarily restrict the Bank's asset management in a suitable manner, beyond the current tracking error limit. The experts believe, at the same time, that reporting of such risk is important.

Reference is made to the ongoing assessment of unlisted real estate and infrastructure investments, including the issue of whether such investments should be made within the limit on deviations from the benchmark index, cf. section 2.2.1 and section 2.3. The Ministry will consider a further increase in the limit on deviations at a later stage. One will then also be able to draw on the experience from expanding the limit from 1 to 1.25 percentage points and the new requirements as to reporting and risk measures.

## **2.3 Real estate and infrastructure investments**

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### **2.3.1 Background**

In 2008, the Ministry decided to permit investment of up to 5 percent of the GPFG in real estate, cf. Report No. 16 (2007–2008) to the Storting – The Management of the Government Pension Fund in 2007. The Standing Committee on Finance and Economic Affairs unanimously endorsed the proposal to open up for real estate investments, cf. Recommendation No. 283 (2007–2008) to the Storting. The development of the real estate portfolio entails a corresponding reduction in the fixed-income portion of the benchmark index.

The real estate portfolio represented 2.2 percent of the market value of the Fund at yearend 2014, up from 1.0 percent at the beginning of the year. The management of the real estate portfolio in 2014 is discussed in section 4.1. Part of the increase in the value of the real estate portfolio in 2014 was caused by the transfer of investments in 11 listed real estate companies from the equity portfolio to the real estate portfolio. Norges Bank notes, in its annual report for 2014, that properties

to which the Bank would like to achieve exposure are owned by listed companies in many of the relevant real estate investment markets. The Bank has transferred parts of the real estate investments from the equity portfolio to the real estate portfolio to ensure a broader real estate portfolio and to exploit the advantages of the Fund.

The mandate for the management of the GPFG permits the real estate portfolio to be invested in listed real estate companies in addition to in unlisted real estate. Investments in listed real estate companies were specifically examined in Report No. 27 (2012–2013) to the Storting – The Management of the Government Pension Fund in 2012. It was noted that analyses of historical returns indicate that there are no material differences in the long-term risk and return characteristics of comparable listed and unlisted real estate investments. Moreover, listed real estate companies account for a large portion of the property market in many sub-markets and countries. The unlisted and listed markets complement each other and constitute, when taken together, the overall property market. The Ministry also noted that the return measure for the real estate portfolio; a real estate index from the index provider International Property Databank (IPD), is based on developments in the value of unlisted real estate, and that a significant expansion of listed real estate investments will make it appropriate for the Ministry to consider alternative return measures for the real estate portfolio.

Norges Bank has made substantial real estate investments in Europe and the US over the last few years. The Bank has stated, in its strategy plan for the period 2014–2016, that it aims to invest one percent of the Fund in real estate each year for the next two years. This means that such investments may approach the 5-percent upper limit within a few years. Moreover, the Bank notes, in its 2014 annual report for the GPFG, that it has created a separate real estate leader group, and that its real estate organisation will be expanded and developed. It is stated in the strategy plan for 2014–2016 that a significantly larger organisation will be needed going forward, and that the number of employees in real estate management is expected to grow to 200 during the strategy period.

Norges Bank makes use of subsidiaries when investing in real estate, in order to clarify and limit the liabilities of the Bank and the Fund in relation to individual property investments. This is in line with established market practice and supports the Bank's objective of safeguarding the financial inter-

ests of the Fund through adequate risk management. By establishing subsidiaries, financial liability is limited to the capital of the subsidiary.

The mandate for the GPFG calls on Norges Bank to seek the maximum possible return, net of costs. Tax can be an important cost component in some cases. Norges Bank notes, in its annual report on the management of the GPFG in 2011, that it is important for the investments to be taxed correctly in compliance with local regulations, but also to ensure that the Fund is not charged with higher tax costs than necessary, cf. the discussion in Report No. 16 (2007–2008) to the Storting – The Management of the Government Pension Fund in 2007.

Norges Bank has established subsidiaries in Luxembourg to consolidate the operational and administrative management of the real estate investments in Continental Europe, cf. the discussion in Report No. 17 (2011–2012) to the Storting – The Management of the Government Pension Fund in 2011. Norges Bank has established subsidiaries in Delaware for the US real estate investments, cf. Report No. 19 (2013–2014) to the Storting – The Management of the Government Pension Fund in 2013. These jurisdictions have been chosen on the basis of a number of considerations, such as predictable and robust legal frameworks, as well as their general use amongst international institutional investors. Local tax legislation and bilateral tax treaties are also important in this context.

The agreements and corporate documents established by the Bank ensure access to relevant information about the subsidiaries for the Supervisory Council, the internal audit unit of the Bank and the external auditor of the Bank.

Norges Bank has previously recommended that up to 10 percent of the GPFG be invested in real estate and infrastructure, cf. letter of 20 October 2006. However, the mandate set by the Ministry for the management of the GPFG does not permit unlisted infrastructure investments. This distinguishes the GPFG from other comparable funds. A survey of large comparable funds from the analysis firm CEM Benchmarking shows that the portions invested in unlisted infrastructure and real estate in 2013 were 3 percent and 8 percent, respectively. Unlisted infrastructure investments are made within areas like transportation, energy distribution, water supply, sewage systems, waste handling, telecommunications and government buildings. The infrastructure market encompasses, inter alia, investment opportunities within renewable energy,

such as solar farms, wind farms and hydropower. Section 2.6 discusses renewable energy investments in the GPFG.

Investments in unlisted infrastructure were examined in Report No. 15 (2010–2011) to the Storting – The Management of the Government Pension Fund in 2010. The Ministry noted that there are certain similarities between real estate investments and infrastructure investments. It was also emphasised that the Ministry and Norges Bank are in the process of accumulating experience from investments in the largest and most developed unlisted market; the real estate market. The Ministry did not permit infrastructure investments on the basis of the said report. The Ministry noted that distinctive characteristics of the GPFG made it appropriate to revert to the matter of unlisted infrastructure at a later stage. The Ministry stated the following:

“The markets for private equity and infrastructure are developing. A new review will be able to build on new research results and more detailed assessments of what can be achieved by exploiting the Fund’s size and long-term nature. The experience which is now being gained through investments in private property investments will also be relevant.”

The Ministry reviewed Norges Bank’s management of the GPFG in Report No. 19 (2013–2014) to the Storting – The Management of the Government Pension Fund in 2013. The purpose was to examine whether changes to the mandate of Norges Bank can improve the ratio between risk and return compared to that of the benchmark index established by the Ministry. The Ministry obtained analyses and advice from Norges Bank and a group of recognised experts (Ang, Brandt and Denison). Both Norges Bank and the experts recommended changes to the manner in which real estate investments and other potential unlisted investments are regulated in the mandate for the management of the GPFG.

Norges Bank noted, in a letter of 31 January 2014 to the Ministry, that the current return measure for the real estate portfolio; the so-called IPD index, suffers a number of shortcomings, as do other indices for private investment. The Bank noted, inter alia, that:

“The composition of the index does not necessarily reflect investment opportunities, but will depend on which owners choose to report return data to the index supplier. The index is

not replicable. It will not be possible for the individual investor to buy a small share of all of the properties included in the index. Our experience is also that the IPD index is ill-suited as an instrument in our public communication of the results of our management of the Fund’s real estate investments.”

The Bank proposed that the GPFG as a whole be managed against a benchmark index for listed equities and bonds, and that the Bank defines a return measure for the real estate investments. Moreover, it was proposed that the real estate investments be included in the basis for calculating the limit on deviations from the benchmark index as measured by expected tracking error, and that such limit be increased from 1 to 2 percentage points.

Ang, Brandt and Denison proposed, in their report, a so-called opportunity cost model. Such a model is also used by other large funds, including the Canadian pension fund CPPIB and the Singaporean sovereign wealth fund GIC. This model would imply that there is no longer any fixed portion of the capital earmarked for investment in real estate and other unlisted markets. It will be delegated to the asset manager to consider whether such investments would, in each individual case, serve to improve the ratio between risk and return in the GPFG. If the risk associated with unlisted investments differs from that of the benchmark index, the Bank may manage the risk by changing the composition of the equity and fixed-income investments, with the result that overall market risk is not changed significantly. Consequently, unlisted investments will under the opportunity cost model be compared to the opportunity return from investing, with corresponding risk, in listed equities and bonds. The experts recommend that the scope of Norges Bank for taking significantly more or less market risk than the benchmark index be curtailed through a tracking error limit. The report from the experts identifies several advantages of such a model, including that it can be applied across asset classes, and that the asset manager is better placed to exploit special characteristics of the Fund, as well as developed advantages. Special characteristics refer to the structural qualities of the Fund, such as its size and investment horizon. Developed advantages include expertise and infrastructure developed over time on the part of the asset manager.

At the same time, it is noted in the report from Ang, Brandt and Denison that the said opportunity cost model is challenging to implement in

practice, and that a clear and sound governance structure is a prerequisite. The group nonetheless believes that the Fund is well placed to implement such model in a sound manner. The report does not address the details of how such model should be introduced in practice. The Ministry discussed the proposals in last year's report to the Storting, and stated that the Ministry will be assessing the received advice in more detail.

### **2.3.2 Review of real estate investments and infrastructure**

In December 2014, the Ministry announced that it will be reviewing whether to change the cap on real estate investments and whether to permit the Fund to invest in unlisted infrastructure. The purpose of such review is to examine how investments in real estate and infrastructure may serve to improve the ratio between risk and return in the GPFG, as well as how the Ministry may best regulate such investments in the mandate to Norges Bank. The Ministry has requested analyses and assessments from an expert group and from Norges Bank. The composition and mandate of the expert group will be announced on the Ministry's website.

The Ministry aims to address the recommendations from Norges Bank and the expert group in the report on the management of the Government Pension Fund to be published in the spring of 2016.

In the event that unlisted infrastructure investments are allowed on a general basis, unlisted infrastructure investments in renewable energy and emerging markets will also become part of the investment universe for the GPFG. The analyses and assessments of the expert group and Norges Bank shall address investments in such markets. The underlying premise shall be that such investments are subject to the same requirements as apply to other investments in the GPFG.

## **2.4 The rebalancing rule of the equity portion**

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### **2.4.1 Introduction**

The long-term investment strategy of the Ministry of Finance for the GPFG specifies a strategic benchmark index with a fixed equity portion of 60 percent. Market fluctuations result in the equity portion of the actual benchmark index deviating from the strategic weight of 60 percent. An increase in equity prices relative to bond prices

will, for example, result in an increase in the equity portion of the actual benchmark index. A higher or lower equity portion will alter the risk and return characteristics of the Fund compared to that of an equity portion of 60 percent. There will, at the same time, be transaction costs associated with maintaining the equity portion of the benchmark index at precisely 60 percent at any given time. The Ministry has therefore chosen a rebalancing rule of the equity portion of the benchmark index that permits the equity portion to fluctuate somewhat around 60 percent. An equity portion of the benchmark index of more than 64 percent or less than 56 percent, triggers a rebalancing to 60 percent. The rebalancing rule of the equity portion has previously been discussed in Report No. 17 (2011–2012) to the Storting – The management of the Government Pension Fund in 2011, the National Budget for 2013 and Report No. 19 (2013–2014) to the Storting – The management of the Government Pension Fund in 2013.

When the equity portion of the benchmark index deviates by four percentage points or more at a given point in time, it will in practice not be possible for Norges Bank to adjust the portfolio of the Fund in the same manner as the index in a cost-effective manner. Norges Bank has in a letter of 25 February 2015 noted that it will take more time on the adjustment of the equity portion of the Fund than on the rebalancing of the benchmark index, in order to ensure cost-effective adjustment.

The deviations between the portfolio and the benchmark index draw on the limit for expected tracking error. Consequently, the Bank needs to retain part of its scope for deviations from the benchmark index for future rebalancing. A moderate limit on deviations may also result in Norges Bank having to rebalance the actual portfolio at a different pace from that deemed appropriate by the Bank on the basis of considerations relating to cost-effective adjustment. Market situations may also arise, in which Norges Bank is unable to keep expected tracking error within the limit upon rebalancing.

### **2.4.2 The Ministry's previous assessments**

In Report No. 19 (2013–2014) to the Storting, the Ministry discussed how the rebalancing regime may be modified to accommodate the fact that rebalancing can have a major impact on expected tracking error. The Ministry considered, inter alia, whether the limit on expected tracking error could be increased to reflect that rebalancing



draws, to a varying degree, on the limit. However, the Ministry concluded that the limit would in such case have to be increased considerably to accommodate rebalancing during periods of major market turbulence, and that such a solution was therefore not appropriate.

The Ministry also discussed whether one should modify the manner in which the equity portion of the benchmark index is rebalanced, such as to align the adjustment of the index more closely with Norges Bank's rebalancing of the actual portfolio. However, it was noted that transparency considerations were an argument against such a solution.

The Ministry instead proposed to exclude changes in expected tracking error as the result of rebalancing from the limit on expected tracking error. The Ministry stated that such an amendment was conditional upon detailed reporting from Norges Bank on the effects of rebalancing on tracking error and excess return.

The Standing Committee on Finance and Economic Affairs emphasised, in its deliberation of the report, that such an amendment is conditional upon Norges Bank reporting in more detail on the impact on tracking error and excess return, thus enabling a more detailed assessment of the practical implications of such change, cf. Recommendation 200 (2013–2014) to the Storting.

### **2.4.3 Advice from Norges Bank**

At the end of September 2013, the equity portion of the actual benchmark index exceeded 64 per cent, and hence the equity portion of the benchmark index was rebalanced to 60 percent as at the end of the following month. Norges Bank has, in its letter of 25 February 2015, summarised its experience from the rebalancing in the autumn of 2013. The Bank notes that it took about four months to complete the rebalancing of the actual portfolio, and has calculated that the Fund saved about NOK 400 million in transaction costs than otherwise incurred had the adjustment been made over a period of five trading days. The Bank notes, at the same time, that these estimates are uncertain, and that the transaction costs will depend on the market situation at the time of the adjustment. The adjustment of the actual portfolio in the autumn of 2013 was carried out during a period of high liquidity in the financial markets. This served, when taken in isolation, to reduce the transaction costs.

Norges Bank states that the rebalancing was carried out in the same time period that several

other major changes were made to the actual benchmark index. These were changes both as the result of modifications to the investment strategy for the Fund, and changes resulting from decisions on the part of the index providers. Multiple simultaneous changes to the benchmark index make it difficult to isolate portfolio changes due specifically to rebalancing. This increases the uncertainty associated with the estimate of actual transaction costs and also makes it more challenging to report any excess return or loss due to the rebalancing.

The Bank further notes that the experience from the autumn of 2013 suggests that there is a need for adjusting the method for rebalancing the actual benchmark index. The Bank states that:

“The Fund has grown considerably since the current rebalancing rule was introduced in 2012, and the band for rebalancing is wider than originally recommended by the Bank. Given the current size of the Fund, each individual rebalancing could mean buying and selling securities for more than 500 billion kroner. The Bank will need to take its time if it is to adjust the portfolio cost-effectively. The Bank will be less able than before to rely on inflows of new capital to make the necessary adjustments. Lower inflows, both in absolute terms and relative to the Fund's market value, mean that most of the adjustment following a rebalancing will have to take the form of actual buying and selling of securities in the markets.”

Furthermore, Norges Bank indicates that the deviations arising between the actual benchmark index and the portfolio during periods when the Bank is adjusting to a new benchmark index may dominate the relative risk and the reported positive or negative excess return. Consequently, reported positive or negative excess return will not, according to Norges Bank, convey a correct impression of whether the Bank has executed such portfolio adjustments in a cost-effective manner.

In its letter, the Bank does not propose any changes to the conditions for initiating a rebalancing, but it proposes that the benchmark index be adjusted gradually such as to reduce the deviations between the actual portfolio and the index, and that the Ministry shall stipulate, based on advice from Norges Bank, specific provisions on the detailed implementation of such rebalancing.

Norges Bank believes that it should still remain public knowledge that rebalancing takes place when the equity portion in the benchmark index is higher than 64 percent or lower than 56 percent. Since the detailed provisions on the month-to-month rebalancing of the benchmark index will be closer to Norges Bank's actual portfolio adjustments, the Bank is of the view that such provisions should be exempt from public disclosure.

#### 2.4.4 The Ministry's assessments

The current provision on the rebalancing of the equity portion of the GPFG may, for a limited period of time, cause major deviations between the actual portfolio and the actual benchmark index in terms of the equity portion. This may result in high expected tracking error and high positive or negative excess return that do not necessarily convey a correct impression of how Norges Bank is executing its management mission.

As mentioned, the Ministry stated in Report No. 19 (2013–2014) to the Storting that it intended to exclude changes in expected tracking error as the result of rebalancing from the limit on expected tracking error. Such change was conditional upon Norges Bank reporting in more detail on the effects on excess return and tracking error. Norges Bank states in its letter of 25 February 2015 to the Ministry of Finance that its experience from the rebalancing in autumn 2013 is that it is difficult to isolate the effects on relative volatility (tracking error) and excess return from the Bank's other investment decisions. It is therefore the view of the Ministry that the condition for excluding rebalancing from the limit on tracking error has not been met. Consequently, the Ministry will, in line with the advice of Norges Bank, lay down provisions on a more gradual rebalancing of the equity portion in the benchmark index.

Detailed knowledge of how Norges Bank will rebalance the equity portion of the actual portfolio may be exploited by other market participants, which may impose costs on the Fund. The Ministry is of the view that significant weight should be attached to this consideration, and that the detailed provisions on the rebalancing of the actual benchmark index should therefore be exempt from public disclosure.

The Ministry is of the view that the desire for a high degree of transparency regarding the rebalancing rules will nonetheless be accommodated,

since, *inter alia*, the conditions for initiating a rebalancing are specified in the mandate to Norges Bank, which is made public.

## 2.5 Long-term projections of the real value of the Government Pension Fund Global

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### 2.5.1 Introduction

The Ministry presented estimates of the long-term real return, risk (volatility) and correlation of global equity, bond and real estate portfolios in report No. 10 (2009–2010) to the Storting – The management of the Government Pension Fund in 2009. These estimates are discussed in several subsequent reports to the Storting, most recently in Report No. 27 (2012–2013) to the Storting – The management of the Government Pension Fund in 2012.

The fiscal policy guideline implies that petroleum revenue spending via the fiscal budget shall be phased in gradually over time, more or less in line with developments in the expected real return on the GPFG. It is a guideline for the spending of government petroleum revenues over many decades. The Ministry's risk and return estimates are, in line with this, intended to cover a period long enough to include several financial market upturns and downturns. The expected real return on the GPFG is estimated at about 4 percent in such a long-term perspective. Short-term financial market prospects may deviate significantly from the long-term expectations.

The long-term estimates are used to analyse developments in the future real value of the GPFG, as well as the uncertainty associated with these estimates. Such analyses were last presented in Report No. 27 (2012–2013) to the Storting, where a five-year horizon was chosen to illustrate the risk of major fluctuations in the value of the Fund over short time periods. The Ministry has also presented corresponding calculations for longer time periods, cf. Report No. 15 (2010–2011) to the Storting – The management of the Government Pension Fund in 2010.

The return, risk and correlation estimates are also used to calculate the expected net inflow of petroleum revenues to the Fund. By net inflow is meant the difference between net government cash flows from petroleum activities, which are transferred to the GPFG, and the transfer from the Fund to the fiscal budget to cover the non-oil deficit. Net inflow calculations were last presented in Report No. 15 (2010–2011) to the Storting.

This section presents updated real value and net inflow projections for the GPFG. The analyses are based on the size of the Fund at yearend 2014 and estimated net government cash flows from petroleum activities. The expected return and risk estimates have not been changed from before, but emphasis is on illustrating how expected value and net inflow developments are affected by alternative assumptions concerning expected return and petroleum revenue spending via the fiscal budget. Alternative assumptions used for the expected real return on the GPFG are 1 percentage point higher or lower than the long-term expectation of about 4 percent real return on the GPFG. Corresponding calculations are presented in which annual transfers from the Fund to the fiscal budget are 1 percentage point higher or lower than 4 percent.

### 2.5.2 Method of analysis

The calculations of expected developments in the real value of, and net inflows to, the GPFG are based on a simulation model discussed in more detail in previous reports to the Storting on the management of the Government Pension Fund.<sup>4</sup> Developments in the real value of the Fund over time are calculated by way of so-called Monte Carlo simulations. Such simulations involve generating a large number of paths that the value of the Fund may potentially follow, based on given probability distributions. The sample distribution provides information about the expected value and the uncertainty associated with such expectation. The model used by the Ministry is based on known stochastic pricing processes for financial assets, which also allow for deviations from the normal distribution through so-called stochastic volatility and mean reversion. Such model projections provide a more realistic description of probable outcomes than simpler models based on the normal distribution.

The simulations are made on the basis of the equity and fixed-income benchmarks of the GPFG and the current rebalancing rule for the equity portion of 60 percent. The benchmark indices are simulated in local currency, and converted to a common currency, which is Norwegian kroner. Norwegian kroner exchange rates are simulated separately by way of stochastic pricing processes.

<sup>4</sup> Report No. 24 (2006–2007) to the Storting – The Management of the Government Pension Fund in 2006 and Report No. 16 (2007–2008) to the Storting – The Management of the Government Pension Fund in 2007.

Consequently, the model takes account of fluctuations in exchange rates between Norwegian kroner and various currencies in which the Fund holds investments.

Return contributions from real estate investments or from deviations from the benchmark index have not been modelled.

The value of the Fund is simulated on the basis of its value of NOK 6,431 billion at the end of 2014, and for a 10-year period until the end of 2024.

Net inflow to the Fund is determined by estimated net government cash flow from petroleum activities, less 4 percent of the value of the Fund as at the end of the previous year. The net government cash flow from petroleum activities is estimated on the assumption of a long-term oil price of about 70 dollars per barrel. Oil and gas price uncertainty is not taken into account.

### 2.5.3 Outcomes under standard assumptions

Figure 2.6A shows real value projections for the GPFG until the end of 2024, measured in NOK billion at 2015 prices, under the standard assumptions of 4 percent expected real return and 4 percent spending. The expected path (median value) is shown as a solid black line. The real value of the Fund is estimated to increase to about NOK 9,100 billion at yearend 2024. The grey and blue fan-shaped areas show the 68-percent and 95-percent confidence intervals, respectively, which under the given assumptions express the probability that the real value will fall within these intervals. The figure shows that there is considerable uncertainty as to the size of the Fund a decade from now. However, there is a high probability that the real value of the Fund will increase. The probability that the real value of the Fund in 2024 will be higher than its value as at the end of 2014 is estimated at about 88 percent in the model.

Figure 2.6B shows that net inflow to the Fund is expected to decline rapidly when measured as a percentage of fund value.<sup>5</sup> The expected path (the median) is indicated as a solid black line, whilst the coloured areas show 68-percent (grey) and 95-percent (blue) confidence intervals. Net inflow as a percentage of the Fund was about 0.5 percent as at yearend 2014, and is here estimated to turn negative from 2016 onwards. This means that net government cash flow from petroleum activities is in this calculation expected to be less than the transfers to the fiscal budget, thus resulting in net transfers from the Fund to the fiscal budget. The

<sup>5</sup> Value of the Fund at the beginning of the year.

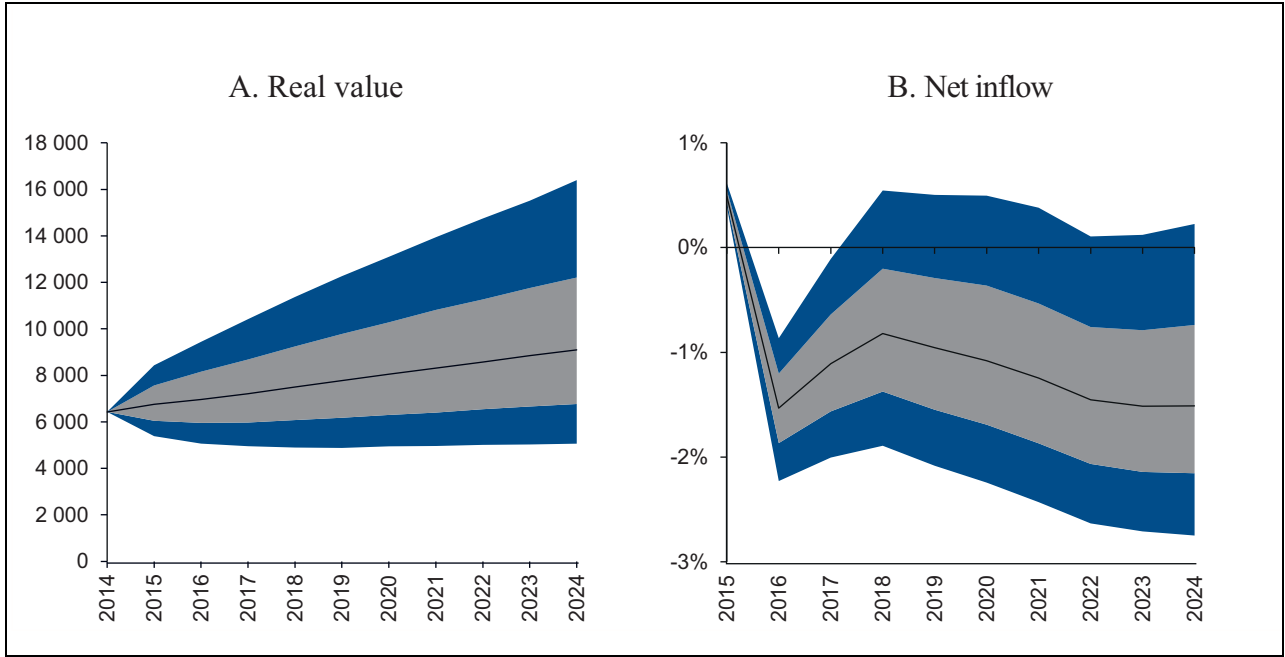


Figure 2.6 Simulated real value (NOK billion at 2015 prices) and expected net inflow for the GPFG (as a percentage of the value of the Fund), under standard assumptions<sup>1</sup>

<sup>1</sup> The expected value is indicated as a solid black line. The grey and blue fans show 68- and 95-percent confidence intervals, respectively.

Source: Ministry of Finance.

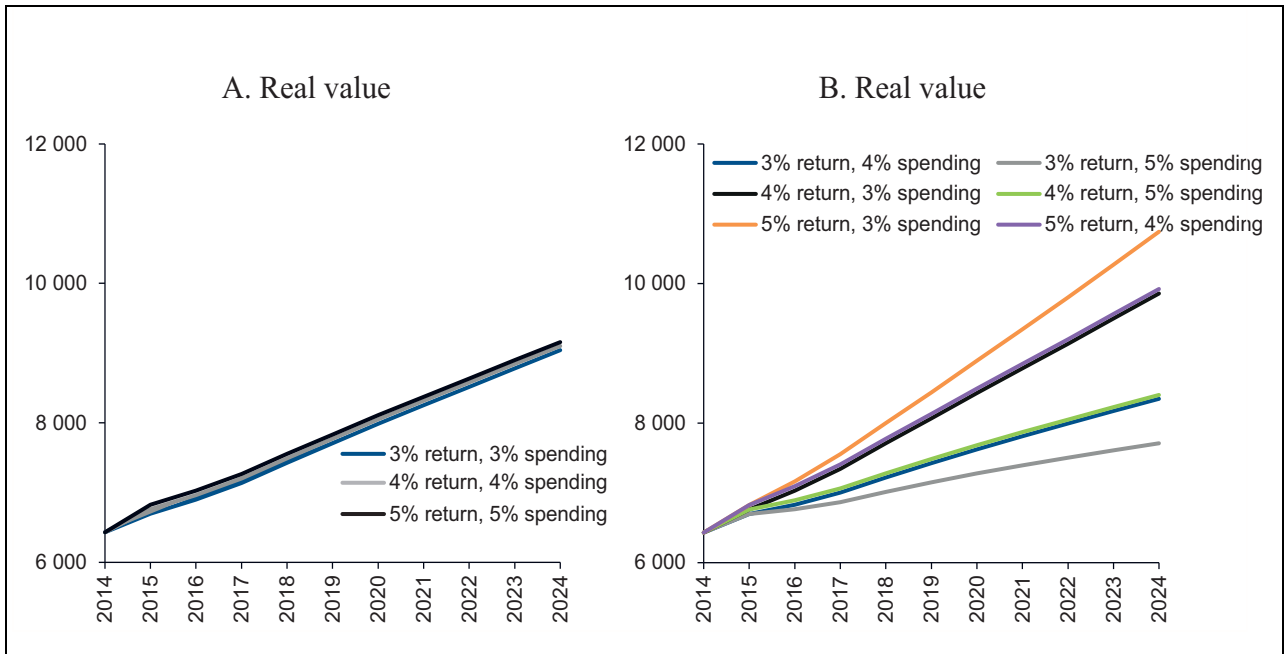


Figure 2.7 Simulated real value (NOK billion at 2015 prices) under standard and alternative assumptions. Expected paths (median values)

Source: Ministry of Finance.

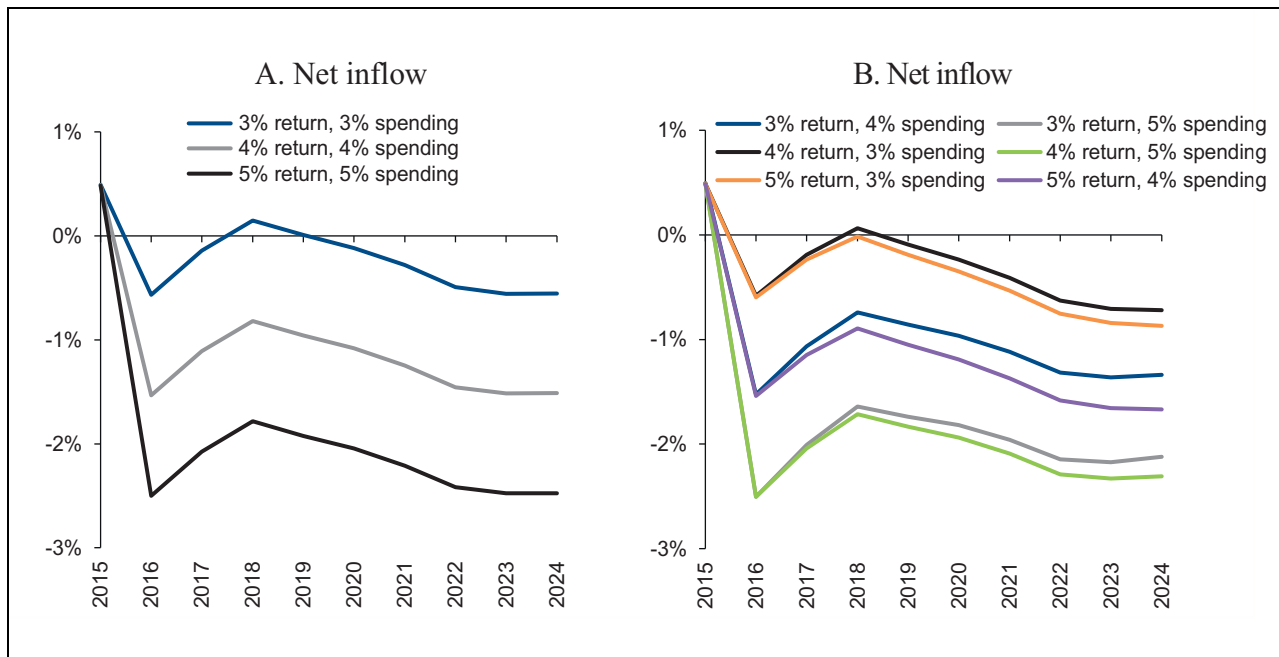


Figure 2.8 Simulated net inflows to the GPFG (percentage of the value of the Fund), under standard and alternative assumptions. Expected paths (median values)

Source: Ministry of Finance.

figure shows that the calculated uncertainty around this expected path grows over time, to reach about 1.5 percentage points in 2024 (the distance between the expected path and the 95-percent confidence interval). There is nonetheless a high probability (about 96 percent) that net inflow will be negative in 2024. However, the expected net outflow is less than the expected real return (about 4 percent). Consequently, the real value of the Fund is expected to increase over the next 10 years, cf. figure 2.6A.

#### 2.5.4 Outcomes under alternative assumptions

Figures 2.7A and 2.7B show the expected paths (median values) for the real value of the GPFG 10 years into the future under alternative assumptions as to expected real return (3 percent or 5 percent) and spending via the fiscal budget (3 percent or 5 percent). The expected path under standard assumptions as described above is also shown (4 percent real return and 4 percent spending via the fiscal budget). The confidence intervals or fans illustrating uncertainty have been omitted to simplify the figures. Their width is about the same as in figure 2.6A.

The figures show that the strongest real value growth will be achieved under the assumption combining a 5 percent expected real return with

spending at 3 percent. The weakest performance results when assuming a 3 percent real return and spending at 5 percent. The standard assumptions of 4 percent real return and spending result in an expected real value between these extremes. The figure also illustrates that when spending via the fiscal budget is set at the same level as expected real return, the expected real value of the Fund is about the same irrespective of whether the expected real return on the Fund is 3, 4, or 5 percent. If, on the other hand, spending is 1 percentage point higher than the expected real return, the expected real value of the Fund is reduced by about 8 percent after ten years.

Figures 2.8A and 2.8B show expected (median) net inflow to the GPFG 10 years into the future, as a percentage of the value of the Fund, under the same alternative assumptions as to expected real return (3 percent or 5 percent) and spending via the fiscal budget (3 percent or 5 percent). The expected path under standard assumptions is also shown. The largest expected net outflow as a percentage of the value of the Fund is registered in the scenario of 5 percent expected real return and 5 percent spending, but the other 5 percent spending paths come close. The smallest expected net outflow is registered in the scenario of 3 percent expected real return and 3 percent spending, but all 3 percent spending paths track each other closely.

## 2.6 Renewable energy investments

### 2.6.1 Introduction

In 2009, it was decided to establish specific environment-related investment mandates in the GPFG within a range of NOK 20-30 billion. An expansion of the renewable energy investments by increasing the range of the environment-related investment mandates to NOK 30–50 billion was proposed in Report No. 19 (2013–2014) to the Storting – The management of the Government Pension Fund in 2013. This was endorsed by the Storting, and the expanded allocation for these mandates was included in the management mandate for the GPFG with effect from 1 January 2015.<sup>6</sup>

The management of the environment-related investment mandates is subject to the same risk and return requirements as the other investments of the Fund. This implies that the mandates are measured against the benchmark index adopted by the Ministry and draw on the limit on deviations from the benchmark index, as measured by expected tracking error. As at yearend 2014, the investments predominantly comprised listed equities, including companies engaged in renewable energy. In addition, there was a minor holding of so-called green bonds. The market for such bonds, where loans are earmarked for climate-friendly projects in various ways, is in a development phase.

The environment-related investment mandates have delivered an average annual return of about 3.2 percent since the end of 2009.

The Ministry stated in Report No. 19 (2013–2014) to the Storting that it would initiate an assessment of the effects of further expansion of the investments within renewable energy, and that such assessments would be based on these investments being subject to the same asset management requirements as the other investments of the GPFG.

The Ministry noted, in a letter of 24 June 2014 to Norges Bank, that it wanted to examine the prospects for implementing a potential increase in renewable energy investments within the existing programme for environment-related investment mandates. The Ministry requested the Bank to assess, to that end, the effects on expected

return and risk from a further increase in the scale of the environment-related investment mandates, as well as from a potential renewable energy focus within the existing mandates. Furthermore, the Bank was requested to evaluate implications in terms of the ownership stakes and the costs of the Fund, as well as to comment on the importance of the mandates in terms of the capital cost or capital access of companies.

### 2.6.2 Advice from Norges Bank

Norges Bank states in a letter of 21 November 2014 to the Ministry that the requirement to establish environment-related investment mandates means that the Ministry is restricting the Bank's use of the freedom it has been given in the execution of its management of the GPFG. The Bank notes that concentration of these mandates on the renewable energy sector would impose even greater restrictions.

Norges Bank goes on to state that the environment-related mandates are currently concentrated in parts of the stock market that may be well-suited for active management. The Bank states, at the same time, that:

“The expected excess return from our stock selection will nevertheless be small in comparison to the potential effect on returns of increased investment in environment-related companies.”

It is noted, moreover, that this is a return risk the Bank is mandated to accept. Norges Bank endorses the assessment of Ang et al. (2014)<sup>7</sup> that restrictions of this kind may not be associated with long-run excess return. Norges Bank notes that the return on stocks covered by the environment-related mandates has fluctuated more than, and differently to, the return on the Fund's wider equity portfolio. The Bank states that although the sector is more mature now than when the mandates were first established in 2009, technology risk and the risk of changes in the regulatory framework (direct subsidies, tax incentives, regulations, etc.) could result in major variations in future returns. It is therefore concluded in the letter that these investments must be expected to increase the market risk in the Fund, and that this applies particularly if the mandates are concen-

<sup>6</sup> Section 2–4 of the mandate for the management of the GPFG is currently worded as follows: “The Bank shall establish environment-related mandates within the limits defined in section 3–5. The market value of the environment-related investments shall normally be in the range of NOK 30–50 billion.”

<sup>7</sup> Report from A. Ang, M. Brandt and D. Denison to the Ministry of Finance: “Review of the Active Management of the Norwegian Government Pension Fund Global”, 2014.

trated on the renewable energy sector, which has been especially volatile in recent years.

The calculations of Norges Bank show that an allocation of NOK 50 billion for environment-related mandates could on average lay claim to around 0.1 percentage point of the 1.0 percentage point limit for relative volatility. If the NOK 50 billion allocation is concentrated in the renewable energy sector, it is estimated that the environment-related mandates will on average lay claim to around 0.2 percentage points of the limit. This portion could be higher during periods of high equity price volatility.

Increased investments in environment-related companies will result, other things being equal, in ownership shares in these companies that are higher than the average ownership share in other companies. A NOK 50 billion allocation to pure-play environmental companies is estimated by Norges Bank to increase the average ownership share in these companies by 1.8 percentage points. Pure-play environmental companies are defined by the index provider FTSE<sup>8</sup> as companies that can attribute more than 50 percent of their business to environment-related activities. If the investments were to be concentrated on pure-play listed renewable energy companies, the average ownership share in such companies is estimated to increase by 6.8 percentage points.

Norges Bank's estimates of the effects on expected return, risk and ownership share assume that the entire NOK 50 billion is invested in listed equities. The Bank states that if part of the allocation is instead invested in green bonds, this would reduce the market risk and the relative risk.

Green bonds are issued both by international organisations<sup>9</sup>, such as for example the World Bank and the European Investment Bank, and by individual companies. Green bonds issued by international organisations often carry a high credit rating (AAA), and a major part of these bonds fund renewable energy projects.<sup>10</sup> The market for green bonds is expanding rapidly, but still represents a small fraction of the overall bond market.<sup>11</sup> Institutional investors with an intention to hold the bonds until maturity dominate this market. This may mean less availability of such

bonds in the secondary market. Consequently, opportunities for developing a green bond portfolio may largely be limited to new bond issues. Norges Bank states in its letter that the proportion of bonds in the environment-related mandates in the early years will therefore be relatively modest.

Norges Bank assumes that a relatively large proportion of the capital allocated to the environment-related mandates will be managed externally. The Bank states that this means that their management will be more expensive than the management of other capital in the Fund, and refers to its letter of 12 March 2014 to the Ministry in which historical management costs for the external environment-related mandates were estimated at about 80 basis points on average. About 40 percent of the environment-related equity investments were managed externally as at year-end 2014. The Bank notes that expanded investment in small and illiquid companies could also result in somewhat higher transaction costs than are normal for the Fund.

Norges Bank notes that the market for listed equities and green bonds within the renewable energy sector currently accounts for a relatively small part of the universe for new investments in renewable energy. The Bank observes that most new investments are in the form of project finance, and that these projects are mainly unlisted infrastructure projects funded through a combination of equity and loans.

Norges Bank is of the opinion that there is little reason to expect an increase in the Fund's renewable energy investments to have major effects on companies' capital costs as long as such investments are made in well-functioning, liquid markets. It is the experience of the Bank that listed companies in the renewable energy sector currently have neither greater nor lesser problems sourcing new capital than comparable companies in other sectors. It is also uncertain whether Norges Bank's green bond investments in the primary market will supplement or replace other types of bonds.

Norges Bank states, furthermore, that if the investments of the Fund in listed renewable energy companies and green bonds become extensive and other investors choose to follow suit, this may over time lead to segmentation of the market. The Bank

<sup>8</sup> FTSE is the index provider for several of the environmental indices used in Norges Bank's assessment of listed companies engaged in environment-related activities.

<sup>9</sup> The government sub-index of the fixed-income benchmark for the GPFG includes a small number of green bonds, issued by international organisations.

<sup>10</sup> Bloomberg New Energy Finance: "Green Bonds Market Outlook 2014", 2 June 2014.

<sup>11</sup> According to the Climate Bonds Initiative, green bonds in an amount of about USD 36 billion were issued in 2014, up from USD 11 billion in 2013. The forecast of the Climate Bonds Initiative for issuances in 2015 is USD 100 billion.

is of the view that such segmentation could give reason to expect a lower cost of capital for these companies and a lower expected return on investments in such equities and bonds.

Norges Bank notes in its letter that any contributions to the environment from the environment-related mandates are difficult to gauge, and makes the observation that it is challenging to isolate the effect of increased investments by the Bank.

Norges Bank states that it aims to report on the environment-related investment mandates as a separate allocation, and to specify risk and return separately.

### **2.6.3 The Ministry's assessments**

The overarching objective for the investments of the Fund is to achieve the maximum possible return given a moderate level of risk. The Fund shall, within its role of financial investor, pursue a responsible investment practice that promotes corporate governance and takes environmental and social considerations into account.

The GPFG holds a small portion of global equity and bond markets. In addition, the Fund will over time be holding a global real estate portfolio. The investments have been selected under reference to the objective of the maximum possible return, given a moderate level of risk. By holding a small portion of virtually the "entire" market, the Fund is also investing in the necessary restructuring of global energy use and energy supply.

The current investment strategy for the GPFG entails significant investments in environment-related activities. Investments in environment-related companies, including renewable energy companies, will generally speaking be expanded if there is an increase in the portion of global stock markets accounted for by such companies. About 6 percent of the value of the equity benchmark for the Fund, corresponding to NOK 240 billion as at yearend 2014, comprises companies with more than 20 percent of their earnings originating from environment-related activities.<sup>12</sup>

A specific allocation has been made for environment-related investment mandates, which were recently expanded to NOK 30-50 billion. The total

market value of the environment-related equity mandates was NOK 42 billion at yearend 2014, an increase from just over NOK 31 billion at yearend 2013. It follows from Norges Bank's strategy plan for 2014–2016 that it intends to expand the investments under the environment-related mandates to about NOK 50 billion over the said period. Norges Bank states in its responsible investment report of 5 February this year that it is looking, in particular, at companies that offer energy solutions with low emissions or alternative fuels, energy efficiency and natural resource management.

The Ministry has noted that Norges Bank is of the view that further increasing the scale of environment-related investment mandates will increase the risk in the Fund, as measured by the volatility of returns on the Fund, and that the increase in risk may be especially pronounced if the investments are concentrated on listed equities in the renewable energy sector. At the same time, the risk associated with renewable energy investments will be influenced by future developments in this market.

The mandate for the management of the GPFG allows Norges Bank to make investments that deviate from the benchmark index within certain limits. Restrictions on the Bank's asset management will, when taken in isolation, limit the scope for generating excess return. This is also made clear in Norges Bank's letter of 21 November 2014, in which it is noted that any concentration of the mandates on the renewable energy sector will even further restrict the Bank's execution of its management mission. Norges Bank also emphasises that such potential concentration will imply a distinct increase in the average ownership share in companies in this sector, which reflects the limited size of the listed market for such companies. The Ministry notes that the management mandate for the GPFG caps ownership at 10 percent of the voting shares of any individual company.

The definition of an environment-related company is not unambiguous, and must to some extent be based on discretionary assessments. This is clearly illustrated by the variation in the composition of environmental indices available from different index providers, cf. the enclosure to Norges Bank's letter. At the same time, the indices do not necessarily encompass the full range of investment opportunities in listed environment-related companies.

The green bond market has been growing in recent years. Norges Bank is of the view that green bond investments may reduce the market

<sup>12</sup> Companies with at least 20 percent of their business attributed to environment-related activities meet the environmental requirements in the FTSE Environmental Opportunities All-Share Index. This is a recognised environmental index prepared by the index provider FTSE in cooperation with Impax Asset Management. The index is described in Norges Bank's letter of 21 November 2014 to the Ministry.



risk in the environment-related investment mandates, provided that such investments are focused on investment grade bonds. Norges Bank is currently able to invest in such bonds within the fixed-income portfolio in general and under the environment-related mandates in particular. Green bonds satisfying the requirements of the index provider are also included in the regular fixed-income benchmark. The Bank established a separate mandate for green bond investment in 2014.

The Ministry notes that Norges Bank has considerable scope for investing in renewable energy under the environment-related mandates. Renewable energy was the single largest sector amongst the investments of the Fund under the environment-related mandates as at yearend 2014. Moreover, investments in environment-related companies, including renewable energy, are not limited to the established environment-related mandates.

Norges Bank emphasises, in its letter, that the majority of renewable energy investment opportunities falls outside the investment universe of the Fund as it is currently defined. This has to do with most new renewable energy investments taking place in the form of project finance, principally as unlisted infrastructure projects funded through a combination of equity and debt. The Ministry refers, in this context, to the review initiated into whether unlisted infrastructure investments should be permitted in the GPF, cf. the discussion in section 2.3. In the event that unlisted infrastructure investments are allowed on a general basis, investments in unlisted infrastructure for renewable energy will also become part of the investment universe for the GPF.

The Ministry is of the view, based on an overall assessment, that Norges Bank's management of the environment-related investment mandates should not be subjected to restrictions in the form of a concentration on renewable energy. However, the Ministry proposes an increase in the general allocation for these investment mandates, from NOK 30-50 billion to NOK 30-60 billion. The investments shall be subject to the same risk and return requirements as the other investments of the Fund. The Ministry has noted that Norges Bank intends to report on the environment-related investment mandates as a separate allocation, and to specify risk and return separately.

## **2.7 Investments in coal and petroleum companies, and related policy tools**

### **2.7.1 Introduction**

On 4 April 2014, the Ministry of Finance appointed an expert group to assess the GPF's use of exclusions and ownership strategies in coal and petroleum companies.

The mandate referred to Recommendation No. 141 (2013–2014) to the Storting, as well as to the Storting's deliberation of such Recommendation. The expert group was requested to evaluate whether the exclusion of coal and petroleum companies is a more effective strategy for addressing climate issues and promoting future change than the exercise of ownership rights and exertion of influence. The group was also requested to advise on possible criteria for exclusion of these types of companies.

Martin Skancke, MSc (Econ), chaired the group. The other group members were Professor Elroy Dimson (London Business School), Professor Michael Hoel (University of Oslo), Dr Magdalena Kettis (Global Child Forum), Dr juris Gro Nystuen (International Law and Policy Institute) and Professor Laura Starks (University of Texas).

The expert group held individual meetings with Norges Bank, the Council on Ethics and Folketrygdofondet, as well as with experts on climate change, economics and finance. In June 2014, the group convened an open meeting with external stakeholders to get their input. Some follow-up meetings were held in August 2014. Written input received at these meetings is available on the Ministry's website.

The group submitted its report on 3 December 2014. The report was circulated for consultation on 17 December 2014, with a deadline of 6 February 2015 for submitting consultative comments. The Ministry has received 27 sets of consultative comments in total.

### **2.7.2 Key observations from the report of the expert group**

*The responsible investment strategy for the GPF*

The expert group discusses, in its report, developments in Norges Bank's active ownership, including key policy instruments and priorities, as well as the strategy as formulated in the Bank's strategy plan for the period 2014–2016. The expert group notes that Norges Bank has clearly stated

that the long-term return on the GPFG depends on sustainable development in economic, environmental and social terms, and that responsible investment and active ownership are accorded priority in the management of the GPFG. The expert group notes, *inter alia*, that climate change was established as a focus area for ownership activities in 2006, and refers to the preparation of a separate expectation document addressing how companies should manage risk associated with climate change.

The report reviews the Bank's preparation of sector compliance reports for the sectors in which company risk relating to climate change is considered to be highest, the development of international standards for company reporting on climate risk, and research collaboration within responsible investment. The expert group also refers to the portfolio adjustments based on analyses that seek to identify business models deemed to be unsustainable and unprofitable over time. Norges Bank's responsible investment report, which was published on 5 February this year, shows that the Bank divested its holdings in 114 companies based on such considerations over the period 2012–2014, *cf.* section 4.4.

The expert group also discusses the work of the Council on Ethics. The Council of Ethics has been given the task of monitoring the Fund portfolio for companies that might be in violation of the criteria in the Guidelines for Observation and Exclusion. The report describes, *inter alia*, the Council on Ethics' portfolio monitoring, its exclusion advice based on the conduct-based criterion of severe environmental damage, as well as its focus on specific environmental issues.

#### *Fossil fuel extraction, carbon risk and the Norwegian economy*

It is noted in the report from the expert group that the road to reduced global greenhouse gas emissions will be longer and less direct in the absence of a global tax or quota system with sufficiently high carbon prices. The group believes that today's carbon markets are incomplete and subject to market failure. Carbon prices are in most cases far below the levels needed for a path towards the so-called two-degree target. The group notes, at the same time, progress on several fronts. One example is that countries which have implemented or announced carbon pricing mechanisms account for about 20 percent of global emissions. The report also notes that the share of global emissions subject to some form of national

legislation or reduction strategy rose from 45 percent to 67 percent from 2007 to 2012.

The expert group uses the term "carbon price risk" to denote political risk relating to the probability of the emergence of international climate agreements or national policies in the absence of such agreements. The group observes that the timing and extent of agreements will largely determine when and which financial assets are affected. In addition to carbon price risk, investors' long-term expectations about developments in specific sectors will be influenced by considerable technological uncertainty. The expert group identifies a clear trend towards comprehensive climate legislation in a large part of the world and technological progress towards cheaper renewable energy and operational technology for carbon capture and storage (CCS). The report notes that these developments are already affecting the relative prices of fossil and non-fossil fuel sources.

The expert group notes, in its report, that extraction of all of the world's identified coal and petroleum reserves by way of current technologies is incompatible with the two-degree target. The term "stranded assets" is used in this context to denote coal, oil and gas that cannot be profitably extracted at carbon prices that are compatible with sustainable emission levels. The group refers, *inter alia*, to an analysis from Rystad Energy. The group is of the view that there is nothing inherently new about such stranded assets. The group notes that all businesses face various degrees of political and/or technological risk that can have a significant impact on the demand for, and thereby the value of, their products and facilities.

The report notes, furthermore, that recent years have seen more of a focus on climate change, and that significantly more information about company risk in relation to climate change has become available over time. The expert group does not find evidence to support the assertion that the market is not capable of pricing risk relating to stranded assets. Exclusion of a whole sector from the benchmark index based on assumptions about mispricing of risk is, in the view of the group, not compatible with a general investment strategy premised on the concept that financial markets price all other types of risk in a fairly efficient manner. The group believes that one should, as a result of this, expect the market prices of coal and petroleum companies to reflect an expected return that adequately compensates for investment risk. The group emphasises, at the same time, that the stranded assets debate is of importance to investors. To the extent that this is a topic

that should be incorporated into asset allocation decisions it is, in the assessment of the group, best done on a company-by-company level as part of an active management strategy. The potential for stranded assets and financial risk connected with them may, in the view of the group, also be usefully addressed through active ownership.

The group also raises the question of whether the importance of the petroleum sector for the Norwegian economy should have implications for the investment strategy of the GPF. It notes that a full analysis of this issue is not covered by the mandate and falls well outside the scope of the report. It notes, at the same time, that it would be useful to carry out further work on this issue. It proposes, in this context, several extensions to the Ministry's analyses of the role of oil and gas equities in the GPF, as presented in Report No. 19 (2013–2014) to the Storting – The management of the Government Pension Fund in 2013. The group is of the view that the proposed extensions may provide a more complete picture of the national wealth perspective and a more solid basis for discussing the role of petroleum producers in the Fund's portfolio, potentially also with a view to addressing the overall oil price risk for the Norwegian economy.

#### *Proposal for exclusion based on severe harm to the climate*

The group states that as access to energy is a key determinant of economic development worldwide, taking part in the global economic system also means contributing to climate change. It notes that a transition to a "low-carbon economy" will not happen overnight, and assumes that fossil energy sources will remain part of the energy mix for many decades to come, even in a scenario with sustainable emission levels within the two-degree target. The group believes, against this background, that fossil fuel companies' energy production, energy use or CO<sub>2</sub> emissions cannot per se be said to be contrary to generally accepted ethical norms. The group notes, in addition, that it is difficult to see how an all-encompassing criterion for the exclusion of fossil energy could be consistent with other Norwegian policies and commitments, including the government's own investments in both coal and petroleum extraction.

The group does not, against this background, propose a product-based criterion for the exclusion of all petroleum companies or all coal companies from the GPF. The expert group takes the

view that it would neither be better for the climate, nor for the Fund, if these equities were to be sold to other investors who, in all probability, have less ambitious ownership strategies than the GPF.

Furthermore, the expert group has considered whether there may be cases in which the conduct of companies might qualify for exclusion on an individual basis. The group notes that companies cannot be excluded for conduct related to greenhouse gas emissions under the Guidelines for Observation and Exclusion. This follows not from the wording of the guidelines themselves, but from the preparatory work. NOU 2003: 22 – Investments for the Future, specified that contributions to climate change should not be considered under the existing environmental criterion. Such specification was, inter alia, based on the requirement for a direct link between the conduct of a company and environmental damage, and the observation that such a link is difficult to establish for climate change. The group notes that it may be difficult to establish a direct causal link between the conduct of individual companies and climate change, but believes that there should nevertheless be an expectation that companies in the Fund's portfolio meet certain minimum standards with regard to how their business activities impact the climate.

The expert group recommends that the Guidelines for Observation and Exclusion be amended to include an additional criterion under severe environmental damage, authorising the exclusion of companies if there is an unacceptable risk that the company contributes to or is itself responsible for *"acts or omissions that, on an aggregate company level, are severely harmful to the climate."*

The expert group proposes that the interpretation and application of the criterion be left to the Council on Ethics, but recommends that the following elements be considered in that regard:

- An underlying basis for the existing exclusion mechanism is that it only targets the worst forms of conduct breaching fundamental ethical norms. The group is of the view that the threshold for excluding companies based on conduct with regard to greenhouse gas emissions should reflect this.
- In considering the severity of a breach of ethical norms in this area, the group holds that it seems reasonable to focus on emission intensity, not necessarily on absolute emissions.
- The group proposes that the Council on Ethics should under this new criterion apply a more holistic approach to company activities than has been the case for the application of other ethical criteria.

- It is noted that one specific issue for carbon emission relates to the location of emissions. Systems for curbing CO<sub>2</sub> emissions and limiting global climate change are based on the underlying supposition that activities in one area can be offset by activities in other areas, for example by the trading of quotas. The expert group notes that this is a fundamental difference from the suppositions underpinning the existing criteria on which the guidelines are premised.
- The group believes that the assessments of the Council on Ethics should remain forward-looking.
- Information that the company actively lobbies against international agreements aiming at reducing greenhouse gas emissions or otherwise hinders the development towards a global strategy on climate change could be one element in making such assessments.

The group notes that operationalization of such a criterion will require considerable resources and efforts on the part of the Council on Ethics, inasmuch as such analyses will most likely involve, inter alia, the Council on Ethics assessing companies' activities along several dimensions. It is also noted that increased communication with Norges Bank is likely to be needed.

The expert group states that the criterion it proposes is, in principle, not directed at specific sectors, and that it is irrelevant what sector the greenhouse gas emissions emanate from. However, the group expects the Council on Ethics to focus, for reasons of practicality, on companies within industry sectors characterised by significant absolute levels of emissions.

#### *Climate-related ownership strategies*

The expert group holds active ownership to be the primary policy instrument for handling risk relating to climate change. The group proposes that Norges Bank should principally strengthen its active ownership through further dialogue with the companies in which the Fund is invested, as well as with regulators, organisations and other investors. The group is of the view that this should take place within the current active ownership framework, which is premised on the Fund's role as a financial investor.

The group argues that active ownership is especially well-suited for addressing climate risk in the Fund's investments, not least in carbon-

intensive sectors. Active ownership may, in the view of the group, facilitate more transparency on the part of companies, including more realistic assessment of investment risk and more robust financial analyses. It may also, in the assessment of the group, prompt companies to identify more climate-friendly business models.

In order to strengthen existing climate-related active ownership, the expert group proposes that Norges Bank:

- Undertake analyses of the financial implications of climate change by, inter alia, drawing on the expertise of the Norwegian Finance Initiative (NFI). The group believes that research findings should be published so that these may also be of benefit to other investors.
- Engage with companies on the robustness of their analyses of new investments in fossil energy and their strategy for a transition to a low-carbon economy.
- Increase transparency about the criteria it uses to assess the sustainability of companies' business models.
- Within its role as a financial investor, support international efforts to establish a consensus on climate policy, including carbon pricing.
- Prepare a revised expectation document on climate risk for use in its enhanced active ownership. Progress in active ownership should be published in the annual reports on the management of the GPFG.
- Report on the Fund's exposure to climate risk, for example so-called carbon footprint and robustness in various climate scenarios.

#### *Synergies and spillover effects*

The expert group notes that it is reasonable to expect, in view of Norges Bank's new role as decision maker for the exclusion of companies from the GPFG under the Guidelines for Observation and Exclusion, that exclusion and active ownership from now on will work together in a more integrated manner. The group believes that such an integrated chain of tools is particularly appropriate in addressing a global problem like climate change, encompassing both financial and ethical aspects. The group emphasises that such approach requires proper coordination and information exchange between Norges Bank and the Council on Ethics to ensure that the Fund speaks with "one clear voice," and states that formal arrangements for the coordination of company dialogue should be established between Norges Bank and the Council on Ethics.

### *Exclusion and active ownership as climate policy instruments*

The expert group believes that maintaining the role of the Fund as a financial investor with financial objectives is important in its own right. The group believes that this is not just key to achieving a clear governance structure that fits the Fund's purpose, but also to avoiding developments towards using the Fund to address political ambitions that do not make it through the Storting's ordinary budget processes.

The expert group is of the view that it is not desirable for Norges Bank to strike a balance between climate considerations and the objective of achieving the maximum possible return, given a moderate level of risk. The group notes that it would be challenging to follow-up on such asset management in a good manner. The group observes that such trade-offs may result in investments that are not optimal from a financial perspective, and that it would be difficult to determine whether the asset manager performs well on either objective. The group emphasises, more generally, that it will in any case be unfortunate and ineffective to use the GPFG as a climate policy instrument beyond what is compatible with the Fund's financial objective.

The expert group argues that climate change is high on the agenda of investors, companies, other stakeholders and central policy makers alike. One may therefore, in the assessment of the group, hypothesise that active ownership could affect the climate positively over time. Norges Bank should, in the view of the group, prioritise measures considered most likely to affect Fund return, as well as company and industry behaviour.

Climate change and climate policies can, in the view of the group, have significant implications for the Fund's risk and return going forward. An active ownership strategy supplemented by an exclusion criterion can, in the assessment of the group, have a positive spillover effect on carbon emissions. The group emphasises that the primary purpose of the exclusion mechanism should remain to avoid investments in companies that are complicit in unethical activities, and that the primary purpose of active ownership should remain to safeguard the long-term financial performance of the Fund.

### **2.7.3 Consultative comments**

*Norges Bank* refers, in its consultative comments, to the amendments to the mandate for the management of the GPFG and the new Guidelines for

Observation and Exclusion, which entered into effect at the beginning of this year with the objective of establishing a unified chain of policy tools and a more integrated approach to responsible investment. Norges Bank assumes that any changes to the framework will pay heed to the said objective.

Norges Bank holds the recommendations in the report from the expert group to be in line with the asset management objective and the Fund's role as a financial investor. The Bank notes that active ownership and, more generally, responsible investment are in continuous development. In Norges Bank's responsible investment report for 2014, which was published on 5 February 2015, the Bank provided, for the first time, unified responsible investment reporting in a separate report. The integration of relevant climate change issues into the management of the GPFG is under development. Norges Bank will continue to integrate climate change considerations into asset management and to further evolve its analyses and processes in this area.

Norges Bank states, in its consultative comments, that the responsible investment strategy needs to be premised on the purpose and role of the Fund, and that this also applies to investments in coal and petroleum companies. It is noted that the purpose of the GPFG is government savings, and that its investments are aimed at maximising the international purchasing power of the fund assets, given a moderate level of risk.

Norges Bank aims to be a leading investor internationally in relation to responsible investment, including the handling of climate issues. The Bank believes that climate issues are of relevance to asset management in several respects, including standard setting, active ownership, risk follow-up and portfolio adjustments. Norges Bank notes that it divested, in 2014, its holdings in 22 companies engaged in coal extraction, oil sand extraction, cement production and coal power on the basis of such considerations. Moreover, the Bank divested from an additional 27 companies as the result of other environment-related considerations, etc. The Bank emphasises that decisions to refrain from investing in a company are active decisions made within the active management framework. The Bank notes that invoking a financial rationale to exclude entire sectors at the general level would not be in conformity with the fundamental premise of the current investment strategy, i.e. that markets are predominantly well-functioning and that diversification of the investments across different sectors gives rise to a better long-

term ratio between risk and return. The Bank notes, at the same time, that financial risk arising from climate change may potentially have a systematic impact on the portfolio, and that it will therefore continue to expand its analysis efforts in this area.

Norges Bank believes that using the GPFG as a climate policy instrument beyond what is compatible with the Fund's role as a financial investor would have very negative asset management implications. The Bank notes, moreover, that developments in such a direction would not be in line with the financial asset management objective and would, over time, result in a less clear investment strategy and, inter alia, reduced diversification of risk in the Fund.

Norges Bank's consultative comments refer to the existence of a number of international climate initiatives aimed at companies and investors. Norges Bank supports initiatives it believes to be of particular relevance to its activities. It is noted, furthermore, that the Bank has already for some time been gathering information on greenhouse gas emissions from portfolio companies, although this is still in a development phase and involves a number of challenges. Norges Bank invests, through the environment-related investment mandates, in companies that are active within, inter alia, technologies that may contribute to tackling the climate challenges. The Bank intends to launch, in 2015, an initiative to promote academic research into the financial risk resulting from climate change.

Norges Bank believes that active ownership and dialogue with companies in line with the financial objective of the Fund can be suitable policy tools for addressing climate issues of relevance to the Fund. The Bank also notes that preparation of the expectation documents may give rise to more targeted ownership activity or analysis. Norges Bank observes that the Fund's clearly defined status as a long-term investor may add to its credibility in an ownership dialogue on long-term issues like climate change, but emphasises, at the same time, that the Bank cannot require companies to act in ways that are not deemed financially viable by such companies and their shareholders. Norges Bank would like to give priority to those ownership activities expected to offer the most positive portfolio effects. The consultative comments note that a key aspect of the dialogue with portfolio companies is to question their strategic choices, including their capital allocation decisions and the quality of their investment decisions. Norges Bank has

requested a number of oil and gas companies to improve the reporting of their climate change involvement. The Bank has also sent letters enquiring about the plans of power companies for the transition to a less emission-intensive energy system, as well as letters to mining companies about their views on potential industry developments towards the spin-off of coaling interests.

Norges Bank shares the view of the expert group that any new criterion in the Guidelines for Observation and Exclusion would need to be applied in conformity with the high exclusion threshold already established for exclusion under other criteria. The Bank intends to utilise spillover effects between ownership, exclusion and risk-based portfolio adjustments upon the introduction of any new climate criterion. If such a criterion is introduced, Norges Bank will initiate a process with the Council on Ethics to clarify how this may be organised.

*The Council on Ethics* agrees with the main principles in the report from the expert group, both in relation to the Fund's role in climate change initiatives and in relation to the follow-up of the companies in which the Fund is invested. The Council on Ethics endorses the advice of the expert group that greenhouse gas emissions should be included in the Guidelines for Observation and Exclusion.

The Council on Ethics notes, in its consultative comments, that there is a need for clarification and demarcation with regard to, inter alia, what types of activities fall within the scope of the exclusion criterion and what it means that the activities of companies shall be subjected to a more general assessment under the climate criterion than under the other criteria. The Council states that the implementation of the criterion needs to be developed over time as and when experience is gained with the gathering of relevant, verifiable and comparable data, as well as the establishment of standards and norms against which companies can be assessed.

The Council on Ethics proposes the following clarification to the wording for a new conduct-based exclusion criterion:

“Acts or omissions that, on an aggregate company level, to an unacceptable degree entail greenhouse gas emissions”.

The expert group has proposed that weight should be attached to company acts and omissions on an aggregate company level. The Council on Ethics believes that it is obviously correct to

consider the overall activities of a company, although it will be necessary to analyse and test the implications of various interpretations of the wording.

The Council on Ethics agrees with the expert group that greenhouse gas emissions shall form the basis for exclusion assessments. This implies, it is noted, that coal mines cannot be excluded on a general basis, whilst it may at the same time be relevant to exclude coal users, if these generate unacceptably large greenhouse gas emissions for one reason or another.

The Council on Ethics notes that the expert group has stipulated that the threshold defining what qualify as unacceptable emissions should be derived from generally accepted international standards. It is emphasised, in this context, that one can in most fields addressed by the Council on Ethics rely on established and recognised norms, whilst such standards have yet to be developed to any significant extent for greenhouse gas emissions. The Council on Ethics states that the establishment of such norms will require an extensive effort.

The Council on Ethics notes, moreover, that the Council examines individual companies, and that it is important for the guidelines to still reflect that individual companies may be excluded irrespective of industry. The Council on Ethics is of the view that it is to some extent possible to identify companies, installations or technologies that, relatively and specifically, generate large greenhouse gas emissions within the industries contributing the most to greenhouse gas emissions. The Council on Ethics mentions, as an example, that the best coal power plants are distinctly more efficient, and thus generate much lower greenhouse gas emissions, than the worst ones. The Council on Ethics notes, at the same time, that considerable challenges are involved in gathering adequate information about the actual situation, which information would have to form the basis for exclusion.

The Council on Ethics deems it appropriate to also attach weight to other greenhouse gases than CO<sub>2</sub>, and notes that the proposed criterion can in principle be applied, in the assessment of the Council, to all types of greenhouse gases.

The Council on Ethics refers to the assumption of the expert group that exclusions only influence companies indirectly. The Council on Ethics is of the view that this assumption needs to be somewhat modified, as it is not uncommon for companies to change their conduct after the Council has initiated a process and that such

changes may in some cases result in companies not being excluded after all.

The Council on Ethics mentions an example related to child labour in cottonseed companies to illustrate use of the full range of policy measures. The Council on Ethics agrees with the expert group that the use of measures under the climate criterion requires a strengthening of coordination and information exchange between Norges Bank and the Council on Ethics, and that enhanced transparency is needed, as proposed under the new guidelines.

Finally, the Council on Ethics notes that the expert group has concluded that the implementation of the new climate criterion will require extensive efforts and resources on the part of the Council on Ethics. In line with this, the Council recommends, that resources be made available for the procurement of consultancy services and computer equipment, as well as the hiring of additional staff.

The Ministry has received consultative comments from the following *non-governmental organisations*, etc.: Bellona, Carbon Tracker, Changemaker, Concerned Scientists Norway, Future in Our Hands, Greenpeace Norway, Norwegian Church Aid, the Church of Norway National Council, the Norwegian Society for the Conservation of Nature, the Norwegian Climate Network, Rainforest Foundation Norway, WWF Norway and ZERO.

The non-governmental organisations express a number of concurrent views. They offer broad support for the expert group's proposal for the introduction of a conduct-based exclusion criterion. Several organisations emphasise that evaluations of the climate conduct of companies should encompass lobbying and other efforts to oppose emission-reduction measures. Many of these also note that the proposal needs to be backed up by additional resources for the Council on Ethics, and that the implementation of the criterion will require close communication between the Council on Ethics and Norges Bank. *The Church of Norway National Council* is of the view that activities resulting in the emission of other greenhouse gases than CO<sub>2</sub> should also qualify for potential exclusion under the conduct-based criterion. *Concerned Scientists Norway* would like to see the extraction of fossil energy in particularly vulnerable areas, or by unconventional methods, being included as elements of interpretation in relation to conduct-based exclusion.

In addition, several organisations would like to see the introduction of a product-based exclusion

criterion. *WWF Norway* states that the Government should propose the exclusion of coal production and coal power generation from the GPFG based on certain specified criteria, and that this would be a fairly simple, specific and targeted initiative to show that Norway believes coal to have no role to play in a long-term sustainable economy. *Norwegian Church Aid* and *Changemaker* take the view that the GPFG should divest its holdings in coal production companies. *Future in Our Hands* takes the position that the GPFG must divest its holdings in the entire coal sector and must in addition make systematic exclusions from the oil sector. *Greenpeace Norway* also proposes criteria for exclusion of the most polluting and fossil-exposed companies from the GPFG portfolio, within both the coal sector and the oil sector. *Concerned Scientists Norway* proposes that coal-producing companies be excluded from the GPFG portfolio within four years unless they have adopted carbon capture and storage (CCS) technologies. *The Norwegian Society for the Conservation of Nature* would like to see the GPFG divesting from coal companies now, whilst at the same time announcing that the Fund will divest from fossil fuel companies by 2020.

The organisations that would like to see a product-based criterion for exclusion do not share the view of the expert group that the energy production, energy use or CO<sub>2</sub> emissions of coal and petroleum companies cannot per se be said to be contrary to generally accepted ethical norms. *WWF Norway* states that it is reasonable to argue, based on the implications of maintaining current activity within the extraction and burning of coal, in particular, that this is ethically irresponsible, although it may be argued that this is a structural challenge for society, and not primarily an individual responsibility for companies. *The Church of Norway National Council* calls for a fundamental ethical reflection on the need to curtail the extraction of fossil energy carriers. *Changemaker* states that Norway has an ethical responsibility to reduce greenhouse gas emissions, both nationally and internationally.

Most of the non-governmental organisations argue in favour of expanding the investments of the GPFG in alternative energy sources, and would like to see the Fund contributing to the further development of the market for green bonds. *Future in Our Hands*, *Greenpeace Norway*, *Norwegian Church Aid*, *the Norwegian Climate Network* and *ZERO* all take the view that the asset management strategy of the GPFG should be considered from a national wealth perspective, and

that Norway should, from such a perspective, exclude petroleum companies from the investments of the GPFG.

The organisations differ in how they view the effects of active ownership as a policy tool, but most of them support the recommendations of the expert group on strengthening, and enhancing the transparency of, active ownership on the part of the GPFG. They also emphasise the importance of having a chain of policy tools, with divestment as a last resort. *Bellona* and *Carbon Tracker* endorse the position of the group that active ownership is preferable to exclusion. *Bellona* states that companies whose activities cause greenhouse gas emissions need to have a credible and genuine plan for reducing such emissions, in order for them to remain in the GPFG investment universe and portfolio. *Rainforest Foundation Norway* agrees that active ownership and influence can be highly effective, but states that such is only the case if these efforts are guided by a strategy that includes specific goals and deadlines, clear engagement principles and coordinated use of policy tools. *Carbon Tracker* believes that the GPFG is well placed, given its size, to pursue an effective dialogue with fossil fuel companies concerning the risk associated with their future investment projects, and that effective active ownership is the best way of avoiding stranded assets. *Future in Our Hands* believes that the expert group has overestimated the prospects offered by active ownership and systematically underestimated the scope for, need for, and effects of, exclusion. The organisation points to a lack of documentation that active ownership is an effective strategy and has contributed to solving climate issues. *WWF Norway* draws attention to a shortage of documentation and arguments from the expert group as to how active ownership might potentially have a significant impact on the core strategy of fossil energy companies. *The Norwegian Society for the Conservation of Nature* also questions the effect of active ownership and finds that there is a dearth of examples that active ownership through the GPFG has delivered results in other areas.

The Ministry has also received consultative comments from KLP Kapitalforvaltning, CICERO, Statistics Norway, as well as from the following organisations: the Norwegian United Federation of Trade Unions, the Confederation of Norwegian Enterprise, the Norwegian Society of Graduate Technical and Scientific Professionals and the Norwegian Confederation of Trade Unions.



*KLP Kapitalforvaltning* endorses the conclusions of the expert group in its predominant aspects. However, KLP is of the view that the mandate of the expert group was too restricted. Weighing active ownership against exclusion in terms of effectiveness is, in the view of KLP, unfortunate because these policy tools supplement each other and work best in tandem. Potential renewable energy investments should also, in the assessment of KLP, have been included in the mandate. KLP finds it reasonable for the demarcation of the scope for exclusion under the proposed conduct-based criterion to be entrusted to the Council on Ethics, and believes that this will offer flexibility with regard to future developments in global energy production, climate pollution and technology. KLP supports the climate criterion being applied on the basis of an overall assessment. KLP is of the view that open exclusion recommendations from the GPFG on the basis of activities that are harmful to the climate may have repercussions far beyond their effects on the companies themselves.

*Statistics Norway* states that the report from the expert group provides a sound professional foundation for political decisions in relation to these issues. Statistics Norway agrees with the assessment of the group that the exclusion of coal or petroleum producers from the Fund portfolio is unlikely to represent an effective climate policy strategy, that active ownership and influence are the most appropriate policy tools for addressing climate-related issues, and that a new climate-based criterion for the observation and exclusion of companies should be introduced. Statistics Norway also endorses the assessments of the group in the discussion as to whether the investment risk associated with coal and oil companies is priced correctly (stranded assets).

*CICERO* is unable to see any clear, fundamental distinction between harm inflicted on current generations through the sale of tobacco and harm inflicted on future generations through climate change. *CICERO* proposes, in its consultative comments, a product-based criterion under which companies with the majority of their turnover from the extraction of coal or oil sand are excluded from the investments of the GPFG. *CICERO* also states that companies involved in actively opposing an effective climate policy, through lobbying and other methods, in contravention of internationally agreed commitments endorsed by Norway, should be excluded from the investments of the GPFG under a conduct-based criterion. Furthermore, *CICERO* would like

Norges Bank to develop a strategy for the purchase of green bonds and initiate research and studies into improved exclusion criteria and active management based on the risk associated with the long-term implications of climate change.

*The Norwegian United Federation of Trade Unions* believes that it is important to maintain a broad political consensus that the overarching objective of the investments in the GPFG is to achieve the maximum possible return, given a moderate level of risk. The Norwegian United Federation of Trade Unions supports the introduction of a new conduct-based criterion for the exclusion of companies engaging in activities that are severely harmful to the climate, but states that the Ministry needs to do more to clarify the interpretation and application of the criterion. The Norwegian United Federation of Trade Unions is also of the view that it is important for the Council on Ethics and Norges Bank to be provided with sufficient resources to comply with both this criterion and human rights considerations. As far as concerns product-based exclusion of companies based on climate considerations, the Norwegian United Federation of Trade Unions states that potential criteria for such exclusion would have to be examined in more detail.

*The Confederation of Norwegian Enterprise* endorses the position of the expert group that energy production cannot per se be said to be contrary to generally accepted ethical norms, that the GPFG should be a financial investor and that active ownership is the most appropriate policy tool for addressing climate-related issues. The Confederation of Norwegian Enterprise expresses scepticism with regard to the proposed conduct-based exclusion criterion. The Confederation of Norwegian Enterprise fears that the criterion, since it is discretionary in nature, may pave the way for using the Fund as a climate policy instrument. The Confederation of Norwegian Enterprise states that the organisation would expect active ownership and exclusion, if applicable, to be used together in an integrated manner.

*The Norwegian Society of Graduate Technical and Scientific Professionals* endorses the proposal for the introduction of a conduct-based criterion for observation and exclusion. The Norwegian Society of Graduate Technical and Scientific Professionals also agrees with the assessment of the expert group that broad product-based exclusion of coal and petroleum companies would not be appropriate at this stage, and that active ownership and active management should be the principal policy tools. However, the Norwegian Society

of Graduate Technical and Scientific Professionals believes that product-based exclusions will become an appropriate policy tool in the longer run, when carbon-free energy alternatives are expected to account for a larger portion of overall energy supply. A path for future exclusion on climate grounds should, in the view of the Norwegian Society of Graduate Technical and Scientific Professionals, be announced and embedded in the objectives of the Fund. Moreover, the Council on Ethics should, in the opinion of the Norwegian Society of Graduate Technical and Scientific Professionals, gradually lower the threshold for conduct-based exclusion on climate grounds, and active management needs to be given sufficient scope for divestment based on climate considerations. The Norwegian Society of Graduate Technical and Scientific Professionals also states that the special environment-related investment mandates need to be strengthened beyond the increase proposed by the Ministry.

*The Norwegian Confederation of Trade Unions* states, in a letter of 23 February 2015 to the Ministry, that Norway has an independent and clear responsibility for contributing to solving the global climate problem. The Norwegian Confederation of Trade Unions approves of the introduction of a new conduct-based criterion based on activities that are severely harmful to the climate, and notes that such provision needs to be formulated and implemented in such a way as to have, together with reinforced active ownership, a real impact. The Norwegian Confederation of Trade Unions requests, in line with its climate strategy, that the GPFG divests from companies involved in activities that are severely harmful to the climate and invests more in renewable energy, renewable infrastructure, as well as CO<sub>2</sub> capture and storage.

The Ministry has also received consultative comments from a group of individuals of miscellaneous organisational affiliation. *Thamotheram et.al* are of the view that there is, from a financial perspective, scope for a considerable expansion of the environment-related investments of the GPFG. Both climate/green bonds and infrastructure are highlighted as attractive investment opportunities. The GPFG should also, in the view of the group, screen all companies according to science-based emissions thresholds that comply with the carbon budget. Comparable action can, in the assessment of the group, be taken at the portfolio level, across all sectors, using low-carbon indices. The group believes that such measures will act as a hedge against portfolio losses that will

be incurred should there be accelerated carbon repricing. The group questions the assessment of the expert group that it can be left to the market to price climate risk in an adequate manner, and notes that the Norwegian population has very high exposure to fossil fuels. The group believes that the GPFG, as one of the world's largest investors, needs to take a leading role as an active investor in the climate area. The Fund may contribute, through engagement and exclusion, to significant reductions in the effects of climate change. The group lists several measures that would strengthen the GPFG's active ownership in this field. The group sees no conflict between the financial goal of the fund and the objective of averting dangerous climate change, especially given the intergenerational responsibility of the Fund. An area in which the GPFG may play a major role alongside other long-term investors, is to urge investee companies to stop lobbying against climate change measures, both directly and via trade associations and think tanks.

A number of the persons who signed the statement from Thamotheram et.al have also submitted separate consultative comments. *William Michael Cunningham* emphasises the main observations in the group comments, noting that there is scope for a considerable expansion of the GPFG's environment-related investments, that the GPFG may make a clear contribution to reducing the effect of climate change through engagement and exclusion, and that the Fund should promote increased transparency in relation to corporate lobbying and other methods used to actively oppose climate change objectives. *Robert Litterman* endorses the main conclusion of the expert group that active ownership and dialogue are the most appropriate policy tools for addressing climate issues, and invites the GPFG to participate in an ongoing project to reduce greenhouse gas emissions within the aviation sector. *Henrik Syse* supports the description of the expert group as to the importance of active ownership strategies for issues relating to climate change and the strategies of coal and petroleum companies. Henrik Syse emphasises the importance of such active ownership strategies in countering the lobbying of coal and petroleum companies against effective climate measures. Henrik Syse notes that there are examples, not least in the US, illustrating how effective such lobbying can be, and how much the results of such lobbying often have gone against the interests of the principals. *Raj Thamotheram* states that the report from the expert group is a serious and valuable piece of work, with which he

concur in many respects. However, he does not share the view of the expert group that the market can be assumed to price investment risk in an adequate manner. Ray Thamootheram is of the view that coal and petroleum companies, by promoting the use of fossil fuels, increase the risk of potentially severe financial loss in the portfolios of well-diversified investors.

#### 2.7.4 The Ministry's assessments

##### *Principles for the management of the GPFG and responsible investment practices*

There is broad political consensus that the objective for the investments of the GPFG is to achieve the maximum possible return, given a moderate level of risk. The Ministry has noted the view of the expert group that it would be both unfortunate and ineffective to use the GPFG as a climate policy instrument beyond what is compatible with the Fund's financial objective. This view is endorsed by a number of those submitting consultative comments. The Ministry has also noted Norges Bank's observation that uncertainty about the Fund's financial objective will result in a less clear investment strategy. A clear objective for the investments is also in line with the international principles for sovereign wealth funds; the so-called Santiago Principles, which Norway has signed up to.

It follows from the mandate for the management of the GPFG that Norges Bank shall attach weight to the long time horizon of the Fund in its asset management, and that the investments shall be well diversified across the markets that make up the investment universe. The Ministry regards a good return in the long term as being dependent upon sustainable development in economic, environmental and social terms. Consequently, responsible investment activities are an integral part of the management of the Fund. Norges Bank exercises the ownership rights of the Fund and integrates environmental, social and corporate governance considerations in its investment activities. The Bank makes portfolio adjustments based on risk assessments relating to markets, sectors and companies.

The Guidelines for Observation and Exclusion stipulate that companies shall be excluded from the GPFG if these produce certain products or sell weapons to certain states (*product-based exclusion*). Companies may also be excluded if there is an unacceptable risk that they contribute to, or are themselves responsible for, grossly unethical activities (*conduct-based exclusion*). The purpose of

the exclusion mechanism is to reduce the risk that the Fund is invested in companies that contribute to serious norm violations. Consequently, the exclusions from the Fund are ethically, and not financially, motivated.

A number of changes to the responsible investment framework of the GPFG entered into effect at the beginning of this year, cf. chapter 5. It is now Norges Bank, and no longer the Ministry, that makes decisions based on recommendations from the Council on Ethics on the observation and exclusion of companies. Furthermore, improved coordination between the Council on Ethics and Norges Bank is facilitated, along with a more unified chain of responsible investment tools. The Guidelines for Observation and Exclusion stipulate that Norges Bank shall consider the various measures at its disposal as a whole, and apply these in a coherent manner. It also follows from the Guidelines that meetings shall be held between Norges Bank and the Council on Ethics on a regular basis to exchange information and coordinate activities. Moreover, communications with companies shall be coordinated and shall aim to be perceived as unambiguous.

##### *Norges Bank's active ownership and reporting*

The Ministry has noted the view of the expert group that active ownership and dialogue are the main policy measures for addressing climate issues in the management of the GPFG. The expert group proposes measures to strengthen the activities of the Bank in this field, including increased transparency concerning the criteria for risk-based divestment, as well as a revised climate expectation document. The group proposes, moreover, that the Bank engage in a dialogue with companies on the robustness of their analyses into new fossil energy investments, as well as enhanced reporting on its engagement with portfolio companies and on the Fund's exposure to climate risk. Norges Bank is also encouraged by the group to expand its support for research into the financial implications of climate change, etc. These proposals have been broadly endorsed by those submitting consultative comments.

The Ministry has noted Norges Bank's observation that the Fund's role as a long-term investor may add to its credibility in ownership dialogues on long-term issues like climate change. The Bank has over time developed its capability to integrate matters of relevance to climate change in the management of the GPFG.

The Ministry has noted that Norges Bank issued a separate responsible investment report on 5 February this year, which shows that the Bank has now implemented a number of the changes proposed in the report from the expert group. The Bank has also signalled specific plans for additional research into financial risk resulting from climate change, cf. section 2.8. On 13 March this year, the Bank published an updated expectation document on companies' management of climate risk. Norges Bank states on its website that the document is of particular relevance to fossil fuel suppliers, power generators and businesses with an impact on tropical rainforests and agriculture. Furthermore, the Bank has published the first analyses from a survey of greenhouse gas emissions from the companies in which the Fund is invested. Norges Bank has in addition sent letters to several oil and gas companies, power companies and mining companies, requesting such companies to, respectively, improve their reporting on climate change-related involvement, outline their plans for the transition to a less emission-intensive energy chain, and explain their position on potential industry developments towards the spin-off of coaling interests.

The Ministry has noted that climate issues may be taken into consideration in a general risk assessment carried out by Norges Bank with regard to companies' business models and sustainability over time, and that the Bank has in recent years divested its holdings in, inter alia, a number of companies with interests in coal extraction, oil sand extraction, cement production and coal power, based on such assessments. Such divestment takes place within the scope for deviations from the benchmark index set by the Ministry.

The Ministry expects Norges Bank to continue its reporting, within the framework established by the mandate, on its integration of climate change considerations into asset management and its enhancement of analyses and processes within this field, including reporting on the criteria for risk-based divestment.

The Ministry will, as part of its follow-up of the report from the expert group, request Norges Bank to conduct and report on a specific risk-based review of portfolio companies whose involvement in coal extraction, coal power generation or coal-based energy conversion represent a significant part of their business.

*New conduct-based criterion for the observation and exclusion of companies*

The criteria under the Guidelines for Observation and Exclusion are ethically motivated. The Ministry agrees with the assessment of the expert group that there may be ethical aspects to greenhouse gas emissions. The Ministry does, at the same time, attach weight to the fact that energy is an input used in virtually all economic activity. Secure access to energy has contributed to economic development. Participation in the global economic system implies that one is contributing, both directly and indirectly, to greenhouse gas emissions. Fossil energy sources are expected to account for a significant portion of the global energy mix for a long time to come, also in a scenario of sustainable emission levels within the two-degree target. Consequently, the Ministry agrees with the assessment of the expert group that coal and petroleum companies' energy production, energy use or CO<sub>2</sub> emissions cannot per se be said to be contrary to generally accepted ethical norms. Hence, it would not be appropriate to introduce a product-based criterion for the exclusion of coal or petroleum companies.

The Ministry has also noted the assessment of the expert group that it would neither be better for the climate, nor have a positive effect on the Fund, if these stocks were to be sold to other investors who, in most cases, would have less ambitious ownership strategies than the GPF. This is highlighted by the purpose of product-based exclusion under the Guidelines, which is not to promote changed corporate conduct as such, but to prevent the Fund from investing in companies that produce certain types of products.

Although coal and petroleum companies' energy production, energy use or CO<sub>2</sub> emissions cannot per se be said to be contrary to generally accepted ethical norms, the expert group believes that one must expect portfolio companies to meet certain minimum standards with regard to how their activities affect the climate. The expert group therefore recommends the establishment of a criterion for the exclusion and observation of companies whose conduct does not meet such expectations. The Ministry agrees with this and proposes the introduction of a new conduct-based criterion in the Guidelines for Observation and Exclusion, such as to specifically encompass climate-related conduct. The introduction of such a criterion enjoys broad support amongst those submitting consultative comments. Consequently, coal and petroleum companies may be excluded

on ethical grounds, based on an overall assessment of their conduct.

A new criterion, as proposed here, will in the assessment of the Ministry be inherently dynamic. It will neither depend on industry or sector, nor on the type of greenhouse gas. It should reflect the consideration that norms in this field may develop over time in line with, *inter alia*, changes in energy production and technological developments.

The ethically motivated criteria in the Guidelines for Observation and Exclusion need to be considered in the context of the other asset management activities of Norges Bank. The Ministry notes that Norges Bank has already established a practice of risk-based portfolio adjustments. This involves the divestment by the Bank of holdings in companies based on an overall financial assessment, which includes environmental and social considerations. Such divestment takes place within the Bank's scope for deviations from the benchmark index of the Fund, cf. section 2.2. The Ministry has noted that Norges Bank intends to utilise spillover effects between engagement, exclusion and risk-based portfolio adjustments upon the introduction of a new criterion.

#### *Details concerning the new criterion*

The Council on Ethics has proposed the following wording for a new conduct-based criterion, calling for the exclusion of a company if there is an unacceptable risk that the company contributes to or is itself responsible for:

“Acts and omissions that, on an aggregate company level, to an unacceptable degree entail greenhouse gas emissions”.

The Ministry is of the view that such a formulation of the criterion reflects a number of important considerations. The first consideration is that greenhouse gas emissions shall form the basis for the overall assessment under this criterion. The wording “*entail greenhouse gas emissions*” shows that there must be a link between the acts or omissions of a company and the emission of greenhouse gases, and also that the criterion applies to greenhouse gases in general, and not only to certain greenhouse gases. Focusing on greenhouse gases as a whole will also make the criterion more flexible by allowing for the examination of a wider range of sectors and companies than if focusing exclusively on CO<sub>2</sub> emissions. The Ministry has noted that the expert group

would expect the Council on Ethics to focus, in practice, on companies in industrial sectors with significant absolute emission levels, and that the expert group would consider it appropriate for the energy sector and electricity generation from fossil energy sources to form a key part of such focus. The Ministry has also noted that the expert group emphasises that it seems reasonable, in considering the severity of a breach of ethical norms in this area, to focus, as one of several considerations, on emission intensity, and not necessarily on absolute emission levels. By emission intensity is meant emissions relative to, for example, production or sales. The Ministry agrees with the group that it should be possible to evaluate comparable companies against each other, although it is difficult to establish absolute measures of emission intensity.

The proposed wording also makes clear that both *acts and omissions* may give rise to observation or exclusion under this criterion. It further accommodates a focus on the *aggregate company level*. Such a general company assessment is appropriate in view of the underlying premise of existing systems for curtailing greenhouse gas emissions and limiting global climate change, that activities in one area may be offset by activities in other areas, for example through trading in quotas. Excluding a company that operates in conformity with the guidelines of such a system might be counterproductive. It may, at the same time, be difficult to assess this, since many companies are engaged in activities in several countries with various degrees of regulation. “*An unacceptable degree*” shows that the proposed criterion is aimed at serious norm violations, in line with the established threshold for exclusion under the Guidelines for Observation and Exclusion. The Ministry has noted that the expert group states that serious norm violations should for this purpose be evaluated in the context of specific comparable operations, sectors and industries based on, for example, generally accepted international standards.

The Ministry has also noted that both the expert group and a number of those submitting consultative comments argue that actively opposing, for example, international agreements on the reduction of greenhouse gas emissions may be an element to which weight should be attached in the overall assessment under the criterion. It is also appropriate for such overall assessment to take into consideration whether the greenhouse gas emissions of companies are subject to taxes, mandatory quotas or other regulations.

The Ministry is of the opinion that a new criterion will need to be managed in line with the established practice for exclusion under the Guidelines for Observation and Exclusion, and that the assessments shall continue to be forward looking. Moreover, the established exclusion system is inherently dynamic, inasmuch as all excluded companies shall be reassessed on a regular basis to check whether the grounds for exclusion continue to apply.

The Ministry has noted the observation of the expert group that the application of such a criterion will require considerable resources and efforts on the part of the Council on Ethics, inasmuch as such analyses will most likely involve, inter alia, the Council on Ethics assessing companies' activities along several dimensions. Furthermore, the Ministry has noted that the Council on Ethics states that the implementation of the criterion needs to be developed over time as and when experience is gained with the gathering of relevant, verifiable and comparable data, as well as the establishment of standards and norms against which companies can be assessed.

The Ministry emphasises that the established division of responsibilities between Norges Bank and the Council on Ethics will also apply to assessments under the new criterion. The proposals from the expert group imply that the Council on Ethics, as an advisor to Norges Bank on the observation and exclusion of companies pursuant to the Guidelines for Observation and Exclusion from the GPF, will play an important role in the operationalization of the criterion. It is, at the same time, Norges Bank that makes decisions on the observation and exclusion of companies, and is required under the Guidelines to consider the various measures at its disposal as a whole, and to use these in a coherent manner. The Ministry will, as with the other criteria in the Guidelines for Observation and Exclusion, follow up on how the criteria are practised over time. Furthermore, the Ministry will consider the resource requirements of the Council on Ethics relating to the operationalization of the new criterion.

The Ministry deems it important for the intention behind the new Guidelines for Observation and Exclusion of a chain of policy measures, to also be followed up for the new criterion. The Ministry has noted that Norges Bank and the Council on Ethics will initiate a process to clarify how this could be realised.

It follows from the Guidelines for Observation and Exclusion that the Council on Ethics shall establish and publish principles stipulating which

companies are selected for closer examination, and that Norges Bank may prepare a set of expectations based on such principles. The Ministry notes that this will also apply to the proposed new criterion. It also follows from the Guidelines that the Bank may, in its assessment as to whether a company shall be excluded, inter alia, attach weight to the likelihood of future norm violations, and also consider the scope of the activities and governance of the company, including whether the company does what can reasonably be expected to reduce the risk of future norm violations within a reasonable time horizon.

#### *Implementation*

The Ministry intends to incorporate the new conduct-based climate criterion in the Guidelines for Observation and Exclusion from the GPF after the Storting's deliberation of this report. Reference is made to the Ministry's discussion of the interpretation of the criterion above. The Council on Ethics and Norges Bank will over time, through their duties of advising and deciding, respectively, on the observation and exclusion of companies from the GPF, establish the detailed substance of the criterion. The Ministry will, in line with the stipulations made in Recommendation No. 200 (2013–2014) to the Storting, evaluate the new organisation of responsible investment practices in the annual reports on the Government Pension Fund. Moreover, the Ministry intends to present a review of the overall handling of financial risk resulting from climate change in the management of the GPF in the report on the Government Pension Fund in the spring of 2017.

#### *The stranded assets debate*

Internationally, there is a discussion as to whether financial market participants are acknowledging the risk that large coal, oil and gas reserves cannot be profitably extracted at carbon prices consistent with sustainable emission levels. The Ministry has noted that the exclusion of an entire sector based on an assumption of the mispricing of risk would not, in the view of the expert group, be in conformity with the overall investment strategy for the GPF. The expert group notes, on the other hand, that stranded asset considerations may be well suited as a basis for the asset manager's deviations from the benchmark index. The group also notes that the potential for stranded assets, and the associated financial risk, may be addressed through active ownership.

Some of those submitting consultative comments believe that investors systematically underestimate climate risk. Conflicts of interest are also noted between some owners and corporate management, on the one hand, and diversified, long-term investors like the GPFG, on the other hand. Those expressing such views in their consultative comments emphasise active ownership over product-based exclusion as the best policy tool for improving the market pricing of climate risk.

The Ministry agrees with the view that risk assessments relating to stranded assets should form an integral part of Norges Bank's operational management. If the Ministry were to overweight certain sectors and underweight others in the benchmark index for the Fund, it would amount to an active investment decision. Consequently, the strategy for the Fund is not based on such an approach. In order for such investment choices to be profitable, these would have to be based on the Ministry being privy to information about the future return on such investments that is not already reflected in current market prices. It should as a main rule be assumed, as noted by the expert group, that securities prices will by and large provide a reasonable compensation for investment risk.

#### *Investments in environment-related activities, including renewable energy*

A number of consultative comments refer to the importance of the GPFG being invested in environment-related activities, including renewable energy. The current investment strategy involves considerable investment in such activities, which will as a main rule expand if such companies' share of the global stock market increases. Moreover, a specific allocation has been established for environment-related investment mandates, with renewable energy being one of several sectors. This report proposes that the allocation for such specific mandates be expanded to NOK 30-60 billion, cf. section 2.6. However, a large portion of the renewable energy investment opportunities is in the unlisted market. The Ministry refers, in this context, to the evaluation as to whether unlisted infrastructure investments should be permitted in the GPFG, cf. section 2.3. The Ministry intends to address this issue in the report on the management of the Government Pension Fund to be submitted in the spring of 2016. If unlisted infrastructure investments are permitted on more general grounds, unlisted infrastructure investments in

renewable energy will also be included in the investment universe of the GPFG.

#### *The investment strategy for the GPFG in a national wealth perspective*

The report from the expert group notes that the Norwegian economy is dependent on oil and gas, not only through petroleum revenues and the investments of the GPFG in the oil and gas sector, but also through links between the petroleum sector and the human capital component of national wealth. The group is of the view that this raises the issue of whether the investment strategy for the GPFG should be considered from a so-called national wealth perspective.

The expert group notes, in its report, that a complete analysis of this matter does not form part of its mandate and falls clearly outside the scope of its report. However, the group proposes a number of expansions to the analyses in Report No. 19 (2013–2014) to the Storting, which would, in the opinion of the group, provide a more robust basis for discussing the role of petroleum producers in the Fund portfolio, also with a potential view to addressing general oil price risk for the Norwegian economy. The Ministry has noted that a number of the consultative comments also agree that these issues merit further attention. The Ministry is of the view that such issues are suitable for discussion in a white paper on long-term perspectives for the Norwegian economy, one of the purposes of which is to shed light on the long-term implications for the Norwegian economy of changes to key external variables.

## **2.8 Analyses of financial risk associated with climate change**

The overarching objective for the investments of the GPFG is to achieve the maximum possible return, given a moderate level of risk. The distinctive characteristics of the Fund as a long-term investor holding a broad portfolio of companies imply that climate change and climate policy measures may have an impact on the future return on the Fund. Considerable weight has therefore been attached to climate considerations in the management of the Fund for quite some time, cf. section 2.7 of this report and the discussions in previous reports on the Government Pension Fund.

Research and development have long been part of the responsible management tools of the GPFG, as noted in Report No. 19 (2013–2014) to

the Storting – The management of the Government Pension Fund in 2013. The Ministry stated that it intended to initiate work in 2014 to shed additional light on the risk to the future return on the Fund posed by climate change. It was noted that such initiative would not be restricted to any specific sector or product. Moreover, it was noted that the issues involved are complex and subject to considerable uncertainty, and that the Ministry aimed at reverting to the matter in future reports on the Government Pension Fund.

Norges Bank was requested, in a letter of 2 December 2014 from the Ministry of Finance, to provide an account of its integration of financial risk considerations associated with climate change into its management of the Fund portfolio. The Bank was also requested to report on the status of key international initiatives in this field in which the Bank participates. Furthermore, it was requested to assess the scope for initiating scientific analyses of financial risk associated with climate change. Norges Bank was also requested to examine how such an initiative could be designed in order to contribute relevant knowledge of this type of financial risk for a fund like the GPF. The Ministry furthermore requested Norges Bank to consider whether the Norwegian Finance Initiative (NFI) is an appropriate instrument in this context.

Norges Bank notes, in a letter of 5 February 2015 to the Ministry of Finance, that climate change has been a focus area in the management of the GPF since 2006. Norges Bank has been seeking to integrate financial risk associated with climate change in the management of the Fund. Norges Bank states that this is a work in progress, and notes that the Bank is of the understanding that such is also the case for other investors. The Bank emphasises that its work on financial risk associated with climate change is based on the investment strategy and the Fund's financial objective.

Norges Bank has expressed a clear expectation that companies in which the Fund is invested should integrate climate risk considerations into the management of their business. These expectations are expressed in a separate expectation document that was first published in 2009. Norges Bank has a particular focus on companies' governance processes, reporting and transparency. In the letter of 5 February, the Bank refers to an ongoing revision of the climate change expectation document. An updated expectation document was published on 13 March this year.

Each year, Norges Bank carries out sector risk assessments to map the degree to which compa-

nies in particularly high-risk sectors live up to the expectations of the Bank. This provides Norges Bank with a picture of companies' management of climate risk at a general level. The findings can be used in dialogue with companies and form a basis for further analysis of individual companies or sectors or more targeted ownership activities at company level.

Norges Bank states in its letter that it aims to prioritise ownership activities that it expects to have the greatest positive effect on the Fund portfolio. Company dialogue is mainly focused on large investments.

In 2014, the priority topics in the Bank's responsible investment dialogue with companies included carbon emissions and carbon disclosure, as well as transparency on sustainability. Norges Bank notes that it has, for example, asked a number of oil and gas companies to improve reporting on their work on climate change.

Norges Bank looks at general market conditions and demand outlooks in making its investment decisions, in addition to sector- or company-specific factors. The Bank notes that these analyses also include assumptions about future climate change, climate policies and possible regulatory changes. In 2015, Norges Bank has sent letters to power companies about their plans for transitioning to less emission-intensive energy systems, and to mining companies about their views on a possible move in the industry towards hiving off their coal-mining operations.

Norges Bank has begun work on mapping greenhouse gas emissions from the companies in which the Fund is invested. This effort and the initial results are presented in the Bank's Responsible Investment Report for 2014, which was published on 5 February 2015. Norges Bank notes, in its letter of 5 February 2015 to the Ministry, that such mapping involves a number of challenges, including the absence of any standard method for performing such calculations and varying access to data. The Bank states that the information on greenhouse gas emissions can be used as an element in its risk management, but notes that risk and investment assessments need to take into account a broader set of parameters, such as companies' operations and plans, industrial structures and market conditions.

The letter also refers to portfolio adjustments in which climate strategies have formed part of an assessment of the business model and long-term sustainability of individual companies.

Norges Bank participates in international climate initiatives. As a member of CDP (formerly



known as the Carbon Disclosure Project), the Bank contributes to the standardisation of company reporting on climate risk. Norges Bank states, in its letter of 5 February, that the information obtained through initiatives such as CDP is of use in the management of the Fund. In 2014, Norges Bank submitted input to the Climate Disclosure Standards Board (CDSB), which is developing a reporting framework for climate-related risk, and which has recently integrated risk relating to water and deforestation in this framework.

Norges Bank notes, in its letter, the existence of a variety of international climate initiatives targeting companies and investors. The Bank will continue to support those initiatives it believes to be of particular relevance to its activities. Norges Bank will encourage companies to report on their greenhouse gas emissions, dialogue with the authorities on climate issues and strategies for dealing with climate challenges.

Moreover, Norges Bank will contribute to responsible investment analysis and research in order to obtain more knowledge on factors of relevance to long-term risk and return in the investment portfolio. The Bank is positive about the prospects for promoting academic studies of the financial risk facing the Fund associated with climate change. Norges Bank intends to launch such an effort in 2015.

Climate risk involves complex issues and a variety of fields. Norges Bank will limit its activities to areas of particular relevance to the management of the Fund. The Bank states in its letter that internal analysis, collaboration with data suppliers and international investor initiatives, as well as academic research, are all relevant ways of shedding more light on climate issues.

Norges Bank notes that the NFI is a relevant instrument for promoting scientific analyses of financial risk associated with climate change. NFI aims to support the preservation and development of financial assets for future generations, by strengthening financial research and education in areas of relevance to the long-term management of the GPF. NFI has set up a dedicated programme to incentivise academic research in areas of financial economics of particular interest for the long-term management of the Fund.

It is also noted in the letter of 5 February that Norges Bank can conduct in-house research projects. It is mentioned, in that regard, that the Bank in 2014 launched a research project with Columbia University and various other academic institutions looking at how sustainability and responsibility impact on the profitability of mining companies. Norges Bank observes that research collaborations of this type with leading academic institutions, may also be of relevance to its work on exploring aspects of financial risk associated with climate change.

Norges Bank plans to work on research-oriented aspects of financial risk associated with climate change over a number of years, and will provide further information on the progress and findings in its annual reporting on the management of the GPF. The Ministry will address this in the annual reports on the Government Pension Fund. The Ministry further intends to review the overall handling of financial risk associated with climate change in the management of the GPF in the report on the Government Pension Fund in the spring of 2017, cf. section 2.7.

## 3 The investment strategy for the Government Pension Fund Norway

### 3.1 The current investment strategy

#### 3.1.1 Background

The capital base of the Government Pension Fund Norway (GPFN) has its origin in national insurance scheme surpluses from the introduction of the scheme in 1967 and until the late 1970s. The formal organisation of the GPFN was changed in 2007 by highlighting the distinction between the investment vehicle GPFN and Folketrygdfondet as the manager of such investment vehicle. The capital of the GPFN was deposited with Folketrygdfondet, which manages the assets in its own name and in accordance with a mandate issued by the Ministry. The return on the assets of the GPFN is not transferred to the Treasury, but is added to the fund capital on an ongoing basis. Hence, there are neither any transfers between the fiscal budget and the GPFN, nor any capital transfers

between the GPFG and the GPFN. The market value of the GPFN was about NOK 186 billion at yearend 2014, cf. section 4.2.

The GPFN is a major owner and lender in the Norwegian capital market. The Norwegian equity portfolio represents about 10 percent of the market value of the Benchmark Index of the Oslo Stock Exchange (OSEBX), whilst the fixed-income portfolio represents about 3 percent of the Norwegian fixed income market.

#### 3.1.2 Main features of the investment strategy

The long-term investment strategy for the GPFN is determined through the choice of benchmark index and appurtenant risk limits laid down by the Ministry. The benchmark index comprises 60 percent equities and 40 percent bonds, with allocations of 85 percent to Norway and 15 percent to the rest of the Nordic region, excluding Iceland, cf. figure 3.1.

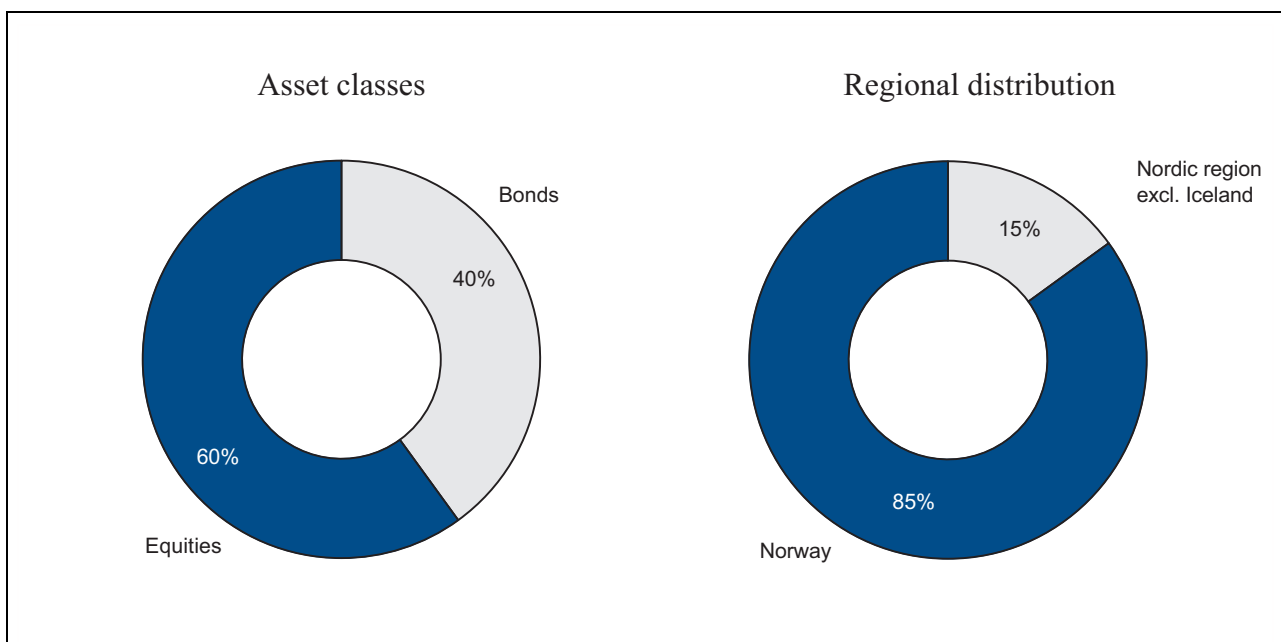


Figure 3.1 Strategic benchmark index for the GPFN. Percent

Source: Ministry of Finance.

The distinctive characteristics of the Fund, such as size and a long investment horizon, distinguish the GPFN from many other investors in the Norwegian capital market. Size entails certain benefits, including the ability to exploit economies of scale in asset management, whilst the long time horizon of the Fund enables the asset manager to pursue long-term investment strategies. At the same time, the size of the Fund relative to the Norwegian capital market makes it challenging to implement major changes to the allocation within a short space of time. This is aggravated by low liquidity in many Norwegian securities.

Folketrygdfondet may, within certain limits, deviate from the benchmark index defined by the Ministry. The purpose of such deviations is to ensure cost-effective asset management, as well as to generate excess return. The Ministry requires Folketrygdfondet, under the mandate for the GPFN, to organise asset management with a view to keeping the expected tracking error within 3 percentage points. In addition, supplementary risk limits have been defined for the management of the GPFN.

The mandate for the GPFN only allows for investment in unlisted companies in which the board of directors has expressed an intention to seek a listing on a regulated market place. However, it does not allow for the GPFN to be invested in unlisted assets like real estate and infrastructure on a general basis. The Ministry has initiated a process to examine whether investment of parts of the GPFN in unlisted real estate and infrastructure should be permitted, cf. section 3.3.

Rebalancing rules form part of the investment strategy for the GPFN. Rebalancing involves the Fund adding to its holdings in the asset class with the weakest value performance in order to maintain the fixed allocation between equities and bonds as stipulated in the mandate. On 12 February 2014, the Ministry received a letter from Folketrygdfondet with advice on certain changes to the rebalancing rules. The advice was discussed in Report No. 19 (2013–2014) to the Storting – The Management of the Government Pension Fund in 2013. In June 2014, the Ministry adopted a new set of rebalancing rules. To avoid influencing the market and to ensure the sound execution of asset management, the detailed rebalancing rules are exempt from public disclosure, in line with the advice of Folketrygdfondet.

## 3.2 Review of Folketrygdfondet's asset management

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### 3.2.1 Background

It is intended for Folketrygdfondet's management of the GPFN to be reviewed on a regular basis, as outlined by the Ministry in Report No. 15 (2010–2011) to the Storting – The Management of the Government Pension Fund in 2010. It was noted that regular performance reviews are a prerequisite to allow for the asset manager to deviate from the benchmark index.

The Ministry emphasised, in its review of Folketrygdfondet's management in 2010, that the amount of the assets under management in the GPFN suggests that a purely passive indexation strategy is not appropriate and that the 3-percentage point limit on deviations from the benchmark index, as measured by expected tracking error, facilitates, inter alia, cost-effective adaptation to the index. The Ministry notes, furthermore, that the basis for allowing some scope for deviations from the benchmark index, defined by the Ministry, is the expectation of excess return relative to the benchmark index. Distinctive characteristics like the size of the Fund, its long time horizon and its capacity to absorb risk may give it an advantage over other investors. It should be feasible to exploit economies of scale in asset management and the capacity of the Fund to absorb risk to the advantage of the Fund. The Ministry stated that it will over time be reasonable to expect average annual net value added from active management in the region of  $\frac{1}{4}$ – $\frac{1}{2}$  percentage points. Achieved excess return must, at the same time, be assessed against the risk associated with such management.

The Ministry has previously received advice from a number of experts as to how the ratio between risk and return can be improved by allowing the asset manager to deviate from the benchmark index, within a defined limit. Such advice has been discussed in the reports on the Government Pension Fund, including Report No. 19 (2013–2014) to the Storting, which presented a report from Ang, Brandt and Denison (2014) that evaluated the management of the GPF. There are several reasons why delegation to the asset manager may improve the ratio between risk and return, including:

- *Improved diversification of investments relative to the benchmark index:* Many securities are, for example, omitted from the benchmark index.
- *Overweight securities with certain characteristics, often termed factors:* Such strategies have

Table 3.1 Annual average gross excess return in the GPFN 1998 – 2014. Percentage points

Period	GPFN Equity portfolio	Fixed-income portfolio	
1998–2014	0.53	1.43	0.23
2007–2014	1.19	1.69	0.88
2011–2014	0.74	0.64	1.03

Sources: Folketrygdfondet and the Ministry of Finance.

historically delivered higher returns than a market-weighted benchmark index. Low liquidity is an example of such a characteristic. Securities with low liquidity can be difficult to sell, involve high and variable transaction costs, and their value can decline steeply when investors are searching for liquidity. Investors that hold such securities therefore expect to be compensated for these qualities in the form of a higher return.

- *Security selection*: The asset manager invests in equities or bonds with a higher expected return than the benchmark index. A challenge for many investors is that high asset management fees make such management strategies less attractive. However, large investors can obtain lower asset management costs as the result of economies of scale. Ang, Goetzman and Schaefer (2009) note that low costs may offer scope for higher return through security selection.
- *Exploiting variations in expected return over time*: The asset manager may seek to generate a higher return by increasing risk when expected return is high and reducing risk when expected return is low. One example of this is strategies for selling equities that have gained considerably in value relative to bonds or for purchasing equities in the wake of major stock market slump. Ang, Brandt and Denison (2014) recommend that such adaptation primarily be effected through rule-based rebalancing of the equity portion in the benchmark index.

The Ministry has in this report examined Folketrygdfondet's management of the GPFN. The review is focused on achieved asset management performance, the basis for good future performance and the scope for deviations from the benchmark index. The Ministry has, as part of such review, requested analyses and assessments from Folketrygdfondet. Folketrygdfondet has

submitted its analyses and assessments in a letter of 16 December 2014 to the Ministry of Finance. Folketrygdfondet has updated its analyses with performance data until the end of 2014 in a letter of 10 March 2015.

### 3.2.2 Asset management performance

Folketrygdfondet has over time outperformed the benchmark index in its management of the GPFN, cf. table 3.1. Such gross excess return has been achieved since 1998, since the restructuring of the framework for Folketrygdfondet's management of the GPFN in 2007 and since the previous asset management review in 2010. Excess return has been achieved in all sub-periods, in both the equity portfolio and the fixed-income portfolio. Excess return has, nonetheless, varied considerably over time.

The large amount of assets under management in the GPFN makes it challenging to achieve a high excess return measured as percentage of assets under management. This is because many asset management strategies are not sufficiently scalable, thus implying a low percentage excess return for large funds. The return contribution can nonetheless be significant in absolute terms. Folketrygdfondet estimates that gross excess return, before the deduction of asset management costs, since 2007 amounts to just under NOK 16 billion.

Gross excess return in table 3.1 is a measure of return on the GPFN relative to the benchmark index, before the deduction of Folketrygdfondet's asset management costs. Measures of value added in asset management also need to take asset management costs into account. Nonetheless, the return on the benchmark index cannot be matched through purely passive management, because closely mimicking the index also entails costs in relation to ongoing index adjustments, rebalancing, etc., which may exceed the income from securities lending.

Folketrygdfondet has sought to estimate the cost and income components of pure index management. The size of Folketrygdfondet and the poor liquidity in the Norwegian securities market mean that such comparison will be subject to considerable uncertainty. Folketrygdfondet states that its analyses show that gross excess return serves as a good approximation of value added in asset management, net of costs.

Nor does gross excess return reflect that risk in the GPFN may differ from risk in the benchmark index. Excess return assessments should seek to provide insight into whether the asset manager has generated higher return by increasing risk relative to the benchmark index. There exists no single model or set of assumptions that in retrospect can unequivocally determine how risk has influenced performance. Financial research often makes use of several approaches and models, which are based on different assumptions and yield different results. This suggests that caution should be exercised in interpreting estimates from such models, and that several approaches should be used to shed light on the findings.

Chapter 7 presents some statistical analyses of risk and return in the GPFN. The analyses indicate that:

- The excess return is the result of the asset management strategy, and not coincidental. The statistical tests show that Folketrygdfondet has achieved significantly higher returns than the benchmark index. Hence, the excess return may suggest that Folketrygdfondet is exploiting advantages in asset management.
- The GPFN has registered higher returns and somewhat lower return volatility than the benchmark index. Consequently, Folketrygdfondet has achieved a better ratio between risk and return than the benchmark index, when risk is measured by standard deviation. Alternative risk measures that emphasise negative returns and the probability of large losses also show an improved ratio between risk and return in the GPFN than in the benchmark index.
- Excess returns in the equity and fixed-income portfolios have been correlated with developments in several so-called systematic factors. This indicates that major fluctuations in the return on such factors may have an impact on asset management performance. Returns in the fixed-income portfolio have, for example, been more influenced by credit risk than the returns on the benchmark index. Furthermore, excess return in the equity portfolio has tended to increase when large companies

(high market value) have had higher returns than small companies (low market value).

Folketrygdfondet notes, in its letter of 16 December 2014 to the Ministry, that asset management has served to improve the ratio between risk and return in the GPFN. The achieved excess return has been higher than Folketrygdfondet's objective of an annual excess return of 0.4 percentage points.

Folketrygdfondet has analysed the contributions to the excess return in the GPFN, cf. table 3.2. About 15 percent of the equity portfolio is invested in other Nordic countries than Norway. The excess return in equities is predominantly derived from Norwegian equities. Folketrygdfondet notes that the excess return is widely distributed across sectors, and that the excess return primarily has its origin in stock picking within each sector. Folketrygdfondet has also estimated how the various aspects of the asset management strategy have contributed to the performance. The most important contribution from the equity portfolio is provided by investments in so-called quality companies, in which Folketrygdfondet is comfortable with adopting a long-term perspective. Another important contribution has been strategies to avoid investment in companies whose market value is considered to be high relative to expected risk or profits.

As far as the fixed-income investments are concerned, the excess return is also primarily derived from Norwegian securities. The main excess return contribution has resulted from a weak tilting of the investments towards credit and liquidity premium developments, as well as from small losses on credit bonds. The fixed-income portfolio of the GPFN has also been diversified across a larger number of securities than the benchmark index. Annual loss of value as the result of negative credit events has averaged 0.07 percent of the value of the fixed-income investments, as compared to 0.16 percent for the benchmark index, over the period 2007 – 2014. The fact that the sensitivity of the investments to interest rate changes has differed from that of the benchmark index has had minor impact on the excess return.

### 3.2.3 Management strategies and expected excess return

Folketrygdfondet states in its letter of 16 December 2014 that its distinctive characteristics and advantages, values, investment philosophy and

Table 3.2 Excess return contributions in the equity and fixed-income portfolios, 2007 – 2014.  
Percentage points

	Equity portfolio	Fixed-income portfolio
Norwegian securities	1.59	0.77
Nordic securities	0.09	0.10
Equity lending	0.01	
Foreign exchange		0.00
Liquidity management		0.01
Total average annual excess return	1.69	0.88

Source: Folketrygdfondet.

extensive experience provides it, all in all, with a solid basis for generating excess return at low operating costs. Folketrygdfondet refers to the following sources of excess return as being of importance to both equity and fixed-income management:

- investment in quality companies where Folketrygdfondet is comfortable with adopting a long-term perspective,
- investment in securities with low liquidity when these are expected to deliver a higher return, and
- increase risk when the expected return on risk is high and reduce risk when the expected return is low. Higher return can be achieved by exploiting such time variations in various risk premiums.

Folketrygdfondet is focused on ensuring that risk taking in the equity portfolio is dominated by company-specific matters, and in the fixed-income portfolio by credit, liquidity and interest rate risk. The letter also notes that the asset management strategy pursued in the management of the GPFN is well supported by academic studies. Folketrygdfondet has carried out several analyses of how various aspects of the asset management strategy have contributed to the excess return historically, cf. section 3.2.2.

Folketrygdfondet is of the view there are positive synergies from investing in other Nordic countries. It notes that access to these markets improves its information flow concerning important market developments, and also that access to more liquid financial markets offers enhanced prospects for adjusting risk exposure in the GPFN.

The asset management costs of Folketrygdfondet in relation to the management of the GPFN have since 2010 increased by an average of 11 percent per year. Folketrygdfondet notes that this is caused by higher system costs relating to portfolio and risk systems. Folketrygdfondet is committed to remaining a cost-effective asset manager and observes that annual asset management costs since 2009 have been between 0.08 and 0.10 percent of assets under management. This is low when compared to other asset managers, cf. the discussion of costs in section 4.2.5.

Folketrygdfondet states that the asset management strategy will continue to evolve in coming years, to ensure that asset management is well positioned to face new challenges and opportunities. It is noted that new strategies shall as a general rule be derived from the distinctive characteristics and advantages of the Fund.

Furthermore, Folketrygdfondet states that the current objective of an expected annual excess return relative to the benchmark index of 0.4 percentage points before asset management costs will be maintained. Folketrygdfondet notes that historical excess return has been compatible with such objective. Folketrygdfondet notes, at the same time, that investment opportunities and expected returns vary over time and that risk taking in the GPFN will also vary over time. It is noted that active risk taking has declined in the wake of the financial crisis, and is currently at a level that, when taken in isolation, is indicative of an excess return significantly below the expectation of 0.4 percentage points, cf. figure 3.2. Folketrygdfondet operates on the assumption that new investment opportunities will materialise in the longer run that will provide a basis for risk taking

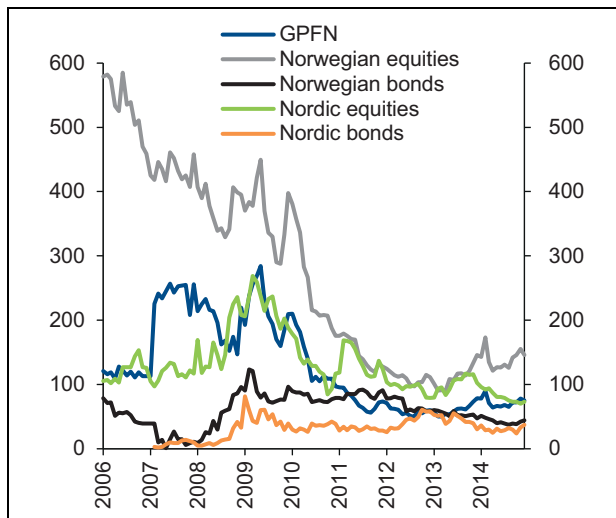


Figure 3.2 Developments in expected tracking error. Basis points. One basis point = 0.01 percent

Source: Folketrygdfondet.

and excess returns in line with the objective of a 0.4 percentage point excess return.

As a large investor on the Oslo Stock Exchange, Folketrygdfondet also has a focus on social responsibility. Folketrygdfondet intends to contribute to value added and development in Norwegian industry by providing capital for companies and promoting responsible investment, good corporate governance and well-functioning markets. Such efforts may, according to Folketrygdfondet, serve to lift overall market return and thus the return on the GPFN. Folketrygdfondet notes, moreover, that there are a number of reasons to assume that passive management, or pure index management, will offer less responsible investment impact, and may also result in less well-functioning financial markets. In addition, more passive management will, when taken in isolation, increase risk in the portfolio, as the result of reduced diversification of risk, and also reduce the return on the GPFN net of costs.

### 3.2.4 The scope for deviations from the benchmark index

The scope for deviations from the benchmark index enables Folketrygdfondet to adjust the portfolio to changes in the composition of securities in the index in a cost-effective manner. The Norwegian stock market is characterised by low liquidity in many securities, and index changes need to be implemented over time to prevent prices from being adversely affected. Figure 3.3 shows that Folketrygdfondet may need up to several hundred

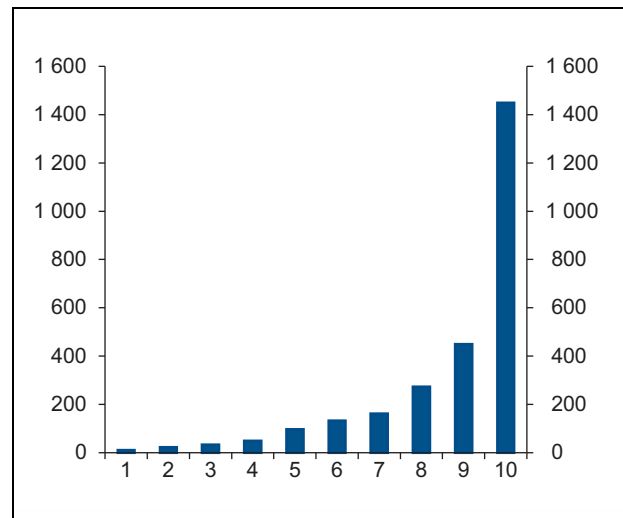


Figure 3.3 Number of trading days needed for the GPFN to trade 0.5 percent of the value of the equity portfolio in various groups of stocks, specified by liquidity<sup>1</sup>

<sup>1</sup> The figure classifies the securities included in the Benchmark Index of the Oslo Stock Exchange into groups based on the number of days it takes to effect trades with a value corresponding to 0.5 percent of the market value of the GPFN equity portfolio. The figure shows the average number of days for each group. In order to limit the price impact of the trades effected by the GPFN, the trading volume is restricted to 15 percent of the total daily trading volume in each security.

Sources: Oslo Stock Exchange and Thomson Reuters Datastream.

trading days to invest 0.5 percent of the market value of the equity portfolio in many Norwegian stocks.

Scope for deviations is also intended to leave the asset manager room for outperforming the benchmark index. The information ratio is a performance measure for asset managers, defined as the ratio between excess return and tracking error. Folketrygdfondet has since 2007 registered an information ratio of 0.91.<sup>1</sup> Consequently, the GPFN has on average been compensated by a 0.91 percentage point excess return for each percentage point of tracking error. The deviations from the benchmark index have not increased overall risk in the Fund. These findings suggest that the ratio between risk and return in the GPFN has been improved relative to the benchmark index.

<sup>1</sup> The information ratio is calculated as the difference between the annual time-weighted return on the GPFN and the benchmark index, divided by the annualised standard deviation of monthly return differences, cf. section 4.2.

Chapter 6 discusses a number of variables that influence tracking error. It is noted, *inter alia*, that tracking error declines significantly when the number of securities in the index is increased. The deviations are then spread across a larger number of securities, thus reducing the company-specific fluctuations. Asset managers with a limited number of securities in their benchmark index, such as Folketrygdfondet, may therefore need a higher limit in order to generate excess return and implement index changes.

The scope for deviations also influences the risk of periods with underperformance relative to the benchmark index. The limit should therefore also reflect the risk tolerance of the owner. A limit of 3 percentage points is, in somewhat simplified terms, compatible with a risk tolerance for which a negative excess return of more than 3 percentage points in an individual year is not uncommon, whilst a negative excess return of more than 6 percentage points should occur rarely. Historically, Folketrygdfondet has not registered a negative excess return of more than 2.28 percentage points in any individual year. One reason for this is that the limit has not been fully utilised. By not fully utilising the limit, the asset manager makes allowances for the fact that tracking error estimates are uncertain and may increase considerably during periods of market turbulence. Folketrygdfondet states in its letter of 16 December 2014 that tracking error will normally be in the range of 0.5-2.5 percentage points. Furthermore, the focus in the risk management aspect of asset management is on capturing risk that, based on experience, is not readily addressed through the limit on tracking error. Limits have therefore been defined for minimum overlap between the equity portfolio and the benchmark index, together with separate limits on leverage and liquidity risk, respectively. So-called stress tests are also used to assess the impact of extreme events.

Folketrygdfondet also outlines how its risk management is organized. The distribution of roles and responsibilities is described as defining “three lines of defence”: operational risk management activities, internal risk management functions and internal audit. Folketrygdfondet states that the said structure has been established to ensure a satisfactory independence between decision makers and controlling and reporting functions.

The audit firm Ernst & Young has been commissioned by the Ministry of Finance to review the framework for managing and controlling risk in active management. The report evaluates the

framework in relation to defined measurement criteria. The report concludes that there are no significant discrepancies in relation to the measurement criteria, cf. the discussion in section 4.3.2.

Folketrygdfondet states in its letter that the current framework for the management of the GPFN is appropriate, and does not propose any changes.

### 3.2.5 The Ministry's assessments

In its assessment of Folketrygdfondet's asset management, the Ministry emphasises historical performance, asset management costs and the systematic use of management strategies based on the distinctive characteristics and advantages of the Fund.

The Ministry has noted the good historical performance of the GPFN. Folketrygdfondet's asset management has served to improve the ratio between risk and return relative to the benchmark index defined by the Ministry. Folketrygdfondet's asset management implementation aims to exploit distinctive characteristics, such as a long time horizon, high capacity to absorb risk and economies of scale in asset management. The asset management strategies used in operational implementation have delivered good performance in the Norwegian market over time. Folketrygdfondet has carried out several analyses of how the asset management strategies have contributed to such performance. There have been periods of underperformance relative to the benchmark index, but the strategies have been robust over time. This indicates, in the view of the Ministry, that Folketrygdfondet does have certain asset management advantages. However, this is no guarantee of good future performance.

The exploitation of economies of scale in asset management is important for a relatively large fund like the GPFN. Such economies of scale may serve to improve performance without increasing risk. Asset management costs in the GPFN have increased by close to 11 percent annually on average since 2010. The number of employees has also increased. A major part of the cost increase relates to the establishment of new control systems, including improved asset management support and risk management. This is largely the result of new requirements laid down by the Ministry. From 1 January 2011, Folketrygdfondet has been required to comply with Regulations of 22 September 2008 No. 1080 relating to Risk Management and Internal Controls. From 1 January 2012, Folketrygdfondet has also been required to prepare its annual



financial statements in compliance with the International Financial Reporting Standards (IFRS).

The consultancy firm CEM Benchmarking Inc. has been commissioned by the Ministry to compare the costs of Folketrygdfondet to those of a peer group of corresponding funds in other countries. The analysis for 2013 shows that Folketrygdfondet's costs of 0.08 percent of assets under management are low compared to the costs of 0.18 percent in the peer group. This suggests that Folketrygdfondet is a cost-effective asset manager. The Ministry does, at the same time, consider it a priority for Folketrygdfondet to exploit opportunities for economies of scale in coming years. The complexity of the asset management strategies of Folketrygdfondet must be characterised as moderate, and the benchmark index comprises a limited number of companies and bonds, with a main focus on the Norwegian market. It is important to emphasise efficient operations, and for the asset manager to focus consciously on cost effectiveness.

Moreover, the Ministry has noted that the equity investments of the GPFN have become more similar to the benchmark index and that expected tracking error has declined markedly for a protracted period. Risk taking has declined despite changing market conditions and large differences in returns on individual equities. Folketrygdfondet notes that the low risk taking reflects low expected returns from the active management strategies. Moreover, reduced liquidity in the stock market has made it more challenging to implement major changes in the composition of the equity portfolio. The Ministry is of the view that the scope for exploiting the advantages of the GPFN will vary over time, and that it is appropriate for the risk taking to vary as well. Folketrygdfondet has historically delivered strong returns on the relative risk assumed. It is, at the same time, important to facilitate effective use of the analysis and asset management resources to generate excess return in the GPFN.

Historical performance is good and Folketrygdfondet's asset management has served to improve the ratio between risk and return for the GPFN. The overall assessment of the Ministry is that the asset management strategies of the GPFN appear to be well founded and tailored to the distinctive characteristics of the Fund. Low asset management costs remain an important advantage of the Fund and should be maintained. These are important prerequisites for good performance in coming years.

#### *Assessment of the scope for deviations from the benchmark index*

It follows from the mandate laid down by the Ministry of Finance that Folketrygdfondet shall seek to achieve the maximum possible return on GPFN, net of costs, over time. The mandate stipulates limits for active management, including a limit on deviations from the benchmark index as measured by expected tracking error. The scope for deviations enables the asset manager to diversify risk better than the benchmark index, to exploit weaknesses in the benchmark index and to profit from security selection and factor premiums. The basis for assessing how to limit such scope for deviation is, like other aspects of the strategy, a trade-off between expected risk and return.

The Ministry notes that Folketrygdfondet states in its letter that the current limit on tracking error is appropriate, and that it does not propose changes. Folketrygdfondet maintains its objective from 2010 of achieving a long-term return that is 0.4 percentage points higher than the return on the benchmark index. This conforms well with historical performance. Folketrygdfondet states that there are positive synergies between active ownership and asset management activities, and that more passive management will result in lower returns and higher risk.

The Ministry's own analyses show that aspects of the market place and the benchmark index should form part of assessments relating to the scope for deviations. The analyses show that a relatively small number of securities in the benchmark index, low liquidity in many securities and a relatively large volume of assets under management suggest that the limit should be fairly high, to enable the asset manager to execute the management mission in a cost-effective manner.

Folketrygdfondet's historical performance and risk also indicate that there should be some scope for deviations. Asset management has increased the return on the GPFN without increasing risk. Future excess return expectations are, however, uncertain. A high limit also increases the probability of periods of major loss, which may impair confidence in the asset manager and the asset management strategy. The scope for deviations is based on a trade-off between these considerations.

The Ministry is of the view, based on an overall assessment, that the current limit on expected tracking error of 3 percentage points should be maintained. The Ministry believes that it is also appropriate to maintain the current expectation

that performance over time should correspond to an annual excess return in the range of  $\frac{1}{4}$ – $\frac{1}{2}$  percentage points, net of costs. This assessment is premised on the assumption that risk taking in asset management will over time increase to a more normal level. These expectations are in conformity with Folketrygdfondet's estimates and historical performance.

### 3.3 Unlisted investments

#### 3.3.1 Introduction

The Ministry announced, in connection with the submission of Report No. 19 (2013–2014) to the Storting, that it would be assessing whether to allow for parts of the GPFN to be invested in real estate and infrastructure not listed on a regulated and recognised market place.

Many institutional investors, like sovereign wealth funds, pension providers and life insurance companies, invest in unlisted real estate and infrastructure. The rationale behind such investments is often the opportunity to further diversify investments and to achieve a higher return than on listed investments.

In a letter of 27 June 2014, the Ministry requested Folketrygdfondet to submit analyses and assessments of unlisted real estate and infrastructure investments.

#### 3.3.2 Advice and assessments from Folketrygdfondet

In a letter of 13 November 2014, Folketrygdfondet submitted advice and assessments based on, inter alia, reports from two external consultancy firms that have looked at unlisted investments in infrastructure (Pöyry) and commercial property (Akershus Eiendom AS), respectively. The letter from Folketrygdfondet is published on the Ministry's website.

In its letter, Folketrygdfondet recommends that the Ministry should allow for the GPFN to be invested in unlisted infrastructure and real estate. It is argued that such an expansion of the investment universe may serve to diversify risk in the Fund and increase returns net of costs. Folketrygdfondet states, at the same time, that

“Existing data make it challenging to conclude unequivocally that the inclusion of unlisted assets will generally deliver a better risk-adjusted return on a portfolio, but we are of the view that this asset class will over time include

investments that can serve to improve the ratio between risk and return in the GPFN.”

Folketrygdfondet states that an expansion of the investment universe to include unlisted real estate and infrastructure is expected to moderately increase asset management costs, although the increase in expected excess return is larger. It is assumed, at the same time, that unlisted investments will serve to diversify risk in the Fund.

Folketrygdfondet notes, at the same time, that unlisted investments can be difficult to sell and involve considerable transaction costs, and also that valuations are much more uncertain than for listed securities.

Folketrygdfondet observes that government ownership, the size of the GPFN, government risk tolerance and the absence of any need for recurring transfers to the Treasury from the Fund may represent a competitive advantage in these markets. In addition, Folketrygdfondet believes that there are synergies with the management of listed equities and bonds, that it will be an attractive collaboration partner, and that it will be able to exploit a time variable liquidity premium by investing in these markets.

Folketrygdfondet states that it will need to strengthen expertise in its organisation in order to manage specific challenges posed by unlisted real estate and infrastructure investments. If the Ministry decides to allow investments in unlisted infrastructure and real estate, Folketrygdfondet will develop the expertise needed to prepare strategy plans and manage the unlisted portfolio. Such management will include trade-offs between investing in development projects and turnkey projects, risk management, cost assessments, operational implementation, follow-up and reporting.

Folketrygdfondet emphasises that the market for unlisted real estate is relatively well-developed and has a long history, whilst the market for unlisted infrastructure investments remains immature in Norway.

Folketrygdfondet also notes that it will only make unlisted investments that serve to improve the composition of the overall portfolio and that are attractively priced relative to other comparable investment alternatives that are available to the GPFN. It suggests that an opportunity cost model, in which unlisted investments are evaluated against alternative investments in listed equities and bonds, may be well suited for the GPFN. Such model was recommended for the GPFN in a report from Ang, Brandt and Denison in 2014, and is discussed in section 2.3.

Folketrygdfondet is of the view, in line with the opportunity cost model, that investments in unlisted real estate and infrastructure should form part of active management, without the Ministry stipulating a strategic allocation for unlisted investments in the benchmark index. If individual investment decisions are delegated to the asset manager, Folketrygdfondet believes that it will be able to invest selectively and gradually, with a sharp focus on costs and developments in the unlisted market. Folketrygdfondet nonetheless recommends that the Ministry cap unlisted real estate and infrastructure investments at 10 percent of the GPFN. Such a cap limits the scale of unlisted investments, whilst at the same time allowing Folketrygdfondet sufficient scope for manoeuvre.

The recommendation implies that the current benchmark index remains unchanged, at 60 percent equities and 40 percent bonds. Folketrygdfondet believes that investments in unlisted real estate and infrastructure can be made in the form of active investment decisions within the limit on deviations from the benchmark index, as measured by an expected tracking error of 3 percentage points.

### **3.3.3 The Ministry's assessments**

The Ministry is of the view that further examination is required as to whether investments in unlisted real estate and infrastructure in the GPFN should be permitted and, if applicable, how such investments should be regulated in the mandate to Folketrygdfondet. The Ministry is now conducting corresponding assessments for the GPFG, and will in that context be considering, inter alia, advice from Norges Bank and a group of external experts, cf. the discussion in section 2.3. An important element in such assessment will be the structuring of the mandate to Norges Bank and the scope for managing unlisted investments in accordance with the so-called opportunity cost model. This is also the model recommended by Folketrygdfondet for real estate and infrastructure in the GPFN. The Ministry intends to revert with assessments of unlisted real estate and infrastructure investments for both the GPFN and the GPFG in the report on the management of the Government Pension Fund in the spring of 2016.

## 4 Asset management follow-up

### 4.1 Performance of the Government Pension Fund Global

#### 4.1.1 Market developments in 2014

In 2014, return in the general stock market was just over 9 percent as measured in local currency<sup>1</sup>. According to the IMF, the growth in the world economy last year was 3.3 percent. Amongst industrialised countries, the US was a key generator of growth, with overall production well above the level from before the financial crisis. The unemployment rate in the US declined over the year to about 5½ percent, which is close to equilibrium unemployment as estimated by the Federal Reserve. North America was also the region with the highest equity return in 2014, at more than 12 percent.

The UK experienced robust economic growth and falling unemployment in 2014, whilst Euro zone growth was weak. Aggregate production in the Euro zone still remains below the level from before the financial crisis, which has to do with a need for households, businesses, banks and governments to strengthen their finances. Unemployment in the Euro zone remained high and private demand growth was weak. Return in the European stock market was positive despite weak growth, but distinctly lower than in North America.

Japan experienced weak economic growth in 2014, with one of the reasons for this being the VAT increase introduced by the authorities last spring. The stock market nonetheless delivered a return of about 10 percent.

Emerging economies registered significantly higher economic growth than industrialised economies in 2014, but the growth was in decline and there were major variations between countries. China experienced a growth of 7.4 percent in 2014, which is weaker than its growth in recent years. India experienced somewhat higher growth than in previous years, but nonetheless lower than before the financial crisis. Several emerging economies have been dependent on high commodity

prices and experienced declining growth rates last year. Growth in 2014 was around zero in Brazil, whilst the economic sanctions contributed to weak growth in Russia. All in all, the equity return in emerging economies was about 8 percent.

The oil price declined from a peak of about USD 115 per barrel in June, to less than USD 60 per barrel at yearend. The price reduction reflected increased shale oil production in the US, which was not offset by any reduction in oil production on the part of OPEC. Other drivers behind the oil price reduction were higher oil exports from Iraq and Libya and reduced economic growth in emerging economies.

Low energy prices have curbed inflation in many countries in recent years, and the oil price decline has contributed to this development. Low inflation and low economic growth resulted in several European central banks reducing policy rates in 2014 from already low levels. Some central banks introduced negative deposit rates by yearend. The European Central Bank lowered its policy rate twice in 2014, and started buying bonds in the bond market to keep long-term rates low. In the US, the Federal Reserve tightened monetary policy last year by gradually reducing the monthly bond purchases carried out by the Federal Reserve in recent years. Such purchases were discontinued in the fourth quarter.

Low short-term interest rates, declining inflation and low economic growth contributed to a reduction in long-term interest rates in many countries last year. Long-term rates also declined in the US, despite higher growth and tighter monetary policy, but by somewhat less than in Europe. Declining long-term rates resulted in high bond market returns.

#### 4.1.2 The market value of the Fund

At yearend 2014, the market value of the Government Pension Fund Global (GPF) was NOK 6,431 billion. The investments of the Fund comprised NOK 3,940 billion in equities, NOK 2,350 billion in bonds and NOK 141 billion in real estate,

<sup>1</sup> Measured by the global equity index MSCI ACWI IMI.

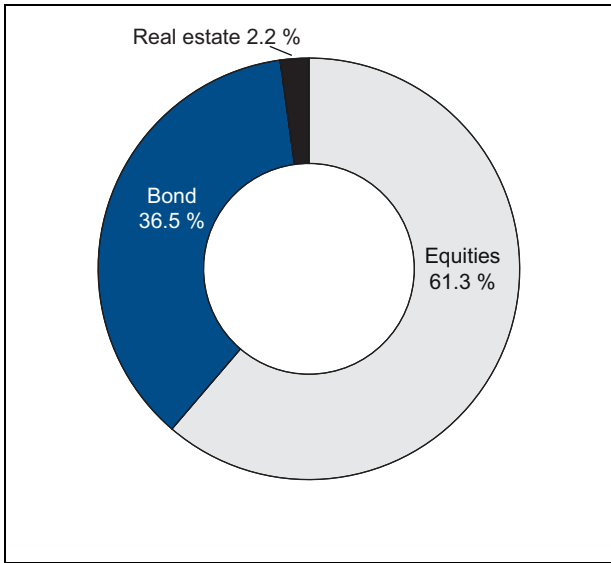


Figure 4.1 Distribution of the actual investments of the GPF by asset classes at yearend 2014. Percent  
Source: Norges Bank.

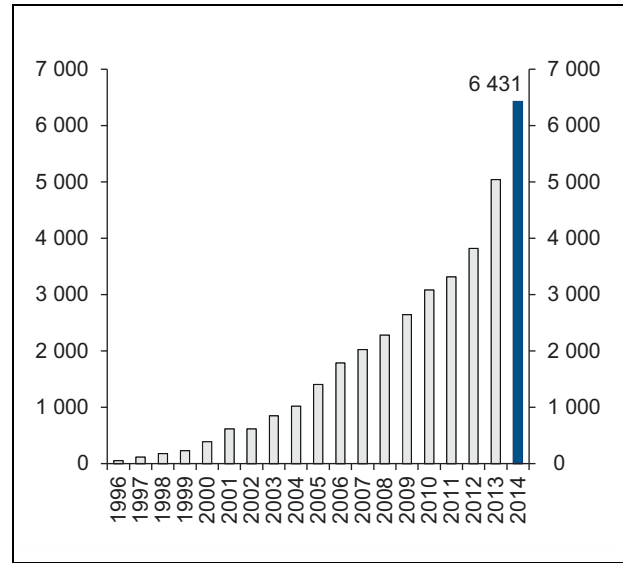


Figure 4.3 Developments in the market value of the GPF since inception. NOK billion  
Source: Norges Bank.

corresponding to 61.3 percent, 36.5 percent and 2.2 percent, respectively, cf. figure 4.1.

The market value of the Fund, as measured in Norwegian kroner, increased by NOK 1,393 billion during the course of 2014. The inflow to the Fund was NOK 150 billion, of which NOK 3 billion was used to cover the asset management costs of Norges Bank for 2013. Figure 4.2 shows developments in market value in 2014 and since

inception in 1996, by various components. Total inflow to the Fund since inception is NOK 3,449 billion, whilst the total return net of costs is NOK 2,315 billion. Figure 4.3 shows the development in the value of the Fund since inception.

At yearend, 39 percent of the Fund was invested in Europe, 39 percent in North America and 18 percent in Asia and Oceania. Investments in Latin America, Africa and the Middle East

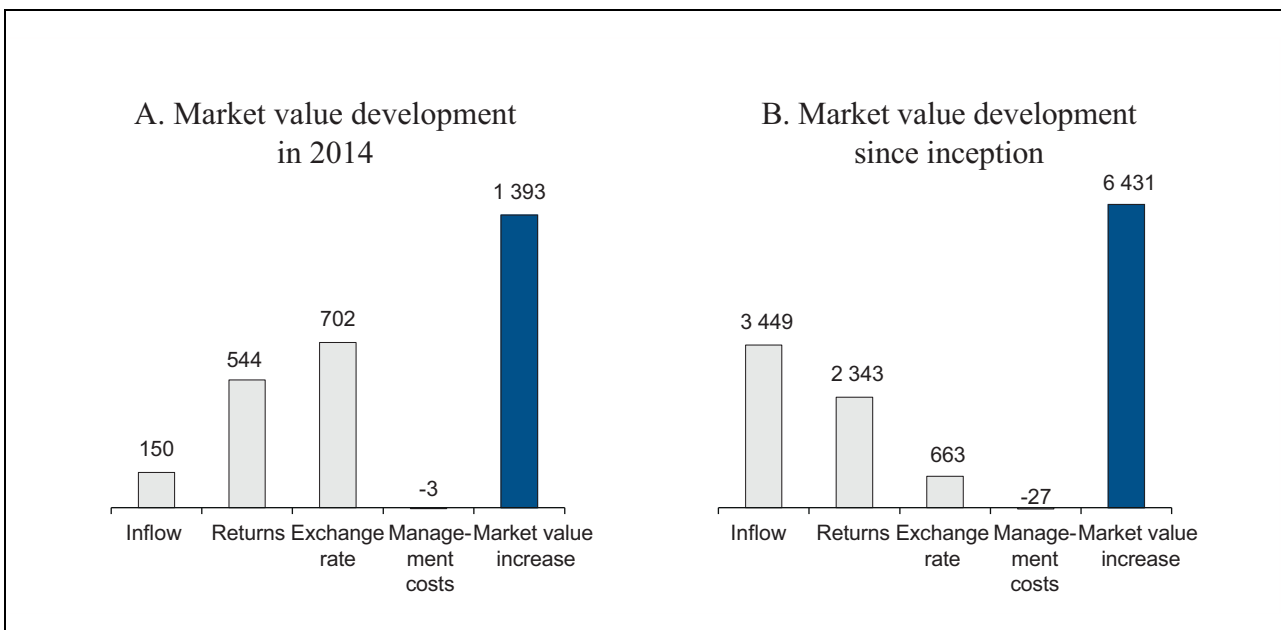


Figure 4.2 Developments in the market value of the Fund in 2014 and since inception in 1996. NOK billion  
Sources: Norges Bank and the Ministry of Finance.

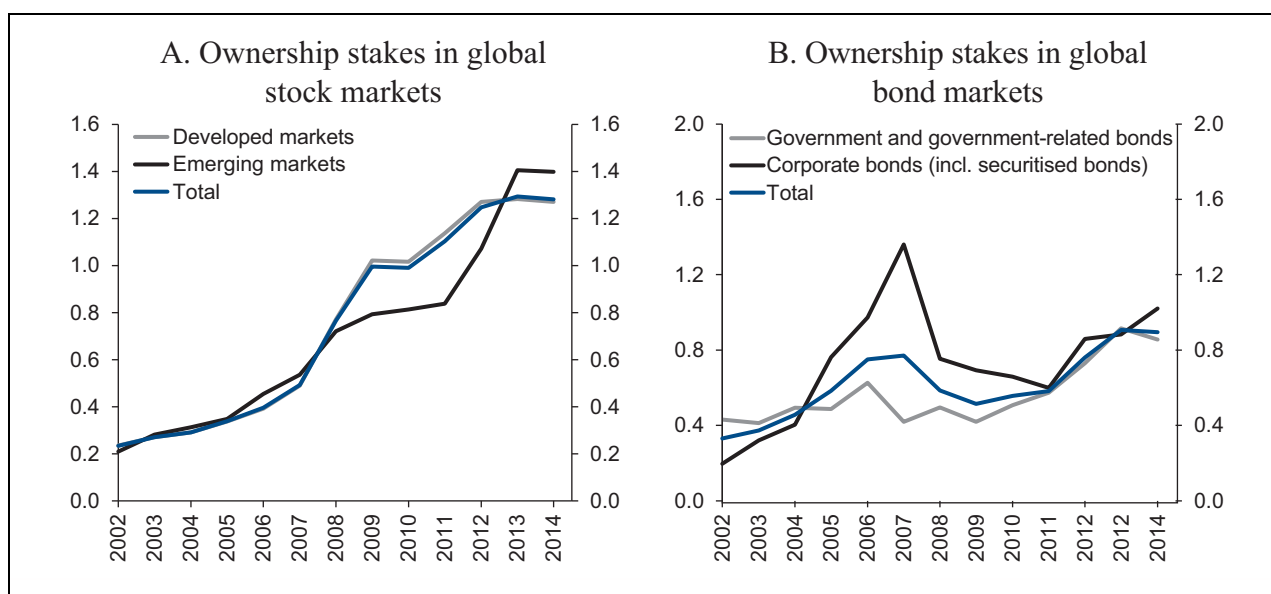


Figure 4.4 Ownership stakes of the GPFG in global equity and bond markets. Percent of the market value of the securities included in the benchmark indices of the Fund

Source: Norges Bank.

accounted for a total of just over 3 percent, whilst investments in bonds issued by international organisations represented 1 percent. Investments in emerging and less developed markets accounted for about 10 percent of the equity holdings and 13 percent of the bond holdings, cf. figure 2.4 in section 2.1, which shows the regional distribution of the benchmark index for the Fund.

At yearend 2014, the value of the Fund's equity portfolio corresponded to an ownership stake of about 1.3 percent, based on the aggregate value of the equities included in the benchmark index for the Fund. The ownership stake was somewhat larger in emerging markets than in developed markets. The value of the bond investments represented about 0.9 percent of the total value of the bonds included in the benchmark index, cf. figure 4.4. Average ownership stakes in both the equity market and the bond market are at about the same level as at yearend 2013.

The Fund made considerable real estate investments in the US and Europe during the course of 2014. The properties were principally in the office, retail and logistics segments. In addition, Norges Bank transferred ownership stakes in listed real estate companies from the equity portfolio to the real estate portfolio during the course of last year. As at yearend 2014, the real estate portfolio represented 2.2 percent of the market value of the Fund, as compared to 1.0 percent at the beginning of the year.

#### External management

At yearend 2014, external managers were managing 4.3 percent of the Fund's assets; close to NOK 280 billion. This portion is somewhat higher than at the end of 2013. External management predominantly involves equity mandates in emerging and less developed markets, as well as small companies in developed markets. These are markets and segments where Norges Bank does not deem it appropriate to develop internal capacity and expertise, whilst at the same time the Bank believes that prospects for outperforming the general market are favourable. In addition, about 40 percent of the equity investments under the environment-related mandates are managed externally. Asset management costs are generally higher in external management than in internal management, cf. the discussion of costs in section 4.1.5.

#### 4.1.3 Return

Reporting on the performance of the Fund is focused on developments measured in the currency basket of the Fund. The investments of the GPFG seek to maximise international purchasing power, given a moderate level of risk. Changes in the Norwegian kroner exchange rate may in some years have a major impact on fund value measured in Norwegian kroner. In 2014, Norwegian kroner depreciated significantly against, inter alia,

#### **Box 4.1 Return measured in the currency basket of the Fund and in Norwegian kroner**

GPFG assets account for the majority of financial savings on part of the State. The Norwegian kroner value of the Fund is therefore of relevance to State finances when taken in isolation. The fiscal policy guideline is, for example, based on the premise that transfers to the fiscal budget correspond to a portion of the value of the Fund, as measured in Norwegian kroner. However, the Norwegian kroner value of the Fund is of less relevance to Norway as a nation.

Oil and gas sales grant Norway a considerable trade surplus. A major part of this surplus accrues to the State, most of which is saved through the GPFG. Hence, the Fund plays an important role in national savings.

Oil and gas sales generate foreign currency revenues for Norway. The foreign currency revenues are reinvested in international currency equities, bonds and real estate through the transfers to the GPFG. A major part of the petroleum revenues is at no time converted into Norwegian kroner. The foreign currency revenues of the State from SDFI (the State's Direct Financial Interest) are, for example, transferred directly to Norges Bank, which subsequently invests these revenues in the Fund.

In a national perspective, the savings held in the GPFG shall finance future purchases of goods and services produced internationally – i.e. future imports. The quantity of foreign goods and services that may be financed by the fund capital depends on the fund value measured in international currency, and not on its value measured in Norwegian kroner. Hence, the investments of the Fund seek to maximise international purchasing power, given moderate risk.

Consequently, the main emphasis is on reporting the return on the Fund measured in international currency, although the financial statements of the GPFG are prepared in Norwegian kroner. No single currency is appropriate for reporting such return. A basket comprising several currencies is used instead. The currency basket of the Fund is a weighted combination of the currencies included in the benchmark indices for the equity and fixed-income investments of the Fund; currently a total of 34 currencies. Measurement of return in international currency is discussed in Report No. 19 (2013–2014) to the Storting – The Management of the Government Pension Fund in 2013.

US dollars and euros, which implied, when taken in isolation, an increase in the value of the Fund by more than NOK 700 billion when measured in Norwegian kroner. However, changes in value caused by exchange rates do not affect the international purchasing power of the Fund, cf. box 4.1. All return data in this section are measured in the currency basket of the Fund, unless otherwise specified.

#### *The overall portfolio*

The GPFG registered an aggregate return in 2014 of 7.6 percent before the deduction of asset management costs, cf. table 4.1. Since 1 January 1998, the average annual nominal return on the GPFG has been 5.8 percent. The annual return on the Fund as measured in other currencies is specified in Appendix 1.

#### *Equities*

The equity portfolio of the GPFG achieved a return of 7.9 percent last year. The investments in North America delivered the highest return, at 18.7 percent, whilst the return on the European investments was 0.2 percent and the return in Asia and Oceania was 9.3 percent. Investments in emerging markets delivered a return of 11.5 percent, but with major differences between countries.

There were also large return differences between equity sectors. Whilst the technology sector achieved the highest return, at 22.4 percent, the oil and gas sector delivered a return of -10.5 percent.

#### *Bonds*

The return on the fixed-income portfolio of the Fund in 2014 was 6.9 percent. At the beginning of the year, the current yield on the fixed-income investments was close to 2.4 percent. Declining



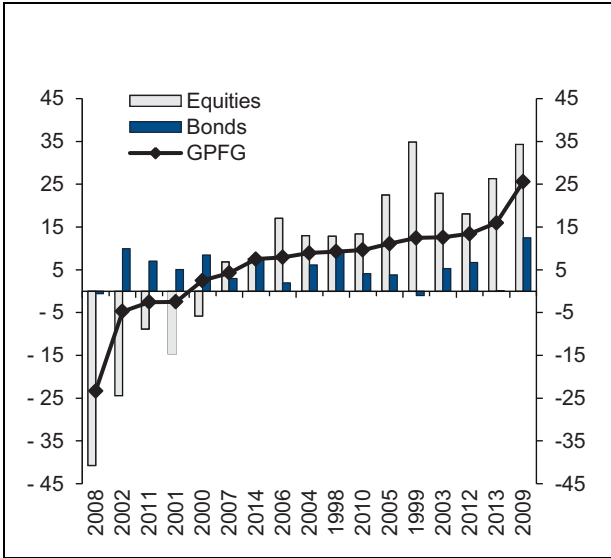


Figure 4.5 Annual nominal return on the GPF, ranked from lowest to highest return. Measured in the currency basket of the Fund and before asset management costs. Percent

Sources: Norges Bank and the Ministry of Finance.

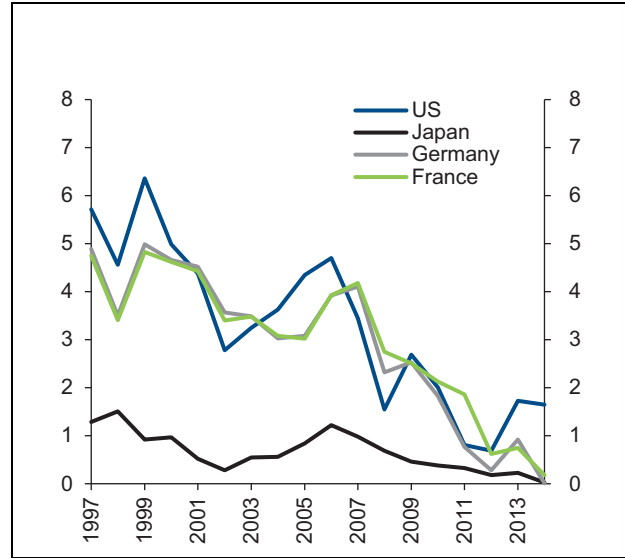


Figure 4.6 Yields on 5-year government bonds from selected countries. Percent

Source: Macrobond.

long-term yields, cf. figure 4.6, resulted in the overall return being considerably higher than the current yield.

Nominal government bonds accounted for 55 percent of the fixed-income investments, and these registered a return of 6.7 percent last year. Corporate bonds delivered the highest return of the fixed-income investments, at 11.3 percent, whilst inflation-linked bonds registered a return of 5.6 percent. Securitised bonds, which principally comprise covered bonds denominated in euros, registered a return of 3.5 percent.

At yearend 2014, the average effective yield on bonds held by the Fund was 2.1 percent, with a duration of 5.4 years. Duration is a measure for the average time until an investor can expect to receive the entire cash flow from a bond. A fixed-income portfolio with a long duration will be more sensitive to yield changes than a portfolio with a short duration. At yearend, the duration of the Fund was about six months lower than that of the benchmark index.

*Real estate*

The overall real estate investment return in 2014 was 10.4 percent. The unlisted real estate investments of the Fund achieved, according to Norges Bank, a return of 9.6 percent. Net rental income was 4.4 percent, whilst changes in the value of properties and debts contributed 7.1 percentage

points to the overall return. Transaction costs for property purchases reduced the return by 0.8 percentage points. The return on each property is measured in local currency. The overall return on the real estate portfolio is, however, measured in the currency basket of the GPF. The real estate portfolio has thus far been concentrated on three currencies; the euro, pound sterling and US dollar. Exchange rate fluctuations may therefore have a major impact on returns as measured in the currency basket of the Fund. In 2014, exchange rate changes reduced the return on the real estate portfolio by about 1 percentage point. The listed real estate investments of the Fund served to increase the overall real estate return.

It takes a long time for an index provider to gather data and calculate returns for unlisted real estate. In European countries for which the index provider IPD had calculated the return for 2014 by the end of March 2015, the return was 11.1 percent measured as a capital-weighted average in local currency. In the UK, there is a considerable market for unlisted real estate, whilst the portion of real estate managers reporting return figures to IPD is high. Consequently, return in the UK has a major impact on the calculated average return. Unlisted real estate in the UK reported to IPD delivered a return of 17.8 percent in 2014. The headline figures for Europe are average rental income of 5.2 percent in 2014, whilst property values increased by 5.6 percent. In the US,



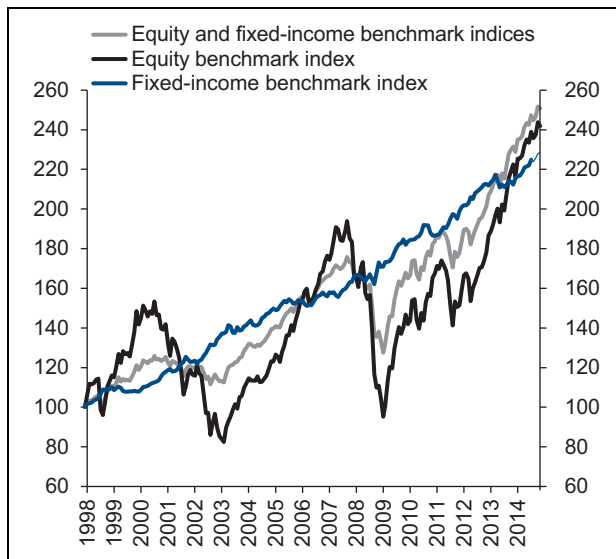


Figure 4.7 Development in the benchmark indices of the GPFG. Index. 31 December 1997 = 100

Sources: Norges Bank and the Ministry of Finance.

the overall real estate return was 11.2 percent, comprising rental income of 5.4 percent and an increase in property values of 5.5 percent.

The Ministry of Finance has commissioned an annual report from IPD on real estate investment returns in the GPFG. The return on the Fund's real estate portfolio is compared to the return on an index that includes all countries in which IPD is represented, with the exception of Norway. The latest report shows that the return on the real estate portfolio of the GPFG was 3.8 percentage points higher than the return on the index in 2013, when all return figures are converted to Norwegian kroner. The main reason for the excess return was that the GPFG held a larger portion of its real estate investments in currencies that appreciated considerably than did the index. The return measured in local currency was, on the other hand, 1.1 percentage points lower than the return on the index. This was because the Fund held a smaller portion of its real estate investments in the US than did the index in 2013, and the US was one of the best-performing markets. At the same time, a large portion of the real estate investments of the Fund was held in France, Switzerland and Germany, which underperformed the general index. The report is available on the Ministry's website.

Norges Bank conducts a thorough due diligence assessment of all parties involved in a real estate transaction, and of the actual property, before an investment is completed. This also

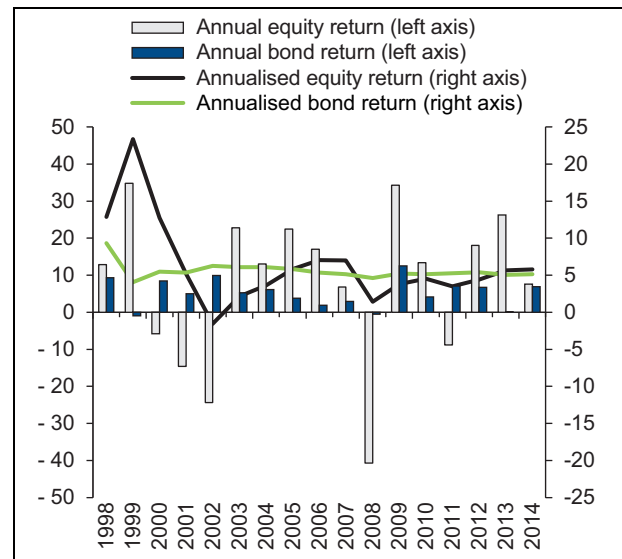


Figure 4.8 Return on the equity and fixed-income portfolios of the GPFG over time, measured in the currency basket of the Fund. Percent

Sources: Norges Bank and the Ministry of Finance.

includes an assessment of environmental factors. Measures to improve the efficiency of energy and water consumption, as well as waste handling, are addressed in the ongoing dialogue between the Fund and its partners. Norges Bank often makes use of external expertise to uncover any risk relating to materials with negative environmental or health implications that may affect the financial value of the property over time.

Norges Bank is committed to ensuring that the real estate investments adhere to international standards for responsible investment and reporting. Since 2011, Norges Bank has been a member of the Global Real Estate Sustainability Benchmark (GRESB). The Bank uses this framework to promote improved reporting on sustainable operations in the real estate sector and to compare its responsible real estate investment efforts to those of other stakeholders. Norges Bank requires its partners to submit information concerning the management of the Fund's properties to GRESB on an annual basis. Such information is used systematically in the Bank's collaboration with partners to gradually improve the quality, operating efficiency and environmental status of the properties.

#### *Equity and fixed-income performance over time*

Equities are expected to generate higher returns than bonds over time, in compensation for higher risk. Figure 4.7 shows the development in the equity and fixed-income benchmarks of the

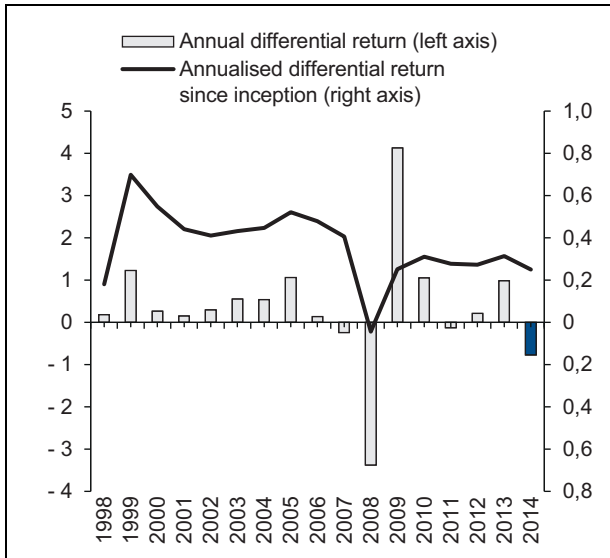


Figure 4.9 Gross excess return performance of the GPFG over time. Percentage points

Sources: Norges Bank and the Ministry of Finance.

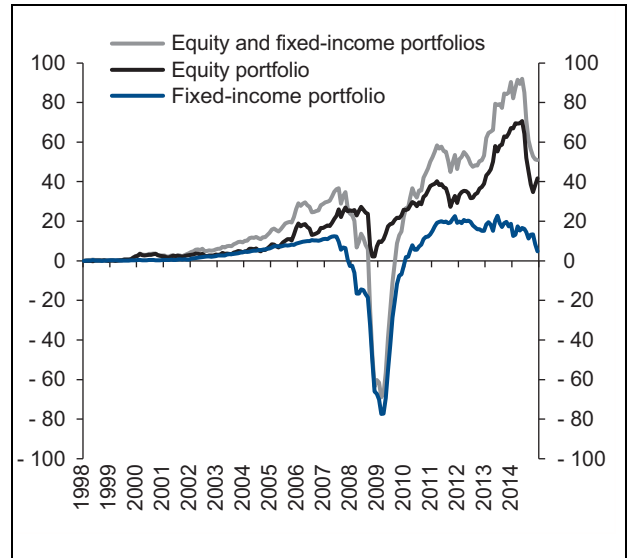


Figure 4.10 Accumulated excess return on the GPFG over time. NOK billion

Sources: Norges Bank and the Ministry of Finance.

GPFG since 1998. The annual return on equities over this period has been about 0.4 percentage points higher than on bonds, although equity returns have been considerably more volatile. This period covers two severe equity price slumps, when the dot-com bubble burst in 2000 and during the financial crisis in 2008. Bonds have experienced high returns since 1998 because of declining yields.

The equity market has outperformed the bond market over the last five years. The larger Fund value over the last five years as compared to the previous years, has contributed to high annual equity returns as measured in Norwegian kroner. Total return on equities since 1996 was NOK 1,567 billion as at yearend 2014, whilst total return on bonds was NOK 761 billion. Total return on real estate since 2011 was NOK 14 billion. As at yearend 2014, the return on equities had contributed about  $\frac{2}{3}$  of aggregate return since 1996.

#### Relative return

The return on the investments of the Fund is compared to the return on the benchmark index defined by the Ministry of Finance. The Ministry has previously explained that gross excess return, i.e. excess return before the deduction of asset management costs, is a reasonable estimate of the net value added through the asset management of Norges Bank. All in all, Norges Bank achieved a

return before the deduction of costs in 2014 that was 0.8 percentage points lower than the return on the benchmark index. The negative excess return from equity management was 0.8 percentage points, which corresponds to about NOK 25 billion, whilst the negative excess return in the management of the fixed-income portfolio was 0.7 percentage points, corresponding to about NOK 14 billion.

US equities achieved a higher return than European equities in 2014. Norges Bank's report on its management of the GPFG in 2014 notes that a higher portion of European equities and a lower portion of US equities in the portfolio of the Fund than in the benchmark index explain about 80 percent of the relative performance of the equity portfolio. A drop in the value of the companies Tesco, BG Group and Sprint alone caused about 30 percent of negative relative performance of the equity portfolio. Other deviations from the equity benchmark made a positive contribution.

The negative excess return in the fixed-income portfolio was caused by the Fund generally having a somewhat shorter duration than the benchmark index, and the portfolio of the Fund therefore increased less in value than the benchmark index as the result of declining yields over the year. Shorter duration can, according to Norges Bank, explain about 140 percent of the negative relative performance in the fixed-income portfolio. The Fund also held a higher portion of its fixed-income investments in emerging markets than did the

Table 4.1 Return on the GPFG in 2014, last 3, 5 and 10 years, as well as over the period 1998–2014, measured in the currency basket of the Fund and before the deduction of asset management costs. Annual geometric average. Percent

	2014	Last 3 years	Last 5 years	Last 10 years	1998–2014
<i>GPFG incl. real estate</i>					
Actual portfolio	7.58	12.26	8.61	6.17	5.81
Inflation	1.13	1.51	1.87	2.01	1.85
Management costs	0.06	0.06	0.07	0.09	0.09
Net real return	6.31	10.53	6.55	3.98	3.80
<i>GPFG excl. real estate</i>					
Actual portfolio	7.53	12.26	8.61	6.17	5.81
Benchmark index	8.30	12.14	8.36	6.06	5.56
Excess return (percentage points)	-0.77	0.12	0.25	0.11	0.25
<i>Equity portfolio</i>					
Actual portfolio	7.90	17.17	10.70	7.32	5.79
Benchmark index	8.73	16.90	10.51	6.99	5.33
Excess return (percentage points)	-0.82	0.27	0.18	0.33	0.45
<i>Fixed-income portfolio</i>					
Actual portfolio	6.88	4.51	4.93	4.48	5.14
Benchmark index	7.59	4.74	4.66	4.38	4.98
Excess return (percentage points)	-0.70	-0.24	0.27	0.10	0.16
<i>Real estate portfolio</i>					
Actual portfolio	10.42	9.30			

Source: Norges Bank.

benchmark index. Russian government bonds are amongst the Fund's largest emerging market investments, and the return on these investments was weak as the result of rising yields and a weak exchange rate. The investments in Russian government bonds can explain about 50 percent of the negative performance of the fixed-income portfolio. The fixed-income investments earned higher coupon income than the benchmark index in 2014. This compensated for some of the negative excess return associated with shorter duration and Russian government bonds.

Norges Bank has achieved an average annual gross excess return of 0.25 percentage points over time, cf. figure 4.9. The gross excess return over the period from January 1998 to December 2014 can be estimated at about NOK 52 billion<sup>2</sup>, cf. figure 4.10.

<sup>2</sup> Estimated by multiplying the excess return each month by the capital invested at the beginning of the month, and subsequently adding up over all months. Hence, the estimate does not include the compound interest effect.

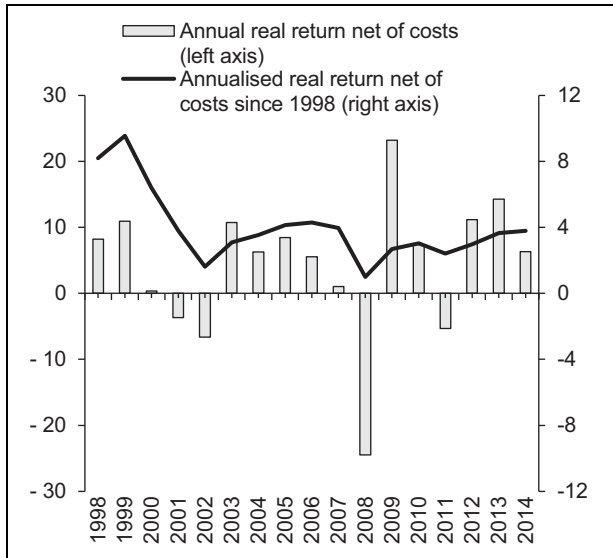


Figure 4.11 Real return on the GPFG over time, measured in the currency basket of the Fund. Percent

Sources: Norges Bank and the Ministry of Finance.

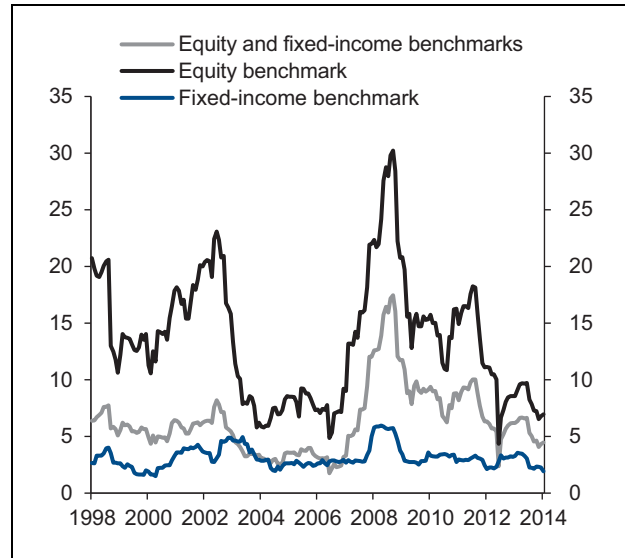


Figure 4.12 Developments in 12-month rolling standard deviation of the GPFG benchmark indices. Percent

Sources: Norges Bank and the Ministry of Finance.

### Real return

The return on the GPFG in 2014 after the deduction of asset management costs and inflation (net real return) was 6.3 percent, cf. figure 4.11. The average annual net real return over the period from January 1997 to December 2014 was 4.0 percent. Since January 1998, the average annual net real return was 3.8 percent. This is 0.2 percentage points higher than the corresponding figure at yearend 2013.

#### 4.1.4 Risk and limits

##### Fund risk

Standard deviation is a statistical measure of risk used to indicate the expected normal volatility of fund returns. Norges Bank has estimated the expected standard deviation of the GPFG at 8.2 percent, or about NOK 530 billion, given the value of the Fund at yearend 2014. Under the assumption that return figures follow a normal distribution over time, fluctuations will be expected to exceed this in one out of three years. Historically, return volatility has exceeded that implied by the normal distribution assumptions.

Figure 4.12 shows how the realised standard deviation of the return on the GPFG has developed since 1998. The figure reflects the standard deviation at any given time as computed on the basis of the return over the preceding 12 months.

The figure shows that risk measured in this way has varied considerably over time. During periods of major uncertainty, such as during the financial crisis in 2008–2009, the standard deviation will typically increase. The figure shows that risk measured in this manner declined somewhat during 2014.

Equity portfolio developments have the most impact on overall risk in the Fund, whilst the fixed-income portfolio risk serves to reduce overall risk in the Fund over time. At yearend 2014, the risk associated with the fixed-income investments was somewhat below the historical average for the period 1998–2014. Furthermore, equity risk was at a level significantly below the historical average.

##### Relative risk

The mandate for the GPFG stipulates a limit on deviations between the actual investments of the GPFG and the benchmark index. Norges Bank has over time only used part of this scope for deviations. The purpose of deviating from the benchmark index is to achieve excess return by exploiting the distinctive characteristics of the Fund, weaknesses of the index and market opportunities.

Expected tracking error is a statistical measure of expected fluctuations in the differential return between the investments of the Fund and

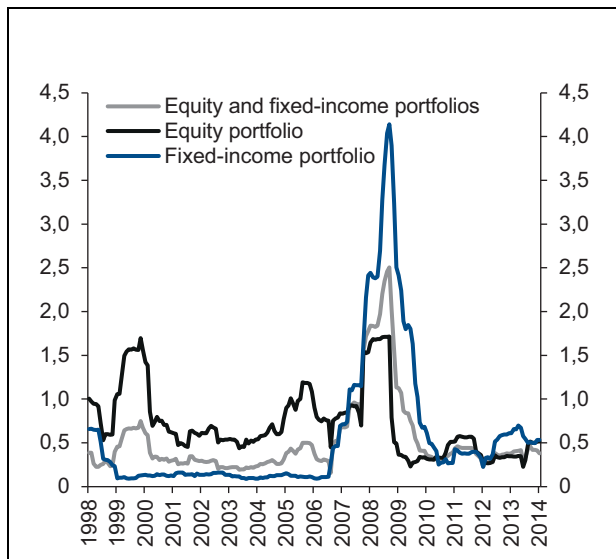


Figure 4.13 Rolling 12-month realised tracking error for the equity and fixed-income portfolios of the GPFG, as well as for the Fund as a whole. Percentage points

Sources: Norges Bank and the Ministry of Finance.

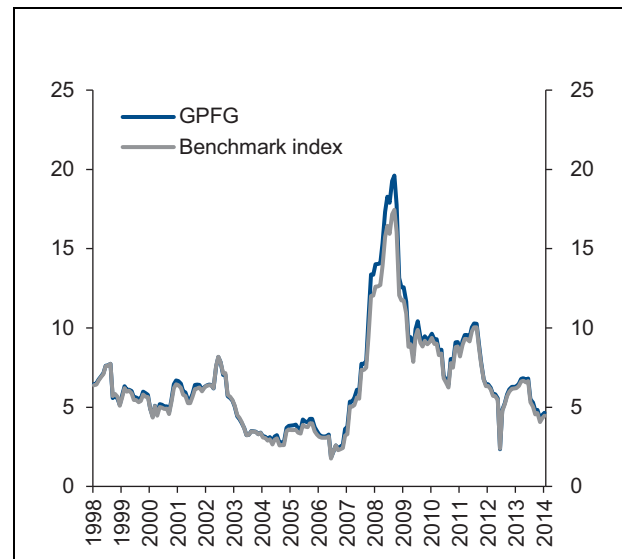


Figure 4.14 Rolling 12-month standard deviation of the actual GPFG portfolio vs. the benchmark index. Percent

Sources: Norges Bank and the Ministry of Finance.

the benchmark index. The mandate for the GPFG stipulates that Norges Bank shall organise asset management with a view to preventing expected tracking error from exceeding 1 percentage point. Under the assumption that return figures follow a normal distribution over time, fluctuations will be expected to exceed this in one out of three years. The Ministry has, at the same time, specified that the expected tracking error may, under extraordinary circumstances, exceed the 1-percentage point limit without representing a violation of the mandate, cf. Report No. 15 (2010–2011) to the Storting – The Management of the Government Pension Fund in 2010. The method for calculating expected tracking error is determined by Norges Bank and approved by the Ministry. According to Norges Bank, the estimated expected tracking error during 2014 was well below 1 percentage point, and was calculated to be 0.4 percentage points at yearend.

The limit on relative risk in the mandate for the GPFG pertains to expected future fluctuations. In retrospect, it may be useful to check whether these match actual fluctuations. Figure 4.13 shows tracking error based on actual deviations between the return on the Fund and the return on the benchmark index. At any given time in the figure, tracking error is computed on the basis of the excess return over the preceding 12 months. As at yearend 2014, the realised tracking

error over the preceding 12 months was 0.4 percentage points.

Situations may arise in which actual return deviations between the benchmark index and the actual portfolio exceed those implied by expected tracking error. One reason for this is that tracking error does not capture all types of risk that may arise in asset management. This is exemplified by the experience from 2008 and 2009. Hence, the mandate stipulates supplementary limits and requirements.

Figure 4.14 shows developments in the standard deviation of the Fund and that of the benchmark index, based on returns in rolling 12-month periods. The risk in the Fund has been generally on par with the risk in the benchmark index since 1998, with the exception of during and after the financial crisis in 2008, when the risk in the Fund was somewhat higher than that of the benchmark index. Consequently, the figure illustrates that it is predominantly the risk in the benchmark index that determines the overall risk in the Fund, whilst Norges Bank's deviations from the benchmark index only make a minor contribution. The risk in the Fund has been somewhat higher than the risk in the benchmark index during 2014.

The excess return that Norges Bank is able to generate through its management of the GPFG depends on, inter alia, the limit on permitted deviations from the benchmark index stipulated in the mandate. The ratio between excess return and

Table 4.2 Absolute and relative risk measures for the GPFG, monthly observations. 1998–2014

	2014	Last 3 years	Last 5 years	Last 10 years	1998–2014
<i>GPFG excl. real estate</i>					
Absolute volatility (percent)	4.64	5.76	7.26	8.60	7.52
Tracking error (percentage points)	0.38	0.38	0.40	0.91	0.74
Skewness <sup>1</sup>	0.13	-0.76	-0.35	-1.04	-0.97
Kurtosis <sup>1</sup>	2.02	3.52	2.88	6.65	6.92
Information ratio <sup>2</sup>	-2.01	0.33	0.64	0.12	0.34
<i>Equity portfolio</i>					
Absolute volatility (percent)	7.10	9.14	12.18	14.84	15.24
Tracking error (percentage points)	0.52	0.44	0.44	0.80	0.84
Skewness <sup>1</sup>	0.10	-0.92	-0.41	-0.93	-0.81
Kurtosis <sup>1</sup>	2.68	4.38	3.36	5.49	4.49
Information ratio <sup>2</sup>	-1.59	0.62	0.41	0.41	0.54
<i>Fixed-income portfolio</i>					
Absolute volatility (percent)	1.65	2.40	2.65	3.49	3.40
Tracking error (percentage points)	0.53	0.48	0.53	1.43	1.11
Skewness <sup>1</sup>	-0.30	-0.65	-0.56	-0.47	-0.44
Kurtosis <sup>1</sup>	2.50	3.36	3.83	4.79	4.27
Information ratio <sup>2</sup>	-1.32	-0.49	0.51	0.07	0.14

<sup>1</sup> Skewness and kurtosis are measures of deviations from the symmetry of a statistical normal distribution. Kurtosis in excess of 3 and negative skewness mean that losses occur more frequently and are larger than would be suggested by a normal distribution.

<sup>2</sup> Information ratio (IR) presents the relationship between the excess return from deviating from the benchmark index and the magnitude of such deviations, as measured by relative risk. Consequently, IR measures the compensation for deviating from the benchmark index in relation to the magnitude of such deviations, and shows the excess return achieved for each percentage point of relative risk. The information ratio is calculated as the difference between the annual time-weighted return on the GPFG and the benchmark index, divided by the annualised standard deviation of monthly return differences.

Sources: Norges Bank and the Ministry of Finance.

tracking error is called the information ratio, and is a frequently used performance measure. With an expected excess return of about  $\frac{1}{4}$  percentage points, and full utilisation of the 1-percentage point limit on expected tracking error, the expected information ratio can be estimated at  $\frac{1}{4}$ . Table 4.2 shows that Norges Bank has achieved an excess return in line with expectations, whilst the realised relative risk has been below the 1-percentage point limit. Norges Bank achieved an

information ratio of just above 0.3 over the period 1998–2014. Consequently, the excess return in asset management exceeds the expectations of the Ministry when considered in relation to the utilisation of the tracking error limit.

#### *Credit risk*

The bonds included in the benchmark index of the GPFG have been accorded a credit rating by

Table 4.3 Limits applicable to the GPF, laid down by the Executive Board of Norges Bank

Risk	Limits	Actual as at 31 December 2014 (percent)
Counterparty risk <sup>1</sup>	Maximum 0.5 percent for any one counterparty	0.2
Credit risk <sup>2</sup>	Maximum 1 percent of fixed-income investments from any one issuer may be rated below BBB-	0.1
Overlap <sup>3</sup> between actual holdings and benchmark indices	Equities: minimum 60 percent	81.3
	Bond issuers: minimum 60 percent	69.4
Liquidity excluding real estate	Minimum 10 percent of the fund shall be invested in government bonds from US, UK, Germany, France and Japan	11.8
Leverage	Maximum 5 percent of equity and fixed income investments	0.0
Securities lending	Maximum 35 percent of the Fund's investments	2.8
Issuance of options	Maximum 2.5 percent of the Fund's investments	0.0
Securities borrowing through borrowing programmes	Maximum 5 percent of the Fund's investments	0.0
Investment in any one company	Maximum 1.5 percent of the Fund's investments	0.7
Assets managed by any one external manager	Maximum 1 percent of the Fund's investment	0.2

<sup>1</sup> Counterparty risk is the risk that a bank or other contracting party is unable to meet its obligations, such as for example paying the value of a derivatives contract upon settlement.

<sup>2</sup> Credit risk is the risk of a borrower being unable to fulfil its legal obligations, like for example the payment of accrued interest or the repayment of principal.

<sup>3</sup> Overlap shows the portion of the actual portfolio that is identical to the benchmark index. If overlap is 100 percent in the equity portfolio, the actual portfolio comprises the same companies as the benchmark index and each company accounts for the same portion of the actual portfolio as in the benchmark index. If the actual portfolio comprises other companies than the benchmark index, or is over- and underweighted in certain companies, the overlap will be reduced.

Source: Norges Bank.

at least one of the leading rating agencies. The purpose of credit ratings is to indicate how likely it is that the borrower will be able to meet the interest costs and repay the loan. The portion of bonds with a credit rating of A<sup>3</sup> or lower was 44 percent at yearend 2014; an increase from 29 percent at yearend 2013. The portion of securitised bonds, as well as government bonds from the US

and certain European countries, declined during 2014, whilst the portion of corporate bonds and government-related bonds increased. More issuers in the fixed-income portfolio, both companies and countries, saw their credit ratings downgraded rather than upgraded. These included Japan, which was downgraded by Moody's, with the result that Japanese government bonds were transferred to the A category, from the AA category. Japanese government bonds represented about 8 percent of the fixed-income portfolio at yearend 2014. Furthermore, Norges Bank increased the portion of government bonds issued by emerging countries in 2014. All in all, this resulted in a reduction in the credit quality

<sup>3</sup> Standard & Poor's rating scale for credit quality is AAA, AA, A, BBB, BB, B, CCC, CC, C, D, with AAA as the top rating. Bonds with a credit rating from AAA to BBB, inclusive, are deemed to have a high credit rating and are termed "investment grade" bonds. Bonds with a lower credit rating are deemed to have a low credit rating and are termed "high yield" bonds.



of the fixed-income portfolio, as measured by credit rating, over the year, and hence in an increase in credit risk in the portfolio.

Bonds with low credit ratings, so-called high-yield bonds, are not included in the benchmark index of the GPFG. The mandate for the GPFG permits Norges Bank to invest in such securities, within defined limits. The Ministry has stipulated that asset management shall be organised with a view to ensuring that such bonds represent no more than 5 percent of the market value of the fixed-income portfolio. This ensures that Norges Bank is not forced to sell fixed-income instruments that are downgraded. At yearend 2014, Norges Bank reported that the portion of fixed-income holdings classified as high-yield bonds was 0.7 percent, which is 0.1 percentage point more than at the beginning of the year.

#### *Individual investments*

At yearend 2014, the Fund held ownership stakes of more than 2 percent in 1,205 companies, up from 1,088 at yearend 2013. The number of companies in which the Fund held ownership stakes of more than 5 percent increased to 57, up from 45. The Fund held equities in 9,134 companies as at yearend, up from 8,213 companies one year earlier.

The role of the Fund is to be a financial investor. It seeks to diversify risk across many different securities. The Ministry has therefore stipulated in the mandate for the GPFG that the Fund can hold a maximum of 10 percent of the voting shares of any one company in the equity portfolio. At yearend 2014, its largest ownership stake in one single company in the equity portfolio was 9.3 percent. The market value of the largest investment of the Fund, as measured in Norwegian kroner, in one single company at yearend 2014 was NOK 48 billion.

#### *Limits defined by Norges Bank*

In addition to the limits stipulated in the mandate laid down by the Ministry of Finance for the management of the GPFG, there is also a requirement for the Executive Board of Norges Bank to define supplementary risk limits for the management of the GPFG. It is a requirement under the mandate that any changes to the supplementary risk limits are presented to the Ministry of Finance before entering into effect. Table 4.3 shows the limits defined by the Executive Board for various risk categories, as well as the actual levels as per yearend 2014.

In some companies, Norges Bank has chosen to invest a smaller portion of the Fund than is implied by the benchmark index. The overlap between the equity portfolio and its benchmark index is 81.3 percent. This implies that the underweighting in individual companies represents a total of 18.7 percent of the value of the equity portfolio, or about NOK 740 billion. The funds released through the underweighting can be used to increase ownership stakes in other companies included in the index or to invest in companies not included in the benchmark index. Norges Bank has invested in about 1,700 companies that are not part of the index. This serves, when taken in isolation, to further diversify the investments relative to the benchmark index. These additional investments comprise companies with too low market value and liquidity to be included in the index, as well as companies in less developed markets.

#### *Real estate investment limits*

The mandate for the management of the GPFG stipulates that up to 5 percent of the Fund value may be invested in real estate over time. The Fund made its first investment in the real estate portfolio in 2011, and Norges Bank is required to spread the investments over several years. In addition, the Executive Board of Norges Bank is required to impose supplementary limits to curtail the real estate investment risk, cf. table 4.4. In addition to the limits in table 4.4, the Executive Board has stipulated that a maximum of 2 percent of the Fund can be invested in real estate in any one year.

#### *Systematic risk factors*

Norges Bank shall, according to the mandate for the management of the GPFG, organise asset management with a view to ensuring that the return on active positions is exposed to several systematic risk factors. One example of such a risk factor is company size. Companies with small market capitalization have historically developed differently from, and over time better than, the value of companies with large market capitalization. Another example is value. Equities of companies with low valuations (“value equities”) have historically delivered different, and over time better, returns than equities with high valuations. Valuation is measured by the market value of company equities relative to fundamentals like the



Table 4.4 Limits applicable to the real estate investments of the GPF, laid down by the Executive Board of Norges Bank

Risk	Limits	Actual as at 31 December 2014 (percent)
Country allocation	France, UK, US and Germany: Maximum 35 percent of real estate investments	13.1
	Other countries: maximum 10 percent of real estate investments	2.4
Sector allocation	Office space: 0-60 percent of real estate investments	24.9
	Retail space: 0-60 percent of real estate investments	5.5
	Other property: 0-30 percent of real estate investments	6.4
Real estate investments in emerging markets	Maximum 10 percent of Fund's real estate allocation	0.8
Investments in real estate under development	Maximum 15 percent of real estate investments	1.6
Investments in vacant real estate	Maximum 15 percent of real estate investments	5.3
Investments in interest-bearing instruments	Maximum 25 percent of the Fund's real estate allocation	0.0
Investments in listed equity	Maximum 25 percent of the Fund's real estate allocation	10.3
Debt ratio	Maximum 50 percent of real estate investments	10.1
	Maximum 70 percent for any one investment	51.9

Source: Norges Bank.

company's book value of equity, profits, sales or dividends.

Figure 4.15 shows the findings from an analysis seeking to estimate the importance of such factors in the equity portfolio. The analysis, which was carried out by Norges Bank, shows that the equity investments of the Fund in 2014 were somewhat more exposed to companies in emerging markets and to general stock market developments than that of the benchmark index. The exposure appears to have varied during the course of 2014. Norges Bank notes, at the same time, that only 2 percent of the fluctuations in the excess return on the equity investments of the Fund in 2014 can be explained by the factors and market risk captured by the benchmark index. Consequently, the findings from the analysis are uncertain.

Figure 4.16 presents an analysis of systematic risk factors in the fixed-income portfolio. According to Norges Bank, about 39 percent of the fluctuations in the relative return on the fixed-income portfolio in 2014 can be explained by term premium changes. Term premiums reflect the difference between yields on bonds with a long and short time to maturity, respectively.

#### 4.1.5 Costs

The mandate for the GPF implies that the actual management costs of Norges Bank are covered up to an upper limit, which for 2014 was fixed at 0.09 percent (9 basis points) of the average market value of the Fund. In addition, Norges Bank is compensated for performance fees to external managers.

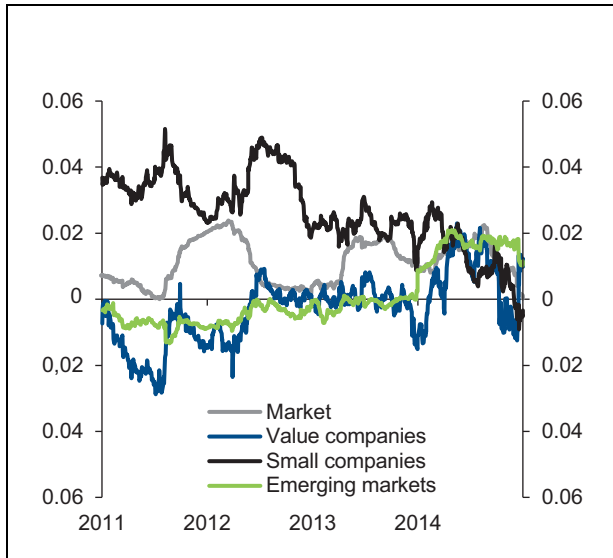


Figure 4.15 Systematic factors in the GPFG equity portfolio

Source: Norges Bank.

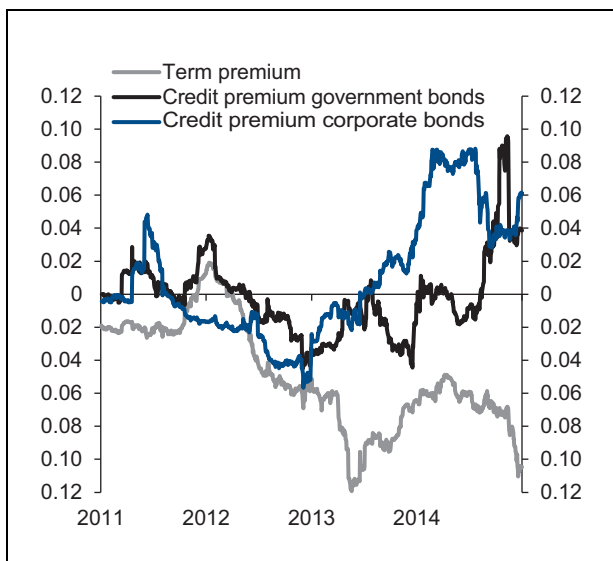


Figure 4.16 Systematic factors in the GPFG fixed-income portfolio

Source: Norges Bank.

Asset management costs, excluding performance-based fees for external managers, amounted to NOK 2.6 billion in 2014. This corresponds to 0.047 percent of the average market value of the Fund, down from 0.050 the previous year.

Overall asset management costs increased to NOK 3.2 billion in 2014, from NOK 2.9 billion in 2013. According to Norges Bank, the main reasons for the cost increase were Norwegian kroner

depreciation, higher costs in relation to external managers and an increase in custodianship costs as the result of more assets under management, cf. figure 4.17. External management costs increased as the result of additional external mandates and more assets managed externally. A higher number of employees resulted in higher salary and personnel costs. Overall costs measured as a portion of assets under management declined to 0.059 percent in 2014 from 0.066 percent in 2013.

Operating and administration costs are incurred in subsidiaries established in connection with the real estate investments. These costs are deducted, in line with the accounting provisions adopted by Norges Bank, from the return on the real estate portfolio, and are not charged to the asset management costs. These costs amounted to NOK 83 million in 2014, but are likely to increase somewhat in coming years as the real estate portfolio grows. The aforementioned costs are included when examining whether overall costs are below the limit of 9 basis points.

#### *International cost comparison*

The company CEM Benchmarking Inc. has been instructed by the Ministry to compare the costs of the Fund in 2013 with the costs of other funds. The comparison shows that the GPFG has the lowest costs of all funds included in the study, when costs are measured relative to assets under management. One of the reasons is that the GPFG has few investments in asset classes that entail high costs, such as for example private equity and real estate. Another reason is that much of the assets are managed internally by Norges Bank and that the external management element is small. CEM also finds that internal management at Norges Bank is cost effective compared to the management activities of the other funds. The report from CEM is published on the Ministry's website.

#### *Cost developments over time*

Asset management costs have increased over time in absolute terms, when performance-fees are excluded. Some costs depend on the size of the Fund and will therefore increase when assets under management grow. Norges Bank has expanded its personnel in connection with, inter alia, the real estate investments. This has, together with a general increase in salaries, resulted in higher internal costs. The cost

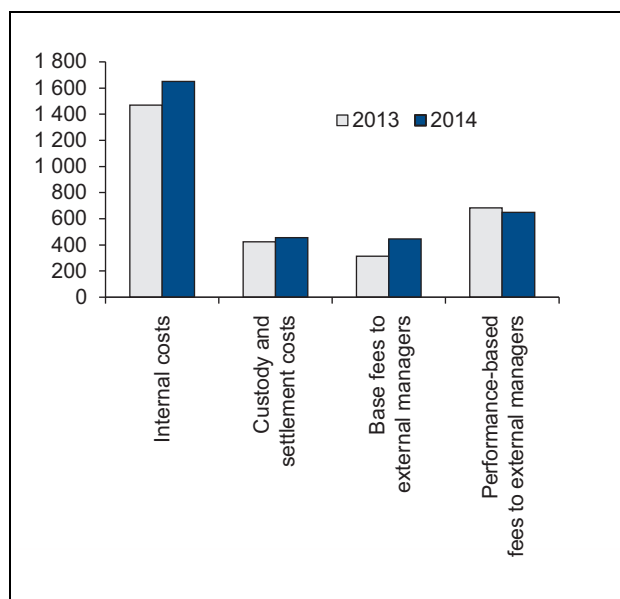


Figure 4.17 GPFG costs in 2013 and 2014. NOK million

Source: Norges Bank.

increase has nonetheless been outpaced by the increase in Fund value, thus implying that costs measured as a percentage of assets under management have declined, cf. figure 4.18. Part of the costs of the Fund are incurred in other currencies than Norwegian kroner. Consequently, exchange rate fluctuations will have some impact on costs as measured in Norwegian kroner.

#### 4.1.6 Environment-related investment mandates

In 2009, it was decided to establish specific mandates for environment-related investments within the GPFG, cf. Report No. 20 (2008–2009) to the Storting. The investments are made within the same limits as apply to the Fund's other investments, and form part of the active management performed by Norges Bank. The allocation under these mandates was expanded to NOK 30-50 billion with effect from 1 January 2015, up from NOK 20-30 billion, cf. Report No. 19 (2013–2014) to the Storting.

The environment-related investments form part of the overall portfolio of the Fund, and risk and return are measured against the benchmark index for the Fund. Hence, such investments draw on the overall limit on tracking error. The environment-related mandates imply that the Fund invests relatively more in environment-related

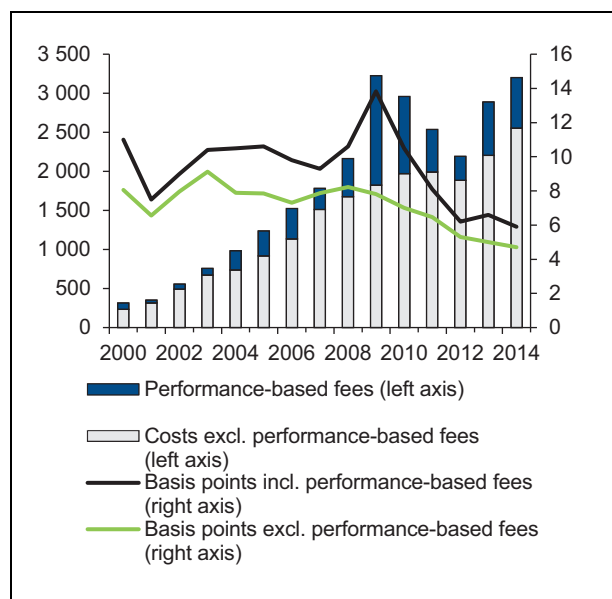


Figure 4.18 Developments in GPFG asset management costs. Measured in NOK million (left axis) and in basis points (right axis). One basis point = 0.01 percent

Source: Norges Bank.

companies and industries than would be implied by the benchmark index for the Fund. This results, at the same time, in larger ownership stakes in such companies.

Within the environment-related mandates, Norges Bank has a focus on companies providing energy solutions with low emissions or alternative fuels, energy efficiency and natural resource management.

Norges Bank has presented the investments made under the environment-related investment mandates in a separate responsible investment report. At yearend 2014, the total market value of the environment-related equity mandates was NOK 42 billion, comprising investments in 220 companies. The return last year was 5.0 percent, which was about 3.7 percentage points lower than the return on the benchmark index for the equity portfolio of the GPFG. The average annual return since the establishment of the mandates five years ago has been 3.2 percent.

#### 4.1.7 Internal reference portfolios

Norges Bank has established internal reference portfolios for the equity and fixed-income portfolios. The reference portfolios start out from the benchmark index defined by the Ministry of Finance, but modifications are made, inter alia, to exploit the distinctive characteristics of the Fund.

The deviations between the internal reference portfolios and the benchmark index defined by the Ministry take place within the limits stipulated in the mandate for the GPFG.

The internal reference portfolio for equities encompasses, inter alia, almost 1,800 companies omitted from the benchmark index defined by the Ministry. These are largely companies in less developed markets that are not included in the index. The equity benchmark for the Fund is adjusted for so-called free float. This implies that the index weights are reduced to reflect the ownership stakes of large long-term owners, as well as cross-ownership, because the index provider does not consider such equities to be freely tradable. The adjusted weights provide a better measure for the number of equities that are available to financial investors. For a long-term investor without any need to sell equities in the short run it is not necessarily appropriate to reduce investment in a company because such company has large long-term owners. The free float adjustment made by Norges Bank to the internal reference portfolio therefore differs from that of the benchmark index.

The internal reference portfolio for bonds includes, inter alia, bonds from emerging markets that are not included in the benchmark index, as well as fiscal strength adjustments for investments in government bonds.

The internal reference portfolio for equities registered a return of 8.5 percent in 2014. That was 0.2 percentage points lower than the return on the benchmark index defined by the Ministry. The difference was largely caused by the internal reference portfolio featuring a larger portion of European equities and a smaller portion of US equities than the benchmark index.

The internal reference portfolio for bonds registered a return of 7.4 percent in 2014, which was 0.2 percentage points lower than the return on the benchmark index. The difference was primarily caused by the internal reference portfolio featuring a larger portion of emerging market government bonds than the benchmark index defined by the Ministry.

#### 4.1.8 The Ministry's assessments

2014 was a year of good returns in the general equity and bond markets. Bond market returns were especially favourable, given the low yield level at the beginning of the year. The high bond market return reflected further drop in yields during the year.

Both the equity and the fixed-income portfolio underperformed the benchmark index last year. All in all, the GPFG investments underperformed the benchmark index by 0.8 percentage points. Norges Bank has discussed the main sources of such negative excess return in its annual report for 2014. The Ministry focuses on performance developments over time. The Ministry is satisfied with the fact that the average annual gross return since 1998 has been about  $\frac{1}{4}$  percentage points higher than that on the benchmark index, which is on par with the expectation previously expressed by the Ministry.

Norges Bank has established internal reference portfolios that deviate from the benchmark indices stipulated in the mandate from the Ministry. The deviations take place within the limits set out in the mandate. The Ministry endorses the use of the internal reference portfolios to enable the Fund to exploit its distinctive characteristics to improve the ratio between risk and return. The internal reference portfolios may also serve to increase transparency in the operational implementation of the management of the Fund.

Unlisted real estate investment represents a new asset class for Norges Bank. It is necessary to develop expertise and experience from managing this asset class, and that will take time.

The Ministry is satisfied with the fact that asset management costs have been reduced in recent years, as a portion of assets under management. In comparison with other funds, the costs are low. This indicates that Norges Bank exploits economies of scale in asset management. The Ministry is committed to cost-effective asset management, but anticipates that costs may increase somewhat in coming years in line with the expanded portion of real estate investments in the Fund. The Ministry also acknowledges that changes in the Norwegian kroner exchange rate may influence the cost level.

## 4.2 Performance of the Government Pension Fund Norway

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### 4.2.1 Market developments in 2014

The Norwegian stock market registered positive performance in 2014. The Benchmark Index of the Oslo Stock Exchange (OSEBX) gained 5 percent. The index reached an all-time high around the middle of the year, but fell back somewhat in the second half of the year as the result of, inter alia, an oil price reduction of close to 50 percent. Other Nordic stock markets also performed well last year, with

returns on Swedish, Danish and Finnish equities of 15 percent (OMXSB index), 22 percent (OMXCB index) and 11 percent (OMXHB index), respectively, as measured in local currency.

At yearend 2014, the yield on Norwegian government bonds with a long time to maturity was significantly lower than at the beginning of the year. Whilst the yield on 10-year Norwegian government bonds was 3.0 percent at the beginning of the year, the corresponding yield was 1.6 percent at yearend 2014. The yield on Norwegian treasury bills with a short time to maturity and the credit spreads on bonds issued by Norwegian banks and manufacturers also declined during last year. The fixed-income markets in Sweden, Denmark and Finland developed correspondingly.

#### 4.2.2 The market value of the Fund

The market value of the GPFN was NOK 185.7 billion as of yearend 2014. This represents an increase of NOK 17.9 billion compared to its value at the beginning of the year, cf. figure 4.19. The value of the equity portfolio was NOK 107.9 billion, of which Norwegian equities accounted for NOK 89.1 billion, whilst the value of the equity investments in the other Nordic countries was NOK 18.8 billion, cf. figure 4.20. The value of the fixed-income portfolio was NOK 77.8 billion at yearend 2014, comprised of NOK 65.3 billion in bonds from Norwegian issuers and NOK 12.5 billion in bonds from issuers in other Nordic countries.

The strong stock market performance in the first half of last year resulted in an increase in the equity portion of the Fund. Stock market developments eventually triggered a rebalancing of the equity portion of the benchmark index to its fixed weight of 60 percent, cf. section 3.1. The rebalancing resulted in the transfer of nearly NOK 8 billion from the equity portfolio to the fixed-income portfolio during the second and third quarters.

The GPFN is a major investor in the Norwegian stock market. At yearend 2014, the value of the Norwegian equity portfolio of the Fund represented about 5 percent of the value of all equities listed on the Oslo Stock Exchange. Moreover, the Norwegian equity portfolio of the GPFN represented about 10 percent of the value of the equities included in the Benchmark Index (OSEBX) of the Oslo Stock Exchange, which is the benchmark index of the Fund for Norwegian equities.

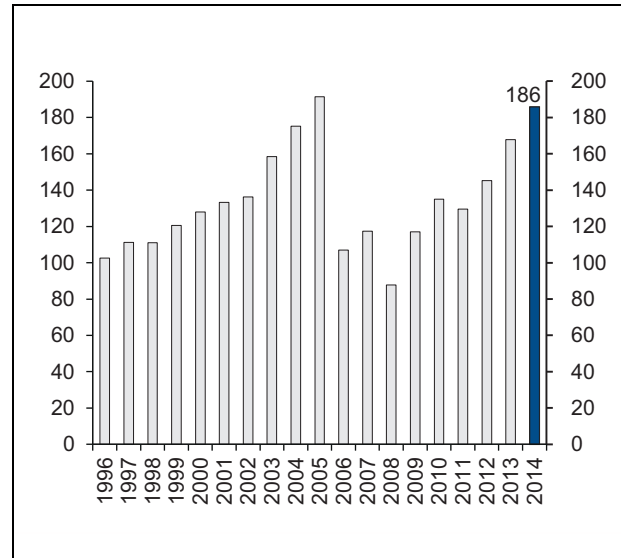


Figure 4.19 Developments in the market value of the GPFN 1996–2014. NOK billion<sup>1</sup>

<sup>1</sup> A major part of the GPFN assets was invested with the Treasury in the form of mandatory deposits until 2005. Folketrygdfondet's participation in the mandatory deposit arrangement was discontinued in December 2006, and fund assets in the amount of NOK 101.8 billion were repaid to the State.

Source: Folketrygdfondet.

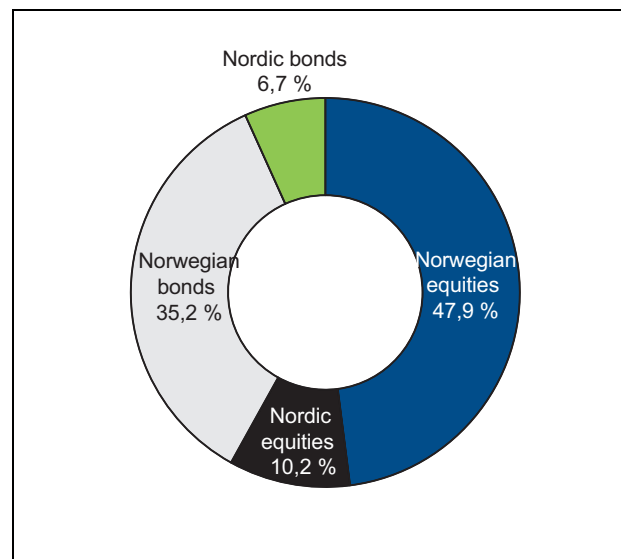


Figure 4.20 Distribution of the actual investments of the GPFN across asset classes at yearend 2014. Percent

Source: Folketrygdfondet.

The GPFN is a smaller investor, in relative terms, in the rest of the Nordic region. The Nordic equity portfolio of the Fund accounted for less than 0.5 percent of the value of the equities included in the

Nordic equity index (VINX) at yearend 2014, excluding Norway and Iceland.

### 4.2.3 Return

#### *The overall portfolio*

The aggregate return on the GPFN in 2014 was 10.7 percent, measured in Norwegian kroner and before the deduction of asset management costs, cf. table 4.5. The return on both the equity and fixed-income portfolios contributed positively to the aggregate return. Since January 1998, the GPFN has delivered an average annual return of 7.3 percent.

#### *Equities*

The equity portfolio achieved a return of 10.7 percent in 2014. The Norwegian companies in the equity portfolio delivered a return of 8.6 percent, whilst the Nordic companies returned 21.8 percent, measured in Norwegian kroner. In addition to Nordic equities outperforming Norwegian equities over the year, Norwegian kroner depreciated by about 1.4 percent against Swedish kronor and more than 8.5 percent against the euro and Danish kroner over the same period. This further increased the return on the Nordic companies in the equity portfolio, as measured in Norwegian kroner.

#### *Bonds*

The fixed-income portfolio delivered a return of 9.8 percent last year. The return on the Norwegian part of the fixed-income portfolio was 8.6 percent, whilst Nordic bonds delivered a return of 16.1 percent measured in Norwegian kroner. Yield developments were relatively similar in Norway and the other Nordic countries. The high return on Nordic bonds was partly caused by the depreciation of Norwegian kroner against Swedish kronor, Danish kroner and the euro in 2014.

Both Norway and the other Nordic countries experienced significant decline in government bond yields with a long time to maturity in 2014, which resulted in price gains and hence a higher return on the fixed-income portfolio. The yield level remains somewhat higher in Norway than in the other Nordic countries. This results in higher current returns on Norwegian government bonds. At yearend, the yield on Norwegian government bonds with five years to maturity

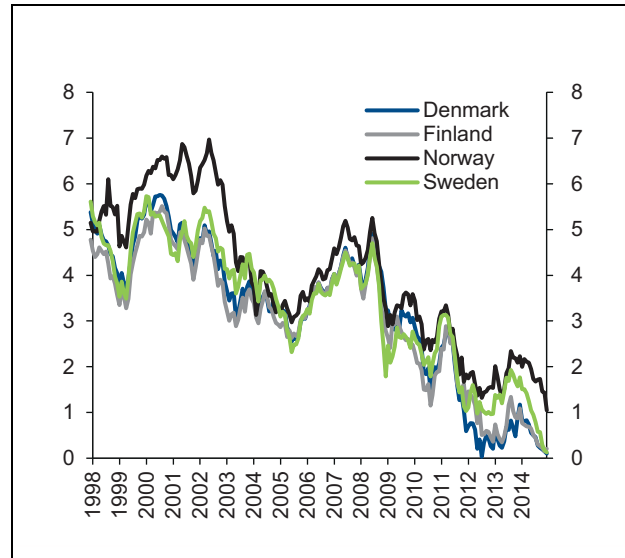


Figure 4.21 Yields on 5-year government bonds from the Nordic countries, 1998–2014. Percent

Source: Macrobond.

was about 1.1 percent. Yields on Swedish, Danish and Finnish government bonds with the same time to maturity were in the region of 0.1–0.2 percent, cf. figure 4.21.

The duration of the fixed-income portfolio was 4.8 year at yearend 2014, which is on a par with the duration of the benchmark index.

Private businesses normally need to offer higher yields than governments in order to borrow money, which means that corporate bonds have historically offered somewhat higher returns than government bonds. In 2014, the premium that businesses need to pay on top of government bond yields declined further, which served to further increase corporate bond returns.

#### *Relative return*

The investment returns of the Fund are compared to the return on the benchmark index defined by the Ministry. All in all, Folketrygdfondet achieved a return that was 2.1 percentage points higher than the return on the benchmark index in 2014.

The equity portfolio outperformed its benchmark index by 3.3 percentage points. The Norwegian companies in the equity portfolio outperformed the benchmark index by 3.7 percentage points, whilst the investments in other Nordic companies outperformed the benchmark index by 1.2 percentage points. The relative performance in 2014 reflects that Folketrygdfondet invested less in oil services companies in 2014 than would be implied by the benchmark index,



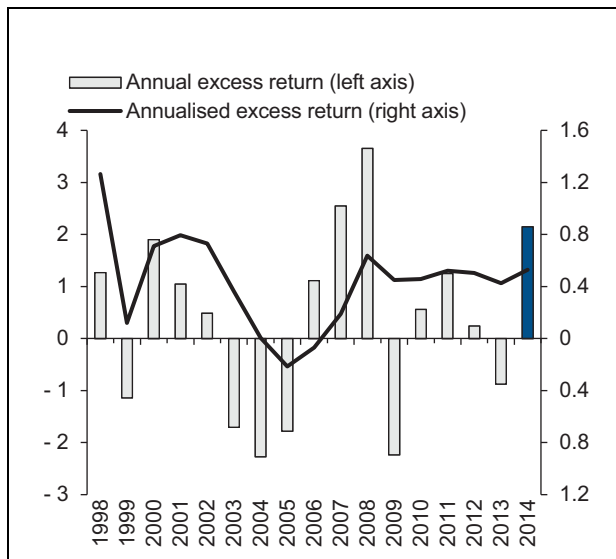


Figure 4.22 Gross excess return performance of the GPFN, 1998–2014. Percentage points

Sources: Folketrygdfondet and the Ministry of Finance.

and more than the benchmark index in aquaculture companies.

The investment strategy of Folketrygdfondet is based on, inter alia, assessment of the predictability and quality of the expected cash flows of companies. Folketrygdfondet will often choose not to invest, or to invest less than the benchmark index, in companies presenting high financial or operational risk. This strategy had a positive effect in 2014. Folketrygdfondet was of the view that several oil services companies presented a high financial and operational risk.

The fixed-income portfolio outperformed its benchmark index by 0.6 percentage points. Norwegian bonds outperformed the benchmark index by 0.7 percentage points, whilst Nordic bonds underperformed the benchmark index by 0.1 percentage points. The overall return difference between the fixed-income portfolio and its benchmark index can largely be attributed to a larger share of corporate bonds and lower credit ratings for the corporate bonds.

The return achieved by Folketrygdfondet since 1998 is 0.53 percentage points higher than the return on the benchmark index, cf. figure 4.22. The Ministry has calculated that the gross excess return on the GPFN over the period 1998–2014 amounts to a total of about NOK 8.5 billion<sup>4</sup>, cf. figure 4.23. The Ministry of Finance has previously expressed an expectation for an annual net value added from the management of the GPFN of  $\frac{1}{4}$  –  $\frac{1}{2}$  percentage points, cf. section 3.2.

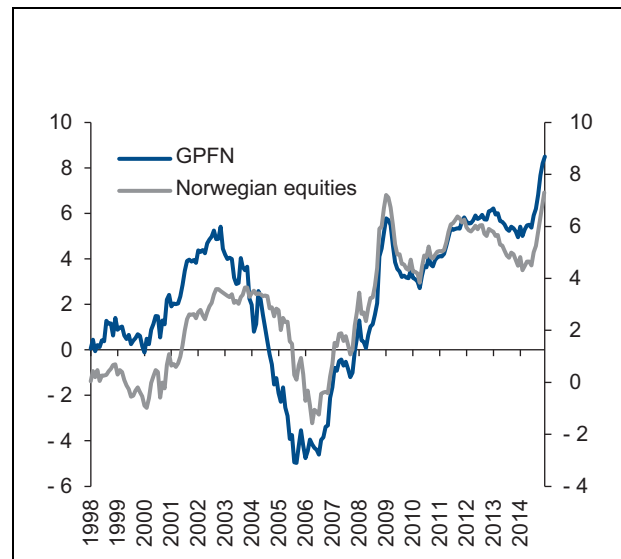


Figure 4.23 Accumulated excess return on the GPFN, 1998–2014. NOK billion

Sources: Folketrygdfondet and the Ministry of Finance.

Over the period 1998–2014, the average annual excess return on the Norwegian equity portfolio was 1.5 percentage points, whilst the excess return on the Norwegian fixed-income portfolio was 0.3 percentage points. The GPFN was not invested in Nordic equities and bonds until May 2001 and February 2007, respectively. Comparisons over shorter periods show that the Nordic portfolios have generally registered somewhat lower excess returns than the Norwegian portfolios, cf. table 4.5.

#### 4.2.4 Risk and limits

##### *Risk in the GPFN*

The standard deviation is a measure of expected normal variations in the return on the Fund. Folketrygdfondet has estimated that the expected standard deviation for the GPFN was 8.7 percent, or about NOK 16 billion, based on the value of the Fund at yearend 2014. Under the assumption that return figures follow a normal distribution over time, fluctuations will be expected to exceed this estimate in one out of three years. However, Table 4.6 shows that the return on the GPFN has historically deviated somewhat from a normal distribution. This suggests that fluctuations in excess of

<sup>4</sup> Gross excess return in Norwegian kroner is calculated by multiplying the excess return each month by the capital invested at the beginning of the month, and subsequently adding up over all months. Hence, the calculation does not include the compound interest effect.

Table 4.5 Return on the GPFN in 2014, the last 3, 5 and 10 years, as well as over the period 1998–2014, measured in Norwegian kroner. Annual geometric average. Percent

	2014	Last 3 years	Last 5 years	Last 10 years	1998–2014
<i>GPFN</i>					
Actual portfolio	10.65	12.82	9.73	7.78	7.34
Benchmark index	8.51	12.29	9.02	6.89	6.81
Excess return (percentage points)	2.14	0.54	0.71	0.89	0.53
<i>Equities (Norway and the Nordic region in total)</i>					
Actual portfolio	10.66	16.44	10.87	10.23	8.11
Benchmark index	7.36	16.07	10.26	9.49	6.69
Excess return (percentage points)	3.30	0.37	0.60	0.75	1.43
<i>Norwegian equities</i>					
Actual portfolio	8.61	14.85	9.96	10.17	8.27
Benchmark index	4.95	14.38	9.17	9.30	6.78
Excess return (percentage points)	3.65	0.47	0.80	0.87	1.49
<i>Nordic equities<sup>1</sup></i>					
Actual portfolio	21.84	25.33	15.80	10.17	
Benchmark index	20.59	25.48	16.37	9.79	
Excess return (percentage points)	1.25	-0.15	-0.57	0.38	
<i>Bonds (Norway and the Nordic region in total)</i>					
Actual portfolio	9.75	6.95	7.13	6.07	6.29
Benchmark index	9.19	6.03	6.16	5.39	6.06
Excess return (percentage points)	0.56	0.92	0.97	0.67	0.23
<i>Norwegian bonds</i>					
Actual portfolio	8.63	6.38	6.89	6.01	6.25
Benchmark index	7.94	5.40	5.83	5.27	5.99
Excess return (percentage points)	0.70	0.98	1.06	0.73	0.27
<i>Nordic bonds<sup>2</sup></i>					
Actual portfolio	16.12	10.05	8.33		
Benchmark index	16.26	9.50	7.86		
Excess return (percentage points)	-0.15	0.54	0.47		
<i>Real return</i>					
Inflation	2.01	1.63	1.72	1.91	2.00
Management costs	0.08	0.09	0.08	0.07	0.05
Net real return	8.39	10.92	7.79	5.69	5.19

<sup>1</sup> Nordic equity investments commenced in May 2001.

<sup>2</sup> Nordic fixed income investments commenced in February 2007.

Sources: Folketrygdfondet and the Ministry of Finance.



Table 4.6 Absolute and relative risk measures for the GPFN. Annual data based on monthly observations

	2014	Last 3 years	Last 5 years	Last 10 years	1998–2014
<i>GPFN</i>					
Absolute volatility (percent)	4.04	6.19	8.27	10.39	8.39
Tracking error (percentage points)	0.67	0.59	0.64	1.27	1.27
Skewness <sup>1</sup>	0.32	-0.87	-0.29	-1.14	-1.25
Kurtosis <sup>1</sup>	1.62	5.29	3.46	6.85	9.35
Information ratio <sup>2</sup>	3.21	0.92	1.11	0.70	0.42
<i>Norwegian equities</i>					
Absolute volatility (percent)	8.48	11.09	15.19	20.38	21.19
Tracking error (percentage points)	1.37	1.16	1.26	3.04	3.80
Skewness	-0.15	-0.60	-0.06	-1.21	-0.96
Kurtosis	2.04	4.63	3.42	6.46	5.34
Information ratio	2.66	0.40	0.63	0.29	0.39
<i>Nordic equities</i>					
Absolute volatility (percent)	7.95	10.74	13.52	16.44	
Tracking error (percentage points)	0.73	0.71	0.79	1.44	
Skewness	0.24	-0.90	-0.80	-0.42	
Kurtosis	2.99	4.99	4.76	5.00	
Information ratio	1.71	-0.20	-0.72	0.27	
<i>Norwegian bonds</i>					
Absolute volatility (percent)	1.21	2.24	2.32	2.36	2.47
Tracking error (percentage points)	0.19	0.38	0.63	0.82	0.84
Skewness	0.49	-0.88	-0.35	0.18	0.20
Kurtosis	3.78	3.70	3.00	3.10	3.52
Information ratio	3.64	2.56	1.68	0.90	0.32
<i>Nordic bonds</i>					
Absolute volatility (percent)	8.48	6.26	6.29		
Tracking error (percentage points)	0.20	0.25	0.30		
Skewness	-0.11	0.23	0.05		
Kurtosis	1.60	2.50	2.87		
Information ratio	-0.74	2.15	1.57		

<sup>1</sup> Skewness and kurtosis are measures of deviations from the symmetry of a statistical normal distribution. Kurtosis in excess of 3 and negative skewness mean that losses occur more frequently and are larger than would be suggested by a normal distribution.

<sup>2</sup> Information ratio (IR) presents the relationship between the excess return from deviating from the benchmark index and the magnitude of such deviations, as measured by relative risk. Consequently, IR measures the compensation for deviating from the benchmark index in relation to the magnitude of such deviations, and shows the excess return achieved for each percentage point of tracking error. The information ratio is calculated as the difference between the annual time-weighted returns on the GPFN and the benchmark index, divided by the annualised standard deviation of monthly return differences.

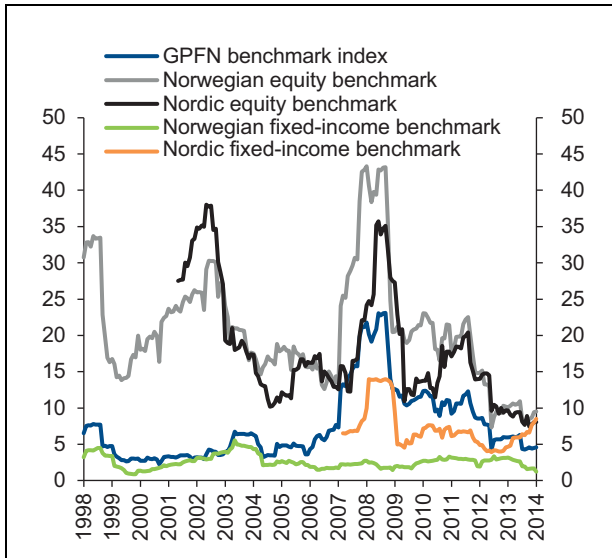


Figure 4.24 Developments in 12-month rolling standard deviation of the GPFN benchmark indices. Percent

Sources: Folketrygdfondet and the Ministry of Finance.

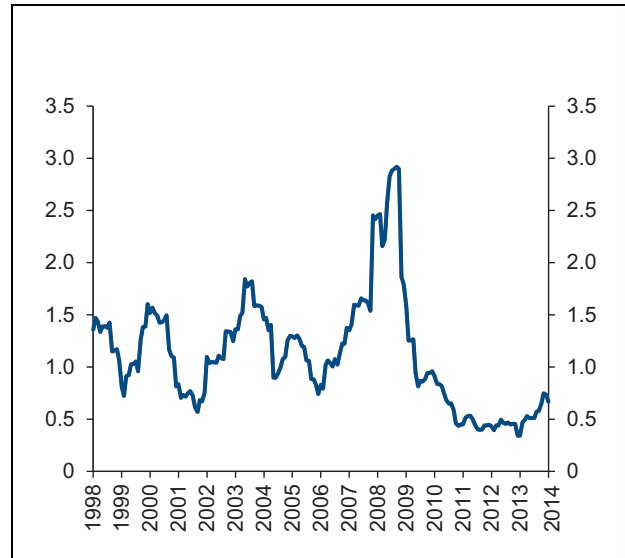


Figure 4.25 Rolling 12-month realised tracking error of the GPFN. 1998–2014. Percent

Sources: Folketrygdfondet and the Ministry of Finance.

NOK 16 billion can be expected to occur somewhat more frequently.

Figure 4.24 shows historical fluctuations in the return on the benchmark index for the GPFN and the sub-indices for Norwegian and Nordic equities and bonds since 1998. The realised standard deviations presented in the figure are based on the return over the preceding twelve months. According to this method of calculation, risk declined during 2014 for all sub-indices apart from the Nordic fixed-income benchmark. The risk in the equity benchmarks was low last year, compared to the average since 1998. The overall risk in the Fund is primarily affected by developments in the equity portfolio, whilst bond price fluctuations tend to reduce overall risk.

#### *Relative risk*

The mandate for the GPFN requires Folketrygdfondet to organise its management activities with a view to ensuring that expected tracking error does not exceed 3 percentage points. Expected tracking error is a statistical measure of expected fluctuations in the differential return between the actual portfolio and the benchmark index. According to Folketrygdfondet, expected tracking error was in the range of 0.6 – 1.1 percentage points in 2014. At yearend 2014, expected tracking error was 0.7 percentage points, which is somewhat lower than at the beginning of the year. Conse-

quently, Folketrygdfondet is only utilising a minor part of the 3-percentage point limit.

Realised tracking error expresses the magnitude of historical excess return fluctuations. Realised tracking error was about 0.7 percentage points over the last twelve months, cf. figure 4.25 and table 4.6. The low level of realised tracking error over the last 12 months has to do with continuously high month-on-month excess returns in the second half of 2014, which resulted in small excess return fluctuations. Both expected and realised tracking error were at a low level at yearend 2014, compared to the average since 1998. Tracking error is also influenced by market volatility. Consequently, tracking error must be expected to increase during periods of high market volatility.

Figure 4.26 shows developments in the rolling 12-month standard deviations for both the GPFN benchmark index and the actual portfolio. The standard deviation of the actual portfolio has been less than that of the benchmark index for major parts of the period since 1998. This has been especially pronounced during periods of increasing market volatility, cf. section 3.2. This can be attributed to the asset management strategies of Folketrygdfondet. The figure shows that overall risk in the Fund is predominantly determined by the benchmark index, although management by Folketrygdfondet has in some periods reduced the overall risk somewhat.

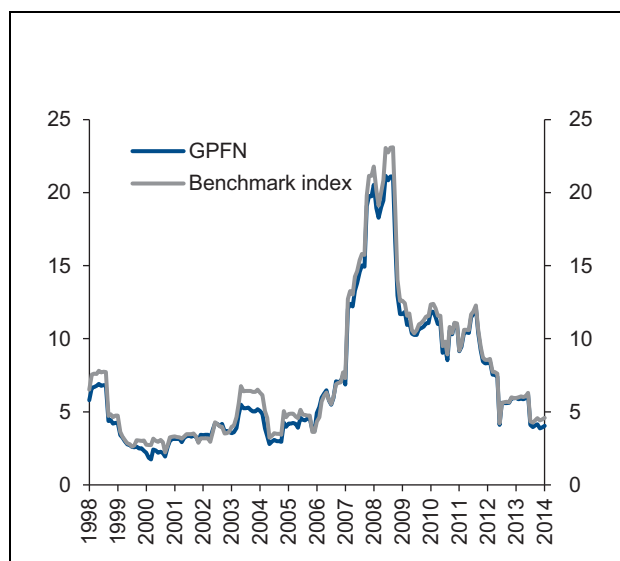


Figure 4.26 Rolling 12-month standard deviation of the actual portfolio of the GPFN vs. the benchmark index, 1998–2014. Percent

Sources: Folketrygdfondet and the Ministry of Finance.

### Credit risk

Overall credit quality in the fixed-income portfolio, as measured by credit rating, remained more or less unchanged through 2014. The portion of bonds with credit rating A<sup>5</sup> or less was at about the same level as at yearend 2013, but Folketrygdfondet has in 2014 reduced its portion of non-investment grade bonds; so-called high-yield bonds.

<sup>5</sup> Standard & Poor's rating scale for credit quality is AAA, AA, A, BBB, BB, B, CCC, CC, C, D, with AAA as the top rating. Bonds with a credit rating from AAA to BBB, inclusive, are deemed to have a high credit rating and are termed "investment grade" bonds. Bonds with a lower credit rating are deemed to have a low credit rating and are termed "high yield" bonds.

High-yield bonds are not included in the GPFN benchmark index. The mandate for the GPFN nonetheless allows Folketrygdfondet to invest in such bonds. Folketrygdfondet is required to organise its asset management with a view to ensuring that high-yield bonds do not represent more than 25 percent of the market value of corporate bonds in the fixed-income portfolio under normal market conditions. At yearend 2014, high-yield bonds represented just over 8 percent of the corporate bonds in the fixed-income portfolio, or about 6 percent of the overall-fixed income portfolio.

### Individual investments

The GPFN is a relatively large investor in the Norwegian stock market. At yearend 2014, the Fund held ownership stakes of more than 10 percent in three companies, and more than 5 percent in 30 companies, cf. table 4.7. The GPFN was invested in a total of 50 companies in the Norwegian stock market. The GPFN is a much smaller investor in the Nordic market, with an ownership stake of more than 1 percent in only one of the 94 companies in which the Fund was invested in 2014.

The GPFN is a financial investor, and therefore seeks to diversify risk across many different securities. The Ministry has stipulated that the GPFN shall hold no more than 15 percent of the stocks of any one Norwegian company and no more than 5 percent of the stocks of any company from other Nordic countries. At yearend 2014, the largest ownership stake in a Norwegian company was 10.7 percent. The largest single ownership stake amongst the Nordic companies was 1.1 percent.

Table 4.7 GPFN ownership stakes in Norwegian and Nordic companies in 2014

Number of companies where the ownership stake exceeds	Norwegian equities	Nordic equities
10 percent	3	0
5 percent	30	0
1 percent	49	1
0.5 percent	50	9
0.1 percent	50	81
Total number of companies in which the GPFN is invested	50	94

Source: Folketrygdfondet.

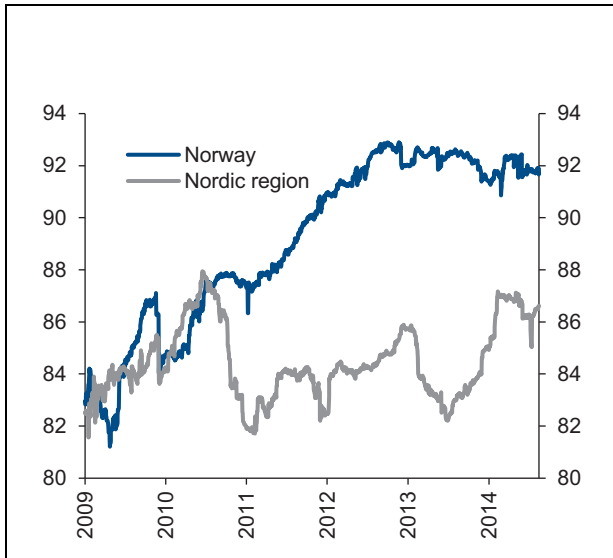


Figure 4.27 Overlap between the actual equity portfolios of the GPFN and its benchmark indices, 2009–2014. Percent

Source: Folketrygdfondet.

#### Overlap

The degree of overlap is a measure of what portion of the actual portfolio is identical to the benchmark index. If the overlap is 100 percent, the actual portfolio comprises the same companies as the benchmark index and each company accounts for the same share of the actual portfolio as in the benchmark index. If the actual portfolio includes equities of companies that are not part of the benchmark index, or if Folketrygdfondet chooses to be overweighted in some companies and underweighted in others, overlap is reduced.

Overlap between Norwegian equities and the benchmark index has increased in recent years. Overlap has exceeded 90 percent since late 2011, cf. figure 4.27. Developments in recent years suggest that the portfolio matches the benchmark index more closely than before. Variations in overlap with the benchmark index have been greater for Nordic equities. At yearend 2014, overlap was about 91 percent in Norwegian equities and 87 percent in Nordic equities. This implies that the underweighting in individual companies represents a total of 9 percent of Norwegian equities, or about NOK 8 billion. Corresponding underweighting in Nordic companies included in the benchmark index represents about NOK 2.4 billion. The funds released by underweighting certain companies can be used to increase ownership stakes in other companies included in the index or to invest in companies outside the benchmark index.

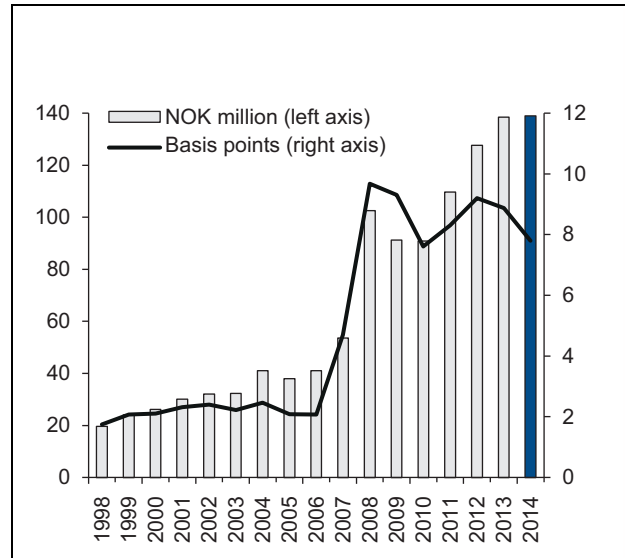


Figure 4.28 Developments in GPFN asset management costs, 1998–2014. NOK million (left axis) and basis points (right axis)

Source: Folketrygdfondet.

#### 4.2.5 Costs

The mandate from the Ministry stipulates that the actual asset management costs of Folketrygdfondet are covered within an upper limit. The limit is specified as a Norwegian kroner amount, based on a reasoned proposal from Folketrygdfondet, in which costs are the sum total of individual components. The Ministry defines an overall cost limit, and does not take a view on each individual cost component.

The cost limit stipulated for 2014 was NOK 165 million. Total asset management costs in 2014 were NOK 144 million. In addition, investments were made in the approximate amount of NOK 4 NOK. Consequently, total expenses were NOK 148 million, which is NOK 17 million below the limit. Total asset management costs include NOK 4 million relating to the management of the Government Bond Fund in the first half of 2014. Consequently, asset management costs relating to the GPFN amount to NOK 140 million. Measured as a share of average assets under management, GPFN costs were 7.8 basis points (0.078 percent) in 2014.

Figure 4.28 shows developments in asset management costs over time. Costs have increased since 2006, especially as the result of stricter management and compliance requirements with regard to risk and reporting. These have resulted in a need for systems investments and additional employees.

The company CEM Benchmarking Inc. is instructed by the Ministry to compare the costs of

the GPFN with the costs of other funds internationally. It follows from the report for 2013 that the costs of the GPFN are significantly lower than those of other comparable funds. This is primarily because the GPFN is not invested in asset classes like private equity and real estate, which generally involve high costs. However, CEM finds that the costs of the GPFN are low even if adjusting for asset composition differences. The main explanation for this is that all management of the GPFN is handled internally by Folketrygdfondet, and that internal management costs are low compared to those of other funds.

#### 4.2.6 The Ministry's assessments

2014 was a year of variable returns in the Nordic stock markets, whilst bond market returns were generally high due to higher bond prices as the result of declining yields. Norwegian kroner depreciated against the currencies of the other Nordic countries, which resulted in high returns on investments in those countries, as measured in Norwegian kroner.

Overall, Folketrygdfondet outperformed the benchmark index by about 2.1 percentage points in 2014, before the deduction of asset management costs. The Ministry has noted the significant excess return last year in both the equity and fixed-income management. The Ministry puts emphasis on performance over time and is satisfied with the fact that the annual average excess return since 1998 has been about 0.5 percentage points. This is somewhat higher than the long-term excess return expectation expressed by the Ministry.

Furthermore, the Ministry has noted that Folketrygdfondet exploits a minor part of the scope for deviations from the benchmark index, as measured by expected tracking error, cf. section 3.2. It is, at the same time, anticipated that tracking error may increase somewhat if market risk increases.

The costs of Folketrygdfondet have increased considerably in recent years, which has to do with stricter risk management and compliance requirements. Despite this increase, costs are low compared to those of other funds. The Ministry finds it satisfactory that the management of the GPFN appears to be cost effective, and is committed to ensuring cost-effective asset management in future.

Reference is also made to the general review of Folketrygdfondet's management of the GPFN in section 3.2.

### 4.3 Follow-up of the management framework

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#### 4.3.1 Independent review of the return data

Spaulding Group is commissioned by the Ministry to review the GPFG return data. The company also verifies that the return data are in compliance with the GIPS (Global Investment Performance Standards). A designated GIPS report is available on the Norges Bank website ([www.nbim.no](http://www.nbim.no)).

The Spaulding Group receives, at the request of the Ministry, data on holdings directly from Norges Bank's custodian for the asset classes equities and bonds. The real estate portfolio primarily comprises unlisted assets, and hence corresponding data are not available for such assets. Spaulding Group calculates returns, measured in Norwegian kroner, for equities and bonds on the basis of the custodian data. Supplementary data from the Ministry of Finance on the GPFG benchmark indices are used to verify return data measured in the currency basket of the Fund.

The verification calculations made by the Spaulding Group for the financial year 2014 show no deviations from the return data reported by Norges Bank. The report is published on the Ministry website.

#### 4.3.2 Folketrygdfondet's risk management and compliance framework for active management

Folketrygdfondet's auditor (Ernst & Young) has, as an element in the Ministry of Finance's follow-up of the management of the GPFN, reviewed Folketrygdfondet's risk management and compliance framework for active management. This refers to the risk management and compliance processes for market and credit risk established to support the implementation of active management. Market risk is the risk of changes in market value as the result of movements in observed market prices, whilst credit risk is the risk that an issuer of a security is unable to pay interest and/or instalments upon maturity, enters into liquidation or is placed under public administration. As part of the engagement, the auditor has, inter alia, reviewed governing documents and other relevant written materials, held meetings with managers and employees of Folketrygdfondet, and reviewed relevant risk management and compliance processes for active management.

The auditor has not examined whether Folketrygdfondet's investment strategies are appropri-

ate or whether active management performance has been satisfactory. Nor has the auditor evaluated whether the risks identified by Folketrygdfondet are complete and representative of the activities, or whether the procedures have been adhered to, or implemented in a consistent manner, or by whom these have been carried out.

The auditor has concluded, in its report, that Folketrygdfondet's risk management and compliance framework for active management is designed, in all material respects, in accordance with the measurement criteria, and that the framework is, in all material respects, implemented in accordance with its current design. The assessment is based on the current risk profile of Folketrygdfondet. It is emphasised in the report that material changes to the product range of financial instruments held, or an increase in Folketrygdfondet's scope to deviate from the benchmark, can make matters currently considered immaterial to become more important, and thus merit reassessment in relation to a new risk profile.

The assurance statement is published on the Ministry's website.

## **4.4 Responsible investment**

### **4.4.1 Introduction**

The Ministry of Finance is responsible for the overarching investment strategy for the Government Pension Fund. The Ministry has included responsible investment provisions in the mandates to Norges Bank and Folketrygdfondet. The Ministry has also laid down separate guidelines for observation and exclusion from the Government Pension Fund Global, regulating the activities of Norges Bank and the Council on Ethics. The Ministry of Finance follows up and reports to the Storting on the responsible investment activities of the two funds.

Norges Bank and Folketrygdfondet make investment decisions and exercise ownership rights independently of the Ministry, within the limits of the mandates and guidelines laid down by the Ministry. The Council on Ethics advises Norges Bank on the exclusion and observation of companies. The recommendations are based on criteria stipulated by the Ministry and endorsed by the Storting. Figure 4.29 illustrates the distribution of roles and responsibilities for responsible investments in the Government Pension Fund.

The objective for the investments of the Government Pension Fund is to achieve the highest possible return, given a moderate level of risk.

The Fund shall, within its role of financial investor, be a responsible investor.

The Ministry assumes that good long-term return depends on sustainable development in economic, environmental and social terms, and has in the mandates to Norges Bank and Folketrygdfondet, required the integration of such considerations in the asset management activities.

The mandates require that the work shall be based on internationally recognised standards like the UN Global Compact, the OECD Principles of Corporate Governance and the OECD Guidelines for Multinational Enterprises. These international standards define corporate governance norms, and express best corporate practice expectations on the handling of environmental and social issues, cf. box 4.2.

Norges Bank and Folketrygdfondet have, in line with the mandates, defined their own responsible investment principles and company expectations.

Figure 4.30 shows developments in the responsible investment strategy of the GPFG over time. Following the Storting's deliberation of Report No. 19 (2013–2014) to the Storting, the Ministry has laid down new guidelines for observation and exclusion from the GPFG, as well as made certain amendments to the mandate of Norges Bank. The changes entered into effect on 1 January 2015 and are the result of a long-term effort to strengthen responsible investment in the Fund by, inter alia, clarifying the responsible investment objective and establishing a chain of responsible investment tools. The implemented changes are discussed in more detail in chapter 5.

On 4 April 2014, the Ministry of Finance announced that it had appointed an expert group to evaluate the investments of the GPFG in coal and petroleum companies, as well as the use of policy measures in relation to such companies. The Ministry's assessments based on the report from the group and the consultative comments received are discussed in section 2.7.

The responsible investment strategy for the GPFN has also been developed gradually. Folketrygdfondet previously had one set of active ownership principles and one set of ethical principles. In order to better reflect the integrated nature of its efforts, the Board of Directors decided in 2011 to introduce a unified set of responsible investment principles for Folketrygdfondet.

The responsible investment strategy and policy measures are largely premised on a joint platform for the GPFG and the GPFN. The responsible investment strategy and policy tools of Norges

Bank and Folketrygdfondet are discussed in more detail in sections 4.4.2 and 4.4.3. The observation and exclusion of companies is discussed in section 4.4.4.

#### 4.4.2 Responsible investment in the Government Pension Fund Global

The responsible investment practises of Norges Bank are based on the mandate as well as on guidelines for observation and exclusion set by the Ministry of Finance.

It follows from section 1-3 of the mandate that Norges Bank shall seek to achieve the maximum possible return, within the limits laid down in the mandate. The Bank shall not be invested in companies that are excluded under the provisions in the guidelines for observation and exclusion. Moreover, Norges Bank shall integrate responsible investment practices in its management of the GPFG.

Chapter 2 of the mandate addresses the general responsible investment expectations in more detail. Norges Bank shall seek to establish a chain of responsible investment measures and adopt a comprehensive set of responsible investment principles. Such principles shall be based on that the investments have a long time horizon and that the portfolio is broadly diversified. The principles shall reflect corporate governance, environmental and social considerations, in line with internationally recognised standards. The responsible

investment efforts include promoting research and the development of good standards, as well as environment-related investments.

It follows from the mandate that the principles, and the use of policy measures to support these, shall be published. On 5 February 2015, Norges Bank published a separate responsible investment report for the first time. The report illustrates that Norges Bank uses a number of responsible investment tools, and that these can be classified into three groups: Standard setting, ownership and risk management. The responsible investment activities of Norges Bank are discussed below.

##### Standard setting

In standard setting, Norges Bank prioritises broad international principles and standards, as well as certain industry-specific standards. The Bank also promotes research of relevance to responsible investment. Furthermore, the Bank is in contact with regulators and participates in consultations on new regulations.

Norges Bank supports the ongoing development of selected international standards. Norges Bank notes, in its responsible investment report of 5 February this year, that it works with standards covering specific sectors, companies in specific countries, and other selected topics. The Bank has, for example, for several years been specifically supporting standards to promote chil-

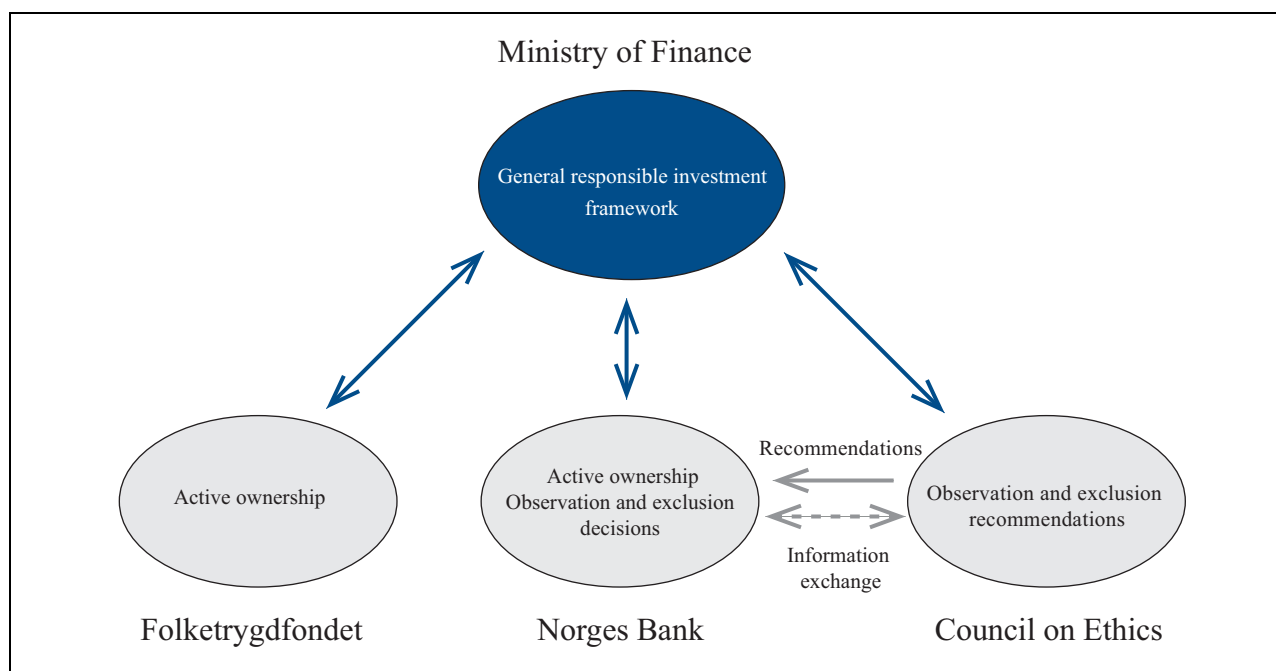


Figure 4.29 Distribution of roles and responsibilities – Responsible investment in the Government Pension Fund

Source: Ministry of Finance.



#### **Box 4.2 Basic responsible investment principles for the Government Pension Fund**

##### *UN Global Compact*

The UN Global Compact defines ten universal principles derived from the Universal Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the Rio Declaration on Environment and Development. The principles are general in nature and state, inter alia, that businesses should respect human rights and not be complicit in human rights violations, 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, promote greater environmental responsibility and the development and diffusion of environmentally friendly technologies, and combat all forms of corruption, including extortion and bribery.

The main objective of the Global Compact is to integrate the ten principles in the business operations of enterprises worldwide, as well as to promote activities and partnerships that contribute to the realisation of the UN objective of sustainable development.

Joining the Global Compact entails a commitment to making best efforts to operate in conformity with the ten principles. The Global Compact is currently the world's largest corporate social responsibility initiative, with in excess of 12,000 members from more than 145 countries. Members participate in annual reporting on their implementation of the principles. Findings are published in an annual Global Corporate Sustainability Report.

##### *OECD Principles of Corporate Governance*

These principles mainly address the basis for effective corporate governance, the rights of shareholders and key ownership functions, equitable treatment of shareholders, transpar-

ency and disclosure, as well as the responsibilities and liabilities of boards of directors.

Corporate governance principles may be described as guidelines that clarify the distribution of responsibilities between the owners, the board of directors and the senior executives of a company.

These principles are currently under revision by the OECD.

##### *OECD Guidelines for Multinational Enterprises*

States that have signed up to the OECD Guidelines for Multinational Enterprises are required to promote the guidelines and establish a so-called national contact point. For multinational enterprises, the guidelines represent voluntary and non-legal recommendations on how these are expected to exercise social responsibility. In principle, it is up to each enterprise to assess to what extent the guidelines are suitable and how they can be implemented. The guidelines were amended in 2011, including the addition of a chapter on human rights. The current guidelines call on enterprises to avoid causing or contributing to negative impacts through their own business operations or through business relationships. Guidance is also provided on how enterprises should follow up their supply chains. The guidelines also recommend that enterprises adhere to the due diligence principle, which means that enterprises carry out due diligence assessments, to ensure that they follow up on their responsibilities. Labour rights have also been strengthened and updated in line with the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy. Enterprises are advised to adopt a precautionary approach to most issues addressed by the guidelines. The OECD is in the process of further clarifying the implications of the guidelines and what expectations it will be reasonable to impose on various financial sector stakeholders.



## Box 4.2 (Continue)

*Responsible investment principles (PRI)*

The Responsible investment principles were launched in 2006 and are supported by the UN Environment Programme Finance Initiative (UNEP FI) and the UN Global Compact. The initiative is aimed at asset owners, asset managers and their professional collaboration partners. The principles call, inter alia, for environmental, social and corporate governance considerations to be taken into account in asset management and active ownership. Incorporation of such issues will also influence what type of information investors request from businesses and what businesses are expected to report on. The PRI currently has about 1,230 members, including 270 asset owners, 780 asset managers and 180 financial service providers. Norges Bank contributed to the formulation of the principles. The Ministry of Finance reports to PRI on the application of the principles in the management of

the GPFG and the GPFN based on, inter alia, feedback from Norges Bank and Folketrygd-fondet, respectively. PRI reporting has been under revision in recent years, and the Ministry reported for the first time under the new reporting model in March 2014. The Ministry has also contributed in test reporting during the revision phase. A review of the governance model and structuring of PRI has been going on for some time. Such review has now entered its final phase, with proposals outlining a somewhat simplified governance model. The review has resulted in, inter alia, the drafting of new articles of association. Members have been invited to submit feedback during the review process, and the Ministry and the asset managers have been following the various processes. Furthermore, a new funding model has been introduced and a strategy plan for the period 2015–2018 has been published.

dren's rights, such as the UNICEF Children's Rights and Business Principles. Norges Bank signed an investor statement in support of the UN Guiding Principles on Business and Human Rights when these were introduced.

It is noted in the responsible investment report that Norges Bank in 2014 had a special focus on the OECD Guidelines for Multinational Enterprises and their relevance for the financial sector. The Bank contributed, inter alia, to the OECD's annual Global Forum on Responsible Business Conduct. The Bank also provided consultative input to the OECD in connection with the revision of the OECD Principles of Corporate Governance. Moreover, Norges Bank contributed during the annual conference at Columbia University on sustainability, the theme of which was international standards for sustainable direct investment in other countries. The Bank also submitted input to the Climate Disclosure Standards Board (CDSB), which is developing a standard for companies' reporting of climate-related risk. This framework now also integrates risks relating to water and deforestation. As a financial investor and a participant in securities markets, the Fund is affected by financial market regulations. In 2012, Norges Bank published a discussion note

(#13–2012) analysing the foundation for well-functioning financial markets and why well-functioning markets are important to realise long-term objectives in the management of the Fund. In 2014, the Bank responded to a number of proposals for new financial market regulation from the European Securities Markets Authority (ESMA). Norges Bank made a total of nine submissions in relation to international standards and market regulations in 2014. The submissions are published on the Bank's website.

Norges Bank participates in various cooperation fora and investor initiatives. In 2014, Norges Bank became a member of the forests programme of the CDP. The information obtained by the Bank through initiatives like CDP is used in the management of the Fund. In 2014, Norges Bank submitted comments on the revised Global Governance Principles of the Corporate Governance Network (ICGN).

Norges Bank highlights research as particularly useful in areas with many unanswered questions, such as the relationship between sustainability and profitability of business operations. In 2014, the Bank launched, inter alia, a research project with Columbia University and other academic institutions. The project looks at how sus-

2001	Exclusion mechanism based on activities in violation of international law. The Petroleum Fund's Advisory Commission on International Law is established.
2003	NOU 2003:22 Green Paper; Management for the Future. Recommendation on ethical guidelines for the Government Petroleum Fund.
2004	Ethical guidelines for the GPFG are adopted, with exclusion and active ownership as policy tools. The Council on Ethics is established.
2009	New measures introduced as the result of evaluation of the ethical guidelines. Environment-related investment mandates. Exclusion of companies from the GPFG on the basis of tobacco production.
2010	New mandate for responsible investment in the GPFG. New guidelines for exclusion and observation (new policy tool). Criteria for the exclusion of government bonds included in the mandate to Norges Bank.
2013	The Strategy Council for the GPFG prepares a report with ten recommendations on how the responsible investment strategy can be strengthened.
2014	Expert group appointed to review investments in coal and petroleum companies, as well as the use of policy instruments in relation to such companies.
2015	Changes to the investment mandate. New guidelines for observation and exclusion from the Government Pension Fund Global. Norges Bank makes observation and exclusion decisions on the basis of recommendations from the Council on Ethics. Emphasis on facilitating an integrated chain of policy tools.

Figure 4.30 Development of the GPFG responsible investment strategy

Source: Ministry of Finance.

tainability and responsibility can impact corporate profitability and shall develop a statistical modelling tool to assess such risk and its financial implications. The project is mainly focused on gold and copper mining.

#### *Ownership*

The active ownership tools of Norges Bank include voting at general meetings, submission of shareholder proposals and participation in governing

bodies, dialogue with companies and engaging with boards. The Bank premises its active ownership on that the board of directors and its manager are responsible for the business strategy and operations of a company. Priority is accorded to companies in which the Fund has its largest holdings, since such holdings are the most important in terms of the overall risk and return of the Fund.

The Bank states in its responsible investment report for 2014 that voting is one of the most important formal opportunities for investors to

express views, support or hold company boards accountable, as well as to influence companies. The Bank has established a set of voting principles as a basis for its voting. These reflect priorities in the OECD principles. The principles contribute to voting that is consistent and in keeping with the long-term strategy of the Fund. Norges Bank voted on 105,228 resolutions in 10,519 general meetings in 2014. 97 percent of the resolutions were proposed by companies themselves, whilst 3 percent were proposed by shareholders. Since the board of directors plays a key role for the value added and long-term strategy of a company, the Bank pays particular attention to the appointment of the chairman and the composition of the board. Voting has since the third quarter of 2013 been published on the Norges Bank website on the day after the casting of votes. The Bank stated in 2014 that it will for selected companies publish its voting intentions ahead of general meetings. Norges Bank states in its responsible investment report that it will do so at companies where it believes that such advance notice might affect the final outcome, starting in 2015.

Norges Bank also prioritises participation in certain nomination processes by serving on nomination committees or pursuing a direct dialogue with the chairperson of the board.

In 2013, Norges Bank established a Corporate Governance Advisory Board to strengthen long-term active ownership. The Advisory Board addressed a number of topics in 2014, including ownership principles and internal guidelines and procedures for the Bank's active ownership, as well as voting and company dialogue.

The responsible investment report notes that more than 2,500 meetings were held between Fund representatives and company executives and specialists during 2014. Responsibility for the strategy and operations of a company lies with its board of directors and its executives. The Bank notes in its report that the most important points of contact for the Bank as shareholder are the chairman of the board and other directors. Norges Bank encourages companies to be transparent in their public communications. In its meetings with companies, Norges Bank addresses the plans, strategies and financial positions of companies, including environmental, social and corporate governance issues. It is noted in the report that the prioritisation of companies is normally based on holding value, ownership share, specific issues and particular company-specific challenges. In 2014, the Bank also prioritised dialogue with companies that it believes to be industry

leaders and with companies whose operations presented challenges in the local environment. Main topics focused on by the Bank in company dialogues during the year include shareholder rights, board composition and carbon emissions reporting, as well as other sustainability elements.

In October 2013, the Ministry of Finance decided to request Norges Bank to address the environmental impact of mining operations with the company AngloGold Ashanti through active ownership. In 2014, Norges Bank met representatives of the company's management on several occasions. The Bank has reported that AngloGold Ashanti in 2014 began to modernise parts of its operations at the Obuasi mine. This process has a long time horizon. The Ministry also requested that environmental issues in the Niger delta be included in active ownership engagement with Royal Dutch Shell and Eni. Norges Bank met with representatives of the companies on several occasions during the year. The Bank has been informed of further progress in their work and how it will be measured. This will be a long-term process. Royal Dutch Shell has during 2014 announced the sale of onshore activities in the Niger delta on the basis of commercial and safety considerations.

#### *Risk management*

Norges Bank states in its responsible investment report that it enhanced its risk monitoring of companies in the portfolio in 2014. International standards, such as the OECD Guidelines for Multinational Enterprises, have been useful in the development of the Bank's risk framework. The risk-based approach of the Bank means that it performs more general, overarching assessments before addressing specific issues in more depth. It looks for issues that could have a significant impact on an individual company or on the overall investments of the Fund. Norges Bank needs to prioritise to optimise the effect of its active ownership and risk management. Part of the investment strategy for the Fund is to diversify investments across a broad range of companies, sectors and countries. Norges Bank holds equities in more than 9,000 companies in a total of 75 countries. The Bank focuses on companies that represent the largest investments of the Fund in terms of market value and companies that operate in especially exposed sectors. Although its average ownership share is relatively low, the Fund is nonetheless amongst the largest shareholders of many companies.

Norges Bank states in its annual report on the management of the GPFG and in its responsible investment report that it performs risk analyses in relation to countries, markets and companies, including risk assessments of environmental, social and corporate governance issues.

When analysing country risk, Norges Bank examines, inter alia, the risk of violent conflicts, violations of human rights and political terror. It also assesses the legal system, the protection of property rights and the risk of corruption. Since the Bank has expanded its investments in emerging markets, special weight is attached to analysing new markets.

The Bank analysed a total of 481 companies during 2014, as part of nine sector assessments. In three of the nine sector assessments, Norges Bank addressed segments of the mining sector. These were coal mining, the extraction of gold, platinum and other precious metals, as well as general mining. The analyses focused particularly on environmental aspects of the operations. Specific mines may present environmental and social challenges, and there may also be systematic risks in relation to specific geographical areas. The Bank also took a closer look at cement production and challenges in relation to greenhouse gas emissions over the course of the year. The Bank conducted two sector assessments to examine climate risk associated with electricity generation and oil sands. Furthermore, the Bank prepared a sector assessment of paper production, with a focus on sustainable forestry practices and certification schemes.

In 2014, the Bank also prepared 135 company reports examining environmental and/or social issues.

Moreover, Norges Bank conducts long-term risk analysis of its defined focus areas. The Bank examines potential financial risk associated with climate change and water management. The Bank further examines company reporting and performance on children's rights.

To gain a better understanding of the Fund's climate risk, the Bank has in 2014 analysed greenhouse gas emissions from the companies in the equity portfolio. High emission levels at the company level may give rise to climate risk via, inter alia, future regulatory changes or technological advances. The Bank believes that a good starting point is to assess greenhouse gas emissions relative to company size. The analyses of the Bank are based on extensive use of modelling by specialised data providers, because not all companies report sufficiently standardised data.

Norges Bank made adjustments to the equity portfolio of the Fund during the year, which served to reduce the overall emission intensity of the Fund. The calculations of the Bank show that overall emission intensity is lower in the equity portfolio than in the equity benchmark following such adjustments. Many uncertainties, such as methodological differences and unclear data, mean that the findings do not fully illustrate the long-term climate risk in relation to companies and sectors. Norges Bank will continue to seek a better understanding of the Fund's financial risk as the result of climate change in 2015, cf. section 2.8. The Bank is of the view that there is a need for further climate risk analysis and research support at the company and the sector level, as well as for the financial markets as a whole.

Since 2009, Norges Bank has established internal and external management mandates, under the separate environment-related investment mandates, focusing on companies that help alleviate environmental problems. These mandates are discussed in more detail in sections 2.6 and 4.1.6. Thus far, Norges Bank has primarily invested in listed companies. In 2014, the Bank established a specific mandate for investment in green bonds.

In addition to its prioritisations based on where active ownership and risk management can have the most effect on the overall portfolio, Norges Bank has identified specific environmental and social focus areas:

- children's rights
- climate change
- water management

The Bank has stated, in its strategy document for 2014–2016, that additional focus areas may be added towards the end of the strategy period.

Norges Bank has, for each of these focus areas, formulated expectations as to how companies may manage risk and report on their activities. On 13 March 2015, the Bank published an updated expectation document that, inter alia, specifies expectations as to how company boards address climate issues.

Each year, the Bank assesses whether a number of companies have guidelines, strategies, business plans and reports indicating that they are well prepared to manage such risk. The findings are used as a basis for contacting companies with inadequate or weak reporting. The dialogue follows a procedure in which the Bank initially contacts the chairman of the company board,

requesting a formal response within a set time-frame. If Norges Bank does not receive a response, or such response is incomplete, it will follow up. If expectations are not met, the Bank may ultimately vote against the re-appointment of directors. The assessments focus on selected sectors that the Bank believes merit special attention. Norges Bank performed 931 company assessments in 2014, which in aggregate accounted for 25 percent of the market value of the equity portfolio.

In some cases, risk monitoring is followed up through engagement with companies or through portfolio adjustments; so-called divestment. Norges Bank has in recent years made risk-based portfolio adjustments, based on a general financial risk assessment, including environmental and social considerations. This type of divestment draws on the Fund's limit on tracking error, since these companies are predominantly included in the benchmark index adopted by the Ministry. Norges Bank notes, in its responsible investment report, that it examines geographical exposure, which sectors are the most relevant, as well as whether the activity in question represents that main part of a company's overall business. The Bank seeks to identify factors that affect business development in the various sectors. In 2012, for example, the Bank performed a risk assessment relating to climate change as the result of tropical deforestation. This resulted in the Bank divesting from, inter alia, 23 companies that the Bank considered to produce palm oil unsustainably. In 2013, the Bank performed a risk assessment of sectors posing special environmental challenges, which resulted in the Bank divesting from, inter alia, 27 mining companies. In 2014, the Bank divested from 49 companies within oil sands, coal mining, power generation, cement production and general mining, as well as the extraction of precious metals.

#### **4.4.3 Responsible investment in the Government Pension Fund Norway**

The Board of Directors of Folketrygdfondet has adopted responsible investment principles based on the Norwegian Code of Practice for Corporate Governance (NUES), the UN PRI and the OECD Principles of Corporate Governance. These principles define a general framework for how Folketrygdfondet shall deal with environmental, social and corporate governance issues in seeking to maximize returns over time. Folketrygdfondet has published responsible investment principles

and outlined its active ownership approach on its website.

#### *Focus areas for active ownership*

Folketrygdfondet is of the view that active company follow-up contributes to both lower risk and good portfolio returns over time. As a financial investor, Folketrygdfondet engages in key ownership issues like capital structure, strategy, board composition, executive salaries, corporate governance, reporting and transparency. Folketrygdfondet also deems it important to follow up on the executive salary policies of companies for purposes of safeguarding shareholder value.

In line with the mandate for the GPFN, Folketrygdfondet holds companies accountable for their handling of environmental, social and corporate governance issues. In order to clearly communicate its expectations, Folketrygdfondet has prepared guidance notes for companies' handling of executive salary schemes, financial objectives and capital structure, human rights, labour rights, the environment and anti-corruption. The guidance notes shall illustrate what guidelines Folketrygdfondet expects companies to adopt, as well as how it expects companies to follow up and report on each issue.

The guidance notes are anchored in the responsible investment principles of Folketrygdfondet and based on the UN Global Compact and NUES.

#### *Integration of environmental, social and corporate governance considerations*

The responsible investment principles of Folketrygdfondet apply to all investments of the Fund. However, different methods are used in the follow-up of the various sub-portfolios. In 2012, Folketrygdfondet prepared the document "Folketrygdfondet's active ownership", presenting its active ownership of Norwegian and Nordic companies. The document is available on the Folketrygdfondet website.

Folketrygdfondet has integrated responsible investment considerations in both its investment activities and its ownership follow-up of companies. For 2014, Folketrygdfondet published an ownership report as an integrated part of its annual report.

To facilitate the management of risk relating to environmental, social and corporate governance issues (so-called ESG issues), Folketrygdfondet has for several years prepared ESG analyses for

all Norwegian companies in the equity portfolio. In addition, the Fund has access to ESG analyses prepared by an external service provider for some Norwegian companies and for all Nordic companies. Such analyses form the basis for individual company follow-up.

Folketrygdfondet has, based on an overall ESG assessment for Norwegian companies, defined certain focus areas. In 2014, Folketrygdfondet focused on companies' financial objectives and capital structure, greenhouse gas emissions and associated reporting, challenges relating to sustainability in aquaculture and companies' anti-corruption activities.

Folketrygdfondet is committed, in its management of Norwegian equities, to pursuing a constructive social responsibility dialogue, and raises environmental and social issues with companies. Folketrygdfondet can follow up on companies' handling of relevant challenges through engagement with the companies, and when needed also seek to influence companies in a direction deemed compatible with the principles of Folketrygdfondet. In the Norwegian stock market, Folketrygdfondet holds meetings and maintains contact on an ongoing basis with company executives, and with the chairperson of the board on matters that fall within the responsibilities of the board of directors. In its annual report for 2014, Folketrygdfondet states that it has been pursuing a dialogue with 40 companies in Norway on key ownership issues and specific incidents. This is in addition to its ongoing contact with companies as part of its asset management. This represents quite a steep increase from 2013 in the number of companies with which the Fund has been pursuing an ownership dialogue, and reflects the Fund's strengthened focus on addressing financial objectives and capital structure in dialogue with company management.

#### *CO<sub>2</sub> analysis of the portfolio*

Folketrygdfondet is seeking to integrate climate risk information more closely in asset management. CO<sub>2</sub> analysis of the investment portfolio is one way of achieving this. Folketrygdfondet uses information from such analysis to contribute to company analyses and in dialogue with individual companies. Through such dialogue, the Fund seeks to ensure that companies are conscious of their own climate risk, and have strategies and tools in place for managing such risk.

#### *Responsible investment in the fixed-income portfolio and for Nordic equities*

Folketrygdfondet has in recent years developed its responsible investment practices in relation to the fixed-income portfolio and the Nordic companies in the equity portfolio. This includes the conclusion of an agreement with an external service provider on monitoring of the portfolio and assistance with preparing analyses and pursuing dialogues with companies if incidents that require follow-up are uncovered. This implies that all investments of Folketrygdfondet are now subject to continual monitoring. In its annual report for 2014, Folketrygdfondet states that the external service provider pursued a dialogue with six Nordic companies during the year on, inter alia, human rights, labour rights and the environment.

In addition to continual monitoring of the fixed-income portfolio issuers, Folketrygdfondet states that it aims to further integrate ESG analyses in its ongoing credit evaluation. Folketrygdfondet believes that an issuer's handling of environmental and social matters says something about credit risk. If such an approach becomes more common amongst investors, this may over time have an impact on the financial costs of companies.

For investments in equities and bonds issued by Nordic companies, any decisions on the exclusion of Nordic companies based on recommendations from the Council on Ethics for the GPFG shall also be applied to securities held by Folketrygdfondet, cf. section 5.3.

#### *General meetings and election committees*

Folketrygdfondet votes at the general meetings of all companies in which it holds shares. This implied that Folketrygdfondet cast votes at a total of 48 annual general meetings and 8 extraordinary general meetings of companies listed on the Oslo Stock Exchange in 2014. Over that period, Folketrygdfondet voted against 10 proposals submitted by the boards of directors to the general meetings of four different companies. These proposals concerned, inter alia, executive salaries and option schemes.

For Nordic companies, Folketrygdfondet has voted in a total of 108 general meetings in 2014, all by proxy with voting instructions. In the Nordic region, Folketrygdfondet has voted against, or abstained from voting on, a total of 33 proposals submitted by the board of directors of the compa-

nies concerned. These proposals concerned, inter alia, executive salaries and directors' compensation.

Folketrygdfondet emphasises the important role of election committees in composing competent boards. Folketrygdfondet is represented on six election committees of Norwegian companies. In addition, it is represented on four corporate assemblies and three shareholders' committees.

Folketrygdfondet reports annually on its active ownership in the annual report of the Fund. Voting explanations and ownership reporting are available on the Folketrygdfondet website ([www.ftf.no](http://www.ftf.no)).

#### *Industry collaboration and collaboration with other investors*

Folketrygdfondet participates in several collaboration projects and initiatives to promote responsible investment.

Folketrygdfondet has been a signatory of the UN-sponsored Responsible investment principles (PRI) since 2008. Folketrygdfondet also participates in CDP (formerly known as the Carbon Disclosure Project), which conducts an annual survey on corporate greenhouse gas emissions. Information gathered through CDP is incorporated into the company analyses of Folketrygdfondet and is used for active ownership purposes.

Folketrygdfondet participates actively in the Norwegian Institute of Directors, the Norwegian Society of Financial Analysts and the Eierforum group of institutional investors. Moreover, Folketrygdfondet was one of the driving forces behind, and is an active member of, Norsif; the Norwegian Forum for Sustainable and Responsible Investments, which is an association for asset owners, asset managers, service providers and trade associations engaged in activities in Norway. Norsif has a number of international sister organisations, also in the Scandinavian countries. As a professional forum, Norsif shall disseminate knowledge about, and contribute to the development of, responsible investment practices.

#### **4.4.4 Observation and exclusion of companies**

Under the guidelines on observation and exclusion from the Government Pension Fund Global, companies are to be excluded if they produce certain products or sell weapons to specific states. Companies may also be excluded if there is an unacceptable risk that they may contribute to, or are themselves responsible for, grossly unethical

activities. Companies may be placed under observation in case of doubt as to whether the conditions for exclusion have been met, or as to future developments or if deemed appropriate for other reasons. The criteria for product-based and conduct-based exclusion are available on the Ministry website, whilst a list of the companies excluded or under observation on the basis of these criteria is available on the Norges Bank website.

As at the end of February this year, a total of 60 companies were excluded and one was under observation. Observation has been discontinued for one company since the previous report to the Storting on the management of the Government Pension Fund, whilst one company has been readmitted to the investment universe based on the advice of the Council on Ethics. Furthermore, 10 recommendations in a total of 8 cases, in which no final observation or exclusion decision has been made, are published on the Council on Ethics website. In two of these cases the Council on Ethics revoked earlier recommendations because the basis for the originally recommended exclusions changed whilst the matter was under deliberation in the Ministry of Finance.

Six of the cases are within the scope of the transitional provision in section 12, letter b, of the new guidelines for observation and exclusion from the GPF, as discussed in section 5.2.

The Ministry has, following observation or exclusion advice from the Council on Ethics, previously decided that Norges Bank shall follow up on three companies through active ownership, cf. section 4.4.2.

#### *Product-based exclusion*

The guidelines stipulate that the Fund's assets shall not be invested in companies that, themselves or through entities they control:

- Produce weapons that violate fundamental humanitarian principles through their normal use;
- produce tobacco; or
- sell weapons or military material to states that are affected by investment restrictions on government bonds as described in Section 3-1, second paragraph, letter c, of the management mandate for the GPF.

The Revised National Budget for 2004 provides an exhaustive list of weapons covered by the product-based exclusion criteria. The list includes chemical weapons, biological weapons, anti-personnel mines, undetectable fragmenta-

tion weapons, incendiary weapons, blinding laser weapons, cluster munitions and nuclear arms. The Fund shall not be invested in companies that develop or produce key components for these types of weapons.

The criterion for the exclusion of companies that produce tobacco 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, themselves or through entities they control, grow tobacco plants or process tobacco into end products shall be excluded.

It follows from the mandate laid down by the Ministry of Finance for Norges Bank that the GPFG may in certain cases be prevented from investing in interest-bearing instruments issued by states. The Fund is not a foreign-policy tool, and it is only in special situations involving comprehensive international sanctions or other measures endorsed by Norway that such investment restrictions on government bonds apply. Section 2, first paragraph, letter c, of the guidelines for observation and exclusion stipulates that the fund assets shall not be invested in companies that: «sell weapons or military material to states that are affected by investment restrictions on government bonds as described in Section 3-1, second paragraph, letter c, of the management mandate for the GPFG.» The government bond exclusion provision was introduced in 2010 and currently applies to North Korea, Syria and Iran. The Council on Ethics has thus far not identified any companies that sell weapons or military material to the said states. One company was excluded when Myanmar was previously included on this list. Such exclusion has subsequently been revoked.

The Council on Ethics uses an external consultancy firm that continuously monitors the companies in the fund portfolio and the companies excluded from the Fund for production in violation of the guidelines. In addition, the Council on Ethics collaborates with other financial institutions on a consultancy assignment to chart companies that produce cluster munitions.

The Council on Ethics will normally contact companies if there is reason to believe that these are engaged in production in violation of the guidelines for the Fund. If companies confirm the information held by the Council, an exclusion recommendation is issued by the Council. Companies that fail to respond to the communication will be recommended for exclusion if the documentation of the Council on Ethics shows that such companies are highly likely to make products

encompassed by the exclusion criteria. The Council adheres to this procedure to achieve a reasonable degree of assurance that companies making products in violation of the guidelines are excluded from the Fund. However, there is no guarantee that all companies are captured by the Council's monitoring system at any given time.

39 companies are excluded from the Fund under the product-based criteria. 18 of these companies have been excluded on the basis of production of weapons that violate fundamental humanitarian principles in their normal use, whilst 21 companies are excluded for producing tobacco. No companies are excluded because of sales of weapons or military material to states that are affected by investment restrictions on government bonds.

#### *Conduct-based exclusion*

A company may be excluded from the Fund if there is an unacceptable risk that the company contributes to, or is itself responsible for:

- Serious or systematic human rights violations, such as murder, torture, deprivation of liberty, forced labour, the worst forms of child labour;
- serious violations of individuals' rights in situations of war or conflict;
- severe environmental damage;
- gross corruption; or
- other particularly serious violations of fundamental ethical norms

The Council on Ethics states, in its annual report for 2014, that it identifies companies for assessment through news monitoring, initiatives from special interest groups and systematic evaluation of problem areas. The Council uses, inter alia, an external consultancy firm that continuously identifies news concerning portfolio companies in multiple languages. The Council gathers information from researchers, international and national organisations, etc., and engages consultants. The Council on Ethics also reviews and examines communications from persons and organisations that request the Council to assess companies or issues.

The Council on Ethics also studies certain issues or sectors where it is particularly likely, in the assessment of the Council, that companies may be engaged in activities in contravention of the ethical guidelines. Such sector studies will normally be initiated by the Council appointing an expert within the area to map all companies in the portfolio engaged in a certain type of activity and



to collect information about companies that may pursue activities that violate the guidelines. The Council evaluates, based on the consultancy report, which companies to examine in more detail. This evaluation takes into consideration, inter alia, the magnitude and seriousness of the norm violations, the connection between the companies and the norm violations and the likelihood of future norm violations.

Amongst the cases identified through news searches, external requests and sector studies, the Council on Ethics selects, for further investigation, those cases that appear to be the most serious. The Council on Ethics attaches weight to, inter alia, how serious the norm violations are, whether a company is accused of several counts of unethical conduct, whether it is likely that norm violations will continue, and the scope for documenting the conduct of which the company is accused. The intention is to identify companies where there is an unacceptable risk that violations of the ethical guidelines are taking place and that such violations will continue.

In order to document alleged norm violations, the Council on Ethics makes extensive use of consultancy firms, researchers and non-governmental organisations based in the country where the violations of norms are alleged to be taking place. Such assignments may, for example, involve fieldwork and the gathering and assessment of information and documentation that substantiates alleged norm violations.

The Council on Ethics has since 2010 been reviewing the investments of the GPFG in companies that are involved in various types of activities that may cause serious environmental problems. This has been continued by the Council on Ethics in 2014 in, inter alia, the following areas: Illegal logging and other particularly damaging logging, illegal fishing and other particularly damaging fishing activity, as well as activities with extensive consequences for particularly valuable areas of protection. The Council has concluded its studies of severely damaging dam projects and uranium mines. The Council will nonetheless continue to examine individual companies in these categories.

The Council on Ethics is continuously examining and monitoring violations of the exclusion criteria set out in the guidelines. The Council on Ethics has in 2014 examined a number of companies alleged to have contributed to human rights violations within natural resource extraction, agriculture, food production and textile production. The Council has focused, in particular, on forced

labour and the worst forms of child labour in companies with operations in Asia that use fish as a raw material in production, or that purchase cotton, yarn, fabrics or clothing.

Under the corruption criterion, the Council on Ethics places a special focus on companies engaged in industries and countries that are, according to international rankings, especially exposed to corruption. Companies faced with credible allegations of gross corruption are subjected to more detailed examination. In 2014, the Council on Ethics concluded a sectoral study of the building and construction industry, whilst initiating new sectoral studies of the oil and gas industry and the defence industry. In addition, in 2014 the Council started to review individual companies for which information on gross corruption has transpired through ongoing news reporting.

The Council on Ethics contacts companies at an early stage in its examination of cases. Companies are requested to answer questions or to send specific documents to the Council. In 2014, the Council on Ethics contacted 39 companies. From time to time, companies request a meeting with the Council. In 2014, the Council met with 18 companies. The Council on Ethics attaches weight to obtaining information directly from companies, but also issues recommendations on companies that fail to respond to communications from the Council.

A total of 21 companies are excluded from the GPFG under these criteria, and 13 of these companies are excluded because they are deemed to cause severe environmental damage. Three of the companies are excluded on the basis of contributions to serious or systematic human rights violations, whilst two companies are excluded on the basis of other particularly serious violations of fundamental ethical norms, and three are excluded on the basis of serious violations of individuals' rights in situations of war or conflict.

#### *Observation*

One company is under observation pursuant to the gross corruption criterion. During the observation period, the Council on Ethics is monitoring, inter alia, how the company is developing its systems to prevent corruption, how the company is handling the investigation of past corruption incidents, and whether any new instances of corruption are alleged. One company has for two years been under confidential observation under the war and conflict criterion, but was removed from the observation list in 2014.

The Council on Ethics will be informing Norges Bank on an annual basis about the status of the companies under observation, and make a

new recommendation on the companies in question after the observation period has been completed.

## 5 Development of the management framework of the Government Pension Fund

### 5.1 Introduction

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The Government Pension Fund Act makes the Ministry of Finance responsible for the management of the Government Pension Fund. The Fund comprises the Government Pension Fund Global (GPFG) and the Government Pension Fund Norway (GPFN). Operational management of the two parts of the Fund is carried out by Norges Bank and Folketrygdfondet, respectively. Asset management is governed by separate mandates laid down by the Ministry. The mandates include provisions on benchmark indices, investment limits, responsible investment, risk management and reporting. The Ministry's regulation of the management of the Government Pension Fund stipulates general principles and limits, in the expectation that more detailed internal rules will be laid down by Norges Bank and Folketrygdfondet, respectively.

The management framework for the Government Pension Fund is premised on a clear division of roles and responsibilities, both between the owner and the asset manager, and between the various bodies that supervise and monitor the Fund. This framework is discussed in previous reports to the Storting on the management of the Government Pension Fund; cf. Report No. 27 (2012–2013) to the Storting – The Management of the Government Pension Fund in 2012.

The Ministry is continuously developing the management framework for the Government Pension Fund. Weight is attached to ensuring that the framework is well aligned with the investment strategy, and that the governance structure and regulations are consistent with international best practice.

The entire management framework for the Government Pension Fund is available on the Ministry's website. Supplementary management provisions adopted by the Executive Board of Norges Bank and the Board of Directors of Folketrygdfondet are available on the respective websites of the asset managers ([www.nbim.no/en](http://www.nbim.no/en) and [www.ftf.no](http://www.ftf.no)).

### 5.2 Changes to the responsible investment framework for the Government Pension Fund Global

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#### 5.2.1 Introduction

This section outlines the Ministry's follow-up of the Storting's deliberation of the proposed changes to the responsible investment framework for the GPFG, which the Ministry submitted in last year's report, cf. Report No. 19 (2013–2014) to the Storting – The Management of the Government Pension Fund in 2013 and Recommendation No. 200 (2013–2014) to the Storting.

The Ministry is committed to ensuring that the GPFG is managed in a responsible manner. The responsible investment strategy has been developed over time. In January 2013, the Ministry requested the Strategy Council for the GPFG to examine how the overall resources and expertise of the Ministry, the Council on Ethics for the Government Pension Fund Global (the Council on Ethics) and Norges Bank could best be utilised.

The Strategy Council submitted its report in November 2013. Based on a public hearing of this report the Ministry proposed in Report No. 19 (2013–2014) to the Storting that all responsible investment activities be integrated within Norges Bank and that the authority to decide on matters of observation and exclusion be transferred from the Ministry to Norges Bank. The Storting concluded that the appointment of an independent Council on Ethics should continue, and that the Council on Ethics shall provide its recommendations on observation and exclusion to Norges Bank, which decides in such matters. The recommendations shall continue to be made public. Furthermore, the Storting concluded that the Council on Ethics shall be appointed by the Ministry based on recommendations from Norges Bank.

The changes decided by the Storting do not entail any changes to the criteria for observation and exclusion. These criteria shall continue to be decided by political authorities.

On the basis of the Storting's endorsement of Recommendation No. 200 to the Storting, cf. Report No. 19 (2013–2014) to the Storting, the Ministry adopted on 18 December 2014 new guidelines for observation and exclusion from the Government Pension Fund Global and made certain amendments to the mandate for the management of the GPFG. On the same day, the Ministry appointed members to the Council on Ethics based on recommendations from Norges Bank. The changes to the framework were adopted with effect from 1 January 2015. The members of the Council on Ethics were appointed with effect from the same date.

The Ministry will continue to follow-up and report on the activities of Norges Bank and the Council on Ethics in the annual reports to the Storting on the management of the Government Pension Fund.

The Ministry will review the new organisational structure in the context of the annual reports on the Government Pension Fund. The Ministry will revert to the implementation of such evaluations in the report on the management of the Government Pension Fund in the spring of 2016.

### **5.2.2 Appointment procedure for the Council on Ethics**

The Council on Ethics has since its establishment on 19 November 2004 been appointed by the Ministry. As part of the changes decided by the Storting the Ministry shall appoint members of the Council on Ethics based on recommendations from Norges Bank, cf. Recommendation No. 200 (2013–2014) to the Storting. It was stipulated that one should continue to ensure a high level of professional expertise in the Council on Ethics.

The Ministry has, with effect from 1 January 2015, appointed five members, as well as designated the chair and vice chair, of the Council on Ethics, based on recommendations from Norges Bank. The Council on Ethics continues to have its own secretariat, and shall continue to submit an annual report on its activities to the Ministry. The duties of the Council on Ethics are laid down in the guidelines of 18 December 2014 for observation and exclusion from the Government Pension Fund Global.

### **5.2.3 Guidelines for observation and exclusion**

Ethical guidelines for the former Petroleum Fund were adopted by the Ministry of Finance on 19 November 2004, based on proposals in the NOU

2003: 22 Green Paper; Management for the Future. In 2008, the Ministry conducted an evaluation of the ethical guidelines. The findings from the evaluation and proposed changes were submitted in Report No. 20 (2008–2009) to the Storting – On the Management of the Government Pension Fund in 2008. The Storting endorsed the proposals, cf. Recommendation No. 277 (2008–2009) to the Storting. Against this background, new guidelines were adopted on 1 March 2010. These guidelines have now been repealed as the result of the adoption of new guidelines on 18 December 2014. The differences between the repealed and the new guidelines are primarily a result of the new division of responsibilities in the observation and exclusion of companies from the GPFG.

The criteria for observation and exclusion remain unchanged. The Fund shall, as before, not be invested in companies that produce tobacco, produce weapons that violate fundamental humanitarian principles through their normal use, or sell weapons or military material to states that are affected by the government bond exclusion clause in the mandate for the management of the GPFG. Individual companies may still be excluded if there is an unacceptable risk that the company contributes to, or is itself responsible for serious or systematic human rights violations, serious violations of individuals' rights in situations of war or conflict, severe environmental damage, gross corruption or other particularly serious violations of fundamental ethical norms.

#### *Exclusion of companies from the portfolio of the Fund*

The repealed guidelines for observation and exclusion referred to the investment universe of the Fund. At the same time, it was stipulated in section 1 on the scope of the guidelines that these applied to companies in the portfolio of the Fund. In order to make it clear that the advice of the Council on Ethics and the decisions of Norges Bank on observation and exclusion shall apply to companies in the portfolio of the Fund, this is specified in section 1 of the guidelines.

#### *Transparency of decisions*

All decisions made by Norges Bank pursuant to the guidelines, including the revocation of earlier decisions, shall be based on advice from the Council on Ethics, cf. section 1, third paragraph, and section 6, first paragraph. This ensures consistency in terms of justification and transparency requirements.

The restructuring implies that Norges Bank, and not the Ministry, shall maintain a public list of companies placed under observation or excluded from the GPF, cf. section 8, second paragraph.

#### *More emphasis on the breadth of a company's activities*

It is stated in Recommendation No. 200 (2013–2014) to the Storting that one should consider a modification of the guidelines “(...) to enable Norges Bank to attach more weight to the breadth of a company's activities (...)”. This is sought reflected in section 6, second paragraph, second sentence, in which it is stated that the Bank, in assessing whether a company shall be excluded, may consider the breadth of the company's operations and governance. It is noted in section 6, second paragraph, third sentence, that relevant factors in these assessments may be the company's guidelines for, and work on, safeguarding good corporate governance, the environment and social conditions, and whether the company is making a positive contribution for those affected, at the present or in the past, by the company's conduct.

#### *Coherent chain of policy measures and consistent communication*

It is also stated in Recommendation No. 200 (2013–2014) to the Storting that one would like to reinforce the intention behind the changes in 2009, i.e. “*interaction between the policy tools*”. Reference is also made to the recommendation of the Strategy Council for an “*integrated chain of ownership tools*”. This is reflected in requirements and objectives for the use of the policy tools, cf. section 6, third paragraph, and section 7, first paragraph. Norges Bank and the Council on Ethics must jointly identify appropriate and practicable solutions for realising this. The requirements need to be considered in the context of several references in section 7 to the need for the Bank and the Council on Ethics to facilitate information exchange and coordination of their efforts.

Recommendation No. 200 (2013–2014) to the Storting expresses a desire for “*improved communication and integration of efforts between Norges Bank and the Council on Ethics*”, and also for the communication of Norges Banks and the Council on Ethics with companies to be “*perceived as consistent externally*”. This is reflected in several provisions in section 7 of the guidelines, which call for, inter alia, improved coordination of, and

exchange of information on, contact with individual companies.

The Ministry expects the Council on Ethics and Norges Bank to jointly establish prudent procedures and appropriate working methods in order to clarify the delineation of responsibilities and facilitate good communication and integration of their efforts.

The new guidelines also include a provision requiring the Council on Ethics to evaluate its work on a regular basis, cf. section 4, eighth paragraph.

#### *Recommendations from the Council on Ethics not finally processed in the Ministry by 1 January 2015*

The new guidelines include a transitional provision (section 12) on recommendations that had not been finally processed in the Ministry by the end of last year. Recommendations on companies not included in the portfolio of the Fund at year-end are closed without further processing by the Ministry. The recommendations of the Council on Ethics in these matters were made public on 26 January 2015, on the same day as the publication of the Council's annual report for 2014. Recommendations on companies included in the portfolio of the Fund at yearend are, in line with the transitional provision, sent back to the Council on Ethics for further handling.

#### *Discontinued provisions*

It followed from section 3, second paragraph, of the repealed guidelines that an observation decision could be exempt from public disclosure if justified by “special considerations”. The Ministry's assessment is that such a provision is no longer needed as the said provision has been applied in one case only and that the decision-making authority on observation has been transferred to Norges Bank, which is also responsible for active ownership. The provision has, against this background, not been included in the new guidelines.

Furthermore it followed from the repealed guidelines that the Council on Ethics “*shall at the request of the Ministry of Finance render advice as to whether an investment may be contrary to Norway's obligations under international law*”. This provision had its origin in 2001, when the exclusion mechanism was based on activities in violation of international law and on the framework governing the former Petroleum Fund's Advisory Commission on International Law. This provision has not been retained since the Council

on Ethics shall render its advice to Norges Bank and the role of the Ministry has changed.

#### **5.2.4 The mandate for the Government Pension Fund Global**

The deliberations of the Storting also necessitate certain amendments to the mandate for the management of the GPFG. The main amendments are outlined below.

##### *Clarification of the responsible investment objective*

The Ministry stated, in Report No. 19 (2013–2014) to the Storting, that the reference in the mandate to the relationship between sustainable development and good long-term return must be interpreted as a clarification within the overarching objective of achieving the maximum possible return. The said relationship needs to be considered in view of the very long time horizon of the Fund and the broad diversification of its investments. In order to highlight the said relationship and the objective for the management of the GPFG the Ministry proposed in the report to consolidate the relevant provisions into a new objective clause in chapter 1 of the mandate. Section 1-3 of the mandate has been amended in line with this.

At the same time, a general provision (section 2-2) on responsible investment principles has been added to further highlight the abovementioned relationship.

The Storting has on several occasions, including Recommendation No. 277 (2008–2009) to the Storting, cf. Report No. 20 (2008–2009) to the Storting, agreed that Norges Bank shall exercise the ownership rights independently of the Ministry. The clarification of the objective for the responsible investment activities of the Bank has been supplemented by specifying in section 1-2, third paragraph, that the Bank shall exercise the ownership rights of the Fund independently of the Ministry.

Similar to section 6, third paragraph, of the guidelines for observation and exclusion, a requirement for the policy measures to be considered in relation to each other is specified in section 2-1 of the mandate, cf. the majority remark in Recommendation No. 200 (2013–2014) to the Storting calling for “the Bank to seek to establish a chain of policy tools”.

##### *Reporting*

The reporting requirement in section 6-1 is extended in a new seventh paragraph requiring reporting in a suitable manner on the “responsible investment management activities”, cf. chapter 2 of the mandate. Such reporting shall cover how responsible investment principles are being integrated into asset management, including the use of policy tools and the effect of active ownership. Furthermore, Norges Bank is called upon to account, in connection with its quarterly and annual reporting, for decisions made under the guidelines for observation and exclusion from the GPFG, as well as to update the public list of companies excluded or placed under observation, cf. section 6-1, new fourth paragraph.

It is stated, in a letter of 21 October 2014 to Norges Bank, that the Ministry expects the Bank to account in a suitable manner, as part of its reporting under section 6-1, seventh paragraph, for its dialogue with individual companies, cf. the discussion in Report No. 19 (2013–2014) to the Storting.

##### *Other amendments*

It is stipulated, in line with the discussion in Report No. 19 (2013–2014) to the Storting, in section 2-3 of the mandate that the Bank shall contribute to responsible investment research. Moreover, it is stipulated in section 3-1 third paragraph that the Bank shall have guidelines on exclusion and reinstatement of companies into the investment universe of the Fund and the benchmark index when exclusion and revocation decisions are made pursuant to the guidelines for observation and exclusion from the Government Pension Fund Global.

##### *The government bond exclusion clause*

It follows from the management mandate for the GPFG that the Fund shall not be invested in fixed-income instruments issued by governments or government-related issuers in the exceptional cases where the Ministry has barred such investments on the basis of particularly large-scale UN sanctions, or other international initiatives of a particularly large scale that are aimed at a specific country and that are endorsed by Norway.

The wording of the government bond exclusion clause, in section 3-1, second paragraph, letter c, was modified with effect from 1 January 2015 to clarify the distinction between UN sanc-

tions that will automatically be binding for Norway, and other restrictive measures that require the specific support of Norway.

*Environment-related investment mandates, etc.*

In Report No. 19 (2013–2014) to the Storting the Ministry proposed that the market value range for the environment-related investment mandates be expanded from NOK 20-30 billion to NOK 30-50 billion. This was endorsed by the Storting, cf. Recommendation No. 200 (2013–2014) to the Storting. The new interval for the environment-related investment mandates is incorporated into the mandate for the GPFG.

The requirement for Norges Bank to account separately, in its annual reporting, for environment-related investments, cf. section 6-1, fifth paragraph, letter b, has been maintained. Such

reporting on the environment-related investments shall include, inter alia, scope, strategy and asset type, as well as a description and evaluation of how the intention behind such investments is being met. A new requirement has also been added, for separate reporting on investments in emerging markets and renewable energy, cf. section 6, fifth paragraph, letter c.

### **5.3 Changes to the framework for the Government Pension Fund Norway**

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The Ministry will assess the need for altering the mandate for the management of the GPFN in view of the changes to the mandate for the management of the GPFG, as discussed in section 5.2.





*Part 2*  
*Topic articles*



## 6 Tracking error

### 6.1 Introduction

Expected tracking error is used to define the magnitude of the deviations from the benchmark index of the Government Pension Fund Global (GPFG) and the Government Pension Fund Norway (GPFN) permitted to Norges Bank and Folketrygdfondet. The Ministry has stipulated a one percentage point limit on expected tracking error in the mandate for the management of the GPFG. The stipulated limit for the GPFN is three percentage points. This topic article analyses factors that influence tracking error, including the impact of the number of securities in the benchmark index.

### 6.2 Factors that influence tracking error

#### 6.2.1 Model

A simple simulation model is used to shed light on how characteristics of indices, portfolios and the market may influence tracking error. The purpose is to illustrate how certain factors influence tracking error, rather than to provide an exact estimate of tracking error.

The model simulates developments in an equity portfolio and an equity index over ten periods. All equities included in the index carry the same weight in the first period. It is assumed that the equity portfolio comprises only 90 percent of the equities included in the index. This implies that each equity carries somewhat higher weight in the equity portfolio than in the index.

The return on all equities is drawn from a statistical probability distribution with a standard deviation of 35 percent. The model is structured such as to make the average correlation between equities about 0.2. This is more or less in line with the average standard deviation and correlation over the last three years for the equities included in the Benchmark Index of the Oslo Stock Exchange. The technical calculation assumptions represent a simplification when compared to how equity prices actually develop. The return, the

standard deviation and the correlation of the equities in a global portfolio will all be influenced by, inter alia, country risk, sector risk, foreign exchange risk and systematic risk factors.

Developments in the portfolio and the benchmark index will vary for each simulation, which implies that tracking error also varies. The model has been reiterated one hundred times, and the average tracking error for all simulations has been calculated.

#### 6.2.2 The number of securities in the benchmark index

The number of securities in the benchmark index may have a major impact on the calculation of tracking error. When the number of companies increases, the deviations from the index are spread across more equities, and hence there is less of an impact from company-specific fluctuations. The benchmark index for the Norwegian equity investments of the GPFN is the Benchmark Index of the Oslo Stock Exchange, which comprises just over 50 equities. In comparison, the

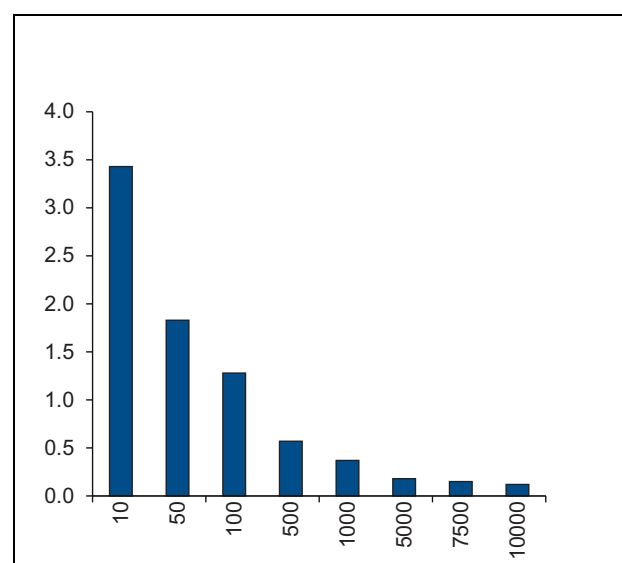


Figure 6.1 Tracking error when increasing the number of equities in a benchmark index. Percentage points

Source: Ministry of Finance.

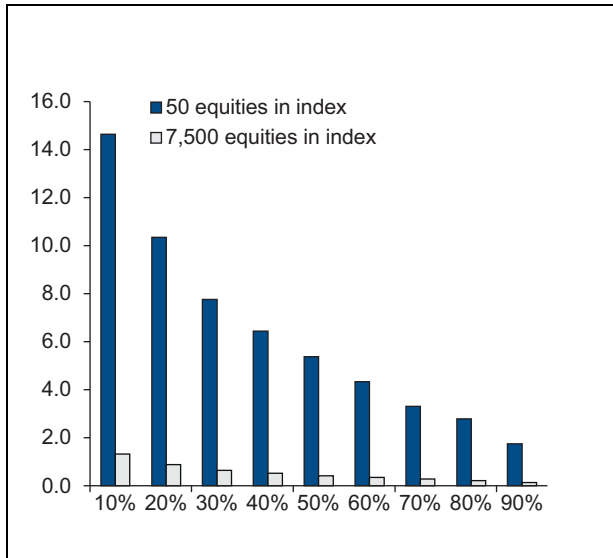


Figure 6.2 Tracking error when increasing the overlap between the portfolio and the benchmark index. Percentage points

Source: Ministry of Finance.

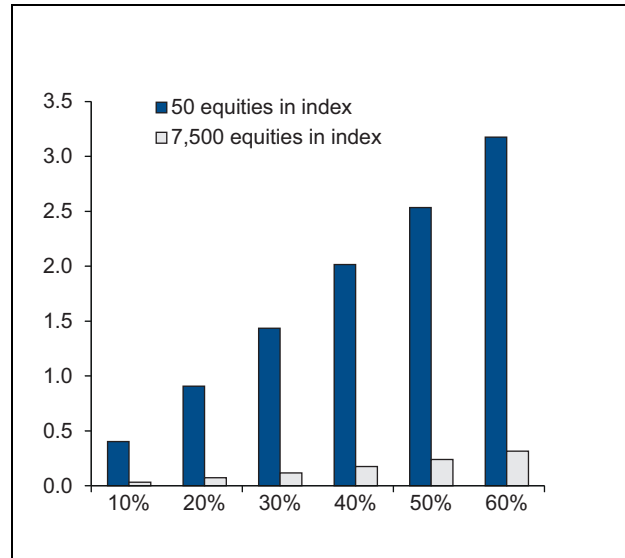


Figure 6.3 Tracking error when increasing market volatility. Percentage points

Source: Ministry of Finance.

benchmark index for the GPFG comprises about 7,500 equities.

Figure 6.1 shows how the number of companies in an equity index can influence the calculation of tracking error, under the above assumptions. A portfolio with a benchmark index comprising 50 equities will under these assumptions have a tracking error of 1.8 percentage points. Correspondingly, a portfolio with a benchmark index of 7,500 equities will have a tracking error of 0.1 percentage points.

### 6.2.3 Overlap between portfolio and benchmark index

The simulation model is structured such as to make the overlap, or the identical portion of the portfolio and the index, 90 percent in the first period. In comparison, the overlap between the Norwegian equity investments of the GPFN and the benchmark index was just in excess of 90 percent at yearend 2014, whilst the overlap between the equity investments of the GPFG and the benchmark index was in excess of 80 percent at the same point in time. When overlap increases, there are either fewer deviations from the benchmark index, or individual deviations are smaller when taken in isolation. Figure 6.2 shows that tracking error declines when overlap increases.

### 6.2.4 Market volatility

The average volatility of the equities included in the Benchmark Index of the Oslo Stock Exchange has been about 35 percent over the last three years. Average volatility was more than 50 percent during the financial crisis. High market volatility also results in large tracking error. Figure 6.3 shows the changes in calculated tracking error when the standard deviation of the distribution from which the equity returns are drawn is increased.

### 6.2.5 Correlation

High correlation between equities will normally reduce tracking error. When correlation is high, equity prices will largely move in the same direction. This implies that the consequences of selecting one stock over another are small, since there is a high probability that their development will be approximately the same. Figure 6.4 shows the changes in tracking error when average correlation between individual equities increases.

Equity correlation normally increases during periods of high market volatility. Average correlation for the equities included in the Benchmark Index of the Oslo Stock Exchange was about 0.2 over the period from December 2006 to December 2009. This is slightly higher than the correlation over the period from January 2012 to Decem-

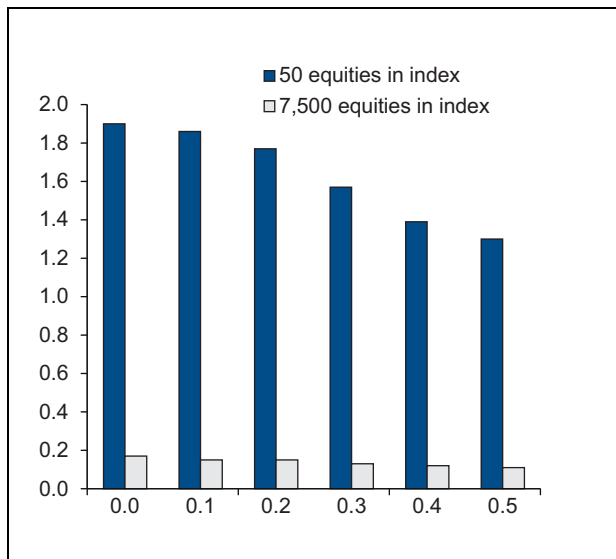


Figure 6.4 Tracking error when increasing correlation between individual equities. Percentage point

Source: Ministry of Finance.

ber 2014. Between different industrial sectors, on the other hand, correlation differences were larger in the two periods, with higher correlation during the financial crisis than during the three-year period until the end of 2014.

### 6.2.6 Index changes

The composition of indices is changed on a regular basis. The composition of the Benchmark Index of the Oslo Stock Exchange is, for example, altered every six months. Such index changes may give rise to tracking error between a portfolio and its benchmark index.

In order to prevent any impact on tracking error, an asset manager may trade in the equities entering or exiting the index on the same day as the index is changed. If large sums are channelled into trading equities within a short space of time, equity prices may be affected. The equity prices at which one trades will in such case be less favourable than if the trades were spread over a longer period of time. Other market participants may also exploit known information on how an asset manager with a large portfolio changes the composition of its investments upon index changes, which may give rise to large indirect transaction costs. Consequently, the preference for low track-

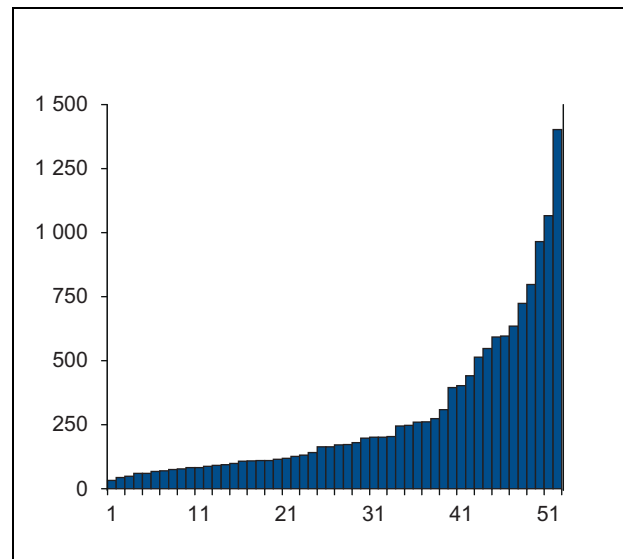


Figure 6.5 Number of trading days it takes for the GPFN to purchase or sell index weight in the companies included in the benchmark index. Daily trading is assumed to correspond to 15 percent of overall trading in each equity.

Sources: Oslo Stock Exchange, Folketrygdfondet and the Ministry of Finance.

ing error needs to be weighed against the level of transaction costs.

The GPFN is a relatively large investor in the Norwegian stock market, and the value of the Norwegian equity portfolio corresponds to about 10 percent of all equities included in the Benchmark Index of the Oslo Stock Exchange. Figure 6.5 shows the number of days it will on average take to purchase or sell index weights of the equities included in the Benchmark Index. The figure is based on the GPFN daily trading in an amount corresponding to 15 percent of the trading volume for each equity. In the most liquid company it will take more than 30 days to trade the equities, whilst it will take more than 1,400 trading days in the least liquid company. The figure shows that it is challenging for an investor of the GPFN's size to adjust its portfolio to index changes within a short space of time.

### 6.2.7 Changes to index deviations and market volatility

The limits on expected tracking error for the GPFN and the GPFG apply to a portfolio comprising both equities and bonds. Figure 6.6 shows calculated tracking error for the GPFN as at yearend 2014. A simple model is used to illustrate effects based on the equity and fixed-income portfolio of

the GPFN. The model is structured such as to enable adjustment of over- and underweights in Norwegian equities, whilst the fixed-income portfolio and the Nordic equity investments are based on actual developments in GPFN investments.

Based on market developments over the years 2012–2014, expected tracking error for the GPFN is estimated at about 0.5 percentage points as at yearend 2014.

Applying equity and bond price developments for the years 2007 to 2009, result in an increase in estimated expected tracking error to 1.0 percentage point.

At yearend 2014, the overlap between the Norwegian equity investments of the GPFN and the benchmark index was about 91 percent, up from 83 percent at yearend 2008. If one doubles, as a technical calculation exercise, the deviations in the Norwegian equity portfolio at yearend 2014, the overlap between the portfolio and the benchmark index is at more or less the same level as at the end of the financial crisis. Market developments over the years 2012–2014 mean that tracking error for such a portfolio would have been about 1.1 percentage points for the Fund as a whole. Given market developments during the financial crisis, estimated tracking error would have been close to 2.1 percentage points.

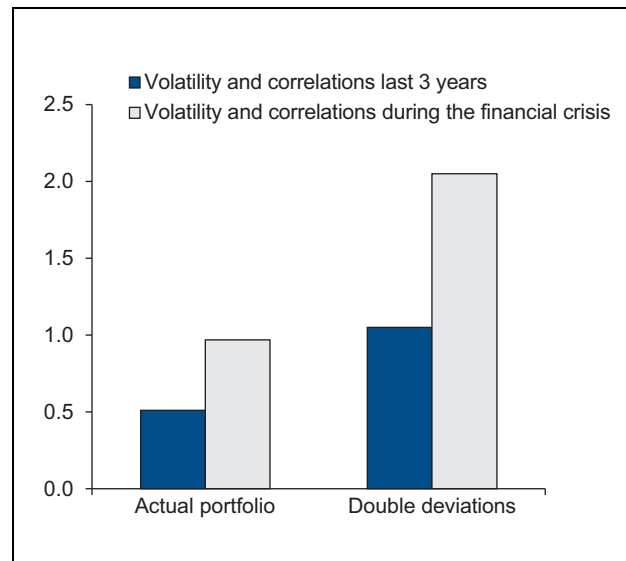


Figure 6.6 Tracking error of the GPFN under different deviation assumptions. Percentage points

Sources: Folketrygdfondet and the Ministry of Finance.

## 7 Statistical analyses of performance in the Government Pension Fund Norway

### 7.1 Introduction

This topic article provides a more detailed analysis of Folketrygdfondet's performance in managing the GPFN, cf. the discussion in section 3.2. The emphasis is on shedding light on the following issues:

- Has Folketrygdfondet achieved excess return over time?
- Which factors have contributed to the excess return?
- What have been the implications of asset management for the ratio between risk and return in the GPFN?

The analyses have a special focus on the Norwegian equity and fixed-income portfolios of the GPFN, since these constitute 85 percent of the benchmark index defined by the Ministry of Finance.

The GPFN has a long time horizon for its investments. Performance is therefore evaluated over long periods. The analysis emphasises the period since 2007, when a new framework for the management of the GPFN was established. Since a review of Folketrygdfondet's asset management was conducted in 2010, analyses of performance over the last four years are also presented.

Folketrygdfondet's management of the GPFN has delivered excess return over the period 1998–

Table 7.1 Excess return on the GPFN as a whole and on the Norwegian equity and fixed-income portfolios.<sup>1</sup>

GPFN	1998–2014		2007–2014		2011–2014	
Average (percentage points per month)	0.04 (0.07)		0.09 (0.01)		0.06 (0.01)	
Tracking error <sup>2</sup> (percentage points per month)	0.37		0.38		0.16	
Information ratio <sup>3</sup>	0.10		0.23		0.35	
Kurtosis <sup>4</sup>	7.94		11.81		2.48	
Skewness <sup>4</sup>	0.80		1.47		0.33	
Norwegian portfolios	1998–2014		2007–2014		2011–2014	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
Average (Percentage points per month)	0.09 (0.12)	0.02 (0.12)	0.12 (0.04)	0.08 (0.00)	0.06 (0.10)	0.09 (0.00)

<sup>1</sup> The analysis is based on monthly data, and excess return is calculated as the arithmetic mean. P-values for estimated means are stated in brackets. P-values lower than 0.05 suggest that the hypothesis that return has been lower or equal to the return on the benchmark index can be rejected with a high degree of statistical confidence.

<sup>2</sup> Tracking error is the standard deviation of excess returns, stated on a monthly basis.

<sup>3</sup> Information ratio is the ratio between excess return and tracking error, stated on a monthly basis.

<sup>4</sup> Kurtosis and skewness are measures of deviations from the symmetry of a statistical normal distribution. Kurtosis in excess of 3 and negative skewness mean that losses occur more frequently and are larger than would be suggested by a normal distribution.

Sources: Folketrygdfondet and the Ministry of Finance.

2014, as well as in the sub-periods 2007–2014 and 2011–2014, cf. table 7.1. Both the equity and fixed-income management have contributed to the excess return.

Statistical tests can be used to analyse whether the excess return was coincidental or can be attributed to Folketrygdfondet's management. Table 7.1 shows that there is a high probability that the excess return can be attributed to Folketrygdfondet's management, and that the performance is not a coincidental occurrence.<sup>1</sup>

## 7.2 Contributions to excess return

Financial research has shown that tilting investments towards assets with certain characteristics such as low market value, relatively low pricing and low liquidity, has historically delivered a higher return than a market-weighted portfolio. Such characteristics are often labelled factors, and systematic tilting of investments towards such assets is called factor strategies. It is more uncertain whether factor strategies have generated excess return in the Norwegian market.<sup>2</sup>

Return fluctuations as a result of factor strategies may deliver negative excess return relative to

<sup>1</sup> Average monthly excess return on the GPFN since 2007 being more than zero is statistically significant at the 1-percent level.

<sup>2</sup> See Johnsen (2011) and Næs, Skjeltorp and Ødegård (2008).

the benchmark index for extended periods of time, and such deviations may be amplified during periods of market slumps. Consequently, significance of factors in generating excess returns may say something about the risk profile of the GPFN. The risk associated with security selection is, on the other hand, company-specific and more readily reduced by spreading the deviations from the index over a number of securities.

By calculating the extent to which excess return has fluctuated in correlation with factors, one can seek to gain insight into the significance of such factors in determining achieved risk and return. Correlation may be the result of specific factor strategies, but may also reflect the sum total of a number of company-specific security selections.

The analyses below make use of four factors that were also applied in reviewing Folketrygdfondet's asset management in 2010, cf. Report No. 15 (2010–2011) to the Storting – The Management of the Government Pension Fund in 2010.<sup>3</sup> Two of the factors used in the analysis, *size* and *value*, relate to the stock market.<sup>4</sup> The *size* factor mea-

<sup>3</sup> The factors were included in the analyses of Nagy and Sørensen (2011).

<sup>4</sup> The *size* factor is given by the difference in returns between the OSESX index, which is based on the companies with the lowest market value on the Oslo Stock Exchange, and the OBX index, which comprises the 25 largest companies on the Oslo Stock Exchange. The *value* factor is given by the difference in returns between MSCI Norway Standard Value Index and MSCI Norway Standard Growth Index.

Table 7.2 Systematic factors in the management of Norwegian equities and bonds<sup>1</sup>

	1998–2014	2007–2014	2011–2014
<i>Equities</i>			
Size	-0.15 (0.03)	0.09 (0.39)	-0.21 (0.15)
Value	-0.10 (0.17)	0.03 (0.76)	-0.35 (0.01)
<i>Bonds</i>			
Credit	0.12 (0.09)	0.32 (0.00)	-0.17 (0.24)
Term	-0.32 (0.00)	0.12 (0.26)	-0.25 (0.09)

<sup>1</sup> The table shows partial correlations between excess return and the risk factors. P-values from testing whether partial correlation is different from zero are stated in brackets. P-values lower than 0.05 suggest that the hypothesis of no correlation can be rejected with a high degree of statistical confidence.

Sources: Folketrygdfondet, MSCI, Bloomberg, Macrobond and the Ministry of Finance.



Table 7.3 Risk associated with Folketrygdfondet's deviations from the benchmark index. Percent<sup>1</sup>

	1998–2014	2007–2014	2011–2014
Benchmark index	98.3	99.1	99.5
Deviations from benchmark index	1.7	0.9	0.5
Total	100	100	100

<sup>1</sup> The table shows the percentage of fluctuations in the GPFN that can be explained by fluctuations in the benchmark index and deviations from the benchmark index, respectively. The estimates are based on monthly data.

Sources: Folketrygdfondet and the Ministry of Finance.

sures the difference in returns between companies with low and high market value. The *value* factor measures the difference in returns between companies with high book value relative to market value and companies with low book value relative to market value. The factors *credit* and *term* are used for the bond market.<sup>5</sup> *Credit* is a measure of the difference in returns between more risky corporate bonds and government bonds. *Term* measures the difference in returns between government bonds with a long time to maturity and short-term treasury bills.

Table 7.2 shows that the excess return in the Norwegian equity portfolio has been negatively correlated with the *size* factor over the period from 1998. Consequently, it would appear that Folketrygdfondet has invested more in equities with high market value and less in equities with low market value compared to the benchmark index. The same tendency can be attributed to asset management since 2011. However, correlation with factors has declined over the period since 2007 as a whole. Varying degrees of correlation over time may indicate that Folketrygdfondet has exploited time variation in stock market factor premiums.

Folketrygdfondet notes, in a letter of 16 December 2014, that it has historically been emphasised that the risk taking in the equity portfolio shall be dominated by company-specific characteristics. Equity management aims to generate excess return by, inter alia, investing in so-called quality

companies and avoiding high-risk companies. Such a strategy may result in a larger portion of companies with high market value. The correlation with the *size* factor in table 7.2 is in conformity with the declared strategy of Folketrygdfondet. The strategy may, at the same time, entail a larger portion of companies with relatively low equity prices, thus resulting in a positive correlation with the *value* factor. However, the excess return has registered a correlation that is negative or close to zero with the *value* factor over the analysed periods, and significantly negative over the period since 2011.

Folketrygdfondet notes that its equity management may also result in a larger portion of equities with low return volatility and lower liquidity than the benchmark index. No quantitative analysis of these factors has been carried out due to a lack of data in the Norwegian market.

The findings in table 7.2 indicate that the Norwegian fixed-income portfolio has historically involved periods of interest rate and credit risk that differ significantly from the benchmark index. The findings also show that the importance of these factors has varied over time, which would be in conformity with a strategy of exploiting time variations in bond market factors. The deviations from the benchmark index are consistent with a larger portion of corporate bonds in the GPFN since 2007.

The overall significance of factors in explaining excess return may say something about the risk profile of the GPFN. The factors *size*, *value*, *credit* and *term* can explain about 20 percent of the fluctuations in the excess return on the GPFN since 2007. The limited significance of factors suggests, in line with Folketrygdfondet's assessments in its letter of 16 December 2014, that company-specific security selection is an important part of the asset management strategy.

<sup>5</sup> The *credit* factor is given by the difference in returns between five-year swap contracts and five-year government bonds. The credit factor is only an approximation of the credit premium on Norwegian corporate bonds based on counterparty risk in swap contracts. This credit factor is less sensitive to credit spread fluctuations than corporate bonds. The *term* factor is given by the difference in returns between five-year government bonds and three-month treasury bills.

Table 7.4 Risk and the relationship between risk and return in the GPFN and the benchmark index. Percent<sup>1</sup>

	1998–2014		2007–2014		2011–2014	
	GPFN	Benchmark index	GPFN	Benchmark index	GPFN	Benchmark index
Standard deviation	8.4	9.0	11.4	12.1	7.2	7.4
Downside risk	8.2	8.6	9.9	10.4	6.1 <sup>2</sup>	5.8
Sharpe ratio	0.45	0.37	0.44	0.33	0.93	0.81
Adjusted Sharpe ratio	0.40	0.34	0.41	0.31	0.82	0.74

<sup>1</sup> Annualised standard deviation, downside risk and Sharpe ratios are based on monthly data. Adjusted Sharpe ratio reflects skewness and kurtosis in the return distribution, cf. Pezier and White (2006).

Sources: Folketrygdfondet, Macrobond and the Ministry of Finance.

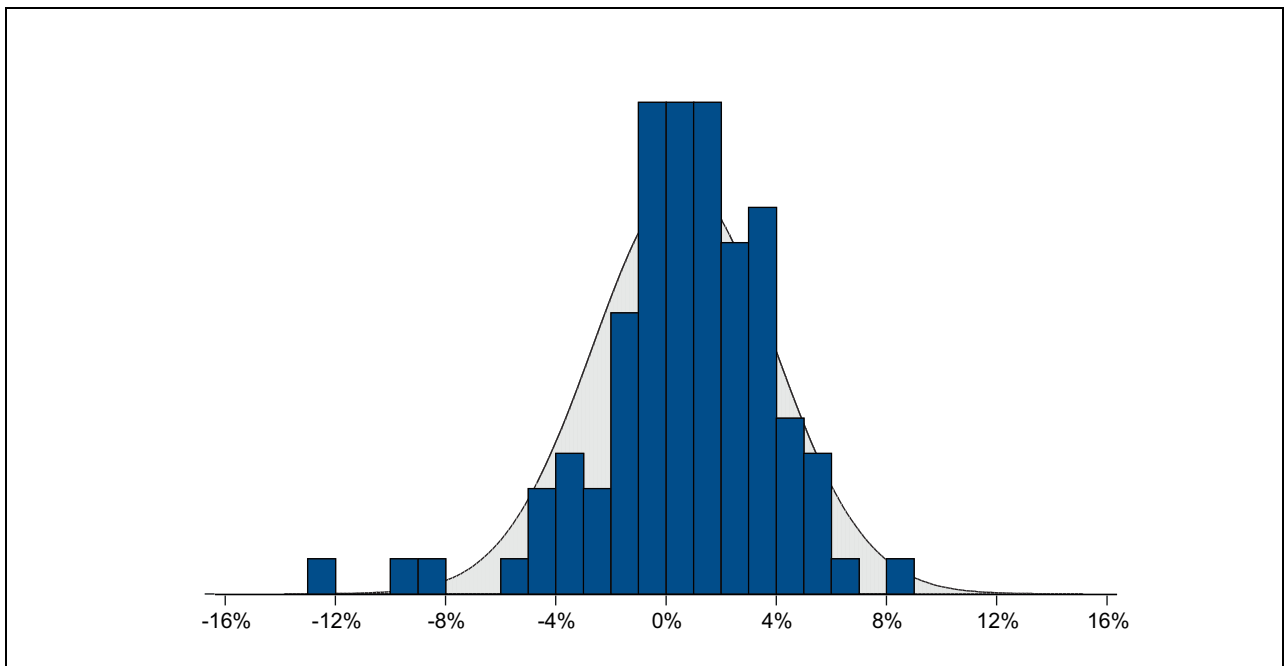
### 7.3 The relationship between risk and return

The risk in the GPFN is predominantly determined by the benchmark index defined by the Ministry. Volatility in the benchmark index can explain more than 99 percent of the volatility in the GPFN over the period since 2007, cf. table 7.3.

Consequently, volatility resulting from deviations from the benchmark index represents a small fraction of overall volatility in the GPFN. Different deviations from the benchmark index may, at the same time, have different risk profile impli-

cations. No single measure captures all aspects of risk. The absence of one single measure makes it appropriate to use several methods and approaches. Investors may also differ in their risk preferences and in the weight they attach to different risk measures. Table 7.4 presents several different risk measures and the ratio between risk and return in the GPFN.

Standard deviation is a commonly used risk measure, and says something about the distribution of returns around the mean. The same weight is attached to returns that are both lower and higher than the mean. Calculating standard devia-

Figure 7.1 Return distribution of the GPFN since 2007. Percent<sup>1</sup>

<sup>1</sup> The figure shows monthly return frequency since 2007 in percent (blue), and a normal distribution with the same average and standard deviation (grey).

Sources: Folketrygdfondet and the Ministry of Finance.

tion for those periods when returns have been negative only, provides an indicator of so-called downside risk. Such a risk measure assumes that investors only attach weight to the probability of loss. Table 7.4 shows that both the standard deviation in the GPFN and the downside risk have been lower than for the benchmark index over the period since 2007.

The Sharpe ratio is a measure of the relationship between return in excess of the risk-free rate, on the one hand, and risk as measured by standard deviation, on the other hand. Consequently, the Sharpe ratio is a measure of the compensation for carrying risk, and shows the return achieved for each percentage point of risk undertaken.<sup>6</sup> If the Sharpe ratio is higher for the GPFN than for the benchmark index it may suggest that asset management has served to improve the ratio between risk and return. The findings in table 7.4 show that the Sharpe ratio is higher for the GPFN than for the benchmark index in all periods.

Active management strategies may, in general, involve a risk of periods of large losses. It is commonly assumed that investors wish to limit such risk and that they prefer more smoothly distributed returns. Figure 7.1 shows the distribution of returns on the GPFN since 2007, as compared to a normal distribution with the same average and standard deviation. The figure shows that losses are incurred more often and are larger than would be suggested by a normal distribution. A so-called adjusted Sharpe ratio seeks to take account of such return asymmetries, to obtain an estimate of the relationship between risk and return that attaches more weight to such losses.<sup>7</sup> Table 7.4

shows that asset management has improved the ratio between risk and return, also when taking such risk into consideration.

## 7.4 References

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Recommendation of 10 April 2015 from the Ministry of Finance on the Management of the Government Pension Fund in 2014 is submitted to the Storting.

<sup>6</sup> The Sharpe ratio is defined as the ratio between the risk-free rate and the standard deviation of returns.

<sup>7</sup> The adjustment reduces the Sharpe ratio in case of negative skewness and kurtosis in excess of 3. Hence, such adjustment takes into account so-called “tail risk”; the risk of months of large negative return. See Pezier and White (2006). The adjustment relies on strong assumptions as to the preferences of the capital owner, as expressed through the utility function. This makes it difficult to interpret such adjustments.

**Appendix 1****Historical tables**

Table 1.1 Return on the GPFG in 2014, the last 3, 5, and 10 years, as well as over the period 1998–2014, measured in Norwegian kroner. Annual geometric average. Percent

	2014	Last 3 years	Last 5 years	Last 10 years	1998–2014
<i>GPFG incl. real estate</i>					
Actual portfolio	24.23	18.36	12.35	7.68	6.48
Norwegian inflation <sup>1</sup>	2.01	1.63	1.72	1.91	2.00
Management costs	0.06	0.06	0.07	0.09	0.09
Return net of costs and inflation	21.72	16.40	10.38	5.58	4.31
<i>GPFG excl. real estate</i>					
Actual portfolio	24.18	18.37	12.36	7.69	6.48
Benchmark index	25.06	18.24	12.09	7.57	6.23
Excess return (percentage points)	-0.89	0.13	0.26	0.11	0.25
<i>Equity portfolio</i>					
Actual portfolio	24.61	23.55	14.51	8.85	6.28
Benchmark index	25.56	23.26	14.32	8.51	5.82
Excess return (percentage points)	-0.95	0.29	0.19	0.33	0.45
<i>Fixed-income portfolio</i>					
Actual portfolio	23.43	10.19	8.54	5.97	5.81
Benchmark index	24.24	10.44	8.26	5.87	5.64
Excess return (percentage points)	-0.81	-0.25	0.28	0.10	0.16

<sup>1</sup> Inflation figures in the table are not based on inflation measured in the currency basket of the Fund, but on Norwegian CPI data. Sources: Norges Bank, Macrobond and the Ministry of Finance.

Table 1.2 Nominal return on the GPFG and inflation<sup>1</sup> in selected currencies and measured in the currency basket of the Fund. Annual geometric average. Percent

Year	Currency basket of the Fund		NOK		USD		EUR		GBP	
	Return	Inflation	Return	Inflation	Return	Inflation	Return	Inflation	Return	Inflation
1997	9.07	1.75	10.83	2.62	-4.01	2.29	11.87	1.54	-0.16	1.82
1998	9.26	0.92	19.75	2.25	15.87	1.56	7.63	1.16	14.59	1.56
1999	12.44	1.28	13.84	2.30	7.92	2.21	26.43	1.04	11.40	1.32
2000	2.49	2.02	6.53	3.13	-2.91	3.36	3.66	2.16	4.75	0.87
2001	-2.47	1.17	-5.34	3.03	-6.93	2.85	-1.87	2.34	-4.48	1.18
2002	-4.74	1.91	-19.09	1.29	4.76	1.58	-11.11	2.29	-5.30	1.27
2003	12.59	1.57	19.96	2.45	24.92	2.28	3.92	2.02	12.34	1.36
2004	8.94	2.37	3.93	0.44	14.16	2.66	5.94	2.19	6.45	1.34
2005	11.09	2.33	14.28	1.59	2.22	3.39	17.80	2.15	14.32	2.04
2006	7.92	2.13	5.89	2.26	15.16	3.23	3.01	2.20	1.01	2.30
2007	4.26	3.12	-3.90	0.76	10.20	2.83	-0.61	2.15	8.35	2.35
2008	-23.31	1.42	-6.66	3.79	-27.62	3.86	-23.87	3.26	0.21	3.63
2009	25.62	1.82	7.88	2.11	30.77	-0.37	26.69	0.28	16.42	2.12
2010	9.62	1.98	9.49	2.47	8.81	1.68	16.37	1.57	12.23	3.34
2011	-2.54	2.84	-1.39	1.24	-3.96	3.12	-0.75	3.12	-3.25	4.45
2012	13.42	1.98	6.70	0.77	14.42	2.09	12.66	2.48	9.39	2.84
2013	15.95	1.41	25.11	2.13	14.77	1.48	9.81	1.38	12.63	2.52
2014	7.58	1.13	24.23	2.01	0.52	1.59	14.47	0.43	6.78	1.51
1998–2014	5.81	1.85	6.48	2.00	6.37	2.31	5.73	1.87	6.71	2.11
1997–2014	5.99	1.84	6.72	2.03	5.77	2.31	6.06	1.85	6.32	2.10

<sup>1</sup> Inflation figures in individual currencies presented in the table are not based on inflation measured in the currency basket of the Fund, but on CPI data for each country/currency area.

Sources: Norges Bank, Macrobond, Thomson Reuters Datastream and the Ministry of Finance.

**Appendix 2****Glossary of terms***Active management*

Active management involves the asset manager composing, on the basis of analyses and assessments, a portfolio that deviates from the benchmark index established by the asset owner. The purpose of such deviations is to outperform the benchmark index. The Ministry of Finance has defined qualitative and quantitative limits for the GPFG and the GPFN, which regulate their deviations from the benchmark index. See *Differential return, Actual benchmark index, Index management, Strategic benchmark index* and *Tracking error*.

*Actual benchmark index*

The actual benchmark index for the GPFG and the GPFN is based on the strategic benchmark index. The strategic benchmark index specifies the allocation across asset classes and comprises a given number of securities, determined by the criteria applied by the index provider for inclusion in the index. However, since the return on asset classes develops differently, the asset class allocation of the actual benchmark index will drift from the strategic weights. In order to prevent the deviation from the strategic weights from becoming excessive, the Ministry has adopted rebalancing rules for the equity portion of the actual benchmark index. See *Strategic benchmark index and Rebalancing*.

The composition of the actual portfolio may deviate from that implied by the actual benchmark index, within the established asset management framework. Since the scope for deviations is fairly small, the return and risk of the Fund will largely be determined by the actual benchmark index. The actual benchmark index forms the basis for the measurement of differential return and risk assumed in asset management. See *Active management, Differential return and Actual portfolio*.

*Actual portfolio*

The term actual portfolio designates the overall investments included in the Fund. The actual portfolio will normally deviate from the benchmark index (active management). See *Active manage-*

*ment, Actual benchmark index* and *Strategic benchmark index*.

*Arithmetic return*

Average arithmetic return is the mean value of all numbers in a time series of returns. It is calculated by adding up the return achieved in different time periods and dividing the sum by the number of periods. See *Return* and *Geometric return*.

*Asset allocation*

Asset allocation means the allocation of the assets under management across different asset classes. We distinguish between strategic asset allocation and tactical asset allocation. Strategic asset allocation expresses the asset owner's underlying risk preferences and return expectations, and is for the Government Pension Fund expressed through the benchmark indices. Within the limits of the investment mandate, the asset manager may engage in tactical asset allocation. This entails actively choosing to deviate from the strategic asset allocation on the basis of assessments as to whether one asset class is over- or underpriced relative to another. See *Asset classes*.

*Asset classes*

Asset classes are different types or classes of financial assets. The benchmark index for the GPFG encompasses three asset classes; equities, bonds and real estate. The benchmark index for the GPFN includes two asset classes; equities and bonds. See *Bond*.

*Bond*

A bond is a tradable loan with a maturity of more than one year. Bonds are redeemed by the issuer (borrower) upon maturity, and the issuer pays interest (so-called coupon) to the bondholders over the period from issuance until maturity. Most bonds are based on a fixed nominal interest rate, i.e. the coupon is a specified predetermined

amount. Bonds are available with different features, which include floating interest rate, zero coupon and redemption structure.

#### *Capital Asset Pricing Model*

The Capital Asset Pricing Model is an equilibrium model for the pricing of securities (or a portfolio of securities) with an uncertain future return. The model features a linear relationship between the expected return, in excess of a risk-free rate of interest, and the return in the overall market for risky investments.

#### *Correlation*

Correlation refers to the degree and direction of the linear interdependence between two variables. Perfectly positive correlation means that the variables always move perfectly in tandem. Zero correlation means that there is no linear interdependence. Perfect negative correlation means that the variables always move in exact opposition to each other. The risk associated with a portfolio can be reduced by diversifying the investments across several assets, unless there is perfect positive correlation between the returns on the various investments. See *Diversification*.

#### *Counterparty risk*

Counterparty risk is the risk of loss as the result of another contracting party not fulfilling its legal obligations. See *Credit risk*.

#### *Credit risk*

Credit risk is the risk of loss as the result of the issuer of a security or the counterparty to a securities trade not fulfilling its legal obligations, for example as the result of bankruptcy. See *Counterparty risk*.

#### *Currency basket*

The GPFG is exclusively invested in foreign securities, and thus only in securities that are traded in currencies other than Norwegian kroner. Hence, the return on the GPFG measured in Norwegian kroner will not only vary with market developments in the global securities markets, but will also vary with changes in the exchange rate between Norwegian kroner and the currencies in which the Fund is invested. However, the international purchasing power of the Fund is unaffected

by developments in the Norwegian kroner exchange rate. In order to measure return independently of Norwegian kroner exchange rate developments, the return on the Fund is also measured in foreign currency. This is done on the basis of the currency basket for the Fund, which weights together the currencies included in the benchmark index.

#### *Differential return*

Differential return is the contribution made by active management to the return on the invested capital, and is measured as the difference in return between the actual portfolio and the benchmark index. A positive differential return is referred to as positive excess return, whilst a negative differential return is referred to as negative excess return. See *Actual portfolio* and *Actual benchmark index*.

#### *Diversification*

The risk associated with a portfolio may normally be reduced by including more assets in the portfolio. This is referred to as diversification, or the spreading of risk. Diversification is the main reason for spreading the benchmark index of the Government Pension Fund across several asset classes and a broad range of countries, sectors and companies. Diversification can improve the ratio between expected return and risk. See *Asset classes*.

#### *Duration*

Duration measures how long time it takes, on average, for the cash flows (coupons and principal) from a bond to be redeemed. The value of a bond is sensitive to interest rate changes, and such sensitivity increases with its duration. See *Bond*.

#### *Emerging markets*

The term emerging markets denotes the financial markets in certain countries that are not yet considered developed economies. There is no unambiguous set of criteria that defines whether a market is emerging. The classifications of index providers such as FTSE are commonly used for investments in listed stock markets. FTSE classifies emerging markets on the basis of, inter alia, gross domestic product per capita

and market characteristics, such as size, liquidity and regulatory framework.

#### *Exchange rate risk*

Investments may feature a different distribution across countries and currencies than the goods and services they are intended to finance. Changes in international exchange rates will therefore influence the amount of goods and services that can be purchased. This is referred to as (real) exchange rate risk. International purchasing power parity plays a key role when it comes to measuring such exchange rate risk. See *International purchasing power parity*.

#### *Expected return*

Expected return is a statistical measure of the mean value in a set of all possible outcomes and is equal to the average return on an investment over a period of time if repeated numerous times. If an investment alternative has a 50 percent probability of a 20 percent appreciation, a 25 percent probability of a 10 percent appreciation and a 25 percent probability of a 10 percent depreciation, the expected return is 10 percent:  $(20 \times 0.5) + (10 \times 0.25) + (-10 \times 0.25) = 10$ . Expected return may be calculated by way of historical return series or based on forward-looking model simulations. See *Return*.

#### *Externality*

Externalities are production or consumption costs or benefits that are not incurred by, or accrue to, the decision maker. An example of a negative externality is costs relating to environmental damage. The profitability of a company does not necessarily reflect the social costs of damage to the environment caused by its production. An unpriced cost means that the socio-economic cost is higher than what is paid by the producer itself. Consequently, externalities result in market failure and inefficient resource use compared to scenarios in which the full socio-economic cost is reflected in prices.

#### *Factors*

Factors influence the return on a broad range of investments. Investors may require an expected return in excess of the risk-free interest rate to accept exposure to systematic factors. This is labelled a factor premium. Known systematic fac-

tors in the stock market are market risk, size, value, momentum, liquidity and volatility. Important systematic factors in the bond market are term, credit, inflation and liquidity, with corresponding factor premiums. See *Diversification* and *Systematic risk*.

#### *Fundamental analysis*

Fundamental analysis primarily aims to analyse the factors that influence the future (expected) cash flow of an asset. A key feature of a fundamental analysis of individual stocks will be assessments relating to the income, costs and investments of the company. Fundamental analysis is used for, inter alia, the valuation of companies. Active management strategies will often involve the investor purchasing equities that are deemed to have a low valuation in the stock market relative to the fundamental value of the company. The investor therefore expects the fundamental value of the company over time to be reflected in its equity price. See *Active management*.

#### *Geometric return*

Geometric return (or time-weighted return) indicates the average growth rate of an investment. The more pronounced the variation in the annual return, the greater the difference between the arithmetically and the geometrically calculated return. In quarterly and annual reports, return over time is most commonly reported as geometric average. See *Arithmetic return*.

#### *Index*

An index comprises a set of assets defined on the basis of the selection criteria applied by the index provider, and specifies an average return for the assets included in the index. Indices are provided by securities exchanges, consultancy firms, newspapers and investment banks. They may, for example, be based on countries, regions, market value weights or sectors. If it is possible to invest in a portfolio in line with the index composition, the index is said to be investable. Such will typically be the case with highly liquid securities, like listed equities. An index of unlisted real estate developments will, on the other hand, not be investable. When an index is used as a return measure for a specific securities portfolio, it is referred to as a benchmark index. See *Index management*, *Actual benchmark index* and *Strategic benchmark index*.



*Index management*

Index management (passive management) means that the management of the assets is organised to ensure that the return on the actual portfolio reflects the return on the benchmark index to the maximum possible extent. If the composition of the actual portfolio is identical to the composition of the benchmark index, the return on the actual portfolio will be equal to the return on the benchmark index, apart from transaction costs and before the deduction of management costs. If the benchmark index includes most of the securities traded in the market, index management will achieve a return that reflects the return on the market as a whole. The return resulting from a broad market exposure is often termed beta return. See *Index*, *Actual benchmark index* and *Strategic benchmark index*.

*Inflation*

Inflation is an increase in the general price level of the economy.

*Inflation risk*

Inflation risk is the risk of a loss of purchasing power as the result of unexpectedly high inflation. See *Inflation*.

*Institutional investor*

Institutional investors are organisations set up for the purpose of engaging in investment activities, typically on behalf of clients. Institutional investors will typically manage large portfolios, divided into several asset classes and geographical markets. Examples of institutional investors are pension funds, insurance companies, securities funds and sovereign wealth funds. Banks and hedge funds may also be classified as institutional investors.

*International purchasing power parity*

If a broad range of goods costs the same when converted into a common currency, irrespective of which country the goods are manufactured in and which currency the goods are originally priced in, international purchasing power parity is said to exist. A consensus has over time evolved among many researchers that international purchasing power parity applies in the long run. Pur-

chasing power parity plays a key role in the measurement of foreign exchange risk. If the cost of goods is the same irrespective of location, it does not matter from where one purchases such goods. Consequently there is no foreign exchange risk. See *Exchange rate risk*.

*Investability*

By investability is meant the extent to which an investment idea or rule can be implemented in operational asset management.

*Liquidity premium*

Liquidity premium is an expected compensation for investing in securities that are not readily tradable. The compensation is paid to enable the execution of a desired trade. In practice, liquidity premiums are difficult to define and measure. See *Risk premiums*.

*Market efficiency*

Market efficiency implies that the price of a financial asset, such as an equity or a bond, at all times reflects all the available information on the fundamental value of such asset. If this hypothesis is correct, it will be impossible for a manager to consistently achieve an excess return through fundamental analysis. See *Active management* and *Fundamental analysis*.

*Market risk*

Market risk is the risk that the value of a securities portfolio will change as the result of broad movements in the market prices of equities, currencies, commodities and credit. It is normally assumed that higher market risk is accompanied by a higher expected return. See *Expected return*.

*Market value weights*

A portfolio or index is market value weighted when investments in each individual asset are included with a weight corresponding to such asset's proportion of the overall value of the market. See *Index*.

*Negative excess return*

See *Differential return*.

#### *Nominal return*

Achieved return measured in nominal prices, i.e. without inflation adjustment. See *Return, Inflation* and *Real return*.

#### *Operational risk*

Operational risk is the risk of economic loss or reputational loss as the result of deficiencies in internal processes, human error, systems error or other loss caused by external circumstances that are not a consequence of the market risk in the portfolio. There is no expected return linked to operational risk. However, in managing operational risk, one must balance the need to keep the probability of such losses low against the costs incurred as a result of increased control, monitoring, etc.

#### *Passive management*

See *Index management*.

#### *Positive excess return*

See *Differential return*.

#### *Principal-agent problem*

Principal-agent problems describe situations in which there is not a complete alignment of interests between the person issuing an assignment (the principal) and the person performing such assignment (the agent). In cases where there is asymmetric information on the part of the principal and the agent, the agent may make choices that are not necessarily in the interest of the principal. In the capital markets, such situations may generally arise both between the asset owner and the asset manager and between the asset manager and the senior executives of the companies in which investments are made.

#### *Private equity*

Private equity denotes investments in assets that are not listed on regulated market places.

#### *Probability distribution*

A probability distribution is a model describing the relative frequency of various values that an uncertain (stochastic) variable may assume. The best known probability distribution is the normal distribution, which is symmetric around the mean

value (the expected value). Distributions that are not symmetric are often referred to as skewed. Distributions in which extreme outcomes (large or small) carry a higher probability than under the normal distribution are referred to as distributions with “fat” or “heavy” tails.

#### *Real return*

Real return is the achieved nominal return adjusted for inflation. It may also be referred to as return measured in constant prices or in terms of purchasing power. See *Inflation* and *Nominal return*.

#### *Rebalancing*

The Ministry has adopted strategic benchmark indices for the GPFG and the GPFN with a fixed equity portion and, for the GPFN, a fixed allocation across regions. Since returns develop differently in respect of each asset class and region, the equity portion of the portfolio will over time move away from the strategic portion. The Fund therefore has an actual benchmark index, which is permitted to deviate somewhat from the strategic allocation, as well as rules on the rebalancing of the index. In the case of deviations exceeding preset limits, the necessary assets are purchased and sold to bring the actual benchmark index into conformity with the strategic benchmark index. See *Actual benchmark index* and *Strategic benchmark index*.

#### *Relative return*

See *Differential return*.

#### *Return*

Historical return is calculated as the change in market value from one specific date to another, and is often referred to as absolute return. See *Arithmetic return, Geometric return, Differential return* and *Expected return*.

#### *Risk*

Risk is a measure that provides some indication as to the probability of an event occurring and the consequences thereof (for example in the form of losses or gains). There are various aspects to risk. One important aspect is the distinction between risk that can be quantified and risk that is difficult to quantify. An example of the former is the mar-

ket risk associated with investments in the securities market. An example of the latter is the operational risk inherent in a portfolio. Standard deviation is one common way of quantifying risk. See *Market risk*, *Operational risk*, *Credit risk*, *Systematic risk* and *Standard deviation*.

#### *Risk premium*

See *Risk factors*.

#### *Standard deviation*

Standard deviation is a measure often used to express portfolio risk. It indicates how much the value of a variable (here the portfolio return) can be expected to fluctuate around its mean. The standard deviation of a constant value will be 0. The higher the standard deviation, the larger the fluctuations (volatility) or risk relative to the average return. Linking the standard deviation to a probability distribution sheds light on the probability of a portfolio decreasing in value by more than x percent or increasing in value by more than y percent during a given period.

If normally distributed, the probability of returns deviating from the average return by less than one standard deviation is 68 percent. In 95 percent of the cases, the return will deviate by less than two standard deviations. Empirical studies of returns in the securities markets indicate that very low and very high returns occur more frequently than would be expected if the rates of return were normally distributed. This phenomenon is called “fat tails”. See *Probability distribution* and *Risk*.

#### *Strategic benchmark index*

The overarching investment strategy of the Ministry for the Government Pension Fund is expressed through strategic benchmark indices for the GPFN and the GPF, respectively. The strategic benchmark index specifies a fixed allocation of fund assets across the various asset classes

and, as far as the GPFN is concerned, also a fixed allocation across regions. The strategic benchmark index is a detailed description of the asset allocation. See *Asset allocation and Asset classes*.

#### *Systematic risk*

Systematic risk refers to the risk in a security or portfolio that cannot be diversified away by holding more securities.

Systematic risk reflects the inherent uncertainty of the economy. Investors cannot diversify away from recessions, lack of access to credit or liquidity, market collapse, etc. According to financial theory, higher systematic risk will be compensated in the form of higher expected returns. See *Diversification and Risk factors*.

#### *Tracking error*

The asset owner will normally define limits as to how much risk the asset manager may take. A common method is to define a benchmark index, together with limits as to how much the actual portfolio may deviate from the benchmark index. The Ministry of Finance has defined limits, in the mandates of Norges Bank and Folketrygdfondet, in the form of a target for the expected tracking error, which is the expected standard deviation of the differential return between the actual portfolio and the benchmark index. Over time, and under certain statistical assumptions, this means that if the entire limit is utilised, the actual return will in two out of three years deviate from the return on the actual benchmark index by less than the defined limit, as expressed in percentage points. See *Active management*, *Differential return*, *Actual portfolio*, *Actual benchmark index* and *Standard deviation*.

#### *Volatility*

Return variations. Measured by standard deviation. See *Standard deviation*.

### Appendix 3

## Unlisted investments in the GPFN

*Letter of 13 November 2014 from Folketrygdfondet to the Ministry of Finance*

### *Summary*

We refer to the letter of 27 June 2014 from the Ministry of Finance, in which Folketrygdfondet is requested to analyse and assess whether unlisted investments such as real estate and infrastructure should be included in the management of the Government Pension Fund Norway (GPFN).

Folketrygdfondet is of the view, based on an overall assessment, that permitting unlisted real estate and infrastructure investments may be positive for the GPFN. These are illiquid assets that are, generally speaking, well suited for a long-term fund with limited liquidity needs and a competent asset manager. We believe, based on the distinctive characteristics and expertise of Folketrygdfondet, that such an expansion of the investment universe may serve to diversify risk in the Fund and increase its return net of costs.

Unlisted assets differ from the more liquid investment alternatives currently open to the GPFN in that they may be difficult to divest, involve significant transaction costs and present uncertainties in terms of ongoing valuations. Existing data make it challenging to conclude unequivocally that the inclusion of unlisted assets will generally deliver a better risk-adjusted return on a portfolio, but we are of the view that this asset class will, over time, include investments that can serve to improve the ratio between risk and return in the GPFN. However, in order for investments in unlisted assets to strengthen the risk-adjusted return on the GPFN over time, it is our view that it will be necessary to have a governance structure and a mandate that facilitate investment decisions based on a long-term perspective and with a sharp focus on costs and the scope for safeguarding our share of investment value. We believe, in view of the special characteristics of unlisted asset investment in our investment universe, that such considerations are best attended to by extensive delegation of investment decisions to the asset manager, i.e. that unlisted

asset investment takes place as part of our active management, rather than by the Ministry defining a strategic allocation for unlisted investments in the benchmark index.

We envisage that Folketrygdfondet will be a selective investor, collaborating with other market participants with special developmental and operational expertise when making unlisted asset investments, with the development of an unlisted asset portfolio taking place gradually and over time as we accumulate expertise and experience and identify suitable investments. We are of the view that unlisted asset investment can be handled within the current general risk limit as expressed in terms of expected tracking error, and recommend that unlisted assets as a portion of the GPFN be capped at 10 percent.

An expansion of the investment universe to include unlisted real estate and infrastructure investments will increase the scope for manoeuvre in Folketrygdfondet's long-term active management. Unlisted asset investment will result in a moderate increase in the costs of Folketrygdfondet, but we believe that the increase in excess return will be larger. Unlisted investments will, at the same time, serve to diversify active management risk.

The current organisation has relevant expertise on general asset management, listed equity investments within real estate and fixed-income investment within real estate and infrastructure. Folketrygdfondet has extensive experience from investing a large fund in a financial market with, at times, weak liquidity. This has given Folketrygdfondet a long-term asset management perspective, which is necessary for the management of unlisted investments. There will, in addition, be a need for strengthening our expertise in handling the special challenges involved in deciding and following up on relatively large, tailor-made transactions in illiquid assets. We are of the view that such activities should be integrated into the current organisation, sharing its organisational culture and values.

Whilst the market for unlisted real estate investments is relatively well-developed and has a long investment history, the market for infrastructure investments remains immature. If it is desirable to expand the infrastructure market in Norway, such expansion will, inter alia, depend on decisions made by various government bodies concerning the scope of infrastructure investments and public ownership.

### *Introduction*

The purpose of this letter is to provide input to enable the Ministry to decide whether the mandate for the GPFN should, in principle, be expanded to include unlisted investments like real estate and infrastructure. If the Ministry decides that such expansion is merited, important preparations remain before the first unlisted investments can, if applicable, be made. We will in such a process comment more comprehensively on detailed matters raised by the Ministry in its letter, including investment strategy for unlisted assets, risk management, organisation, costs, operational implementation, follow-up and reporting.

We have in our analyses and assessments focused on the market for unlisted investments in Norway. In developing new investment activities we are committed to a gradual approach and the accumulation of experience. Consequently, we deem it appropriate to initially focus on Norway, where we have the most expertise and experience, and consider expansion into the other Nordic countries in our investment universe at a later stage.<sup>1</sup> Moreover, we focus, in line with the Ministry's letter, on unlisted real estate and infrastructure investments (and not on unlisted equity investments in the form of private equity, seed capital, etc.). In addition, we have devoted special attention to the specific governance challenges posed by unlisted and illiquid investments, since the available data offer less scope for drawing clear conclusions in relation to the general return, risk and correlation characteristics of this asset class than in relation to listed investments.

We have, in examining this matter, consulted investors that we find it reasonable to compare ourselves with, as well as independent experts. We have commissioned two external reports on real estate and infrastructure investments from

Akershus Eiendom and Pöyry, respectively. These are enclosed with this letter.

It follows from the external reports that some documented experience is available for the purposes of examining the Norwegian market for commercial property from a professional investment perspective. The market for infrastructure is, on the other hand, immature and fragmented, although ongoing processes may potentially result in more developed markets over time. However, analyses based on international experience are available, and these may in a globalised world be assumed to be of relevance in a Norwegian context as well. Reference is made, in particular, to the thorough assessment by the Ministry of Finance of real estate investments and illiquidity premiums in the Government Pension Fund Global, for example in Reports No. 16 (2007–2008) and No. 27 (2012–13) to the Storting, as well as the discussion note on infrastructure prepared by Norges Bank Investment Management (NBIM discussion note #2–2013). A report prepared for the Ministry by CEM Benchmarking also provides some information on asset allocations, returns and costs for comparable funds.<sup>2</sup>

### *Unlisted investments in general*

Investments in unlisted real estate and infrastructure are generally characterised as being illiquid and having relatively high transaction costs, as well as there existing uncertainty as to their ongoing valuation. Such unlisted investments may be very difficult to divest from in the short-term, but will in most cases give rise to a relatively stable and secure cash flow over several years. The investments tend to be heterogeneous with different risk characteristics, which reflect both the uncertainties in the individual projects (for example in relation to the tender phase, construction phase, ongoing management, the willingness of lessees to pay, equity portion, funding model) and uncertainties of a more general nature (for example politics and regulations, macroeconomic developments, risk-free interest rate, risk aversion). It can be challenging to establish clear definitions as to whether a project should be categorised as real estate or infrastructure. The processes leading up to an investment are typically labour-intensive and time-consuming, requiring

<sup>1</sup> See also the current benchmark index for the GPFN, which has allocations of 85 percent in Norway and 15 percent in Denmark, Finland and Sweden.

<sup>2</sup> The sources drawn on in this letter are, unless otherwise stated, the reports from Akershus Eiendom, Pöyry and CEM, as well as Reports No. 16 (2007–2008) and No. 27 (2012–2013) to the Storting and NBIM discussion note #2–2013.

Table 3.1 Different investment alternatives

	Direct	Indirect
Unlisted	Direct investments, project finance	Unlisted funds
Listed	Equities, bonds	Listed funds

local knowledge and extensive use of legal expertise. The transactions can be relatively large, involve special corporate structures and shareholders' agreements, and have a funding structure involving different equity and debt tranches. Considerable costs can be incurred in preparing an investment, whilst the return is spread over a long period of time.

Unlisted real estate and infrastructure investments comprise a relatively common asset class amongst long-term investors internationally. CEM's report shows a total allocation of close to 10 percent on average for funds with which it is reasonable to compare the GPFN, whilst the allocation can be considerably higher for funds with a strong belief in this asset class. Real estate and infrastructure are deemed by market participants to offer return and risk characteristics between those of bonds and equities, with part of the return being attributable to the compensation required by investors for weak liquidity (illiquidity premium). Moreover, several market participants emphasise that this is accompanied by a specific type of risk exposure that cannot be achieved through a simple combination of listed equities and bonds, thus implying that the inclusion of unlisted assets can serve to improve the ratio between return and risk in a portfolio. It is, however, challenging to draw clear conclusions concerning the return and risk characteristics of unlisted assets in general on the basis of statistical analyses.<sup>3</sup>

In addition, some investors state that they recognise and value that the asset class offers better inflation protection than nominal bonds. Besides, unlisted real estate and infrastructure investments provide exposure to stable cash flows, whilst ongoing valuations are less variable than those of liquid instruments, and these characteristics are valued by some investors. Favourable tax treat-

ment may also motivate certain investors to invest in unlisted assets.

There are different methods for investing in real estate and infrastructure, and the various alternatives involve exposure to different risk factors and entail different asset management costs. The table illustrates this as a choice between listed and unlisted investments and between direct and indirect investments. Unlisted investments will typically involve higher liquidity risk and asset management costs than listed investments in such a matrix, whilst direct investments will entail higher project-specific and regulatory risk than indirect investments.

The types of investments chosen by an investor will depend on which alternatives are available, as well as on the special characteristics and preferences of the investor. In Norway, there has generally been little availability of listed equities offering direct exposure to real estate and infrastructure.

In assessing whether unlisted real estate and infrastructure investments are suitable for the GPFN, Folketrygdfondet will consider and attach the most value to the contribution from this asset class towards improving the ratio between risk and expected return (net of costs) for the Fund. We therefore give little emphasis to considerations like inflation protection, more stable return measurement and tax considerations.<sup>4</sup> Moreover, we have noted international experience that highlights the importance of achieving the exposure without incurring excessive costs,<sup>5</sup> i.e. that caution should generally be exercised regarding investments in structures that involve many levels and intermediaries.

<sup>3</sup> In Report No. 27 (2012–2013) to the Storting, the Ministry of Finance refers, for example, to a report examining the potential for reaping illiquidity premiums in different asset classes, in which the authors note that the available data are not good enough to determine whether illiquidity premiums exist in unlisted markets like real estate.

<sup>4</sup> If such considerations are emphasised by other investors to such an extent that it has a significant impact on the pricing of these assets, this will, when taken in isolation, reduce our interest in such investments.

<sup>5</sup> CEM shows that the costs of managing unlisted assets are generally higher than those of managing listed assets, but also that there are large variations depending on the asset management model (internal/external, direct/fund constructions, etc.).

Some data are available for returns on Norwegian commercial properties over time, as well as some experience from infrastructure projects, but a robust assessment of the returns, risk and correlation characteristics of real estate and infrastructure will to a large extent have to be based on international experience. Internationally, the data available in the public domain is also limited, and few studies have been published on the return and risk characteristics of unlisted assets, especially for infrastructure. Besides, historical returns on unlisted asset indices tend to underestimate risk. When compared to listed asset indices, unlisted asset indices are backed by few trades and valuations often utilise appraisals or methods that result in minor variations from one period to the next. Such indices are often based on a small number of unleveraged investments, which will not always be representative of the return characteristics of the actual projects invested in by an investor. Correspondingly, one should be cautious about expecting diversification gains as large as may be suggested by a comparison of return series for unlisted assets with those for listed equities and bonds.

In summary, we assume that the expected return and risk of unlisted assets are generally somewhere between those of listed equities and bonds, although there are large variations internally within the asset class that can be linked to project-specific considerations. Our perspective is that this asset class will, over time, offer investment opportunities that can serve to increase the risk-adjusted return on the portfolio.

#### *The market for unlisted real estate investments*

Commercial property is a general term for all property not used as one's own home. This is a heterogeneous sector comprising a mixed set of investment opportunities involving varying risk exposure and a variety of market participants. Key segments include office premises, retail, hotels, warehousing and logistics, manufacturing and production premises, health and schools, residential letting, as well as facilities that are bordering on infrastructure. The largest segments for investors are office premises and retail. Residential leasing is perceived as a category of interest to financial investors internationally, since this segment offers a different risk exposure than other commercial property. However, the availability of such properties in Norway has been limited for financial investors.<sup>6</sup> There is a broad range of investor categories, and it has also been noted

that tax considerations may be a motivating factor for some investors.

One alternative for investors is to invest in listed companies offering real estate exposure. There is, however, not much of a tradition for listed real estate companies in Norway. The only such companies currently listed on the Oslo Stock Exchange are Norwegian Property, Olav Thon Eiendomsselskap and Entra Eiendom. Norwegian Property holds properties valued at approximately NOK 14 billion, whilst Entra is almost twice as large and the leading office property investor in Oslo, with a market share of close to 6 percent. Olav Thon Eiendomsselskap has shopping centres as its main exposure. Norwegian Property and Olav Thon have for quite some time been traded at relatively large discounts on underlying asset values. It is likely that this is partly caused by weak liquidity in these equities, but other company-specific factors have also been mentioned (such as unfavourable transactions, aspects of the implementation of investment projects, vulnerable funding structures, etc.). It is likely that investors have also noticed that other listed real estate companies (Linstow, Avantor) have been delisted at prices that are lower than underlying asset values.

A key issue for a large investor like Folketrygdfondet is whether we can achieve significant real estate exposure for the capital of the GPFN within a reasonable period of time if we so choose. Based on the fact that sales of large, unlisted commercial properties in Norway over the last decade have averaged just under NOK 40 billion per year, it would appear to be feasible to establish a significant real estate exposure within a few years if this is deemed to be appropriate.<sup>7</sup>

The pricing of unlisted assets is influenced by factors that are also important for the listed stock market and the bond market. Reductions in the risk-free interest rate and risk premiums in recent years have lifted the value of stock markets and bond markets, as well as unlisted assets. This means, at the same time, that historical return series are likely to overestimate the expected return on both unlisted and listed assets in coming years. An analysis from Swedbank<sup>8</sup> reports that office properties in Oslo have delivered an

<sup>6</sup> The rate of home ownership by households in Norway is high compared to other countries. Moreover, households and small businesses account for a large portion of the supply side in the residential lettings market.

<sup>7</sup> If, for example, one were to invest 5 percent of the GPFN in real estate over ten years, it would involve investments in the region of about NOK 1 billion per year.

average annual return of 11 percent since 1983, which is 3 percentage points less than equities and 2 percentage points more than bonds. Furthermore, the analysis estimates an expected future return of 6 percent (assuming fixed real rent levels and no further re-pricing of the asset class), which is somewhat less than for equities and somewhat more than for bonds.

#### *The market for unlisted infrastructure investments*

Infrastructure investments include networks of fixed installations that supply services of key importance to the functioning of society (for example roads, railways, power grids, water and sewage), thus implying that the frequency of use is not particularly sensitive to cyclical fluctuations. Capital costs are often high, and suppliers operate in virtual monopolies in which revenues are subject to government regulation. Some countries have quite extensive experience with private infrastructure ownership (for example Australia, the UK and the US), whilst infrastructure has been associated with public ownership in most other countries. However, a need for consolidation of government finances has, in combination with a large and unmet investment need, resulted in expanded scope for private infrastructure ownership. Some observers also point to potential efficiency gains from involving private interests, whilst others highlight related governance challenges for the public sector.

Many asset managers with a long time horizon consider infrastructure investments to be of interest because of characteristics like stable cash flows over long periods of time, providing an element of inflation protection, and security in physical assets. Norwegian infrastructure is largely in public ownership, and Norwegian institutional investors hold few infrastructure investments in Norway.

There is reason to assume, at the general level, that a number of the factors that favour investing in real estate also pertain to infrastructure, although infrastructure projects also have certain special characteristics. It follows from the NBIM discussion note on infrastructure that the preparation of representative return series for infrastructure projects involves considerable challenges. The return series prepared internationally generally show that investment in infrastructure assets has improved the risk and return character-

istics of a portfolio, but variations between the various projects are large and one should be cautious about basing future projections on overly optimistic assumptions.

The market for infrastructure investments in Norway remains immature. If it is desirable to develop the market for unlisted infrastructure investments, Folketrygdfondet will be able to contribute in a manner similar to our approach in listed markets. We promote well-functioning and efficient market places, as well as good standards and appropriate conduct from issuers, managers and investors, in line with the responsible investment provision in the mandate for the GPFN.

It is, however, important to emphasise that the key to developing the market for infrastructure lies with various government bodies: the supply of infrastructure assets depends on decisions concerning the scope of infrastructure investments and public ownership, and the demand for infrastructure assets from long-term financial investors depends on the government regulatory framework the investors operate within, as well as their assessment of regulatory and political risk.

Infrastructure investments differ from real estate investments inasmuch as revenues are more influenced by government-stipulated rates and regulations. Since these are typically projects of a long duration, it means that investors' assessment of the degree of predictability in the exercise of governmental powers will be a key factor behind their willingness to provide capital and the pricing of the assets.<sup>9</sup> The Pöyry report notes that there are currently some obstacles that need to be addressed before there is a good basis for developing a Norwegian infrastructure market with significant participation from financial investors. According to the report, international pension and infrastructure funds, whose interest and participation are desirable if one would like to develop a market place in line with good international practice, are somewhat cautious in their assessment of Norwegian infrastructure projects. Moreover, Norwegian life insurance companies and pension funds are governed by the Insurance Activities Act and the appurtenant Asset Management Regulations, which impose clear limitations on the scope of the infrastructure investments of such investors.

<sup>8</sup> Return on office properties in Oslo 1982–2013, Peter Hermanrud, Swedbank, 27 May 2014.

<sup>9</sup> This issue is analogous to monetary policy discussions concerning the importance of ensuring that the central bank keeps its promises, to create trust and reduce unwanted risk premiums.



*The distinctive characteristics of Folketrygdfondet*

In Folketrygdfondets strategic plan for the management of the GPFN,<sup>10</sup> we emphasize that our distinctive characteristics compared to other investors are of relevance to how we should focus our investment activities. Correspondingly, our assessment of unlisted investments takes place from the perspective of such characteristics and potential advantages. The GPFN and the manager, Folketrygdfondet, have a government owner and a long time horizon. We have a clear and sound framework that facilitates asset management in appropriate pursuance of the Fund's objective, and we are often perceived as an attractive collaboration partner by other market participants. Management of society's assets means, at the same time, that expectations as to efficient and responsible operations are high, and that we need to pay considerable attention to the importance of maintaining a good reputation and trust, not only on the part of our owner, but also in the market and with the general public.

The asset management framework suggests an investment behaviour characterised by a longer time horizon than many other investors. We can premise our management of the GPFN on a lesser need for liquidity, a higher capacity for absorbing risk and more tolerance for large fluctuations in value. This facilitates long-term countercyclical behaviour, which is a challenging, but profitable, investment approach that requires a unified and robust strategy with solid support both internally within Folketrygdfondet and externally from the owner and the general public. At the same time, a long time horizon means that we are well positioned to invest in financial markets that are at times illiquid, thus reaping a specific illiquidity premium. The magnitude of such illiquidity premiums varies over time, implying that we need to engage in patient, thorough and active management and be prepared for the portfolio to deviate somewhat from the benchmark index for extended periods of time.

Folketrygdfondet invests the GPFN in its own name, and is amongst the largest individual institutional investors in the Norwegian financial market. Assets under management represent close to 5 percent of the listed stock market (10 percent when adjusting for free float) and almost 3 percent of the fixed-income market. This means that it takes a long time to effect large changes in portfolio exposure, and that we have a special interest in

adopting a long-term perspective in our investment activities. Size also enables us to participate in large transactions and to exploit economies of scale in asset management, whilst giving us some scope for influencing the investment framework and functions offered by market places. A large, long-term investor like Folketrygdfondet is committed to responsible investment. Active and responsible exercise of our ownership and creditor rights is important for attending to our financial interests. In addition, our responsible investment activities will help promote a more well-functioning market place and reduce environmental risk and social risk in our investment universe.

Folketrygdfondet has in the course of its 20 years of equity management and 40 years of fixed-income management developed broad asset management expertise and accumulated extensive experience from the Norwegian capital market. In assessing a potential expansion into unlisted real estate and infrastructure investments, we emphasise the fact that we are already permitted to invest in unlisted equities of companies that intend to obtain a listing, and also that we have experience from investment in listed real estate companies and bonds relating to real estate and infrastructure investments. Folketrygdfondet has extensive experience from investing a large fund in a financial market with, at times, weak liquidity. This has given Folketrygdfondet a long-term perspective on asset management, which is necessary in the management of unlisted investments.

In addition, there will be a need for strengthening our expertise in the handling of large, tailor-made transactions involving significant direct ownership stakes in markets where local knowledge is a distinct advantage. In such an asset class, which is characterised by special company structures tailored to the nature of the projects and where co-investors and collaboration partners may have different expectations and interests, we will emphasise the necessity of having good shareholders' agreements that protect our interests and safeguard our share of cash flows and any achieved increases in value.

If we should attempt to identify potential advantages that Folketrygdfondet would have as a real estate investor, we believe that our size, our high capacity to absorb risk and our responsible investment profile may make us an attractive collaborator for market participants that want a serious long-term co-investor in large projects. We respect, at the same time, that this is a fairly well-developed market with established market partici-

<sup>10</sup> Available on [www.ftf.no](http://www.ftf.no).

pants that have an informational advantage over a new investor.

In addition to drawing on the expertise and distinctive characteristics of Folketrygdfondet compared to other participants in the real estate and infrastructure markets, we expect to add value through allocation decisions. Given our long-term and countercyclical investment strategy, it will be positive to have access to an asset class offering investment opportunities with risk characteristics that differ from those of the investment alternatives available in our current investment universe.

Qualities such as size, a high capacity to absorb risk and a responsible investment profile can make us an attractive collaborator for market participants that want a serious long-term investor for large projects in the infrastructure market as well. Whilst there are international asset managers with more targeted expertise within special infrastructure segments, our experience from Norway can potentially represent an advantage that may be appreciated by both potential providers of infrastructure projects and co-investors. Our extensive experience from fixed-income investments, including in infrastructure projects, means that we will be in a position to contribute to the development of a more well-functioning infrastructure market.

Our characteristic of being a government-owned asset manager may also pose certain specific challenges in a marketplace where government bodies play a key role. Although Folketrygdfondet's investment behaviour will be exclusively motivated by financial return and risk assessments in line with our mandate, our government ownership may give rise to expectations that we will also take other considerations into account. One may also envisage elements of reputational risk for Folketrygdfondet if we were to be invested in an infrastructure project of considerable interest to the general public that may also attract negative attention. It should also be noted that our assessment as to whether the return and risk characteristics of a project are attractive will often need to be mirrored by a willingness to pay on the part of a governmental project owner. If Folketrygdfondet is going to invest parts of the GPFN in infrastructure, it is important for the premises underpinning such activities to be firmly entrenched.

#### *Organisation and governance*

Folketrygdfondet's recommendation that the GPFN may also be invested in unlisted real estate

and infrastructure is conditional upon the establishment of an appropriate mandate reflecting the special characteristics of this asset class. Unlisted assets tend to be difficult to divest, incur high transaction costs and involve more uncertainty in relation to valuation, which means that investors expect an additional compensation (illiquidity premium) compared to investment in more liquid listed markets. In order for unlisted asset investment to strengthen the risk-adjusted return on the GPFN over time, it is necessary for the investment decisions to be made from a long-term perspective and with a sharp focus on the investment costs and the scope for safeguarding our share of the investment value. We are of the view that successful management of unlisted assets requires a high degree of delegation to the asset manager, good general control parameters and trust between the capital owner and the asset manager.

It is our recommendation that the exposure of the GPFN to unlisted assets take the form of Folketrygdfondet being permitted to invest in such assets whilst keeping the current benchmark index (comprising 60 percent equities and 40 percent bonds) unchanged, i.e. that the Ministry should not stipulate a strategic allocation for unlisted investments in the benchmark index. Such a governance model stimulates long-term management with an emphasis on achieving the maximum possible return net of costs, at a moderate risk for the GPFN as a whole, whilst at the same time acknowledging that there is uncertainty about the size of the market for unlisted investments in coming years.

We emphasise that an expansion of the investment universe to include unlisted assets will expand the scope of active management into areas that are well suited for a large long-term investor like Folketrygdfondet. We believe that our distinctive characteristics and advantages, our values, our investment philosophy and our extensive experience provide us, all in all, with a solid foundation for the continued generation of excess returns at low operating costs.

Folketrygdfondet's active management has from 1998 until the end of the 3<sup>rd</sup> quarter of 2014 contributed an average annual excess return of 0.49 percentage points. Our active risk taking (deviations from the benchmark index) has, for various reasons, declined in recent years to a level that is unlikely to be consistent with equally high excess returns in coming years, but we assume that new investment opportunities that can give rise to more risk taking will materialise over time.<sup>11</sup> If our investment universe is expanded to

include unlisted real estate and infrastructure, it is reasonable to expect that this will, over time, serve to increase our expected excess return (net of costs) and add to the diversification of risk in active management. A more long-term focus in active management will, at the same time, entail longer periods of deviations between returns on the GPFN and on the benchmark index, and it is a prerequisite for success that this is acknowledged by both the capital owner and the asset manager.

We operate on the assumption that the current general risk limit, as defined by expected tracking error, will remain a suitable limitation over the next few years as well, including if unlisted asset investment is permitted. Since this asset class is characterised by weak liquidity and valuation challenges, operational risk management will, in comparison with listed instruments, also have to rely more on other risk measures than expected tracking error. The impact of unlisted asset investment in terms of the risk measure 'expected tracking error' may be perceived as greater than would be suggested by a more general risk assessment.<sup>12</sup> The asset class may include both equity investments and fixed-income investments.

We recommend that the mandate stipulate an upper limit on the portion of unlisted assets in the GPFN, which will serve to further restrict the scale of such investments. It is our perspective that such a cap should offer sufficient scope for manoeuvre to enable the benefits desired from such asset management to be reaped, and we recommend that said cap be put at 10 percent. It is assumed that the establishment and development of Folketrygdfondet's investments in this asset class will take place over an extended period of time, in line with our accumulating expertise, gaining experience and identifying suitable investments. Which types of investment projects we will focus on will, in the same manner, evolve over time. Our perspective is that we will be a selective investor and invest in collaboration with other market participants that have appropriate developmental and operational expertise. We will emphasise the identification of cost-effective investment models, in line with our investment philosophy.

Successful management of unlisted assets will require a moderate increase in operating costs. However, Folketrygdfondet aims to continue to be

characterised as a cost-effective asset manager. We anticipate a moderate increase in staffing to develop core expertise within unlisted investments, which will then be able to draw on external resources when needed. We respect that core expertise within unlisted investments may come from an investment culture that differs somewhat from the current asset management organisation, which is focused on liquid and listed markets, but we expect the management of unlisted assets to be integrated into the current organisation, with a shared organisational culture and values.<sup>13</sup>

Unlisted investments will only be made if investments are available that, in the view of Folketrygdfondet, serve to improve the overall composition of the portfolio and that are attractively priced relative to other comparable investment alternatives available to the GPFN. Consequently, an opportunity cost model<sup>14</sup> appears to be a flexible and useful tool in Folketrygdfondet's asset management, for the purpose of facilitating disciplined long-term investments in unlisted assets. Such a model involves the establishment of a return measure for an unlisted investment project on the basis of the risk characteristics of the project in relation to listed equity and fixed-income indices. This return measure expresses the opportunity cost of the unlisted project, and is at the same time a tool for determining the extent to which one should fund an unlisted project by reducing equity holdings or bond holdings. However, good control over investment decisions in unlisted assets with a long investment horizon is challenging, and various control models involve their own advantages and disadvantages. The opportunity cost model is intended to provide incentives that are suited to promoting good long-term investment decisions. It may nonetheless be challenging to assess the risk and return on unlisted investments in the short term, since their value does not vary in line with the return measure (as the latter is linked to liquid markets in which valuations are more volatile in the short term than valuations of unlisted projects).

Our perspective is that unlisted asset investment shall contribute to the diversification of risk for the GPFN as a whole, and we recommend that no specific diversification requirement be applied internally within the unlisted asset class.

<sup>11</sup> See our strategic plan, available at [www.ftf.no](http://www.ftf.no), for further discussion.

<sup>12</sup> An unlisted investment with a stable valuation, which can be said to reduce overall risk in the Fund, may for example result in a significant increase in expected tracking error due to changes in value captured by the benchmark index.

<sup>13</sup> By way of illustration: we envisage a "handful of employees" in addition to the current staff of about 50, who will be subject to the same values, administrative provisions and salary structure as the rest of the organisation.

<sup>14</sup> See the discussion in the Ministry's letter of 27 June 2014 and Report No. 19 (2013–2014) to the Storting.

In order to ensure confidence in this particular element of asset management activities, we will emphasise the importance of disclosing and communicating what type of investment risk is involved, alongside the reporting of holdings, returns and suitable risk measures. The special characteristics of unlisted investments suggest that these should be managed and reported as a distinct asset class, separately from the current equity portfolio and fixed-income portfolio. We will, furthermore, proceed on the basis that the relevant principles for valuation, return measurement and risk management shall, at a minimum, be in conformity with internationally recognised standards and methods. The responsible investment principles of Folketrygdfondet will apply to this asset class as well, and asset management will reflect the special characteristics of the asset class. Our investor role in unlisted assets will, in certain respects, differ somewhat from our role in listed markets. Large ownership stakes suggest that we need to consider closer and more direct exercise of ownership, including through directorships, in order to attend to our financial interests.

If the Ministry decides that the mandate of the GPFN shall be expanded to include unlisted real estate and infrastructure investments, important

preparations remain to be made by Folketrygdfondet before the first unlisted investments can be initiated. Key preparations include the establishment of specialist expertise and the preparation of a strategic plan for unlisted investments. We will in such a process comment more comprehensively on the investment strategy for unlisted assets (including the trade-off between investing in development projects and turnkey projects), risk management, organisation, costs, operational implementation, follow-up and reporting.

It will also be necessary to consider certain modifications to other asset management activities when investing in unlisted assets, to ensure that the overall exposure of the GPFN (for example to illiquidity) is in line with our objective.

Yours faithfully

Folketrygdfondet

Erik Keiserud

Chairperson of the  
Board of Directors

Olaug Svarva

Chief Executive  
Officer

*Enclosures*

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**Appendix 4****Environment-related investment mandates in the Government Pension Fund Global***Letter of 21 November 2014 from Norges Bank to the Ministry of Finance*

Section 2-4 of the management mandate for the Government Pension Fund Global (GPFG) requires Norges Bank to establish environment-related investment mandates within the general limits for the fund's management set out in section 3-5 of the mandate. At present, the market value of these mandates shall normally be in the range of 20 and 30 billion kroner.

In its letter of 24 June 2014, the Ministry announced that it wishes to increase the interval for environment-related investment mandates such that they normally amount to between 30 and 50 billion kroner, cf. Report to the Storting No. 19 (2013–2014) and the Storting's consideration thereof, cf. Recommendation No. 200 S (2013–2014). The Ministry also wrote in its letter that it wishes to explore the possibilities for stepping up the fund's investments in renewable energy within the existing programme for environment-related investment mandates.<sup>1</sup> The Bank was asked to assess a number of matters in this context, and our assessments are set out in this letter. The enclosure provides additional data and background information and presents the indices referred to in the letter.

*Effect on expected return, risk and ownership share*

The Ministry asked the Bank to assess the effects on expected return, risk and ownership share of a further increase and possible concentration of the environment-related mandates on the renewable energy sector. Renewable energy is currently one of several sectors these mandates can be invested in.

<sup>1</sup> The environment-related investment mandates currently cover investments in listed equities and so-called "green" bonds. Green bonds are bonds where the capital raised is earmarked in some way for climate-friendly projects. To ensure that the capital raised is used for this purpose, investors often require independent assurance.

*Effect on expected return*

The requirement to establish environment-related investment mandates means that the Ministry is restricting the Bank's use of the freedom it has been given in the execution of its management of the GPFG. Concentration of these mandates on the renewable energy sector would impose even greater restrictions. We share the view of Ang et al. (2014)<sup>2</sup> that restrictions of this kind may not be associated with long-run excess returns.

The environment-related mandates are currently concentrated in parts of the stock market that are well-suited for active management. The expected excess return from our stock selection will nevertheless be small in comparison to the potential effect on returns of increased investment in environment-related companies. This is a return risk that the Bank is mandated to accept in its management.

*Effect on risk*

The return on stocks covered by the environment-related mandates has fluctuated more than, and differently to, the return on the fund's wider equity portfolio.<sup>3</sup> Although the sector is more mature now than it was in 2009 when the mandates were first established, technology risk and the risk of changes in the regulatory framework (direct subsidies, tax incentives, regulations etc.) could result in major variations in future returns. These investments must therefore be expected to

<sup>2</sup> Ang A., M.W. Brandt and D.F. Denison (2014), Review of the Active Management of the Norwegian Government Pension Fund Global, report to the Ministry of Finance, page 98: "Implementing this mandate requires taking deviations from the benchmark, since the benchmark's weights are not computed with this consideration in mind. This is a mandated move away from market weights, but it may not be associated with long-run excess returns."

<sup>3</sup> See Norges Bank's letter to the Ministry of 12 March 2014 on our experience with environment-related mandates

increase the fund's market risk. This applies particularly if the mandates are concentrated on the renewable energy sector, which has been especially volatile in recent years.

Environment-related investment mandates currently draw on the Bank's limit for relative volatility (tracking error) because the Bank is obliged to invest in a way that deviates from the strategic benchmark index. Norges Bank's calculations show that an allocation of 50 billion kroner to environment-related mandates could lay claim to around 10 basis points of the Bank's limit for relative volatility.<sup>4</sup> In periods with large swings in share prices, the figure could be even higher. If the allocation of 50 billion kroner is concentrated in the renewable energy sector, it could lay claim to around 20 basis points of the limit. In these estimates of relative risk, we have used two indices that attempt to capture "pure-play" environmental companies.<sup>5</sup> The effect on relative volatility is because prices for stocks included in these indices have fluctuated more than, and differently to, the wider markets. These companies also differ from other companies in the fund's equity benchmark index in terms of currency composition, geographical distribution and factor exposures.

#### *Effect on ownership share*

Other things being equal, increased investments in environmental-related companies will mean that ownership of these companies is higher than the fund's average ownership share in other companies. Our calculations show that an allocation of 50 billion kroner to pure-play environmental companies could push up the average holding by

<sup>4</sup> The estimate of 10 basis points is based on the size of the fund in Norwegian kroner at the end of June 2014 and on historical index constituents. The calculations are based on market conditions over the past 10 years.

<sup>5</sup> As in our letter of 12 March 2014, we have used the FTSE ET 50 environmental index as a basis for the calculation of the risk profile of the environment-related investment mandates. The ET 50 is FTSE's most liquid pure-play environmental index and the index for which we have a sufficiently long history to perform calculations of this kind. "Pure play" is defined by FTSE as companies where more than 50 percent of their business is environment-related. As with other environmental indices, the ET 50's composition has changed considerably over time. Only 26 percent of the companies in the index in the fourth quarter of 2007 were still in the index at the end of the second quarter of 2014. Estimates of risk will therefore depend on whether the calculations are based on current or historical index constituents. To calculate the relative risk from concentrating the mandates, we have used the FTSE ET 50 Renewable & Alternative Energy sub-index. See the more detailed description in the enclosure.

around 1.8 percentage points. If these investments concentrate on pure-play listed renewable energy companies, the average ownership share increases by 6.8 percentage points.<sup>6</sup>

These estimates of the effects on expected return, risk and ownership share assume that the entire 50 billion kroner is invested in listed equities. If part of the allocation is instead invested in green bonds, this would reduce the market risk and the relative risk.<sup>7</sup>

To sum up, the Bank's assessment is that a further increase in the interval for environment-related investment mandates would increase the fund's market risk. It would also increase the deviation to the benchmark index and in so the relative risk in the management of the fund. The increase in risk could be particularly great if these investments are concentrated to renewable energy stocks. It is uncertain whether the higher risk would provide a basis for a higher expected return.

#### *Investment universe*

The Ministry asked the Bank to assess the size and geographical distribution of the market for investments in renewable energy through listed equities and so-called "green" bonds. The market for such investments currently accounts for a relatively small part of the universe for new investments in renewable energy.<sup>8</sup> Most new investments are in the form of project finance. These projects are mainly unlisted infrastructure projects funded through a combination of equity and loans.

#### *Listed equities*

One way of defining the investment universe is to use an environmental index from one of the index suppliers. FTSE currently produces both a narrow,

<sup>6</sup> The calculations are based on the market value of the fund at the end of June 2014 and assume that an overweight is established by investing the 50 billion kroner in a market-weighted portfolio identical to the FTSE ET 100 index and the FTSE ET 100 Renewable & Alternative Energy sub-index. Like the FTSE ET 50, the FTSE ET 100 is a pure-play index, but it covers more companies. Limited access to historical data means that we have not been able to use this somewhat broader index (ET 100) for the estimates of risk.

<sup>7</sup> See the enclosure for a discussion of the different types of green bond. The assumption that investments in green bonds help reduce market risk rests on an assumption that these investments are concentrated on green bonds of high credit quality.

<sup>8</sup> According to data from Bloomberg New Energy Finance, around 5 percent of new capital for renewable investments comes from the listed equity market. See <http://about.bnef.com/press-releases/global-trends-renewable-energy-investment-2014> (September 2014).

technology-focused index (FTSE ET) and a somewhat broader index (FTSE EO). Only companies with more than 50 percent of their business in environment-related areas are included in the narrow index, while the broader index covers companies with more than 20 percent of their business in environment-related areas. Both of these indices have sub-indices for the Renewable & Alternative Energy segment. At the end of June 2014, there were 26 companies with a combined market value of 64 billion dollars in the FTSE ET 100 Renewable & Alternative Energy sub-index, and 92 companies with a combined market value of 236 billion dollars in the FTSE EO Renewable & Alternative Energy sub-index. By way of comparison, the FTSE Global All-Cap index was valued at close to 44,000 billion dollars on the same date.

In the enclosure, we compare FTSE's environmental indices with equivalent products from other index suppliers. Common to many of these indices are large changes in their composition over time. These changes reflect the underlying dynamics and relatively high risk in these segments. New companies are formed, established companies restructure (merge/demerge), and others go under. The definition of the indices, in the form of a requirement for a minimum percentage of a company's business to be environment-related, has also led to companies moving in and out of the index. Our review also reveals that index suppliers exercise considerable discretion in the construction of the indices, and that there is no broad consensus on this use of discretion.<sup>9</sup> Only 19 percent of the stocks in FTSE's pure-play environmental index are also included in MSCI's equivalent product. FTSE states that the index has been developed to be used for derivatives, tracker funds and exchange-traded funds. These users may have very different needs than a large, long-term investor.

### *Green bonds*

There is no universally accepted definition of green bonds. In the enclosure, we examine two green bond indices, one from S&P and one from

Barclays. While the S&P index classifies a bond as green if it is marketed as one, Barclays carries out a special evaluation in conjunction with MSCI. Barclays' criteria seem to be close to the so-called Green Bond Principles.<sup>10</sup> These principles defines a variety of bond types as green, from bonds issued by institutions like the World Bank with a triple-A credit rating to bonds without a credit rating issued to fund, say, the construction of a wind farm.

As there is no universally accepted definition of the term, it is also difficult to assess the size and currency composition of the market for green bonds. According to estimates by Bloomberg, green bonds worth more than 40 billion dollars were outstanding in mid-September 2014. These were issued primarily in euros and dollars, but with a not insignificant fraction in Swedish kronor for historical reasons.<sup>11</sup>

The market for green bonds is expanding rapidly but is still small in comparison to the overall bond market.<sup>12</sup> On the investor side, the segment is dominated by institutions buying the bonds with the aim of holding them to maturity. This may mean that green bonds are less available in the secondary market, and that opportunities for new investments may be limited to issues of new bonds. The proportion of bonds in the fund's environment-related mandates in the early years will therefore be relatively modest.

Our review of the investment universe for renewable energy shows that investment opportunities lie mainly outside the fund's investment universe as it is currently defined. The market for listed renewable energy stocks and green bonds is small. The environmental indices that are available reflect choices made by the index suppliers and do not cover all of the opportunities around.

### *Costs*

The Bank assumes that a relatively large proportion of the capital allocated to the environment-related mandates will be managed externally. This means that their management will be more expen-

<sup>9</sup> There are also some listed companies that are not included in any of these indices. One example is so-called "YieldCos". A YieldCo is a listed company set up to own physical installations that generate stable, contractually agreed cash flows. This ownership form is widely used in renewable energy and has clear parallels with listed real estate funds (REITs) and listed infrastructure funds (MLPs). Investments in such entities can be assumed to have different return and risk characteristics to investments in technology-focused companies.

<sup>10</sup> The Green Bond Principles are a voluntary market standard for green bonds developed by commercial players active in the green bond market. See, for example, <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles>.

<sup>11</sup> Swedish bank SEB was an early pioneer of green bonds and still plays a leading role in this market. As a result, a relatively large proportion of these bonds are issued in Swedish kronor.

<sup>12</sup> The market value of the Barclays Global Aggregate index at the end of September 2013 was around 44,000 billion dollars.

sive than the management of other capital in the fund, cf. our letter of 12 March 2014 where historical management costs for the external environment-related mandates were estimated to average around 80 basis points. Transaction costs will depend on the size and profile of the mandates. Increased investment in small, illiquid companies could result in somewhat higher transaction costs than are normal for the fund.

*Potential secondary effects*

The Ministry asked the Bank to comment on whether the fund's investments in renewable energy companies could impact on these companies' cost and/or supply of capital. In the Bank's opinion, there is little reason to expect an increase in the fund's investments in renewable energy to have major effects on companies' capital costs as long as these investments are made in well-functioning, liquid markets where the price of the share or bond reflects all available information. For example, we have not been able to detect any systematic differences in the pricing of comparable green and non-green bonds from the same issuer.<sup>13</sup>

The Bank's investments in listed equities will mainly be in companies that are already listed and will not therefore provide them with new capital. It is also our experience that listed renewable energy companies currently have neither greater nor lesser problems sourcing new capital than comparable companies in other sectors. When it comes to the Bank's investments in green bonds, these will to a greater extent be in the primary market and so represent new capital. Whether this capital supplements or replaces other types of bonds is uncertain.

<sup>13</sup> In the enclosure, we compare the pricing of bonds issued by France's EDF as an illustration. An issuer's motives for issuing a green bond rather than an ordinary bond appear in the first instance to be related to the possibility of attracting a broader investor base.

If the fund's investments in listed renewable energy stocks and green bonds are significant, and other investors choose to follow suit, this could eventually lead to segmentation of the market. Such segmentation could give grounds to expect a lower cost of capital for these companies and a lower expected return on investments in such stocks and bonds.<sup>14</sup>

The Ministry asked for the Bank's comments or views on the measurement and reporting of any contributions to the environment from the environment-related investment mandates. The Bank's assessment is that such contributions are difficult to gauge, and that it is a challenge to isolate the effect of the Bank's increased investments. The companies and projects we invest in will make varying positive contributions to the environment, whether directly through reduced carbon emissions or more indirectly through the development of new technology.

The environment-related investment mandates mean that the Bank will invest more in a small part of the market. As stated in the strategic plan for Norges Bank Investment Management, we aim to report on the environment-related investment mandates as a separate allocation and specify the risk and return separately.

Yours faithfully

Øystein Olsen

Yngve Slyngstad

*Enclosure (available on the Ministry website)*

Environmental Indices – Risk Assessment.

<sup>14</sup> See Hong H. and M. Kacperczyk (2009), The price of sin: The effect of social norms on markets. This article discusses how the inability of some investors to invest in certain listed companies due to social norms impacts on these companies' cost of capital and expected return. Investors not subject to the same social norms can expect a higher return on their investments.



**Appendix 5****Review of Folketrygdfondet's management of the Government Pension Fund Norway***Letter of 16 December 2014 from Folketrygdfondet to the Ministry of Finance*

We refer to the letter of 27 June 2014 from the Ministry of Finance, in which Folketrygdfondet is requested to submit analyses and assessments concerning the implementation of the management of the Government Pension Fund Norway (GPFN). As background materials supplementing this letter, we will refer to the following two enclosures: (a) Strategic plan for the management of the GPFN and (b) Analyses and assessments of performance in the management of the GPFN. We find that the current framework for the management of the GPFN is appropriate, and will not be proposing any changes in this letter, although we will refer to a separate letter of 13 November 2014 concerning unlisted real estate and infrastructure investments.

*Strategic plan*

The strategic plan for the management of the GPFN has recently been adopted by the Board of Directors, and will be published on our website before the end of the year. The plan describes the strategy of Folketrygdfondet for the management of the GPFN, and is premised on the mandate laid down by the Ministry of Finance as well as on the distinctive features characterising the GPFN and Folketrygdfondet. These distinctive features include our governance structure, long time horizon, capacity to absorb risk, limited liquidity needs, size and experience.

Folketrygdfondet seeks to be a responsible owner and investor, adding value to companies and promoting well-functioning markets. Folketrygdfondet aims to achieve high returns over time for the GPFN by increasing overall returns in the market and by generating excess return relative to the general market.

The excess return is to be generated along several dimensions in line with our distinctive characteristics and advantages as a manager, and risk taking will vary over time depending on investment opportunities. We believe that said

characteristics and advantages, our values and investment philosophy, as well as our extensive experience provide a solid basis for continuing our active management of the GPFN and for generating excess return at low operating costs. Active management is more suitable for the GPFN than passive management because:

- Liquidity in the Norwegian financial market is variable and at times poor.
- The risk exposure implied by the benchmark index is not always suitable for a long-term investor.
- There is mutual interdependence between responsible investment and active management.

In addition to exploiting specific low-risk opportunities for creating positive returns, which arise from the special characteristics of the portfolio, we would like to highlight the following sources of excess return as being of importance in both fixed-income and equity management:

- We select quality companies in which we are willing to invest with a long-term perspective.
- We reap liquidity premiums.
- We utilise the fact that risk premiums, and hence expected returns, vary over time.

Historically, we have emphasised that risk taking shall be dominated by company-specific matters in the equity portfolio, and by general credit and liquidity risk in the fixed-income portfolio. We will maintain this perspective, whilst at the same time emphasising the need for the strategy to evolve in coming years, in order to ensure that our investment activities are tailored to new challenges and opportunities. New activities shall, as a general rule, be derived from our distinctive characteristics and advantages, and it is our position that Folketrygdfondet shall remain a cost-effective asset manager.

Folketrygdfondet has, over time, generated considerable added value in our asset manage-

ment relative to the benchmark index. This gives us confidence in the strategy for the management of the GPFN which has been pursued over many years. We also find support for key elements of the strategy in academic studies. In our strategic plan, we seek to describe how the strategy can be linked to so-called systematic risk factors, as identified in empirical studies.<sup>1</sup>

As regards our estimates of expected average excess return and risk taking (as measured by tracking error), we would like to highlight the following:

- We have achieved good active management performance over time. The historical excess return is slightly higher than, but consistent with, the established objective of an annual excess return relative to the benchmark index of 0.4 percentage points (before asset management costs).
- Since investment opportunities and expected returns vary over time, our risk taking must also vary over time. Our active risk taking has declined in the wake of the financial crisis, and is currently at a level that is indicative, when taken in isolation, of an excess return that is significantly lower than the objective. We continue to assume that new investment opportunities will materialise in the longer run that will provide a basis for risk taking and excess return in line with the established objective.

#### *Return and risk*

The enclosed report “Analyses and assessments of performance in the management of the Government Pension Fund Norway” analyses return and risk in the GPFN, as well as for the equity and fixed-income portfolios individually. The analysis examines the years 1998 to 2014.<sup>2</sup> The main emphasis in the analysis is on the period after the mandate was modified, i.e. the period 2007–2014, and on the last four years, i.e. the period 2011–2014. All figures we quote here are calculated as time-weighted returns, and specified as annual geometric averages. Excess return

<sup>1</sup> See, for example, the report *The Norwegian Government Pension Fund's potential for capturing illiquidity premiums (2013)* by Frank de Jong and Joost Driessen, as well as the book *Expected Returns (2011)* by Antti Ilmanen. These describe empirical findings that support the focus on quality companies (value factor) in equity management, as well as the focus on structural and time-variable credit and liquidity premiums in fixed-income management.

<sup>2</sup> The report presents performance as at the end of the third quarter of 2014. The analysis will be updated when final performance data for 2014 are available.

is specified as the difference between the annual return on the portfolio and the annual return on the benchmark index. We would like to highlight the following:

- Annual return was 7.4 percent for the period 1998–2014 as a whole.
- Annual excess return was 1.1 percentage points for the period 2007–2014, and 0.5 percentage points for the period 2011–2014. This is better than the established objective of an annual excess return equivalent to 0.4 percentage points.
- The data on active management show that excess return has been positive for all three time periods, both for the GPFN as a whole and for the two sub-portfolios.
- The risk-adjusted excess return shows that Folketrygdfondet's active management of the GPFN has served to improve the ratio between return and risk, as compared to the benchmark index.
- The analysis shows that the excess return can largely be explained by elements we have identified as being key features of our strategic plan for the management of the GPFN.
- Analysis of the exposure to systematic risk factors conducted by way of regression analysis indicates that the excess return is largely generated through the selection of individual securities, and only to a lesser extent through exposure to systematic factors. The chosen method estimates the effect of a constant exposure, whilst exposure to systematic factors in the portfolio has varied over time. We have identified time-variable exposure as an active management tool in the strategic plan.

Performance in the active management of the GPFN has been favourable, both for the GPFN and for the equity and fixed-income portfolios.

#### *Costs and value added*

The costs incurred by Folketrygdfondet in the management of the GPFN increased relative to assets under management over the period from the modification of the mandate in 2007 until 2009. This is primarily the result of higher system costs relating to portfolio and risk systems. Over the period from 2009 to 2014, costs have varied between 8 basis points and 10 basis points of the GPFN capital. This is a very low cost level compared to other asset managers; see the calculations prepared by the Canadian firm CEM Benchmarking at the request of the Ministry of Finance.

Value added in active management and gross differential returns cannot be compared directly. However, our analyses of relevant cost and income components for passive management indicate that gross excess return is also a good indicator of net value added from active management. These analyses show that the generally low costs associated with management of the GPFN would not have been very much lower in the case of purely passive management.

#### *Risk management*

The enclosure “Analyses and assessments of performance in the management of the Government Pension Fund Norway” provides a description of Folketrygdfondet’s risk management. The description includes the following observations:

- Folketrygdfondet adheres to the Regulations relating to Risk Management and Internal Controls (“Risk Management Regulations”) laid down by the Financial Supervisory Authority of Norway, to the extent applicable.
- The Board of Directors of Folketrygdfondet adopts risk management principles, the investment mandate for the Chief Executive Officer, a strategic plan for asset management, responsible investment principles, a job description for the Chief Executive Officer and employee remuneration principles.
- The Chief Executive Officer adopts guidelines setting out more detailed risk management and control requirements, and issues written authorisations in relation to the investment activities.
- All managers have risk management responsibility within their area of responsibility and authority. Risk assessments are an integral aspect of the business processes, and also encompass outsourced services.
- Financial risk limits are monitored continually through the monitoring systems of Folketrygdfondet, and any incidents are registered in a register of incidents. Any breach of limits stipulated by the Ministry of Finance or the Board of Directors is published in the annual report of Folketrygdfondet and the quarterly reports on the Government Pension Fund Norway.
- Annual discussions are held with the Board of Directors to evaluate the risk management, return measurement and internal control systems of Folketrygdfondet.

#### *Passive management*

The Ministry has requested our assessment of potential consequences of more passive management of the GPFN. Public debate often tends to leave the impression that passive management involves less investment risk and lower asset management costs than active management. This perspective needs to be nuanced.

A model in which the capital owner defines a benchmark index clarifies the willingness of the owner to take risk and makes it clear what responsibility lies with the capital owner and the asset manager, respectively. However, as previously argued in this letter and outlined in more detail in the strategic plan, we are of the view that there are several reasons why it would not be prudent to invest the GPFN rigidly in conformity with a benchmark index that is not necessarily tailored to the distinctive characteristics of the GPFN. Reducing the responsibilities of Folketrygdfondet and opting for more passive management of the GPFN will, when taken in isolation, increase risk in the portfolio (less diversification of risk), reduce the return net of costs, contribute to a less well-functioning financial market (large market effect when index changes take place in a capital market that is, at times, illiquid) and reduce the impact of responsible investment activities. Consideration for the reputation of both the capital owner and the asset manager suggests that any transition to more passive management should be thoroughly analysed and clearly justified in accordance with the internationally recognised standards on which asset management is otherwise premised. Against this background, we would advise against passive management of the GPFN.

Yours faithfully

Folketrygdfondet

Erik Keiserud  
Chairperson of the  
Board of Directors

Olaug Svarva  
Chief Executive  
Officer

*Enclosures (available on the Ministry website in Norwegian only).*

- Strategic plan for management of the GPFN
- Analyses and assessments of performance in the management of the Government Pension Fund Norway

## Appendix 6

# Financial risk associated with climate change

*Letter of 5 February 2015 from Norges Bank to the Ministry of Finance*

Norges Bank refers to the Ministry of Finance's letter of 2 December 2014 asking the Bank to report on its work on integrating financial risk associated with climate change in the portfolio, and on the status of key international initiatives in this area that the Bank is involved in. The Ministry also asks Norges Bank to assess the possibilities for sponsoring scientific analyses of financial risk associated with climate change and how such an initiative could be designed in order to contribute relevant knowledge of this type of financial risk for a fund like the Government Pension Fund Global (GPFG). Finally, the Ministry asks the Bank to consider whether the Norwegian Finance Initiative (NFI) is an appropriate instrument in this context.

We have had climate change as a focus area in our management of the GPFG since 2006 and have worked over time on integrating financial risk associated with climate change in the fund's management. This is a work in progress. Our responsible investment activities currently include working with standard setters, interaction with companies and risk management, and are integrated in the investment process. We have also built up a knowledge of relevant climate issues through our management of environment-related investments, which include companies that supply technology and solutions for renewable energy, energy efficiency and emission reduction.

### *The management of the GPFG and financial risk associated with climate change*

Norges Bank's work on financial risk associated with climate change is based on its investment strategy and the fund's financial objective. Our work on climate issues in the fund's management is presented in more detail below and includes collaboration with selected international standard setters, expectations for how companies should address relevant climate issues in their operations and reporting, following up these expectations, interaction with companies, voting, mapping greenhouse gas emissions from companies in the

portfolio, fundamental analysis, risk analysis and portfolio adjustments.

We have published expectations documents on climate change management, water management and children's rights. These documents set out our expectations for how companies integrate these challenges in their business. In the expectations document on climate change management, Norges Bank has expressed a clear expectation that companies should integrate climate risk in the management of the business. We are particularly interested in companies' governance processes, reporting and transparency. The expectations document was first published in 2009 and was updated in 2012. We have begun the process of revising the document once again during the first quarter of 2015 and plan to obtain external input in this work.

Each year, we carry out sector risk assessments to map the degree to which companies in particularly high-risk sectors live up to our expectations. This work gives us a picture of companies' management of climate risk at a general level. The findings can be used in our dialogue with companies and can form a basis for further analysis of individual companies or sectors or more targeted ownership activities at company level.

Norges Bank aims to prioritise ownership activities that we expect will have the greatest positive effects on the portfolio. Our dialogue with companies focuses mainly on large investments. Shareholder rights, board composition, carbon emissions/disclosure and transparency on sustainability were priority topics in our dialogue with companies on responsible investment in 2014. For example, we asked a number of oil & gas companies to improve their reporting on their work on climate change.

Norges Bank has gradually built up internal capacity for fundamental analysis of individual companies. Our investment decisions consider the prospects for different sectors and companies' future earnings. Besides sector-specific and company-specific factors, we look at general market

conditions and the outlook for demand. These analyses also include assumptions about future climate changes, climate policies and possible regulatory changes. We may put questions to companies' boards about their business strategies or capital allocation. In 2015, we have sent out letters asking power companies about their plans for transitioning to less emission-intensive energy systems, and to mining companies requesting their views on a possible move in the industry towards living off their coal-mining operations.

We have begun work on mapping greenhouse gas emissions from the companies we invest in. This work and the initial results are presented in our Responsible Investment Report for 2014. One general challenge in this work is that there is no standard method for performing such calculations. Access to data also varies, and different data suppliers use different calculation methods. An additional challenge is that we have a very broad portfolio of investments, and companies' reporting on emissions varies.

We have been working with external suppliers to improve the measurement and reporting of emission data by companies in the portfolio. We have also worked to increase our understanding of the quality of the information available and the various models that the data suppliers use when calculating greenhouse gas emissions at company level. Information about greenhouse gas emissions can be used as an element in our risk management.

However, information about companies' greenhouse gas emissions does not paint a complete picture of potential climate risk at company or portfolio level. Nor is this information sufficient to be used directly for investment purposes. Risk and investment assessments need to take into account a broader set of parameters, such as companies' operations and plans, industrial structures and market conditions.

Our work has also resulted in portfolio adjustments where companies' climate strategies have been included in an assessment of their business models and long-term sustainability. In 2014, we divested from 22 companies involved in coal mining, oil sands, cement production and coal-fired power production on the basis of such assessments. Through our environment-related investment mandates, we invest extra in environmental technology. The Ministry of Finance decided in 2014 that these investments should be increased from 20-30 billion kroner to 30-50 billion kroner. These investments include companies in renewable energy, energy efficiency, water and waste management, and pollution control.

#### *Investor initiatives, research and scientific analyses*

As discussed above, Norges Bank has been looking at climate issues for many years and has gradually developed its work in this area. We believe that this is also a work in progress at other investors. Besides dealing directly with companies and leading data suppliers, Norges Bank participates in international initiatives focusing on climate change. We are a member of CDP (formerly known as the Carbon Disclosure Project) in order to promote the standardisation of companies' reporting on climate risk. The information obtained through initiatives such as CDP is useful in our management of the fund.

In 2014, we submitted a consultation response to the Climate Disclosure Standards Board (CDSB), which is developing a reporting framework for climate-related risk. This framework, which also now includes risks relating to water and deforestation, aims to help companies integrate environmental information in their ordinary reporting. The development of the framework will impact on CDP's annual collection of data on climate, water and deforestation risks. In 2011, we signed the Global Investor Statement on Climate Change along with 285 other investors.

There are a variety of international climate initiatives targeting companies and investors. Norges Bank will continue to support those initiatives that we believe are particularly relevant to our activities. We will encourage companies to report on their greenhouse gas emissions, their dialogue with the authorities on climate issues, and their strategies to deal with climate challenges.

We will contribute to analysis and research on responsible investment in order to obtain more knowledge about factors relevant to the investment portfolio's long-term risks and returns. Norges Bank is positive about the possibilities for sponsoring academic studies of financial risk for the fund associated with climate change, and plans to begin this work in 2015. Research is a particularly useful instrument in areas where there is considerable uncertainty and a need to shed light on problems both theoretically and empirically.

Climate risk takes in complex issues and a variety of fields. Norges Bank will limit its activities to areas that are of particular relevance to the fund's management. A range of instruments can be used in this work going forward – internal analysis, collaboration with data suppliers and international investor initiatives, and academic research are all relevant ways of shedding more light on climate issues.

The Norwegian Finance Initiative (NFI) aims to strengthen the scientific basis for Norges Bank Investment Management's management of the GPFG. The NFI has set up a dedicated programme to incentivise academic research in areas of financial economics that are of particular interest for the long-term management of the fund. These areas include portfolio theory, market microstructure and corporate governance. The NFI is a relevant instrument for promoting scientific analyses of financial risk associated with climate change.

Norges Bank can also conduct research projects in-house. We have participated in the Harvard Institutional Investor Forum for several years. In 2014, we launched a research project

with Columbia University and various other academic institutions looking at how sustainability and responsibility impact on mining companies' profitability. Research collaborations of this type with leading academic institutions may also be relevant in our work on exploring aspects of financial risk associated with climate change. We plan to work on research-oriented aspects of financial risk associated with climate change over a number of years, and will provide further information on the progress and results of our work in our annual reporting on the management of the GPFG.

Yours faithfully

Øystein Olsen

Yngve Slyngstad

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## Appendix 7

# The benchmark index for the Government Pension Fund Global

*Letter of 25 February 2015 from Norges Bank to the Ministry of Finance*

The Management Mandate for the Government Pension Fund Global requires the equity allocation in the fund's actual benchmark index to be rebalanced if it deviates by more than four percentage points from the strategic allocation on the last trading day of the month. This rebalancing returns the equity allocation in the actual benchmark index to 60 percent at the end of the following month.

In this letter, Norges Bank reports on the rebalancing that took place in autumn 2013, cf. section 1-6 (5) of the Management Mandate. Based on our experience, the Bank recommends amending the method for rebalancing the actual benchmark index. The Bank does not recommend any changes to the criteria for a rebalancing.

### *The rebalancing of the actual benchmark index in autumn 2013*

The equity allocation in the benchmark index was 64.2 percent at the end of September 2013. In accordance with the provisions in the Management Mandate, the equity allocation in the benchmark index was returned to 60 percent on 31 October 2013, by which time it had risen further to 64.8 percent. At that time, 4.8 percent of the fund was equivalent to 231 billion kroner, and the isolated effect on expected relative volatility of such a reduction in the benchmark index's equity allocation was an estimated 56 basis points.<sup>1</sup>

In practice, it will not be feasible for the Bank to adjust the portfolio in the same way that the benchmark index is rebalanced. The Bank must take more time for the process to be cost-effective. We decided to carry out the bulk of the adjustments over a period of four months starting at the end of August 2013.<sup>2</sup> The potential for trad-

ing large volumes cost-effectively over a short period varies between regions and segments. The US stock market is normally more liquid than European markets, even though both regions are considered to be mature. The fund's strategic overweight in Europe exacerbates the challenges associated with this liquidity differential.<sup>3</sup> In addition, the market for government bonds in developed markets is often more liquid than the markets for corporate bonds and government bonds in emerging markets. These differences have a bearing on how the Bank can adjust the portfolio and imply that, in practice, it is difficult to pinpoint when the adjustment to a new benchmark index is completed.

The Management Mandate requires the Bank to report on the estimated cost of rebalancing. In this case, the Bank took four months to complete the adjustment. Using standard models, we estimate the transaction costs for this adjustment at approximately 600 million kroner.<sup>4</sup> For comparison, we have also estimated the transaction costs that would have been incurred had the Bank made the adjustment over a period of five trading days. Such an adjustment would have been closer to how the benchmark index is adjusted and would have served to reduce the relative risk in the management of the fund during the period. In this case, the transaction costs are estimated at

<sup>1</sup> The effect of a change of four percentage points was estimated at 47 basis points.

<sup>2</sup> We considered it likely at this time that rebalancing would be triggered at the end of September 2013.

<sup>3</sup> The equities in the fund's benchmark index for equities are assigned factors according to their country of origin, cf. section 3-3 (2) of the mandate. Developed markets in Europe have a country factor of 2.5, the US and Canada 1, other developed markets 1.5, and emerging markets 1.5. A country factor of 2.5 for Europe against 1 for the US means that average ownership (measured as the percentage of shares readily available) of European companies is 2.5 times higher than for a company listed in the US.

<sup>4</sup> BECS (Best Execution Consulting Services) is a suite of software tools for analysing expected transaction costs ahead of trading in the market. BECS is based on transaction models that analyse the liquidity and volatility of individual stocks and provide an estimate of the total transaction cost. It is owned by Citigroup.

just over 1 billion kroner. Estimates of this kind are associated with uncertainty, and the estimate of transaction costs will depend on the market situation at the time the adjustment is made. This applies particularly to estimates of transaction costs for large and repeated trades in the bond markets. The adjustment to the new actual benchmark index was carried out in a period of very good liquidity in financial markets, which helped reduce the transaction costs.

The rebalancing was carried out in the same period that several other major changes were made to the actual benchmark index, such as the implementation of new regional weights for equities and the annual adjustment of the GDP weights in the bond index. Multiple simultaneous changes to the benchmark index make it difficult to isolate portfolio changes due specifically to rebalancing. This increases the uncertainty associated with the estimate of actual transaction costs and also makes it more challenging to report any excess return or loss due to the rebalancing.

#### *Amendment of the rebalancing rule*

The equity allocation in the actual benchmark index is currently returned to 60 percent one month after rebalancing is triggered. Our experience from autumn 2013 indicates a need to amend the method for rebalancing the benchmark index.

The fund has grown considerably since the current rebalancing rule was introduced in 2012, and the band for rebalancing is wider than originally recommended by the Bank. Given the current size of the fund, each individual rebalancing could mean buying and selling securities for more than 500 billion kroner. The Bank will need to take its time if it is to adjust the portfolio cost-effectively. The Bank will be less able than before to rely on inflows of new capital to make the necessary adjustments. Lower inflows, both in absolute terms and relative to the fund's market value, mean that most of the adjustment following a rebalancing will have to take the form of actual buying and selling of securities in the markets.

Deviations between the benchmark index and the portfolio during periods when the Bank is adjusting to a new benchmark index could dominate the relative risk in the management of the fund and the excess return reported. The excess return reported will not paint a true picture of whether Norges Bank has carried out the portfolio adjustments efficiently. We therefore believe that the method for setting the actual benchmark index should be brought closer to a process that

can be followed in the operational management of the fund.

Our proposed new method entails adjusting the actual benchmark index in stages. The proposal means that rebalancing could take longer if the equity allocation moves outside the band of +/- four percentage points during the period. On balance, we have concluded that the method for how the actual benchmark index is rebalanced should be exempted from public disclosure. The method should be set by the Ministry based on advice from Norges Bank. If the Bank finds that there is a need to adjust the method for rebalancing the benchmark index, it can advise on this in connection with its reporting after a rebalancing.

In its letter to Norges Bank dated 24 June 2014 concerning Report to the Storting No. 19 (2013–2014), the Ministry wrote that it plans to revise the Management Mandate so that the impact on expected relative volatility of a rebalancing of the benchmark index is excluded from the allowance for deviations from the benchmark index. One requirement for this change is that the Bank reports in more detail on the effects on relative volatility and excess return. Our experience from the rebalancing in autumn 2013 is that it is difficult to isolate these effects from the Bank's other investment decisions.

#### *The Bank's recommendation*

The Bank recommends that section 1-6 (4) of the Management Mandate for the Government Pension Fund Global is amended to read as follows:

If the equity allocation in the actual benchmark index on the last trading day of the month deviates by more than four percentage points from the weight in the strategic benchmark index, the equity allocation is to be rebalanced to 60 percent. The Ministry will set more detailed rules for how the actual benchmark index is to be rebalanced, based on advice from Norges Bank.

The Bank's recommendation for how the actual benchmark index should be rebalanced is set out in the enclosure to this letter.

#### *Further development of the management framework*

In our letter to the Ministry of 31 January 2014, we provided recommendations on the further development of the framework for the management of the fund. At the same time, the Ministry



received advice from a group of experts on possible changes to the fund's management framework.<sup>5</sup> These experts recommend giving the Bank somewhat greater responsibility for the fund's overall return. Under such a regime, it would be natural to consider delegating responsibility for setting the rules for rebalancing the benchmark index to the Bank. The Bank would

then be able to set rules for rebalancing that take greater account of actual market conditions.

Yours faithfully

Øystein Olsen

Yngve Slyngstad

*Enclosure*

*Proposed method for rebalancing the actual benchmark index (exempt from public disclosure)*

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<sup>5</sup> Ang A., M.W. Brandt and D.F. Denison: Review of the Active Management of the Norwegian Government Pension Fund Global, January 2014.

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