



NORWEGIAN MINISTRY OF FINANCE

Report No. 15 (2010–2011) to the Storting

The Management of the Government Pension Fund in 2010





NORWEGIAN MINISTRY OF FINANCE

Report No. 15 (2010–2011) to the Storting

The Management of the Government Pension Fund in 2010

Contents

Part I	The Management of the Government Pension Fund	7	5	Further development of the management framework	110
1	Introduction	9	5.1	Introduction	110
2	Investment strategy of the Government Pension Fund Global	14	5.2	New provisions on the GPFG and the GPFN	113
2.1	Background to the current investment strategy	14	Part II		
2.2	Perspectives on the further development of the GPFG's strategy	20	Topic article		
2.3	Private investments	32	6		
2.4	Geographic distribution and exchange rate risk	36	Simulation of the real value of the Government Pension Fund 20 years into the future		
2.5	The fixed-income portfolio	46	125		
3	The investment strategy for the GPFN	59	Appendix		
3.1	Introduction	59	1	Government Pension Fund Global – investment strategy for nominal bonds	128
3.2	Evaluation of the active management of the GPFN	60	2	Folketrygdfondet's active management of the Government Pension Fund Norway	134
4	Asset management follow-up ..	73	3	Glossary of terms used in the Report	137
4.1	Asset management performance ..	73			
4.2	Follow-up of the management framework	88			
4.3	Responsible investment practice ..	96			

The Management of the Government Pension Fund in 2010

Report No. 15 (2010–2011) to the Storting

*Recommendations of the Ministry of Finance of 8 april 2011,
approved by the Council of State on the same day.
(Government Stoltenberg II)*

Part I
The Management of the
Government Pension Fund

1 Introduction

In this report, the Ministry of Finance presents results and assessments relating to the management of the Government Pension Fund in 2010. Assessments of the Fund's future investment strategy are also presented, and an account is given of the efforts made to develop the framework for management further.

The Fund achieved a good result in 2010. The return on the Government Pension Fund Global (GPFG) was almost 10 percent, while the Government Pension Fund Norway (GPFN) generated a return of almost 15 percent. This followed very good results in 2009, and means that the considerable declines in value experienced during the financial crisis have been more than compensated for by the gains made during the subsequent upturn. The active management operations of the GPFG and GPFN also achieved good results.

The financial crisis in 2008 resulted in a fall in value which was substantial, historically speaking. However, the subsequent recovery has also been unusually strong and rapid. When the period 2008–2010 is considered as a whole, the Fund has generated a total return corresponding to more than NOK 260 billion. If the risk level of the Fund had been reduced in 2008 or 2009, the recovery during the upturn following the financial crisis would not have been as strong. Significant uncertainty still attaches to the future development of the financial markets, and we have to be prepared for new periods of unrest.

The experiences gained during the financial crisis underline the need to ensure that there is broad-based support for important aspects of the management of the Government Pension Fund. Such support is a precondition for long-term, safe management. The ability to pursue a long-term strategy is important, particularly when there is unrest in the markets.

Accordingly, the emphasis in this report is on providing an account of the basis for the Fund's investment strategy and on presenting perspectives for the further development of the strategy in the future. The starting point for the strategy work will continue to be to achieve the highest

possible international purchasing power subject to a moderate level of risk.

The Pension Fund is managed on behalf of the Norwegian people. Shared ethical values must form the basis for the responsible management of the Fund. Generating good long-term returns for the benefit of future generations is a fundamental obligation. Solid financial returns over time depend on a sustainable development in economic, environmental and social terms, and on well-functioning financial markets. In this report, an account is given of the efforts made in the area of responsible investment practices, including the exclusion mechanism, the exercise of ownership, and environmental investment efforts.

The investment strategy must be based on an understanding of how the markets in which the Fund invests work, and what distinctive characteristics the Fund has in its capacity as an investor. There are clear differences between the two parts of the Fund in this regard: the GPFN is a relatively large investor in a small capital market, while the GPFG is, in relative terms, a minor investor in large, international markets. Chapters 2 and 3 discuss the work done on the investment strategies of the GPFG and GPFN in more detail.

Looking towards 2020 – some perspectives relating to the GPFG

The GPFG looks set to grow significantly in the years ahead. It is expected that, in the period to 2020, the Fund will grow to approximately double its current size. At the same time, the investment strategy is gradually being adjusted. A portfolio of property investments is currently being built up. Given the target allocation of 5 percent of the Fund, this portfolio alone may amount to an estimated NOK 300 billion at the end of this decade.

The Fund's strong growth and large size alone comprise an important starting point for the further development of the Fund's management. Size can be an advantage in many contexts. Among other things, economies of scale in asset management ensure that the Fund can maintain a low level of costs compared to other investors. As a

result, the Fund can secure profitability in investments which are not profitable for others. These cost advantages are particularly important in the case of investments for which the management costs are generally high, for example investments in private markets.

At the same time, this type of investment is subject to limitations regarding how much the GPFG can sensibly invest. Many of these markets are too small for the Fund to build up investments on a large enough scale to affect the Fund's total returns and risk to a significant degree. The benefits of establishing several new investment areas, which individually will be relatively small, must therefore be weighed up against the cost of increasingly complex management in the form of an increased need for governance systems and follow-up.

Chapter 2.3 of this report discusses whether the GPFG should invest in private equity and infrastructure. Both comparisons with other funds and the GPFG's long time horizon and size make it natural to consider such investments by the Fund.

Investments in private markets are challenging, and are different in many respects from investments in listed equities and fixed-income instruments. Moreover, the management costs are high. The Ministry of Finance and Norges Bank are currently building up expertise through investments in the largest and most developed private market, the private real estate market. The desire first to gain experience from one private market, combined with the fact that there is considerable uncertainty about the returns that can be achieved on such investments given their risk level and costs, means that it is not natural to permit such investments at this stage. However, the perspectives for the further development of the GPFG's strategy which are set out in this report make it natural to return to this question later.

Another aspect of the Fund's size is the increasing importance of being able to maintain the strategy over time. The Fund is so large that it is difficult to make significant changes to its investments in the short term. The strategy must therefore be robust in the face of various market conditions.

Chapter 2.4 discuss the geographical distribution of the GPFG's investments. Today, the Fund is distributed according to fixed weights for three regions: Europe, America/Africa and Asia/Oceania. More than half of the Fund's capital is invested in Europe.

As we have traditionally imported much of our goods and services from Europe, it has been natural to assume that we protect the purchasing power of the Fund against currency fluctuations by also investing substantial amounts in the European securities markets.

The review in chapter 2.4 indicates that the exchange rate risk in the GPFG is relatively small, and less than previously thought. Accordingly, there no longer appears to be a basis for the Fund's current relatively strong concentration of investments in Europe. The Fund's investments in emerging economies have increased significantly in recent years. The global economic centre of gravity is gradually shifting, and not least emerging economies are expected to account for an increasing share of both global production and securities markets in the future. Over time, it will be natural for this also to be reflected in the Fund's investments.

Although the GPFG looks set to grow significantly in the years ahead, the inflows to the Fund will gradually decline. Around 2020, the annual withdrawals from the Fund made to cover the oil-corrected budget deficit in the state budget are expected to become larger than the inflows of new money to the Fund. The Fund will continue to grow, because the returns on capital look set to exceed the net withdrawals from the Fund. The risk that net withdrawals which are large in relation to the Fund's capital will have to be made over short periods of time will remain limited. The Fund will continue to have a considerable ability to bear risk. However, smaller inflows may nevertheless make investments with high direct returns in the form of interest payments, dividends or rent revenues more attractive than before.

The Fund is already a major owner in the global equity market. On average, the GPFG owns around one percent of all listed equity in the world. In many companies, ownership is spread across a very large number of individual owners. Accordingly, in many companies, even an ownership share of around one percent can make the Fund one of the largest individual owners. Projections for the Fund for the period to 2020 provide reasons to believe that the Fund's ownership shares will continue to grow. This, however, does not alter the Fund's role as a financial investor. Whether an investment is strategic or financial depends on the objective the investor has for his or her investments, and how the investor utilises his or her influence through his or her actions. The GPFG is a financial owner with a clear objec-

tive of achieving the higher possible return over time, subject to a moderate level of risk.

It cannot automatically be assumed that the managers of the companies in which the Fund invests will always have congruent interests with the Fund in its capacity as owner. Further, it cannot automatically be assumed that large owners of individual companies will act in a manner that safeguards the Fund's interests as a minority owner. The active exercise of ownership is therefore a necessary part of efforts to protect the Fund's economic interests. The Fund's management cannot be built on the assumption that this important work will be adequately taken care of by other owners.

The GPFG's investment strategy has been developed gradually, over several years. Emphasis has been given to exploiting the Fund's distinctive characteristics and risk-bearing capacity. Decisions concerning the allocation to equities and other parts of the strategy have determined the risk of the Fund to a large degree. Now, it is natural to consider whether the strategy can be developed further to ensure an even better trade-off between expected returns and risk, subject to a risk level which shall continue to be moderate. This report contains a separate review of the Fund's investments in fixed-income instruments. The purpose of this review was to identify relevant risk factors for this part of the Fund's investments, and to consider alternative ways of managing the portfolio that better exploit the Fund's distinctive characteristics. This is discussed in more detail in chapter 2.5 of this report.

Some risk must be assumed in the management of the Fund..

Analyses of different types of risk are a key part of this year's report. The purpose of these analyses is to understand the risks associated with different investments, so that we can spread the risk associated with the investments better and exploit the Fund's distinctive characteristics within the framework of long-term, safe management.

The choice which has the greatest influence on the Fund's total risk over time is the choice of equity portion. The equity portion is chosen based on the insight that the Fund is able to bear risk and is willing to accept significant fluctuations in the Fund's results from year to year. Together with the increase in the Fund's equity portion, the decision to invest in real estate has meant a reduction in the proportion of the portfolio invested in nominal fixed-income securities, which experi-

ence has shown to be vulnerable to unexpectedly high inflation. Nevertheless, compared to other funds, the GPFG has a larger proportion of its capital invested in nominal fixed-income investments, and a smaller proportion invested in other assets than equities and fixed-income instruments.

The objective for the GPFG's investments is to achieve the highest possible international purchasing power for the Fund's capital over time, subject to a moderate risk level. Avoiding risk is not an objective for the management of the Fund. On the contrary, risk-taking contributes to returns over time. The Government Pension Fund has a large ability to bear fluctuations in the Fund's returns from year to year. The investment strategy is therefore not aimed at minimising short-term fluctuations in value. A strategy focused exclusively on this would produce significantly smaller expected returns over time.

A separate category of risk is «operational risk». This is risk which is not linked to market movements, but to errors or other undesired events in the actual conduct of management. Such risk does not generate a profit in the form of higher expected returns, but reducing it will often be associated with costs. The starting point for the management of the Fund is that this type of risk shall be low. However, in managing operational risk, the expected costs of undesired events must be weighed against the costs of avoiding them. It is not reasonable or sensible to adopt an objective of avoiding undesired events at any cost. Operational risk management is discussed in greater detail in chapter 4.2.

...but risk must be managed...

The discussion above shows that the risk involved in the management of the Fund cannot be captured in a single number. This is true both of the risks inherent in the benchmark set by the Ministry and of the risks involved in the deviations from this benchmark undertaken by Norges Bank and Folketrygdfondet to increase the return on the Fund (active management).

Some forms of risk are relatively easy to identify, measure and manage. The risk involved in active management of equities is one example of this. Other forms of risk are more difficult to identify when market conditions are normal, but may nevertheless have large effects, for example during financial crises. Some types of risk associated with fixed-income instruments had such effects during the financial crisis.

Effective as of 1 January of this year, the Ministry issued new mandates for Norges Bank and Folketrygdfondet's management of the GPFG and GPFN. One of the things learned from the financial crisis was the importance of identifying, managing and reporting multiple types of risk. In view of this, the new mandates contain, among other things, provisions regarding supplementary risk limits. The mandates are reviewed in chapter 5 of this report.

...and communicated well

The starting point for investment activities is to weigh up risks against their expected returns. It is possible to establish probable links between risks and their expected returns using financial theory and historical experience. However, there is no definitive answer regarding what the «correct» level of risk in the Fund is. Decisions that are of great significance for the Fund's total risk must be taken following an overall balancing exercise, in which the owners' risk tolerance is also important. The owners of the Government Pension Fund are the Norwegian people, represented by the Storting.

A fundamental basis for this balancing exercise is that the risks involved in the management of the Fund shall be communicated in the best possible manner. Only then can the risks inherent in the management be entrenched such that the strategy can also be maintained during periods of market unrest. The analyses in this report, along with the ongoing reporting of Norges Bank and Folketrygdfondet, are intended to help secure such support. Moreover, emphasis has been given to including a wide range of independent external advice and assessments as a basis for the further development of the Fund's management. The new mandates for the management of the GPFG and GPFN include extensive provisions on public reporting, and new accounting standards for Norges Bank (IFRS) also require increased reporting on various forms of risk.

Governance and delegation

The analyses of risk and expected returns form the starting point for the investment strategy of the Government Pension Fund. It is also paramount that a governance structure is established for the management of the Fund that allows the strategy to be implemented successfully.

On the one hand, the governance structure must ensure that important decisions relating to

fund management risk have the support of the Fund's owners, represented by the Storting. On the other hand, there must be sufficient delegation of authority to allow day-to-day decisions in the operational management of the Fund to be made close to the markets in which the Fund is invested. Efforts are made to achieve this balance by submitting decisions that are of material significance to the Fund's risk level to the Storting before their implementation, while the regulation of the Fund through the mandates issued by the Ministry to Norges Bank and Folketrygdfondet respectively is based, insofar as possible, on principles and frameworks.

It is important that there is a clear division of roles and responsibilities between all governance levels involved in the management of the Fund, from the Storting right down to each individual manager. Only then will the individual management levels be held responsible. It is also important to have in place good control and supervisory bodies, at all levels, and that the division of work between these bodies is clear. In its consideration of Document 1 (2010–2011) and Document 3:2 (2010–2011), the Storting clarified the division of roles and responsibilities between the two supervisory bodies appointed by the Storting to be involved in the monitoring of the GPFG – the Office of the Auditor General of Norway and the Norges Bank Supervisory Council; see Recommendation 138 S (2010–2011) and Recommendation 246 S (2010–2011). This will further strengthen the management framework.

Over time, there should be interaction between the governance system and the Fund's investment strategy. The investment strategy must take into account the distinctive institutional features of the management of the Fund. The need to secure the support of political bodies for important aspects of management means, for example, that it is difficult to design investment strategies based on taking quick, time-critical decisions that are of great importance for the total risk level of the Fund. On the other hand, the governance system must also be capable of adapting to new investment forms that seek to exploit the Fund's distinctive characteristics, in order to improve the trade-off between return and risk. One example of this is the new provisions concerning property investments by the GPFG. It makes no sense in relation to such investments to distinguish between active and passive management, and investment decisions must be delegated to the manager to a greater degree.

Summary

In the Ministry's view, the management of the Government Pension Fund has been highly successful thus far. The Fund structure forms an important part of the framework for economic policy, and the building up of the GPFG has made a substantial contribution to stable economic development. The investment strategy has proven itself to be robust through periods with considerable unrest in the financial markets.

The Ministry is well satisfied with the results achieved in 2010, both by the Fund as a whole and in the active management. The governance system is being strengthened gradually. The audit and supervisory systems have been expanded. This year, the Norges Bank Supervisory Council

submitted its first independent report directly to the Storting, on the supervision of Norges Bank's activities. This will further strengthen the Storting's means of monitoring the management of the Fund. Moreover, the Ministry has issued new mandates for the management of the Fund, with an emphasis on supplementary risk frameworks and more extensive reporting.

The Fund has a robust, widely supported investment strategy in place, as well as a strengthened framework for the management of the Fund. This constitutes a good starting point for assessing how the Government Pension Fund should be managed in the next few years. The analyses and evaluations in this report and the external advice presented here provide a basis for this assessment.

2 Investment strategy of the Government Pension Fund Global

2.1 Background to the current investment strategy

2.1.1 Introduction

The Government Pension Fund shall support government saving to finance the National Insurance Scheme's expenditure on pensions and support long-term considerations in the use of petroleum revenues. Long-term, safe management of the Government Pension Fund helps to ensure that all generations can benefit from Norway's petroleum wealth.

The Government Pension Fund is an instrument for general saving. The Fund does not have clearly defined future liabilities. The investment objective is to maximise the Fund's international purchasing power, given a moderate level of risk.

As a State-owned fund, the Fund emphasises the application of responsible investment practices that take account of good corporate governance and environmental and social factors. This practice is closely linked to the objective of achieving a good return over time, and is a precondition

for the Norwegian general public's support for the management of the Fund.

The ministry aims to ensure that the Government Pension Fund is the world's most well-managed fund. This means identifying and seeking to implement leading international practice in all aspects of management.

The Government Pension Fund comprises the Government Pension Fund Global (GPFG) and the Government Pension Fund Norway (GPFN). The operational management of the two parts of the Fund is undertaken by Norges Bank and the National Insurance Scheme Fund (Folketrygdfondet) respectively, pursuant to mandates issued by the Ministry. The mandates reflect the Ministry's long-term investment strategies for the two parts of the Fund. This chapter discusses the GPFG's investment strategy. The GPFN's investment strategy is discussed in chapter 3.

2.1.2 The current investment strategy

Figure 2.1 illustrates the connection between the Fund's distinctive characteristics, assumptions

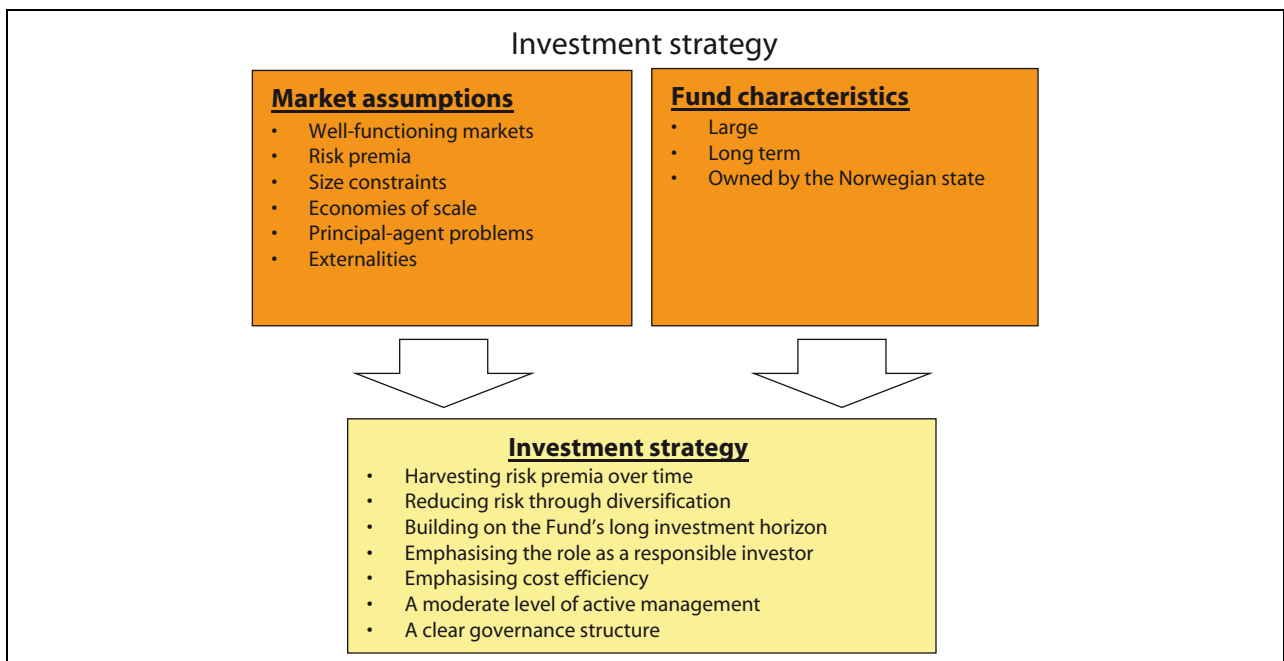


Figure 2.1 The basis for the Fund's investment strategy

Box 2.1 Special features of the Government Pension Fund Global

Large

The GPFG is already considered to be the world's second-largest state-owned investment fund. Given the prospects of further transfers of petroleum revenues, the Fund is expected to continue growing in the years ahead. In the 2011 National Budget, it was estimated that the Fund will reach a size of over NOK 6,000 billion by the beginning of 2020.

Long-term

There is a low risk of large withdrawals from the Fund by the owner in the short term. The GPFG is a fund for general savings and, in contrast to traditional pension funds, has no specific liabilities. In principle, the fiscal policy guideline means that the Fund has a very long investment horizon, as transfers from the Fund are to be limited to the expected real return. The ability to

maintain the Fund's long-term strategy through periods of unrest in the world financial markets, as in 2000–2002 and 2008–2009, confirms that the Fund is long-term, in contrast to many other investors.

Owned by the Norwegian state

The GPFG is a state-owned fund, and is dependent on the trust of the general public in order to achieve a good management of the Fund capital. Accordingly, emphasis must be given to securing broad-based political support for the Fund's investment strategy, transparency about all aspects of management, and responsible investment practices that take account of good corporate governance and environmental and social factors. Moreover, the Fund depends on legitimacy with other market participants to secure good, stable framework conditions over time.

Box 2.2 Market assumptions and choice of governance principles

Well-functioning markets

The GPFG's investment strategy is based on the assumption that the financial markets are largely well-functioning (efficient), in the sense that new, publicly available information is rapidly reflected in the prices of financial assets.

Principal-agent problems

The term principal-agent problem refers to the situation where there is no full alignment between the interests of the principal and the party that is to carry out the assignment (the agent). In situations involving asymmetric information, for example when the principal cannot fully observe the efforts of the agent, the agent may act in a manner or make a choice that is not in the principal's interest. The principal-agent problem is much discussed in political and economic literature and theory. In the capital markets, principal-agent problems may generally arise both between the asset owner and the asset manager and between the asset manager

and the managers of the companies in which investments are made. An exercise of ownership in accordance with principles of good corporate governance can help to reduce principal-agent problems, by resulting in a better alignment of interests between a company and its owners.

Externalities

Externalities are costs or benefits associated with production or consumption which are not borne by the decision-maker. An example of an externality is environmental damage. The management of a company may consider it unnecessary to take costs associated with environmental damage into account when the costs are not expected to reduce the profitability of the company directly. However, a long-term owner of assets in many listed companies may depend on long-term sustainable development in order to secure a good return on the entire portfolio. It can therefore be profitable for such (universal) owners if the company management takes greater account of such externalities.

Box 2.2 (cont.)

Spreading risk and risk premiums

An important insight from financial theory is that the required rate of return on a share or bond is linked to the contribution made by the investment to the systematic risk of the portfolio, and not to the risk of the security alone. Spreading investments as widely as possible allows investors to expect compensation for the remaining portfolio risk, referred to as the systematic risk.

Multiple systematic risk premiums

A higher average return over time is expected on share investments than on investments in bonds, as there are greater fluctuations in the return on shares. However, the size of this additional return, or share-risk premium, is uncertain. Moreover, other factors than share risk may drive the return on a portfolio. Some of these, such as credit and company size, are linked to asset classes. Other factors are based on different investment styles, such as investments in less realisable assets and investments based on valuation analyses. These styles, or factors, are supported to varying degrees by financial theory and historical return figures. Typically, many of them provide an even, positive return over a number of years, but also feature shorter periods of significant negative returns. Exposure to this type of risk requires a significant ability to bear short-term fluctuations in value, and good systems for identifying, managing and communicating risk.

The contribution of active management

Achieving better returns than the market is challenging in large, well-functioning markets in which new publicly available information is quickly reflected in the prices of financial assets. In practice, different markets will be more or less well-functioning (efficient), and will offer larger or smaller opportunities for profitable active management. There may be weaknesses in available indices even in markets which are

well-functioning, for example because they do not represent the entire market, a fact which can be exploited in active management. For some asset classes, such as real estate, investments cannot be based on a well-defined index.

Economies of scale in capital management

Size is expected to secure management economies of scale. All other things being equal, management costs, measured as a proportion of the fund capital, will be lower for a large fund than for a small fund. Economies of scale also allow expertise to be built up in all parts of the management team, which will be an advantage when the Fund's investments are to be spread across new markets, countries and financial instruments.

Not all investments can be scaled up

A large fund may find it difficult to scale up positions in smaller asset classes and in individual investment strategies. This has the consequence that such investments cannot influence the Fund's overall results to any great extent. It may also be more challenging to amend the Fund's composition in the short term.

Good management depends on good governance structures

A clear governance structure with a clear division of responsibility is a precondition for good management. Decisions relating to the management of the Fund must be based on expertise and professionalism. In order to be able to exploit a long investment horizon, the governance structure must enable broad-based support to be secured for strategies that are highly significant to the overall risk borne over time by the owners of the fund, represented by the political authorities. At the same time, the governance structure must enable sufficient delegation of authority, to allow the long horizon to be exploited in operational management.

regarding the functioning of the market and the GPFG's investment strategy. See also boxes 2.1 and 2.2. The Ministry of Finance, as the owner of the Fund, and Norges Bank, as the manager, have over time developed an investment strategy that is particularly characterised by:

- harvesting risk premiums over time,
- spreading risk,
- exploiting the Fund's long investment horizon,
- the role as a responsible investor,
- an emphasis on cost efficiency,
- a moderate element of active management, and
- a clear governance structure.

Each of these characteristics is explained in this section.

Harvesting risk premiums over time

The GPFG's investments involve exposure to several types of «systematic risk». The investors are compensated for this risk by higher expected return. This additional return is often termed the risk premium. In the presentation of expected return in previous reports, there has been a particular focus on the term premium in bonds, and the risk premium linked to the risk of insolvency (credit risk) and the share risk premium. Chapter 2.2 also includes a discussion of other types of risk factors and investment styles which may be associated with risk premiums over time.

The choice which has the greatest effect on the Fund's overall risk is the choice of equity portion. Trends in the global equity market largely explain the fluctuations in the Fund's return, and are therefore the most important contributor to risk. There is no definitive answer to the question of the correct level of the GPFG's market risk. This will depend on the risk tolerance of the owners, represented by the political authorities. In recent years, the Fund's benchmark has gradually been expanded to include new market segments, countries and asset classes. This, along with the approval given by the Norwegian Parliament, the Storting, in 2007 to the government's plans gradually to increase the GPFG's equity portion to 60 percent, has helped define the Fund's acceptable level of risk.

The equity portion is chosen on the basis that the Fund is able to bear risk and is willing to accept significant fluctuations in the Fund's results from year to year in return for a higher expected long-term return. If the objective of the strategy were to minimise the fluctuations in the Fund's returns, a significantly lower long-term real return would also have to be expected.

The GPFG's equity allocation is in line with the equity portions of other large international funds, and the decision to invest in real estate means that the Fund's total investments, are also moving closer to the typical profile of other funds. At the same time, the GPFG is not a typical fund. As the Fund has a greater risk-bearing ability than many other investors, its overall risk stands out as more moderate.

The mandate of Norges Bank lays down a benchmark and guidelines for deviating from the index. The mandate states that the Bank shall seek, within the scope of the guidelines, to achieve the highest possible return after costs.

In NBIM's strategic plan for 2011–2013, the executive board of Norges Bank has therefore adopted the objective that the operational management of the Fund is to improve the ratio between risk and returns.

Reducing risk through diversification

Within each asset class, the investments are spread among many individual investments. The risk associated with a broadly composed portfolio will generally be lower than the risk associated with an individual investment. The remaining risk is often referred to as systematic risk. An important insight from financial theory is that expected return is linked to the contribution made by the investment to the systematic risk of the portfolio, and not to the risk of the security alone. Accordingly, by spreading their investments, investors secure a higher payment for assuming risk, in the form of a higher ratio between expected return and risk. The GPFG's benchmark is therefore made up of shares in around 7,000 companies, and fixed-income instruments issued by around 1,500 issuers.

The benchmark for each asset class is based on the principle of market weighting. Among other things, this means that the composition of the benchmark for shares reflects the companies' relative proportions of the value of the total equity market in each region. In this manner, market weighting supports a broad diversification of the Fund's investments in equities and fixed-income instruments.

Over time, the Fund's investments have been spread across several asset classes. Along with the increase in the Fund's equity portion, the decision to invest in real estate has contributed to the development that a smaller proportion of the Fund is now invested in nominal fixed-income instruments. This development in the allocation

across asset classes reflects a desire to improve the ratio between expected return and risk, where risk is defined as uncertainty about the future development of the Fund's international purchasing power.

Building on the Fund's long time horizon

It is unlikely that the owners of the GPFG will make large withdrawals from the Fund in the short term. The GPFG is a fund for general savings and, in contrast to traditional pension funds, has no specific liabilities. A prudent organisation of the management activities and broad political support for the Fund's overarching strategy mean that the Fund can be managed with a long horizon.

The ability and will to adopt a long-term approach enable the Fund to withstand considerable fluctuations in the returns from year to year. The GPFG's strategy primarily exploits this through an equity portion of 60 percent. The investments in shares are expected to make substantial contributions to return over time, but also result in greater fluctuations in the results of the Fund from year to year.

The long-term approach is also exploited through the ownership of assets which are of limited or varying liquidity. Investments in private real estate are one example of this. See the detailed discussion in chapter 2.3.

The Fund has a rebalancing strategy. The distribution of the benchmark across asset classes and regions reflects a balancing of expected returns and risk in the long term, and the rebalancing rules exploit the Fund's long-term ability to maintain this distribution over time. The rules require new capital to be used to purchase the assets that have produced the lowest returns since the previous injection of capital. The experience of the rebalancing rules, in combination with the decision to increase the Fund's equity portion in the period 2007–2009, has been that a large proportion of the Fund's share purchases have taken place during periods of declining share prices. When the share prices have risen again, the Fund has profited. See also the discussion in section 2.2.6.

Norges Bank's strategic plan for the period 2011–2013 contains several references to the Fund's long investment horizon. The Bank writes that it will give increased emphasis to the Fund's absolute returns in carrying out the management assignment, and that it will seek to improve the ratio between return and risk. The Bank aims to

exploit the Fund's long-term nature, and to make investments where it may take a long time for the underlying values to be realised.

Emphasising the role as a responsible investor

As a State-owned fund, the GPFG emphasises the application of responsible investment practices that take account of good corporate governance and environmental and social factors. This practice is closely linked to the objective of achieving a good return over time, and is considered to be according to international best practice. Moreover, responsible management is a precondition for the Norwegian general public's support for the management of the Fund.

The Fund's role as a responsible investor is expressed, among other things, through the Guidelines for the observation and exclusion of companies that fail to satisfy a minimum ethical standard. In addition, the exercise of ownership and various forms of cooperation with other participants are used to encourage greater alignment between the interests of the companies and those of the GPFG as a long-term investor in many of the world's listed companies.

It is clear from the mandate given by the Ministry to Norges Bank that giving consideration to good corporate governance and environmental and social factors must be integrated into the management of the Fund, and that the Bank is to exercise the Fund's ownership rights on the basis of internationally recognised principles.

Norges Bank's strategic plan is therefore based on the principle that good corporate governance and integration of environmental and social considerations into a company's strategy will be important for the Fund's long-term return. The Bank has defined investor rights, board responsibility, well-functioning markets, climate change, water management and the rights of children as priority areas in the context of the exercise of ownership rights. The Bank has developed a series of documents setting out its expectations of companies in these areas. These are used in dialogue and follow-up with the companies.

A programme has been established for environment-related investments. The reason for this is an expectation that the socio-economic costs and benefits related to climate change may have an impact on the Fund in the long term. For the same reason, since 2008, the Ministry of Finance has participated in an international research project in cooperation with other large investors to gain a better understanding of the risk relating to

different climate scenarios and to discuss the possible consequences of climate change for the Fund's investments. This is discussed in greater detail in chapter 2.2.

In addition, both the Ministry of Finance and Norges Bank participate in various international fora in order to support the development of best practice in the context of responsible investment practice.

Emphasising cost efficiency

The Ministry emphasises cost-effective management. Accordingly, transparent, independent and regular assessments are undertaken of the development in the Bank's management costs. These comparisons generally show that the Bank has relatively low costs.

The combination of economies of scale in asset management and the Fund's significant size should give the Fund a cost advantage over other market participants. In its 2010 annual report on the management of the GPFG, Norges Bank pointed out that it had exploited economies of scale in the personnel and IT sectors, and in agreements with external managers and other external service providers.

In general, the Ministry expects the economies of scale to be even larger in private markets, as a large participant can build up internal expertise and gain access to more cost-effective investment forms. Norges Bank's strategy of investing in property in cooperation with other participants (joint ventures) is one example of the Bank exploiting economies of scale in the management of real estate.

The gradual development of the Fund's strategy since 1998, which has involved several expansions of the Fund's benchmark and changes to Norges Bank's operational management, has meant that management costs have not fallen as much as they would have without these changes. For example, Norges Bank has estimated that the increase in the Fund's equity portion during the period 2007–2009 alone increased the management costs by 0.01 percent per year, as it is more expensive to manage an equity portfolio than a fixed-income portfolio. See the detailed discussion of management costs in section 4.2.1.

The mandate's objective that Norges Bank must seek to achieve the highest possible return after costs is consistent with the wish to exploit economies of scale in the management. At the same time, the objective is not low costs in themselves, but rather high net returns.

Box 2.3 Report on universal ownership

In 2010, the ministry participated in a working group linked to UN PRI, which issued a report on externalities and universal ownership. The report considered the costs of global environmental damage to which the companies in a representative portfolio contribute. Together with analysts from Trucost, UN PRI estimated the costs and assessed how they might reduce the long-term return to investors.

In the report, PRI concluded that the level of such costs is becoming ever greater. The annual environmental cost caused by humans in 2008 was estimated to be USD 6.6 trillion, corresponding to 11 percent of global GDP. UN PRI expects the costs to increase to USD 28.6 trillion (18 percent of global GDP) in 2050.

These are socio-economic costs which are not currently borne by listed companies directly, but which they risk having to pay for at some point in the future. The PRI has estimated that the world's 3,000 largest companies are responsible for one-third of these environmental costs. In 2008, this corresponded to half of the companies' total earnings. The majority of the costs are accounted for by climate emissions and unsustainable use of water resources.

The calculations highlight climate and water management as particularly important areas. In the Ministry's view, this supports the choice of climate and water management as priority areas for Norges Bank's exercise of ownership rights.

In its 2010 report on the management of GPFG, Norges Bank wrote that the size of the Fund had enabled it to exploit economies of scale in asset management, and to implement new investment strategies at a low marginal cost.

A moderate level of active management

Since the Fund is primarily invested in large, well-functioning markets in which new public information is rapidly reflected in prices, the guidelines for the management of the GPFG have been drafted so as to ensure that the risk borne by the Fund over time will primarily be determined by

developments in the benchmark indices set by the Ministry, which are largely representative of developments in the equity and fixed-income markets.

Accordingly, Norges Bank's strategy for the equity portfolio is to manage a large part of the portfolio in developed markets on a market exposure basis. The Bank pursues cost-effective management, with an emphasis on the effective transfer of new capital and rebalancing, the minimisation of unnecessary transactions as a consequence of index changes, and efficient management of company events such as mergers and acquisitions. At the same time, the Bank seeks to use fundamental research of underlying value in individual companies to achieve a higher return than the benchmark.

A clear governance structure

The management of the GPFG is based on a hierarchy in which the Storting, the Ministry of Finance, Norges Bank's executive board, Norges Bank Investment Management, and internal and external managers have different, clearly defined roles. Tasks and authorisations are delegated downwards in the system, while reports on results and risk are made upwards. The GPFG's regulatory, reporting and supervision hierarchies are described in more detail in chapter 5 of this report.

The ministry is of the view that the management of the GPFG should be organised to ensure the greatest possible:

- facilitation of professional, cost-effective management;
- specification of clear guidelines and predictable management framework;
- facilitation of good communication with the public about the management of the Fund;
- alignment of interests between the owner and the manager;
- robustness in the face of future challenges (ever-larger fund, larger ownership in individual companies, possible trend towards illiquid assets presenting greater governance challenges, etc.);
- focus on the Fund's role as an instrument of financial policy; and
- focus on factors that have been important in the international debate concerning sovereign wealth funds, and reflection of what is internationally regarded as best practice.

Establishing and maintaining a management model that takes all of these interests into account

in a good, comprehensive manner is challenging. In the Ministry's view, however, the current model has functioned well overall.

This report discusses several possible adjustments to the Fund's management. Several of these adjustments are motivated by the desire to exploit the size and long investment horizon of the Fund. At the same time, potential investments in new asset classes and new investment styles and management strategies raise the question of what is a sensible delegation of tasks between the ministry as the principal and Norges Bank as the manager.

Balancing the need for broad-based support for the strategy with the need to delegate various investment decisions to managers is therefore a recurring theme in chapter 2.2. Broad-based support for the investment strategy is needed to ensure that the strategy can remain fixed during periods of major turbulence in the asset markets. At the same time, investment decisions which have a stronger focus on exploiting the Fund's special features, and particularly the Fund's long investment horizon, will in many cases have to be delegated to Norges Bank.

In last year's report, the Ministry discussed the degree of active management in the GPFG. The scope of active management and the degree of delegation to the manager are related, but nevertheless separate, issues. The scope of active management is primarily a question of the degree to which discretion is exercised under a given strategy. The question of delegation to Norges Bank in order to make greater use of the special features of the Fund than at present is more a question of how flexible the strategy should be when facing changes in market conditions.

2.2 Perspectives on the further development of the GPFG's strategy

2.2.1 Introduction

The Fund's investment strategy has been developed gradually since 1998, when the Fund's capital was first invested in equities. This has allowed a broad-based support for the Fund's investment strategy to be secured, and experience thus far shows that the strategic choices have been robust during periods of (at times significant) turbulence in the financial markets. The composition of the Fund is similar to the composition of other international funds; see discussion in chapter 2.1. A natural question regarding the future develop-

Box 2.4 Reviews of the GPFG's investment strategy discussed in this report

- Letter from Norges Bank of 6 July 2010 concerning the development of the investment strategy for the Government Pension Fund Global.
- Letter and report from Norges Bank of 18 March 2011 concerning the investment strategy for nominal fixed-income instruments.
- Report by the Strategy Council 2010.
- Report by S. Schaefer and J. Behrens on the Fund's fixed-income investments.
- Report by L. Phalippou on investments in private equity and infrastructure.
- Report by Mercer on the effect of climate change on returns and risk in financial markets.
- Report by L. Sarno on international purchasing power parity and currency risk in the case of the GPFG.

The reports and letters are available at www.government.no/gpf.

ment of the Fund's strategy is whether special characteristics of the Fund can be exploited further to achieve a better ratio between expected return and risk. The experience gained since 1998 shows that it takes time to implement changes to the Fund's strategy. This report discusses possible changes which in many cases lie somewhat into the future, but which it is nevertheless sensible to begin considering now.

In this report, the Ministry presents several external reviews of issues linked to the further development of the Fund's strategy. See box 2.4. Chapter 2.3 considers whether new investments in private markets should be permitted, while chapter 2.4 discusses the Fund's distribution across geographic regions and currencies. A key theme is whether the Fund's long time horizon means that less emphasis should be given to currency risk than previously assumed. Chapter 2.5 discusses various aspects of the management of the Fund's fixed-income portfolio. A key theme is what role the fixed-income portfolio should play in the Fund's investment strategy.

By way of background to the topics covered in chapters 2.3–2.5, some main issues are presented

Box 2.5 Strategy Council 2010

In the 2011 National Budget, the ministry described the establishment of a new Strategy Council comprising four external members tasked with writing a report on the GPFG's long-term investment strategy. The plan is for such external reports to be produced regularly in the future, but both the composition of the Strategy Council and its mandate may vary from time to time.

Emeritus Professor of Finance Elroy Dimson (London Business School) led the Council's work in 2010. The other members were Senior Portfolio Manager Antti Ilmanen (Brevan Howard), Senior Analyst Øystein Stephansen (DnB NOR) and Professor of Finance and Rector Eva Liljebloom (Hanken Svenska Handelshögskolan).

In the mandate for 2010, the Council was asked to provide an overview of the main challenges relating to the Fund's future strategy.

here that relate to the task of developing the strategy further. The analyses are based, among other things, on feedback from Norges Bank and a report by the Strategy Council 2010, both of which have given their views on the main challenges linked to the Fund's future strategy. Norges Bank's letter to the Ministry of Finance of 6 July 2010 was published and discussed in connection with the 2011 National Budget. The report by the Strategy Council was presented at a seminar at the BI Norwegian Business School in november 2010. See also box 2.5.

2.2.2 Looking towards 2020 – projections

A relevant perspective is how the Fund can be expected to look in 10 years' time. At that time, the Fund will be significantly larger than today. At the same time, the transfers to the Fund are expected to be smaller in 10 years' time than the annual transfer from the Fund to finance the oil-corrected structural deficit.

The GPFG has grown from NOK 2 billion in 1996 to almost NOK 3,100 billion at the beginning of 2011. The Fund's growth, along with the increase in the Fund's equity portion in the period 2007–2009, has given the Fund a significant ownership interest in global equity markets. At the beginning of 2011, the size of the Fund's equity

portfolio corresponded to around 1 percent of global equity markets as defined by the index provider FTSE. This figure includes large, medium-sized and small listed companies in all of the 46 foreign markets in the global index.

At the end of 2010, the Fund's lists of holdings showed that the Fund owned shares in more than 8,400 companies. In almost 500 of these companies, the Fund's ownership interest was over 2 percent.

It is difficult to obtain statistics showing how large the Fund's shareholdings are in each company compared with other owners. Based on the available data, Norges Bank has nevertheless estimated that, in relation to the 1,000 largest companies in which the GPFG owns shares, the Fund is among the 10 largest shareholders in around 370 companies and among the 20 largest in around 650 companies.

Looking towards 2020, the Fund's average ownership interests may be expected to continue to grow. It is difficult to estimate what size the Fund's ownership interests may reach, given that the size of the equity market as a whole changes as the value of the currently listed shares changes, and as a result of new companies being listed and others being delisted.

The fact that the ownership interests have grown, and will probably continue to grow, does not change the purpose of the investments. Whether an investment is strategic or financial depends on the objective which the investor has for his/her investments, and on how the investor exploits his/her influence through his/her actions. The GPFG is a financial owner with the clear aim of achieving the highest possible return over time, subject to a moderate level of risk. Increased ownership interests over time do not alter this.

Another feature of the Fund's development is that the transfers to the Fund are expected to account for an ever-smaller proportion of the Fund's total capital. Figure 2.2 shows that the expected net transfer of new capital to the Fund (expected net cash flow from petroleum activities less annual transfers to cover the expected oil-corrected deficit in the state budget), will be negative after 2020. The figure is based on estimations in the 2011 National Budget. See the more detailed discussion of this in chapter 6.

Projections for the Fund show the expected transfers of petroleum revenues falling towards zero around 2020, and that there will be a need in subsequent years for net withdrawals from the Fund to cover the deficit in the state budget. The

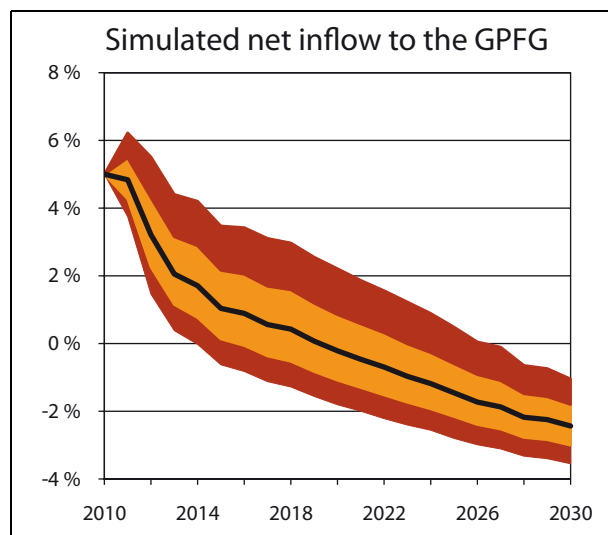


Figure 2.2 Expected net transfers to the GPFG. Share of the Fund's value. Percent.

Source: The Ministry of Finance

expected net payments are nevertheless small. Even in 2030, net withdrawals are expected to be less than 3 percent of the Fund. With an expected real return of 4 percent, the Fund is therefore expected to continue to grow.

All other things being equal, an increased liquidity requirement may make investments with high direct returns in the form of interest payments, maturity, rent and dividends more attractive to the Fund than previously.

The management of the GPFG requires continuous adaptations of the portfolio. Both the maintenance of the portfolio and rebalancing require access to liquid assets. Further, there is a need for liquidity in connection with adaptations following changes made to the Fund's benchmark by the Ministry of Finance. Thus far, the influx of new capital has been used to maintain and rebalance the portfolio.

2.2.3 Total risk

There is no definitive answer to the question of how great or small the GPFG's risk should be. This will depend on the risk tolerance of the owners, represented by the political authorities. The Storting's decision in 2007 to support the ministry's plans gradually to increase the equity portion to 60 percent has helped to define the Fund's acceptable level of risk.

In its report, the Strategy Council 2010 made several recommendations intended to increase the expected return by exploiting the GPFG's dis-

tinctive characteristics. The Council pointed out that the long horizon enables the GPFG to bear short-term losses better than most investors. At the same time, the Strategy Council pointed out that the Fund's equity portion is consistent with those of other large funds when the listed and private equity of these funds are considered together. The simplest way to exploit the GPFG's higher risk tolerance compared with other funds would therefore be to increase the equity portion from the current level of 60 percent. However, the Strategy Council pointed out that the Fund's risk is already concentrated on equity market risk. Accordingly, the Council took the view that a natural next step would be to harvest risk premiums from several sources, as a strategy for accepting additional fund risk.

The Council wrote that the experiences gained during two significant downturns in the equity market, in 2000–2002 and 2008–2009, indicate that the Fund is able to bear a somewhat higher level of risk than at present. At the same time, it was pointed out that the unwillingness to assume risk related to active management, a task which is delegated to Norges Bank, has been higher than the unwillingness to assume other risk, and that this difference in risk-bearing willingness has increased considerably since 2008. The Council was of the opinion that this attitude could result in a failure to exploit the Fund's distinctive characteristics satisfactorily, and potentially a lower return.

As discussed in previous reports to the Storting, the total risk associated with the GPFG's investments will vary over time, even though the strategy is fixed. Historical analyses show, for example, that the fluctuations in the real return on global equity markets were around half as large in the 1960s as during the period 2000–2010.

In addition to the fact that the fluctuations in the return on equities, fixed-income and real estate vary over time, the Fund's total risk comprises different types of risk factors. In its report, the Strategy Council described different types of systematic risk factors, based on historical correlations in the securities markets. Some kinds of risk cannot easily be quantified on the basis of historical return data. Examples of this may include the risk of fluctuations in value in connection with climate change, the effect on capital markets of demographic changes, and the effects of increased globalisation.

This illustrates that it is difficult to sum up the GPFG's risk level as a figure. Nevertheless, the decision that has the greatest effect on the total

risk of the Fund is the choice of equity portion. In the task of developing the Fund's strategy further, attention is not being given to altering the Fund's equity portion. The further development of the investment strategy is thus more a question of what kinds of risk are to be assumed than of whether risk should be increased or reduced.

2.2.4 Exposure to «new» risk factors

As discussed in chapter 2.1, compensation is expected over time for the systematic risk linked to investments. The systematic risk reflects the inherent risk in the economy. Investors are unable to diversify away risk associated with downturns and periods of unrest in financial markets by spreading their investments. This is why compensation for assuming such risk may be expected in the form of higher expected return. Without such compensation, investors would also be unwilling to assume such risk.

An important insight from financial theory is that the expected return on an investment is linked to the contribution made by the investment to the systematic risk of the portfolio, and not to the risk of the security alone. A financial theory developed in the mid-1960s (the capital asset pricing model), assumed that the systematic risk of a security follows from the correlation between the return on the security and the return on the market portfolio. The capital asset pricing model has since been challenged by studies showing that the link between return and risk is more complex.

For example, it has been discovered that, on average, small companies have produced higher average return than large companies, and that companies with relatively low market values relative to key figures like company earnings, dividends and book value («value companies»), appear to produce higher returns over time than other companies. This is illustrated in figure 2.3, which shows positive value and size premiums on average in a number of equity markets. Studies also show that companies that have generated large returns in the previous 3–12 months have had a tendency, on average, also to produce high returns in the subsequent 3–12 months («momentum»).

In the light of these observations, the capital asset pricing model has been expanded to include more risk factors. However, there is no agreement among academics or investors about which factors should be included, or about how stable the factors are. It is always possible that the patterns observed in historical returns are due to coinci-

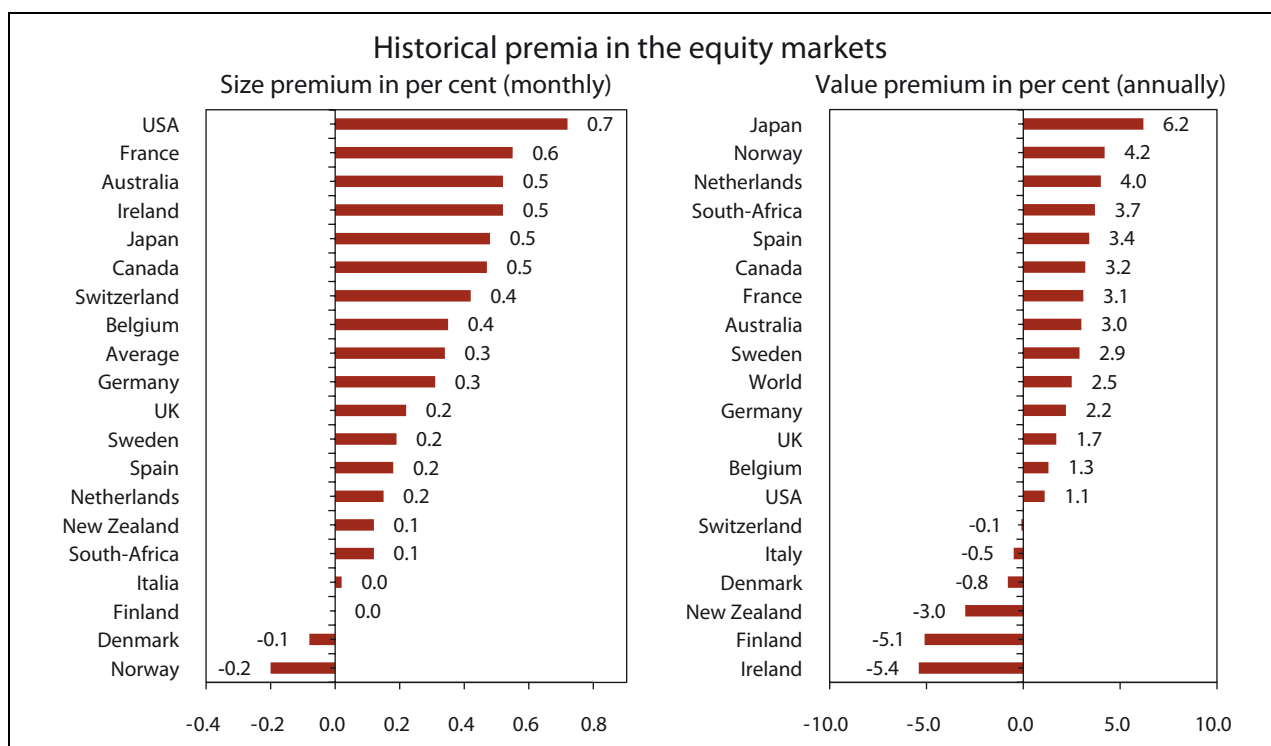


Figure 2.3 Size and value premiums in global equity markets

Size premiums are calculated with various start-up times until 2010, with the longest history for the United States (80 years) and the shortest for Norway (11 years). The size premium is calculated as the difference in percentage points between the returns of small and large companies. Value premiums are the average for all countries for the period 1975–2010, calculated as the difference in percentage points between the returns of value and growth companies. These premiums are not adjusted for transaction or management costs.

Source: Credit Suisse Global Investment Returns Sourcebook (2011), and Elroy Dimson, Paul Marsh and Mike Staunton (2002), *Triumph of the Optimists: 101 Years of Global Investment Returns*, Princeton University Press.

dences, and that the patterns change when investors try to exploit them.

The Strategy Council 2010 has pointed out that the most important rule in financial theory regarding which factors secure compensation for investors in the form of a high expected return is that necessary risk premiums should be particularly large for investments that tend to lose money «when times are bad». «Bad times» means not only downturns in the equity market, but also general economic downturns, financial crises and periods of reduced liquidity in the markets.

Liquidity premiums are characterised by, for example, low, stable earnings during normal periods and large drops in value when times are bad. The issuing of insurance will likewise be characterised by stable earnings during normal periods and large payouts when events occur which have been insured against. A parallel can thus be drawn between harvesting this type of risk premium and insuring against the materialisation of the risk.

The GPFG's long time horizon and solid risk-bearing capability have previously been high-

lighted as signs that the Fund is well-positioned to bear this type of risk.

The Strategy Council has analysed the characteristics of various risk premiums, including the equity risk premium and credit and term premiums in the fixed-income market. The Council has also assessed risk premiums associated with various investment styles, such as «value», size, liquidity and «momentum». The Council has pointed out that exposure to illiquidity and «value», in particular, is natural for a fund with the GPFG's long investment horizon.

The Council has described the expected value premium as the long-term additional return on «value» shares compared to shares with higher relative prices.

With regard to liquidity premiums, the Council wrote that these are difficult to define and measure. Liquidity premiums are the expected compensation for illiquidity as a distinctive characteristic (which reflects turnover costs and ease of sale), as well as a risk-factor premium for the tendency of illiquid assets to perform poorly when

times are bad, for example during financial crises and when equity markets are falling. The Council wrote that liquidity premiums are presumably much higher outside the listed markets, for example in the real estate, infrastructure and private equity sectors.

The Council wrote:

« [...] among strategy styles, a value tilt seems more natural for a long-horizon investor than for one with an average time horizon. Value stocks are ones that have typically experienced price declines and waning investor interest. Given the patient, liquidity-supplying and inherently market-stabilizing nature of value strategies, they potentially fit with the long-term objectives of the Fund. Many equities change their value attributes relatively slowly and (in contrast to, say, momentum trading) the portfolio turnover implicit in a value strategy need not be unacceptably large.»

The Council took the view that increased liquidity risk can be assumed by investing parts of the Fund in less easily realisable assets. The Council pointed out that the Ministry's decision to invest up to 5 percent of the Fund in property is consistent with this recommendation. Investments in infrastructure were also recommended, while the Council was sceptical about whether the Fund could succeed in the market for private equity.

The Council pointed out that value and liquidity factors correlate to a limited degree with equity market return, and that the proposed exposure to more types of risk was therefore expected to ensure a better ratio between the expected return and total fund risk.

The Council was also of the opinion that a study should be undertaken of the expected returns and risks linked to issuing various kinds of insurance, including insurance against financial crises and natural disasters. The risk linked to issuing insurance will seldom materialise, but when it occurs, it is often in conjunction with poor performance by other parts of the portfolio. The Council nevertheless took the view that a long-term investor like the GPFG is well-positioned to collect such insurance premiums.

Since the Fund was established, the Ministry of Finance has sought to spread the risk associated with the GPFG's investments as widely as possible. Increased exposure to risk factors like illiquidity and value, as recommended by the Strategy Council, is consistent with this development.

Already adopted changes will increase the Fund's exposure to factors such as illiquidity and value. The decision to invest up to 5 percent of the portfolio in real estate means that the GPFG will have an increased exposure to private and largely illiquid assets in 2020. At the end of 2010, analyses of the Fund's exposure to various risk factors did not indicate any overweight towards the value factor in the equity management; see the discussion in chapter 4.2. However, Norges Bank's strategic plan for the period to 2013 states that the Bank will aim to exploit the Fund's long-term nature and to make investments where it may take a long time for the underlying values to be realised. In principle, this can result in exposure to the value factor.

Chapter 2.3 discusses investments in several types of private investment. Chapter 2.5 presents the Ministry's work on evaluating different risk factors in the fixed-income market.

Many of the risk factors in question have a «skewed» probability distribution. This means that they generate positive returns during most time periods, but that, at irregular intervals, they may suffer shorter periods of significant negative returns. In general, the GPFG is well-equipped to assume such risk. The Fund has a long time horizon, and can therefore emphasise the expected average returns generated by such investment strategies over longer periods. However, this is conditional upon the successful identification, management and communication of this type of risk.

One characteristic of any new private investments, and of some investment strategies that give exposure to more risk factors, is that the GPFG will be a large participant in a relatively small market. In many cases, it will be difficult to scale up investments so that they make a meaningful contribution to the Fund's overall results over time. At the same time, each new investment increases the complexity of the operational management. Even if the total of many small changes may be expected to make a meaningful contribution to the expected return, it must be weighed against the consideration of the capacity to implement new changes in the long- and short-term.

2.2.5 The structure of the portfolio

In Report to the Storting 10 (2009–2010), the Ministry stated that greater attention should be paid to systematic risk factors in the management of the Fund. This was based on, among other things, the advice of Professors Ang, Goetzmann and Schaefer, who in an evaluation of the GPFG's active management since 1998 recommended that

exposure to systematic risk factors should be included in the Fund's benchmark.

In its letter to the ministry of 6 July 2010, Norges Bank pointed out that exposure to risk factors such as small companies and emerging markets, as well as different types of credit in the fixed-income instrument market, could be included in the Fund's benchmark. With regard to these factors, it would be possible, in the Bank's view, to construct simple, transparent, investable and testable indices. With regard to other risk premiums, the Bank's view was that it would be difficult to identify simple decision parameters. Norges Bank wrote:

«The Ministry of Finance should avoid introducing systematic risk factors to the reference portfolios that weaken transparency and testability, or that increase the transaction volume or that are not investable in practice.»

The Strategy Council 2010 wrote in its report that the observations of more risk factors raise the question of whether it is sensible to replace the current distribution across asset classes (an asset-based approach), with an alternative approach that raises systematic risk factors and investment styles to a central position in the management structure of the Fund (a factor-based approach).

The Strategy Council wrote that this approach may seem sensible based on the development of financial theory, and that it may make it easier to evaluate the active management of the Fund and to improve risk management. At the same time, the Council took the view that adopting a factor-based approach would be demanding, as there are few – if any – factors which are economically meaningful and lasting over time. Moreover, there are no clear criteria for how to measure risk factors, and the size and growth of the Fund can make it difficult to complete significant transactions in parts of the market.

The Strategy Council concluded that a transition from an asset-based to a factor-based approach would be going too far. The Council wrote:

«When weighing the pros and cons of a factor based approach against those of an asset based approach, we believe that the asset based approach is the preferred one.»

The Strategy Council pointed out that continuing to focus on asset classes would not prevent the management of the Fund from taking advantage

of more risk factors and investment styles. It pointed out that the evaluation of returns should ideally take such exposure into account, and that the risk management system should provide a good risk picture. The Council wrote, among other things:

«The analysis of AGS (2009) suggests that more emphasis should be put into measuring the Fund's riskiness using multiple dimensions of risk. We believe that these issues can be addressed adequately within an asset based framework, though portfolio performance analytics will have to be enhanced to embrace multiple risk factors and style trading.»

Some funds that have adopted an asset-based approach have chosen to group financial assets according to the different characteristics of the asset classes. In its letter to the ministry of 6 July 2010, Norges Bank argued for a distinction between investments that provide a certain protection against unexpectedly high inflation, referred to as real assets, and investments without such protection, referred to as nominal assets. Norges Bank wrote that:

«Investments in real estate and infrastructure will secure direct ownership of real assets and an expected return in the form of stable, inflation-adjusted cash flows. The inflation adjustment results from the fact that the current earnings from such investments are often regulated in line with the inflation trend. Increasing the inclusion of this type of real asset in the portfolio should be an objective, as this may help to reduce uncertainty about the development of the Fund's international purchasing power. The increased inclusion of real assets in the portfolio should be accompanied by the reduced inclusion of nominal interest-rate investments.»

In its report, the Strategy Council 2010 pointed out that it is difficult to distinguish clearly between nominal investments and those that secure protection against inflation. The Council wrote:

«It is common in the world of endowment asset management to distinguish between real and nominal assets. Real assets are a claim on productive capacity, typified by ownership of businesses, timber, resources, land, gold, and other tangible assets. Nominal assets provide a monetary cash flow, the value of which is subject to

erosion if there is inflation or currency debasement. Yet if the benchmark is based on asset classes and not on factors, labelling certain assets as real and others as nominal is not necessarily helpful. Notably, labelling equities as real assets and fixed-income instruments as nominal assets does not make them purely so. For example, equity market returns and valuations have surprisingly strong relations with the inflation level. Both deflations and high inflations have coincided with low equity market valuations. To assess the real and nominal components of each asset class, empirical analysis would be required; yet the evidence from existing studies is mixed, and is sensitive to the length of the investment horizon, the historical window that is used, and the statistical methods used by the researcher.»

The Ministry shares the Strategy Council's view that paying greater attention to different risk factors can be implemented without the management of the Fund necessarily being switched from an asset-based approach to a factor-based approach. Reference is made to the discussion in chapter 5 of the changes made to Norges Bank's mandate.

The Ministry also shares Norges Bank's view that the Fund's long-term investment strategy should be based on the characteristics of the different asset classes. At the same time, there is uncertainty about the ability of the different assets to secure the Fund capital against unexpectedly high inflation. Giving emphasis to the distinction between real assets and nominal assets may therefore give a misleading impression of the robustness of the investments when faced with changes in inflation prospects. Nevertheless, inflation is only one of several risk factors relevant to the Fund in the long term. The Ministry will therefore also assess other ways of classifying the investments. Classification into liquid and less liquid assets, and classification according to risk factors with differing sensitivities to «bad times», are possible alternatives.

In any event, grouping the Fund's investments in different ways will not in itself affect the characteristics of the Fund. If the investments in the Fund are to be grouped, the rationale must be to support the strategic work and to ease the communication of fund risk.

2.2.6 Varying risk premiums

The price an investor has to pay for an investment can be defined as the value of the expected future

earnings from the investment. The current value of expected future payouts is referred to as the present value of the investment. The present value of an investment is calculated by discounting future payouts using a given rate of interest. This interest rate reflects the fact that receiving, for example, NOK 100 in one year's time is less valuable than receiving the money today. In addition, the investor will demand a risk premium if future payouts are uncertain. In the above example, the risk premium (and the interest rate), will increase in line with growing uncertainty about whether the investor will actually receive NOK 100 in one year's time. The discounting interest rate in a market will be an expected return.

Some studies of financial markets focus on how new information affects expectations regarding future payouts. Generally speaking, the studies show that new information is quickly incorporated into market prices. This view is also adopted by the Ministry of Finance in its work on the investment strategy; see chapter 2.1.

Other studies focus more on trends in the discount rates than on trends in expected payouts. The background to these studies is that models featuring variable discount rates have proven to be better at explaining actual returns over time and between markets. Variable discount rates are linked to variations in expected risk premiums over time.

There are several possible explanations for why risk premiums appear to vary over time. One possible explanation is that the uncertainty linked to future return varies over time. Another possible explanation is that the willingness of investors to assume risk is low «when times are bad», and high «when times are good», meaning that expected risk premiums are relatively high during bad periods and low during good periods. If the GPFG has an equally large appetite for risk in bad and good periods, this indicates that the Fund can increase expected returns in the long term by varying its investments in risky assets over time, for example by buying more shares during bad periods than during good periods. A strategy of this kind would be counter-cyclical, in contrast to a cyclical strategy, which would involve buying more shares during good periods and fewer shares during bad periods.

In its report, the Strategy Council pointed out that the current strategy for rebalancing the Fund means that the Fund is «counter-cyclical» to a certain degree. When the equity market declines, new transfers of petroleum revenues are used to buy shares. When the equity market performs

well, a greater proportion of new capital is invested in the fixed-income market.

The Council took the view that the Fund's long investment horizon support a stronger degree of «counter-cyclical» investment, and that the Fund's long-term nature could constitute an advantage over other participants. The Council recommended undertaking a study of what the expected return and risk would be for this type of activity. However, the Council also pointed out that few others have succeeded with such activities over time, and that the result could be an increase in both costs and risk.

In its letter to the ministry of 18 March 2011 regarding the Fund's fixed-income investment strategy, Norges Bank wrote that it intended to establish an operational benchmark portfolio within the current framework for active management. One of the objectives for doing so is to facilitate the exploitation of time-varying risk premiums in order to increase the Fund's returns. The letter from Norges Bank is discussed in more detail in chapter 2.5.

The Ministry is proceeding on the basis that plans for material changes to the Fund's strategic benchmark should be submitted to the Storting before implementation. This decision-making process is time-consuming, and less suitable in the case of medium-sized or medium-term changes to the composition of the Fund, as discussed by the Strategy Council in its report. It has also been assumed that the size of the Fund makes it difficult to implement major changes in the Fund's composition without the Fund incurring significant costs due to effects on the market. Changes to the Fund's overarching investment strategy have therefore not been based on the expectation that it is possible to identify in advance the times at which markets or market segments will subsequently appear «cheap» or «expensive».

At the same time, the Ministry has had in place guidelines for rebalancing the Fund's investments that prevent heterogeneous developments in assets classes and geographic regions from causing the composition of the Fund to deviate materially from the strategic weights. Rebalancing has counteracted a reduction in the equity portion during periods following equity market declines and an increase in the equity portion following periods of rising share prices. In practice, this has resulted in the GPFG systematically purchasing assets when prices have fallen, and selling when prices have risen. This gives higher expected return over time.

The Ministry shares the Strategy Council's view that a more counter-cyclical strategy may be a means of exploiting the Fund's advantages. It is natural to consider, as a first step, whether the current, rule-based rebalancing can be developed further, and perhaps be applied to other areas. In addition, Norges Bank will already be able to seek to exploit variations in expected return within the current active-management framework.

2.2.7 The degree of delegation

In its letter to the ministry of 6 July 2010, Norges Bank indicated that the Ministry should, over time, grant Norges Bank greater discretionary freedom. This is, to some degree, connected to the proposal to increase investments in private assets, for which no benchmark can be defined which represents a starting point for the composition of the actual portfolio, as is possible for equities and fixed-income.

The Strategy Council has pointed out that further development of the strategy towards exposure to multiple risk factors, increased investment in private markets, and a more counter-cyclical strategy introduces new challenges relating to the governance of the Fund. The Council has taken the view that greater transparency and more information about the Fund's risk will be important, and that a development towards more detailed reporting is to be preferred over a series of new restrictions in Norges Bank's mandate.

The Strategy Council has stated that the current division of labour between the ministry and Norges Bank is commendably clear, but that a decision-making vacuum arises when there is a need for changes to the Fund's composition as a result of a desire to increase or reduce risk in special situations. The Council has argued that the current management system is not adapted to such adjustments, and that an advisory investment committee (Investment Advisory Board), could be a possible solution in this regard. The Council wrote:

«As one specific task, the IAB could regularly judge whether to accept or overrule the asset allocation weights a contrarian rebalancing regime would imply. This board might include members of the Ministry's asset management department, members from NBIM, Norges Bank or its board, and experts with relevant academic or market experience.»

The Council wrote that what it views as a decision-making vacuum may be the result of the fact that the management of the GPFG is divided between two institutions, where the ministry is the principal and Norges Bank is the agent. The Strategy Council pointed out that the management of other state-owned investment funds, such as GIC in Singapore and the New Zealand Superannuation Fund, are organised such that one institution is responsible for both the long-term strategy and operational management.

Both Norges Bank's letter and the report of the Strategy Council argue that a wider exploitation of the Fund's distinctive characteristics is conditional on greater delegation to Norges Bank of investment decisions that affect the Fund's overall composition and results. The proposals regarding investments in less liquid assets and greater time-varying exposure to markets and market segments are conditional on managers being given greater authority to make investment decisions that can affect the Fund's total risk and return.

The question of the degree of delegation from the ministry to Norges Bank was discussed in Report to the Storting 10 (2009–2010), which pointed out that, thus far, the degree of delegation in the GPFG had been small compared with other international funds. Most comparable funds have investment mandates that task managers with maximising revenue within more or less defined risk boundaries, albeit without providing, for example, clear instructions for the distribution of the investments among different asset classes, or precise specification of benchmarks. State-owned reserve or pension funds are often subject to a requirement regarding the real return over time. The owners of the capital in these funds have thus, to a much greater degree than in the GPFG's case, delegated the definition of the investment strategy to the managers.

However, the experience gained during the financial crisis underlines the importance of ensuring that there is solid political support for decisions about the total risk of the Fund, and that there is broad-based support for the long-term strategy of the Fund.

The rules for the management of the GPFG should reflect an overall strategy in line with the preferences of the political authorities. For some asset classes and strategies, such as real estate and any counter-cyclical strategies, there will be no investable benchmarks. It will therefore be impossible to distinguish between the overarching strategic choices and the decisions relating to

operational implementation in the same manner as for listed equities and fixed-income instruments. Such investments require a different division of labour between the principal and the manager, with a greater degree of delegation. At the same time, increased delegation may make it more difficult to secure political support for the Fund's strategy in the same way as for the choice of equity portion. In that case, the Fund's ability to maintain the long-term strategy during periods of unrest may be reduced.

In the Ministry's view, the recommendation of the Strategy Council regarding an investment committee could result in unclear divisions of responsibility. For example, it is difficult to see how responsibility could be delimited between a committee of this kind and Norges Bank's executive board. If the individuals from the Ministry were to be representatives on a committee that advises the Ministry of Finance, this would create confusion as to the Ministry's role.

Moreover, experience has shown that the long-term investment strategy and the Bank's active management to a varying degree have been solidly anchored politically. Correspondingly, it may be difficult to secure broad-based political support for the decisions taken by an investment committee. The Ministry will therefore not consider this alternative further.

2.2.8 Report on the effects of climate change on the capital markets

In the autumn of 2009, the Ministry engaged the consultancy company Mercer to conduct a study of the long-term consequences of climate change for global asset markets and the GPFG's portfolio. Thirteen other large institutional investors in Europe, North America, Asia and Australia joined the project.

Mercer cooperated closely with the Grantham Research Institute on Climate Change and the Environment at the London School of Economics. (The institute is chaired by Professor Lord Stern, author of the Stern report.) Other cooperation partners included the International Finance Corporation in Washington D.C. (associated with the World Bank), the company Carbon Trust in London, and a selection of experts on environmental economics from, among others, the private sector and academia.

The report on the consequences for global asset markets was published in London on 15 February 2011. As part of the project, Mercer is continuing to work on more tailored reports for each

fund. The tailored GPFG report is expected to be available later this year.

The report analyses how climate change and the response of the authorities to climatic changes may affect returns on the global asset markets during the period to 2030. The report is based on the Stern report's analyses regarding how climate change may affect the development of global GDP.

The analysis is based on four different climate-change scenarios and the reactions of the authorities to these.

The scenarios range from «Stern Action», in which all states introduce effective, coordinated measures to counter emissions, to «Climate Breakdown», in which global warming increases without political intervention by the authorities. Two intermediate scenarios are «Regional Divergence», in which only some states introduce effective measures to counter emissions, and «Delayed Action», which is characterised by few political measures in the first 10 years but drastic, global measures during the next 10-year period as a result of accelerating global warming.

The report concludes that, in all scenarios, the expected macroeconomic consequences of climate change are small during the period to 2030. This also reflects the main results of the Stern report.

Mercer then identifies three underlying factors which represent investor risk in all four scenarios: technological restructuring («T»), physical damage caused by global warming («I» for «impacts») and policy measures («P», primarily carbon pricing).

Mercer takes the view that these risk factors will gradually be priced into the capital market, in the same way as more traditional risk factors like the term premium and the equity risk premium. If true, it is reasonable to assume that different asset classes will have different exposure to these factors. Against this backdrop, Mercer conducted an analysis of how climate change may affect various investments. Figure 2.4 sums up the results for the broad assets classes in which the GPFG has invested.

In short, Mercer concluded that the global equity market appears to have low sensitivity to the TIP factors, although the «Delayed Action» scenario appears weakly negative, particularly due to unpredictable and dramatic shifts in climate policy, while the «Stern Action» scenario is weakly positive, primarily due to technological breakthroughs. Emerging equity markets are somewhat more sensitive to the TIP factors than markets in industrialised countries.

In analyses of different sectors, investments in climate-friendly technology appear, naturally enough, to be extremely sensitive. All of the scenarios except for «Climate Breakdown» are positive for this sector.

In general, it appears that the global fixed-income market has low sensitivity to the TIP factors, although corporate bonds, like shares, would be subject to a weak negative effect in the «Delayed Action» scenario and a weak positive effect in the «Stern Action» scenario. Emerging markets are again an exception, featuring moderate vulnerability in the various scenarios regarding developments in the period to 2030.

The real estate market is sensitive to the TIP factors. The primary reason for this is that property investments are sensitive to unpredictable policy measures, such as changes in public regulations relating to, for example, energy efficiency.

Infrastructure investments are also sensitive to the TIP factors, in the same way as the property market. Infrastructure in the renewable-energy sector is particularly sensitive, and is affected positively in all of the scenarios, with the exception of the «Climate Breakdown» scenario, which is negative.

The report pointed out that there may be regional differences. Investments in different countries and regions may be more or less sensitive.

A recurring theme in the report is that global warming will lead to increased uncertainty about expected return. The report recommended that investors track the development of this systematic risk closely, take it into account in determining asset allocations and, if relevant, increase exposure to certain asset classes which may benefit from the TIP factors and/or protect against downside risk. Moreover, the report recommended dialogue with the authorities, companies and managers in order to lessen uncertainty in the long run, if possible.

The report analysed the effects of climate change in the long term. It provides no basis for believing that climate change will have dramatic effects on growth in the global economy or inflation in the period to 2030. The expected effects on returns on the global asset markets also appear moderate for this timeframe. These results must be regarded in the light of the fact that the economic effects of climate change are expected to be greatest in the period after 2050. In principle, analyses with a longer timeframe could be useful. However, great uncertainty is naturally associated with developments so far ahead.

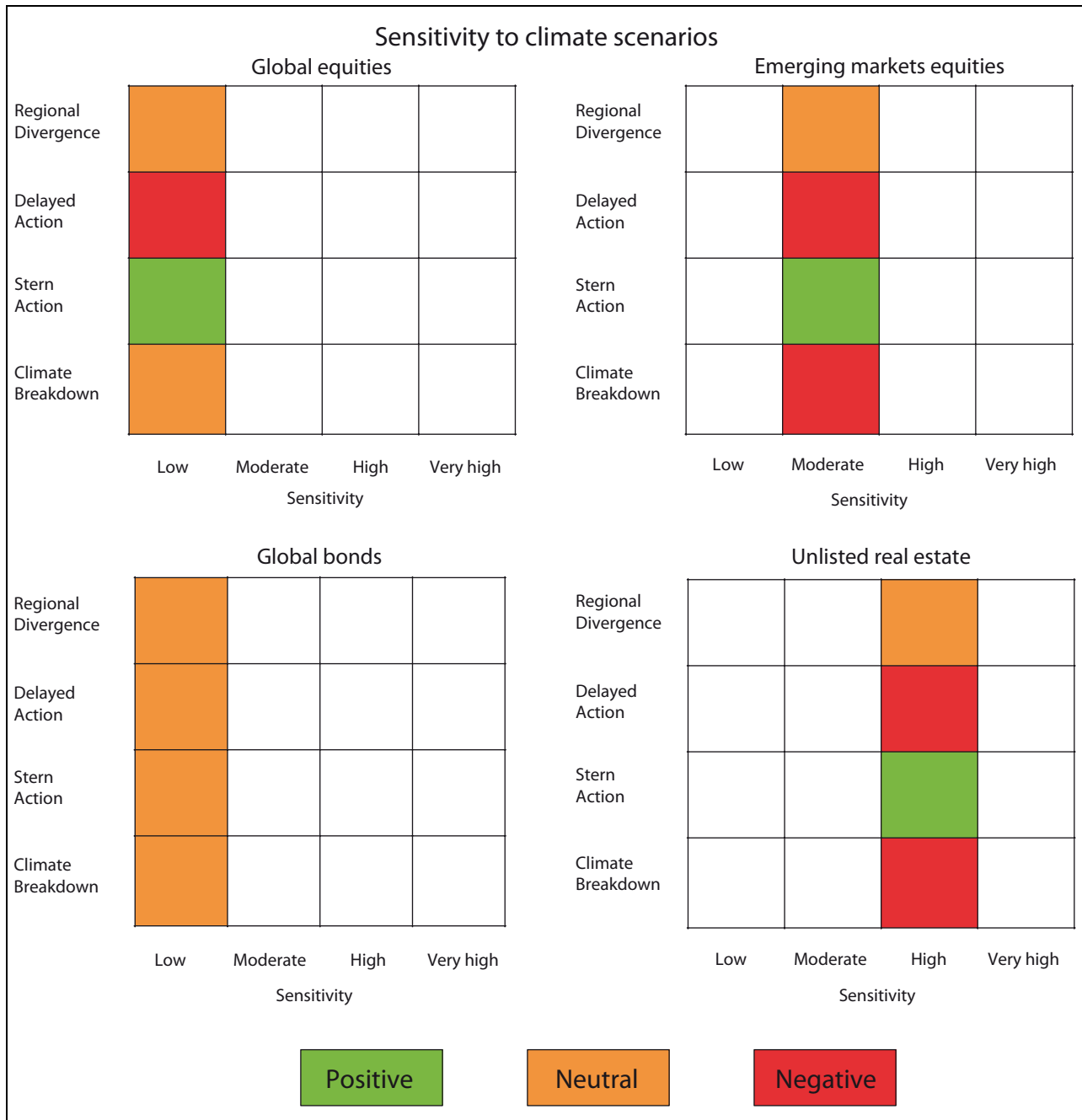


Figure 2.4 Calculated sensitivity to various climate scenarios

Source: Mercer (2011)

The Mercer report pointed out that the climate risk of a portfolio can be reduced by increasing certain types of investment, including in real estate. For a large fund like the GPF, it would be impossible to invest large parts of the Fund in these parts of the market, which are relatively small in relation to the markets in which the Fund invests otherwise.

This is the first time that large institutional investors have come together to analyse the long-term consequences of climate change on global

capital markets. In the Ministry’s view, the report is useful, as it systematically analyses a topic which may be important for the Fund in the long term. The Ministry will study Mercer’s report closely, but its preliminary conclusion is that the report on its own does not indicate a need for material changes in the GPF’s investment strategy in the next few years.

The report pointed out that climate change is a risk that all long-term investors should take into account when formulating their investment strate-

gies. In the years ahead, the Ministry will continue to focus on climate risk and other structural risk factors which may affect the GPFG's expected return and risk. The international cooperation on which this report is based may provide a good starting point for future studies. The Ministry will also submit to the Storting an evaluation of the separate Mercer report on the climate risk associated with the GPFG's investments, which is expected to be available later this year.

2.3 Private investments

2.3.1 Introduction

Private investments are investments in assets that are not traded in regulated markets. Such assets represent a significant proportion of value creation in the economy. In recent years, institutional investors have increased their exposure to asset classes other than listed equities and fixed-income instruments, such as property, private equity and infrastructure. CEM Benchmarking has developed a comparison group for SPU, consisting of 19 of the world's largest pension funds. At the end of 2009, the average strategic allocation to asset classes other than listed equities and fixed-income instruments was 16 percent of total capital. The highest allocations were made to private property, private equity and infrastructure, which respectively totalled 6 percent, 5 percent and 2 percent of total capital. By expanding the range of investments to include such alternative assets, investors wish to improve the trade off between expected returns and risk.

In the markets for listed assets, which are characterised by low transaction costs and high liquidity, efficient competition will normally ensure that all relevant information is rapidly reflected in asset prices. In such well-functioning (efficient) markets, it will normally be extremely difficult for investors to establish advantages. As in listed markets, the large private markets, like property, private equity and infrastructure, will also be characterized by a high degree of competition, but more resources will have to be expended to collect investment-related information, make the investments and manage them. These factors make private investments challenging, but at the same time provide a better basis for investors to build up advantages that during certain periods that can improve the trade off between risk and returns.

There are no investable benchmarks in the markets for private investments, making it impos-

sible to conduct passive benchmark management. The operational challenges mean that many institutional investors use external managers, primarily fund-like structures. One challenge associated with such management is establishing manager contracts that ensure that the investor's and the manager's interests are as aligned as possible. A key element is the distribution of profits between the manager and the investor. In general, the investor contributes only with long-term capital, while the profits are generated by the fund manager. The challenge for the investor is to secure adequate compensation for the risk and a share of any additional profits. The distribution will depend on the balance of power between the parties, which among other things is influenced by the supply of and demand for such management services and the market's return requirements for long-term capital. Historical return figures for private equity funds indicate that the average manager has received too large a share of the profits, meaning that investors have not been sufficiently compensated for the risk associated with their investments.

Analyses of private investments seems to indicate that large institutional investors may be more suited to developing advantages that secure lower costs and higher returns than small investors. Larger funds appear to have better opportunities to follow up on and assess fund managers, and therefore invest in better funds. Large funds also appear to have more internal management, which is considerably cheaper than external management, and at the same time to pay lower fees to external managers. These economies of scale also apply in the case of listed investments, but since private investments are normally associated with higher management costs, they are of much greater significance in relation to net returns on private investments. Even though significant economies of scale exist, several markets have capacity limitations that limit the potential for large investors to exploit these economies of scale.

Private markets are characterised by high transaction costs and low liquidity. This means that investors will expect compensation in the form of a liquidity premium. As liquidity in private markets varies over time, uncertainty is created about future transaction costs. Liquidity also affects the price level of assets, and liquidity changes may therefore affect pricing. Both of these matters comprise additional risk for investors. Activity levels and prices in private markets will also be linked to access to and the price of

credit, as investments in property, infrastructure and by buyout funds are often made with the use of a significant leverage. Varying liquidity conditions in the credit markets may therefore create fluctuations in the value of such assets. Investors with long investment horizons, a substantial capacity for holding on to investments with low liquidity, and low management costs may be well suited to reaping such a liquidity premium.

A general problem in evaluations of the markets for private investments is that access to historical return figures is limited. This can make it difficult to draw robust conclusions about expected returns and risk.

2.3.2 Real estate investments

SPU's first private real estate investment was signed on 13 January 2011, and will give the Fund 25 percent of the revenues from The Crown Estate's portfolio of properties in Regent Street in London. This real estate investment is discussed in more detail in Norges Bank's 2010 annual report on the management of SPU.

The ministry laid down guidelines for investment in real estate on 1 March 2010; see Report to the Storting 10 (2009–2010). The guidelines have subsequently been incorporated into the overall mandate of Norges Bank which came into force on 1 January 2011; see discussion in chapter 5.

The mandate specifies that Norges Bank is to invest up to 5 percent of SPU's capital in a separate real estate portfolio, to be achieved by reducing investments in the bond portfolio correspondingly. As described in Report to the Storting 10 (2009–2010), building up a real estate portfolio amounting to 5 percent of the Fund's capital is expected to take several years. In addition, the portfolio is expected to be concentrated on a few selected real estate markets initially.

Uncertainty about legal and tax-related matters means that investments in the real estate portfolio have so far been limited to countries in Europe. Both the Ministry and Norges Bank are working to clarify tax-related and legal matters in Asia, Oceania and America. The Ministry aims to expand the strategic distribution of countries as new countries are deemed appropriate for inclusion.

Norges Bank will face higher management costs in connection with the real estate investments than in connection with the Fund's listed investments. This is because managing private investments generally requires more resources than managing listed investments. The manage-

ment costs will also be affected by Norges Bank's initial focus on building up expertise and systems for making large investments in future. Real estate investments also involve significant transaction costs.

Cost figures from CEM Benchmarking show that the management costs associated with real estate investment by comparable institutional investors vary greatly, from 0.04 percent to 2.7 percent of managed capital. Several factors influence the cost level. For example, external management through real estate funds is considerably more expensive than internal management. Figures from CEM Benchmarking also show that large funds employ more cost-effective management than smaller funds. However, the management costs cannot be assessed independently of the management strategy, as the choice of management strategy will be significant for the expected return. The Ministry will base its evaluation of the real estate results on both cost and returns data for comparable funds. The rules for the real estate portfolio permit Norges Bank to invest in real estate using different instruments and company structures. Norges Bank's choice may vary from country to country, and from investment to investment, and will depend, among other things, on legal and tax-related factors.

Like SPU, many international institutional investors, like pension funds and insurance companies, are exempt from tax in their home countries. In order for the institutional investors to be able to enjoy this benefit, private real estate funds and companies are often established in jurisdictions with tax regimes that allow most of the profits to be taxable in the investors' home countries; see Report to the Storting no. 16 (2007–2008). For example, to secure legal and tax-related benefits, Norges Bank has established subsidiaries in England for the real estate investment in Regent Street. In the case of real estate investments in Europe, it is also common practice to set up company structures in countries other than those in which the properties lie. Luxembourg is one example of a country in which many real estate investors establish subsidiaries. As discussed in Report to the Storting 10 (2009–2010), the Ministry's property investment guidelines require private companies and funds to be established in an OECD country, in a country with which Norway has concluded a tax treaty, or in some other country from which Norway can request tax information pursuant to some other international agreement.

2.3.3 Private equity and infrastructure

Introduction

After property, private equity and infrastructure investments are the largest private asset classes. Both comparisons with other funds and SPU's long time horizon and size make it natural to consider including such investments in the Fund.

Institutional investors have primarily invested in private equity to increase the return beyond the return achievable on investments in listed shares. Investors expect higher returns as compensation for the low liquidity, uncertain cash flow and long time horizon associated with such investments. Moreover, several investors believe that they have special advantages in the management of private equity, and that they are able to exploit these to improve returns. Several of these factors are also emphasised in the case of infrastructure investments, but infrastructure is often assumed also to have diversification properties and a more stable cash flow, which can offer opportunities for protection against inflation.

Most large institutional funds invest in private equity through fund-like structures. Private equity funds can be roughly divided into two main categories: venture capital funds, which invest in relatively new businesses with a potential for rapid growth, and buyout funds, which purchase control of companies in order to restructure them and improve earnings. Buyout funds normally have a high level of debt on their company investments, to increase the profit potential. Such investments in individual companies are highly resource-intensive, and most comparable investors invest in private equity through fund-like structures. In such a model, it is the fund manager who is responsible for investment choices and the follow-up of the company investments. The fund managers will charge the investors fees. The returns achieved by the fund manager can vary considerably, meaning that the choice of fund manager is particularly important for an investor's return. Buyout funds account for a larger share of the total market for private equity than private equity funds.

Corresponding fund structures are also commonly used for investments in infrastructure projects, such as electricity, gas and water supply, toll-financed roads, airports and telecommunications. Several factors, including high costs and high debt levels, are therefore common to both private equity and infrastructure. However, investments in mature infrastructure projects may have several similarities with property management. Some large investors with experience of investment in property

have begun investing in infrastructure using more cost-effective structures, such as direct investment. One difference between investments in property and investments in infrastructure is that it is more common for a public authority to be the counterparty in an infrastructure investment; another is that there is greater exposure to regulatory risk. Large investment needs in the infrastructure sector, combined with weak public finances in many countries, implies that the need for private sector financing is expected to grow in the years ahead. The market for equity financing by long-term financial investors has been small to date, but is expected to grow in future.

External advice

The Ministry has received three recommendations regarding private investments.

Norges Bank set out its assessments in its letter to the Ministry of 6 July 2010, which was discussed in and included as an annex to the 2011 National Budget. Norges Bank has recommended permitting investments in private equity and infrastructure. Norges Bank wrote that investments in private equity and infrastructure mean that we exploit the Fund's distinctive characteristics like a large, long-term investor without ongoing liquidity needs.

Norges Bank recommended that investments in private equity should not be regarded as a separate strategic allocation, but rather that investments in private equity should be included in the range of options available in the operational management of the Fund's equity investments and be managed by means of a framework in Norges Bank's investment mandate.

The Bank pointed out that it is uncertain whether investments in private equity have, on average, achieved a higher return than listed shares. In Norges Bank's view, the Bank will be able to build up an organisation that over time has the expertise needed to identify and gain access to investments with the best managers. Norges Bank wrote that the Bank would then also be able to invest together with selected managers, thereby increasing the potential for returns.

At the Ministry's request, the SPU Strategy Council prepared a report on the long-term strategy for SPU's investments. The report, which was presented on 26 October 2010, pointed out that comparable funds have considerable private investments, for example in infrastructure and private equity. In the Council's opinion, a certain exposure to infrastructure could be useful, but it

had reservations about private equity. In particular, it pointed out that the high external fees associated with investments in private equity might make it difficult for SPU to achieve an acceptable return after costs.

In addition, the Ministry engaged Ludovic Phalippou, a researcher at the University of Oxford, to prepare a report on investments in private equity funds. The base data for such analyses is limited, and has several weaknesses. Nevertheless, the data which underpin the assessments in Mr Phalippou's report must be regarded as the best available data on this type of investment. The report showed that private equity has not produced greater returns than listed shares, after costs. At the same time, investments in private equity have involved a higher risk than the equity market. Analyses of the returns of funds before fees indicate that there is strong competition in the markets in which private funds invest, and that the funds' total investments have not produced a higher return than a share portfolio with a corresponding risk profile.

The report pointed out that investors face significant costs when investing in private equity, primarily in the form of high fees paid to fund managers. One weakness of the market's established practice is that the fees paid to fund managers are not sufficiently linked to the performance of the funds relative to return in the overall equity market. The report pointed out that the high fees are disproportionate to the average returns achieved by the funds over and above the general return on the equity market.

Further, the report pointed out that large, long-term investors can achieve significant advantages in the management of private equity. Large investors that have built up expertise in this type of management have better access to information about the funds, and secure better terms. They therefore generally invest in funds that produce higher returns, and have lower costs than the average investor. The report also pointed out that a long-term investor like SPU may have opportunities to increase returns by increasing the allocation to private equity during periods in which future returns are expected to be high. Historically, such periods has occurred when funds access to capital from investors have been restricted. The secondary market for fund units may also offer good investment opportunities, particularly during periods of unrest in the financial markets. However, large investors face capacity limitations, primarily related to the availability of good funds.

Private equity funds are often strategic owners, with control over the businesses in which they invest. The report by Phalippou highlighted that the exercise of strategic ownership often exposes private equity funds to public criticism, even though academic studies find little support for suggestions that they manage their investments in a manner that is actually unfortunate for or damaging to society. Despite the fact that investors in such funds normally have no influence over the management of the Funds, SPU's reputational risk may increase if it were to be associated with fund managers' exercise of ownership.

The reports of the Strategy Council 2010 and Ludovic Phalippou have been published on the Ministry's website (www.government.no/gpf).

The Ministry's assessments

Investments in private equity are associated with higher risk than listed shares, and should therefore generate a higher return. Historical return figures indicate that this has not been the case. Very high external management costs are one important reason for this. Even if SPU could achieve profit and cost advantages compared to smaller investors, the high cost level associated with this type of investment means that it is still uncertain whether the risk-adjusted return after costs would be satisfactory.

There are no return figures for infrastructure investments which are suitable for historical analyses. The investments have primarily been made via private equity funds. Various factors, such as high costs and high debt levels, are therefore common to both private equity and infrastructure. However, the infrastructure market is developing, and some large institutional investors have begun investing through more cost-effective investment forms. Such investments have clear similarities with direct investment in private property.

Private investments are challenging, and require different expertise to investments in listed equities and fixed-income instruments. Such investments will require a larger and more complex management organisation. The Ministry and Norges Bank are now, for the first time, building up expertise on investments in the largest and most developed private market, the real estate market. In the Ministry's view, it is desirable to gain experience in this market first. The Ministry is therefore not planning to permit investment in private equity and infrastructure at this time.

Given SPU's distinctive characteristics, it will be natural to return to the question of private

equity and infrastructure later. 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.

2.4 Geographic distribution and exchange rate risk

SPU's investments have a fixed distribution across three regions: Europe, America/Africa and Asia/Oceania. In each region, the investments are primarily distributed among countries according to the relative sizes of the securities markets. The Fund's geographic distribution implicitly determines the Fund's currency distribution. The regional weights are, respectively, 50, 35 and 15 percent for equities and 60, 35 and 5 percent for fixed-income instruments. In other words, more than half of the Fund's capital is invested in Europe. The regional weights are the result of weighing up several considerations. One important purpose of the high European proportion has been to reduce the Fund's exchange rate risk.

2.4.1 Imports and exchange rate risk

SPU's capital reflects state saving. At the same time, this capital is an important instrument of national saving. The allocations to the Fund are approximately in line with Norway's export surplus resulting from the production of oil and gas. In a national perspective, the Fund's role is to save this surplus to finance future purchases of goods and services which are produced internationally, i.e. future imports. Accordingly, the aim for the Fund's investment strategy is to maximise the Fund's international purchasing power subject to a moderate level of risk.

The goods and services which Norway will import in the future may have a different distribution between countries and currencies than the Fund capital. Changes to international exchange rates will therefore affect how many goods and services can be purchased with this capital. Key questions for the formulation of the investment strategy are to what extent the Fund's international purchasing power is exposed to such exchange rate risk and, if it is, how the exchange rate risk should best be dealt with.

In order to assess SPU's exchange rate risk from a national perspective, it is necessary to know the origin of the goods and services Norway imports. Norway imports a wide range of goods and services from a large number of countries worldwide. However, experience shows that a large proportion comes from countries in the immediate vicinity of the Nordic region, and from Europe in general. As Norway imports most from Europe, it has been natural to think that Norway can protect the Fund's purchasing power against exchange rate fluctuations by also investing most in European securities markets. This is reflected in the current regional weights.

The future composition of imports to Norway depends on many factors, including developments in the international division of labour. It is difficult to estimate these developments precisely. It nevertheless seems reasonable to assume that Norway will in the future continue to import on a large scale from European countries, while an increasing proportion of imports is likely to come from emerging economies. Norway's future trade pattern is discussed in more detail in box 2.6.

2.4.2 International purchasing power parity

Exchange rates fluctuate significantly in the short term, and often in a manner that may appear random. Over time, however, there are some patterns. The Fund's long horizon and regular withdrawals under the fiscal policy guideline mean that it is the long-term currency trend that will be most significant for the Fund's total international purchasing power. In order to assess the Fund's exchange rate risk, therefore, it is necessary to study rate trends over time.

Research indicates the existence of stable, long-term equilibrium levels which rates tend towards. Long-term equilibrium rates are characterised by a situation in which a broad set of internationally traded goods costs the same when converted to a common currency, regardless of the country in which the goods are manufactured and the currency in which the goods are initially priced. This is referred to as international purchasing power parity. If goods cost the same in any event, it is irrelevant where the goods are bought, and there is thus no exchange rate risk. The size of the deviations from international purchasing power parity, and how long they last, are therefore key questions in assessing the Fund's exchange rate risk.

Figure 2.7 shows the real exchange rate between the British pound and the US dollar (i.e. the

Box 2.6 Norway's future trade pattern

Figure 2.5.A shows imports of traditional goods to Norway, distributed among the largest countries and currency areas (the Euro area), in the period 1980 to present. The figure shows that around 35 to 40 percent of imports come from countries which are now part of the Euro area. Some 20 percent of imports come from Sweden and Denmark, while a little over 5 percent come from the United Kingdom. The total European proportion has been relatively stable throughout the period, at around 70 percent.

Figure 2.5.A, which shows the historical composition of imports, may also provide an indication of the composition of future imports to Norway. However, estimates based on historical imports must be interpreted with caution:

- SPU's investments are made with a very long time horizon. Accordingly, it is primarily Norway's long-term import pattern which is relevant in the assessment of the Fund's cur-

rency risk. In the long term, the international division of labour is likely to alter significantly, and the composition of future imports is therefore not obvious. One example of this is China's entry into global trade. During the last 10 years, China's share of imports has increased from 3 percent to 8 percent. This reflects the strong growth in China's share of the world's total gross products; see figure 2.6. Considerable uncertainty attaches to the question of which individual countries will in fact succeed in achieving lasting higher growth, and to what degree they will be integrated into the international exchange of goods. There are nevertheless grounds for expecting emerging economies as a group to experience higher economic growth than developed economies in the years ahead, and thus over time also to account for a growing share of Norwegian imports.

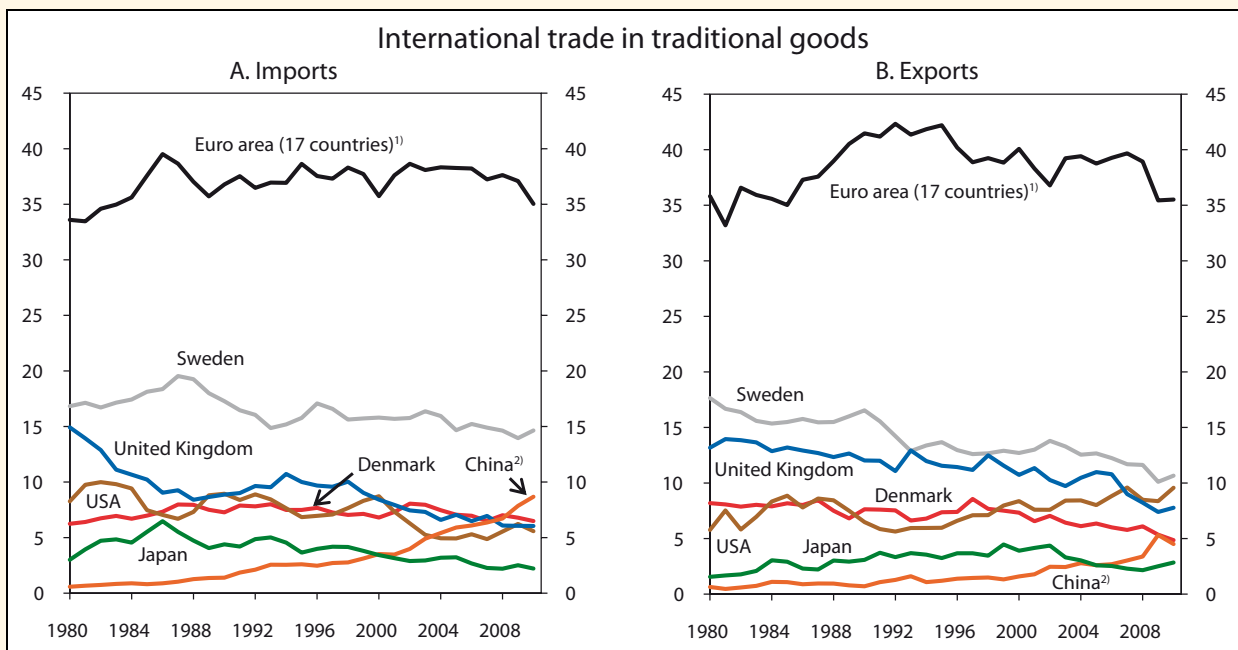


Figure 2.5 Trade with traditional goods to and from Norway, distributed among the largest countries and currency areas. Share in percent

¹⁾ Figures for Estonia and Slovenia are not available for years prior to 1992. Figures for Slovakia are not available for years prior to 1993.

²⁾ Includes Hong Kong.

Source: Statistics Norway

Box 2.6 (cont.)

- In foreign-trade statistics, the country of origin is the country in which a good is manufactured or is given its present form. However, many goods which are completed in Europe incorporate a significant number of factor inputs manufactured in other parts of the world. Norway's geographic location means that countries in Europe are a natural stop along the way for many goods. The statistics may therefore easily give the impression that Norway's imports are manufactured in Europe to a greater degree than is actually the case, and thus lead to an over-estimation of the exchange rate risk associated with Europe. Research results indicate that this over-estimation may amount to as much as 50 percent in relation to imports from Sweden and Denmark, and 20 percent in relation to imports from Germany.
- In the long term, the capital in the GPFG will finance a persistent deficit in Norway's foreign-trade current balance. The import of traditional goods is one important component of the current balance, and exports are another. In principle, it could be desirable to estimate the currency composition of future net imports, i.e. imports minus exports. Figure 2.5.B shows that the distribution of exports of traditional goods from Norway is roughly similar to the distribution of imports. Net

imports are therefore the difference between two roughly equal large numbers, and this increases the uncertainty of the estimates.

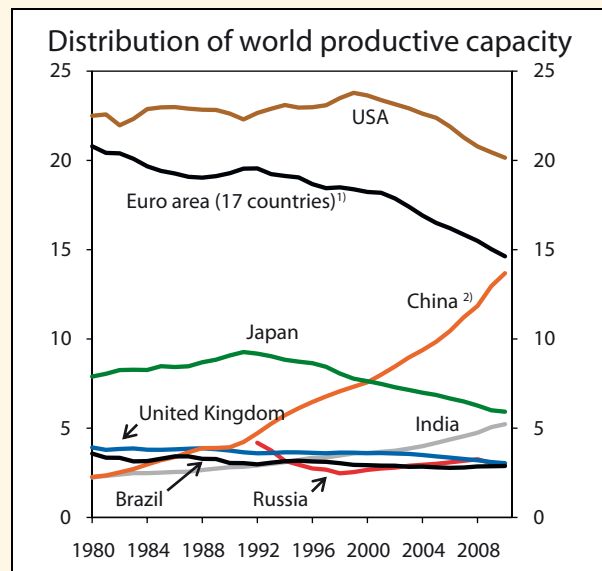


Figure 2.6 The distribution of global production capacity (purchasing power-adjusted gross national product) among the largest countries and currency areas. Annual figures 1980–2010. Share in percent

1) Figures for Slovenia are not available for the period prior to 1992. Figures for Estonia and Slovakia are not available for the period prior to 1993.

2) Includes Hong Kong.

Source: IMF

nominal exchange rate adjusted for the difference between price trends in the United Kingdom and the United States), over a period of more than 200 years. If international purchasing power parity were continuously valid, the real exchange rate would be constant, meaning that the development of the nominal exchange rate would correspond exactly to the difference between developments in the prices of goods in the two countries. The fluctuations in the figure show that there have been long periods of large deviations from parity, and that the deviations have varied considerably. However, over time, it seems that the exchange rate moves around a stable level that reflects international purchasing power parity. This means that there is significantly less uncertainty about the exchange-rate trend in the long term than in the short term. There seems to be a tendency for currency risk to be erased over time.

The basis for expecting international purchasing power parity to apply is the «law of one price», which states that similar products which are traded internationally will have similar prices in different countries (calculated in a common currency). If the price difference were disproportionately large, the cheapest products would begin to out-compete the most expensive. Over time, there would be a trend towards price equalisation. The larger the initial price difference, the stronger the competition from the cheapest products, and the stronger the price-equalisation trend. International purchasing power parity will continue to be a reasonable approach as long as the law of one price applies to a wide range of goods and services which are traded internationally.

The Ministry asked Professor Lucio Sarno of Cass Business School to sum up the empirical basis for international purchasing power parity. In

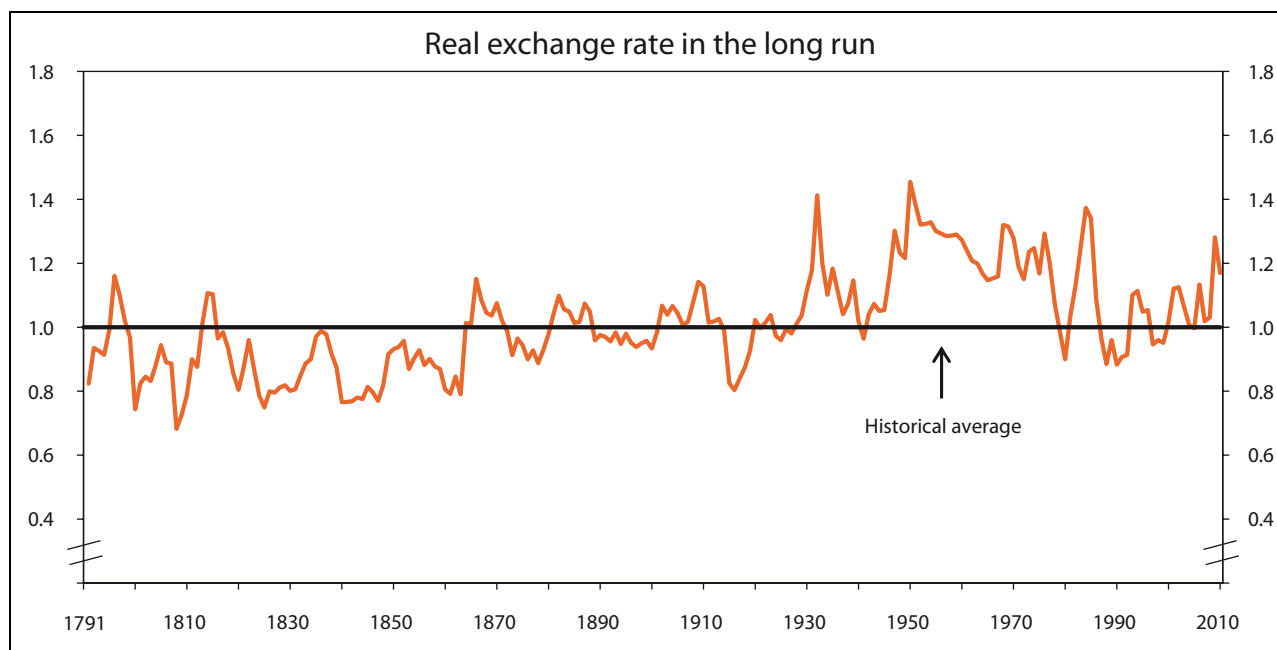


Figure 2.7 The real exchange rate (adjusted using producer price developments) between the US dollar and the British pound relative to the historical average (set equal to 1)

Source: Sarno and Passari (2011)

his report, which is available on the Ministry's website (www.government.no/gpf), Professor Sarno pointed out that there is increasing support among researchers for the view that international purchasing power parity holds true over time. This is particularly the case for goods and services which are traded internationally. These results are of great significance in assessing the GPFG's exchange rate risk:

- The investments are made with a very long time horizon. If exchange rates tend to return to stable equilibrium levels, exchange rate risk will be relatively smaller for long-term investors.
- Further, the fiscal policy guideline implies that Norway will be able to make withdrawals from the Fund every single year, forever. This means that Norway is less vulnerable to exchange rates at a particular time in the future, and that the average level of exchange rates over longer periods will be more important for the Fund's total international purchasing power. International purchasing power parity means that the exchange rates can be expected, on average, to be very close to their long-term equilibrium levels over the Fund's long time horizon.
- From a national perspective, the GPFG's capital reflects Norway's total foreign trade surplus. Accordingly, the capital will be used over time to purchase goods and services which are produced internationally. In order to assess the

Fund's currency risk, therefore, it is particularly important that international purchasing power parity holds true for such goods.

Even if purchasing power parity is valid over time, the deviations from parity may be significant in both the short and the medium term; see figure 2.7. For example, rapidly growing economies often experience a prolonged strengthening of the real exchange rate. The exchange rate risk of the Fund is thus not zero. A question of material interest is how much time may be expected to pass before deviations from parity are reduced. In his report, Professor Sarno pointed out that the tendency to return to parity depends on the size of the deviation, and that large deviations appear to be reduced more quickly than previously assumed. This helps to reduce the exchange rate risk of the Fund even further.

2.4.3 Frameworks for geographic distribution

Simple weighting principles

SPU's investment strategy seeks to maximise the Fund's international purchasing power while assuming moderate risk. Ignoring exchange rate risk, geographical distribution according to market values is a natural starting point, partly

because the Fund's size indicates that Norway should invest most in the largest markets, and partly because the market weights in traditional financial theory express the best balance between expected returns and risk.

Market weights are particularly relevant in relation to the Fund's equity portfolio, which largely comprises ownership interests in companies with operations in many countries. Accordingly, it is less meaningful to assign a geographical association or currency to the companies on the basis of the location of their head office, or where they are listed.

Market weights may be less suited to government bonds. The total supply of such bonds is very strongly affected by the borrowing needs of large individual states. Market weights will therefore mean high exposure to countries with high debt, and will not necessarily ensure good spreading of risk. An alternative to market weights is GDP weights, not least because larger economies will generally have a greater ability to repay debt. On the other hand, a state's repayment ability is not dependent solely on the size of the country's economy, but also on the amount of debt the state has. The long-term strategy for the Fund's fixed-income instrument portfolio is discussed in more detail in chapter 2.5 of this report.

Today, more than half of the GPF's capital is invested in Europe. If the Fund's exchange rate risk is less than previously assumed, and relatively small in any event, there no longer appears to be a basis for such a strong concentration of the investments in Europe. Global securities markets and production capacity are increasingly located in other parts of the world than Europe. Both the principle of market weights and the principle of GDP weights indicate that the proportion invested in Europe should be reduced over time, in favour of greater proportions in the rest of world.

Other considerations

In practice, simple weighting principles (such as market weights or GDP weights), are unlikely to cover all relevant considerations necessary to ensure that the geographic distribution maximises the Fund's international purchasing power subject to a moderate level of risk. Important considerations are linked to the financial markets in which the Fund operates. These include:

- *Investability.* Not all types of investment are available to international investors. Several countries have limitations on the scope of foreign ownership.

- *Concentration risk.* It is desirable to avoid excessive exposure to individual issuers or individual markets. For example, the US equity market alone accounts for around half of the market value of all equity markets in the world.
- *Expectations regarding returns and risk in different markets.* Some investments are difficult to justify on the basis of expected returns. For example, Japanese treasury bonds bear an interest rate close to zero, but will nevertheless account for a considerable proportion of both a market-weighted portfolio and a GDP-weighted portfolio.

The Fund's distinctive characteristics are also relevant to the choice of geographic distribution. The investments in the Fund are becoming a significant part of Norway's national wealth, along with domestic real capital and domestic human capital. In principle, the various parts of the national wealth should be managed together, even though this is difficult to implement consistently in practice. In isolation, the consideration of the Fund's role in the Norwegian economy speaks for locating the investments in countries which, broadly speaking, are different from Norway. This may indicate that Norway should increase the proportion of investments in countries located far from Norway, which have a different business structure or a different level of development.

More about investments in emerging markets

A different approach to the current system of regional weights is to group recipient countries of the Fund's investments by their degree of economic development, for example by differentiating between developed and emerging economies and their markets. Investments in these markets help to spread risk between different countries. They also offer an opportunity to reap risk premiums. Expanded and increased exposure to emerging markets has therefore been a natural part of the development of the Fund's investment strategy. The GPF's investments in emerging markets are discussed in more detail in box 2.7.

There are several reasons why investments in emerging markets will gradually account for an increasing proportion of the GPF's total share portfolio:

- It is natural for the scope of the GPF's investments to be affected by the size of the equity markets. In the years to come, the equity markets in emerging economies are expected to

Box 2.7 The GPFG's investments in emerging markets

Emerging markets were first included in the GPFG's benchmark for equities in 2000. The number of emerging markets was expanded moderately in 2004. In 2007, the Ministry conducted a wide-ranging review of emerging equity markets; see Report to the Storting no. 16 (2007–2008), which resulted in a considerable increase in the number of emerging markets in 2008. Together with the increase in the Fund's size, this expansion has resulted in strong growth in the GPFG's investments in emerging markets in recent years, to almost NOK 200 billion at the end of 2010; see figure 2.8. Today, the investments in emerging markets comprise around 10 percent of all the shares owned by the Fund, which accords approximately with the proportion of global equity markets accounted for by these markets.

The GPFG's benchmark includes the listed equity markets in all countries which the index provider FTSE classifies as emerging («advanced emerging markets» and «secondary emerging markets»). At the end of 2010, this category comprised Brazil, Hungary, Mexico, Poland, South Africa, Taiwan, Chile, China, Colombia, the Czech Republic, Egypt, India, Indonesia, Malaysia, Morocco, Pakistan, Peru, the Philippines, Russia, Thailand, Turkey and the United Arab Emirates.

Investments in emerging markets often involve a higher risk than investments in developed markets. This is partly due to higher country-specific risk (linked, for example, to political instability), and partly to the fact that emerging markets are generally more sensitive to global economic trends. Increased risk means that returns may be both materially higher and materially lower than returns in more developed markets. Financial theory states that investors are compensated for the systematic part of this risk in the form of higher expected returns over time.

In the years ahead, economic growth is expected to be higher (and in some cases significantly higher), in emerging economies than in developed economies. However, higher expected economic growth does not in itself provide a basis for expecting higher returns on equity investments in emerging markets. It must be assumed that all investors are well aware of the growth prospects, and that expectations of high growth are already reflected in current share

prices to a significant degree. Historical analyses carried out by Professors Dimson, Marsh and Staunton at London Business School show that historical economic growth cannot be used to predict which markets will produce a high return.

However, when economic growth is higher than expected, it can produce especially high returns on equity investments. During the last 10 years, emerging markets have produced a significantly higher return than the return achieved by global equity markets as a whole. This is apparent from figure 2.9, which shows equity returns in emerging markets and for the world as a whole in the period since the launch of the Fund. The high returns must be considered in conjunction with the fact that these countries succeeded in achieving very strong economic growth during this period, and presumably higher growth than was priced into the market at the beginning of the period. At the same time, the figure shows that returns in these markets have fluctuated considerably. The fluctuations during the financial crisis were much larger in the case of emerging markets than developed markets. If the GPFG had held much larger investments in emerging markets, the drop in the value of the Fund's portfolio would also have been much larger in 2008 than it ended up being.

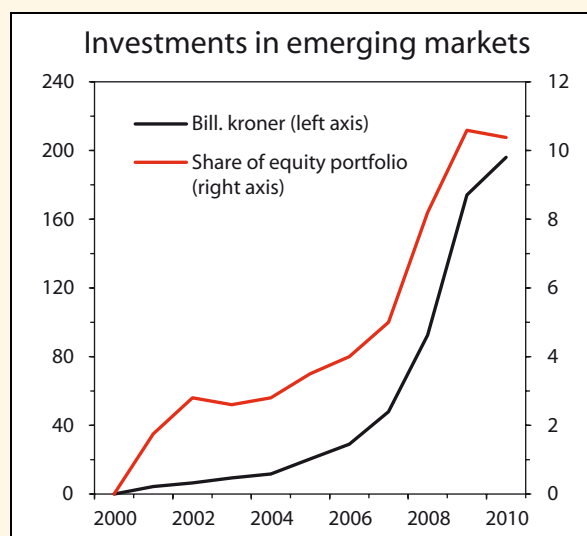


Figure 2.8 The GPFG's investments in emerging markets. NOK billion (left-hand axis) and percentage share of the Fund's equity portfolio (right-hand axis)

Source: Norges Bank, FTSE and the Ministry of Finance

Box 2.7 (cont.)

Many emerging economies are now expressing concern that the influx of capital will become too large, carrying a risk of «overheating» and «bubbles» in the prices of financial assets. As a result, some countries have also introduced restrictions on capital inflows from abroad. Looking forward, returns in emerging markets may well be lower than in developed markets. Figure 2.9 shows that this was also the case during earlier periods.

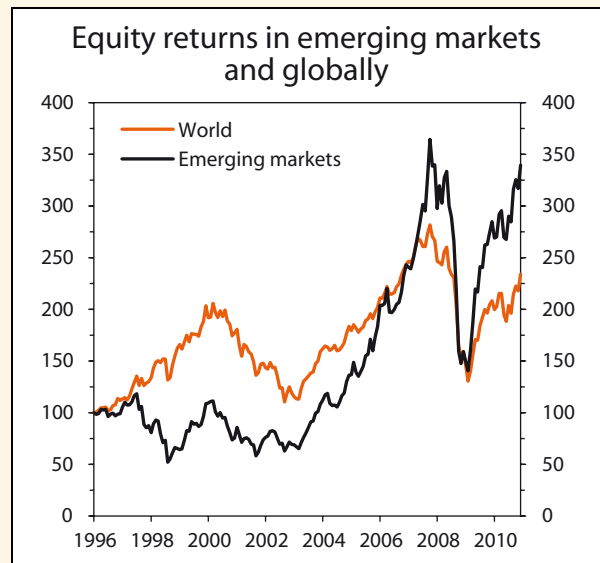


Figure 2.9 The development of MSCI's indices for emerging equity markets and for global equity markets as a whole. Indices 1996 = 100

Source: MSCI

grow more rapidly than the markets in more developed economies.

- The equity markets of more countries may satisfy the emerging-market criteria of index provider FTSE, and thus be included in the Fund's benchmark.
- The proportion of emerging markets is smaller in Europe than in the rest of the world. If the proportion of the Fund invested in Europe is reduced over time in favour of greater proportions in the rest of the world, the result will be an overall increase in the proportion invested in emerging markets.

A relevant question is whether the proportion of the Fund invested in emerging markets should increase by more than the amount implied by the development in the size of the markets, the inclusion of new equity markets, and any reduction in Europe's weight in favour of other parts of the world. Several factors may indicate that consideration should be given to this:

- Investments in emerging markets present a higher risk, but also offer a higher expected return. The Fund may be able to bear this risk, but it must be assessed by reference to alternative ways of increasing risk and expected

returns; see the discussion of exposure to systematic risk factors in chapters 2.1 and 2.2.

- Increased exposure to emerging markets may contribute to a better ratio between expected return and risk for the Fund.

The further development of the Fund's investments in emerging markets should be undertaken within the current framework for investments in listed equities. Chapter 2.3 of this report discusses the Ministry's assessments regarding investments in private equity and infrastructure generally, based on developed markets. The conclusion is that such investments should not be permitted at this stage. The reasons for this include increased management costs, the significant uncertainty associated with expected risk-adjusted returns, and the fact that it is desirable first to gather experience based on the Fund's investments in real estate.

Investments in emerging markets are challenging in themselves, and private investments in these markets will be particularly challenging. High financial and reputational risk indicates that private investments in emerging markets should only be undertaken once experience has been gained of private investments in the more devel-

oped markets. Accordingly, no separate investment programme focused on private investments in emerging markets, as was highlighted for evaluation in Report to the Storting no. 20 (2008–2009), will be established at this stage. However, if and when private investments by the Fund are permitted on a general basis, it will be natural to consider a concurrent or gradual expansion to less developed markets. This may take the form of a separate investment programme.

2.4.4 The assessments of Norges Bank and the Strategy Council

The assessments of Norges Bank

Norges Bank discussed the Fund's currency composition in its letter to the Ministry of Finance 6 July 2010. The Bank pointed out that the the Fund's future obligations has been given some weight in the determination of the currency composition of the benchmark, and that the desired currency composition has been expressed through fixed regional weights. Further, Norges Bank pointed out that the regional weights have been amended several times since the Fund was launched, and that diversification has been given more weight as the Fund has grown in size, while the currency composition of future imports has been toned down. Norges Bank took the view that there is probably reason to give even less emphasis to the import factor in future. The Bank referred, among other things, to the fact that the Fund's capital will be used over a long period, and that deviations from purchasing power parity, even over long periods, will therefore be less important. The Bank also pointed out that the development of the import pattern is associated with great uncertainty, and that the global market offers extensive substitution options as regards different suppliers of goods and services.

In Norges Bank's view, consideration should be given to whether it is sensible to maintain the current structure with fixed regional weights. In this connection, the Bank pointed out that there is no clear connection between regions and currencies, or between markets and currency exposure. It referred, for example, to the fact that listed companies will also have extensive operations in other geographic areas than those in which they are listed. This makes the real currency exposure of equity investments difficult to discover. It is not certain that the actual currency exposure achieved in a country's equity market corresponds with the country's currency.

Norges Bank wrote the following with regard to the benchmark for equities:

«In our opinion, there is much to suggest that the benchmark portfolio for equity investments should, in principle, be market-weighted. A strategy formulated on the basis of market value weights would ensure diversification and gives broad exposure to ownership of the production capacity that generates the supply of goods and services on the world market and forms the basis for our future imports.»

In its letter to the Ministry of 18 March 2011, Norges Bank elaborated further on the benchmark for the Fund's fixed-income investments. The letter is included as an enclosure to this report. See also the detailed discussion in chapter 2.5. With respect to the geographical distribution of the benchmark for government bonds, Norges Bank wrote:

«A market-weighted index for the allocation to government bonds means that the fund's exposure to countries with growing government debt will increase. A better approach may be for the portfolio of government bonds to be weighted on the basis of the production capacity financing that debt.»

However, Norges Bank recommended that investments in fixed-income instruments issued by companies should follow market weights. The Bank wrote:

«There is no direct relationship between GDP and companies' ability to service their debt. Substantial structural differences between the markets for corporate bonds in different currencies mean that GDP weights are not particularly appropriate. Generally available indices for corporate bonds are based on a market weighting principle.»

Norges Bank's advice is to compose the benchmark for the Fund's total investments in nominal fixed-income instruments of a combination of a GDP-weighted benchmark for government bonds and a market-weighted benchmark for corporate bonds; see the detailed discussion in chapter 2.5. This will alter the current geographic distribution and currency composition of the benchmark. In this regard, Norges Bank wrote:

«The biggest change relative to today's index is a reduction in the level of euro in the strategic benchmark index. Consideration could therefore be given to assigning European currencies a special adjustment factor of around 2 during a transitional period. This approach would allow for the future introduction of currencies that are not sufficiently investable today, and limit the need for large portfolio adjustments in the short term.»

The assessments of the Strategy Council

In 2010, the Ministry established a new Strategy Council for the GPFG; see the discussion in chapter 2.2. The Council's report to the Ministry of 26 november 2010 also discussed the Fund's exchange rate risk. The Strategy Council adopted the starting point that the GPFG can be regarded as a long-term buffer fund which will enable Norway to maintain a permanent deficit in the balance of trade once the production of oil and gas ends. The Council emphasised that the Fund's long-term nature gives it a greater ability to tolerate exchange rate risk than short-term investors. The Council wrote:

«If purchasing power parity [...] were to hold reasonably well in the long run, expected changes in relative prices would be offset by opposite changes in exchange rates, eliminating or at least radically reducing the need to manage exchange rate risk in the long run. Empirical studies of [purchasing power parity] from the 1990s typically give only weak support for it, revealing large deviations and a slow rate of convergence to parity: a half-life of three to five years. However, more recent results based on a deeper understanding of the power of the statistical methods used, as well as using different research designs, give more confidence to a convergence in line with the [purchasing power parity], especially when larger deviations and [internationally] tradable goods are concerned (see Ilmanen, 2011). [Dimson, marsh and Staunton] (2010) report that, for 19 equity markets over the period 1900–2010, deviations from [purchasing power parity] were small compared to cross-country variation in equity or fixed-income instrument market performance. This suggests that, from a long term perspective, hedging the Fund's exchange rate exposure is of lesser importance.»

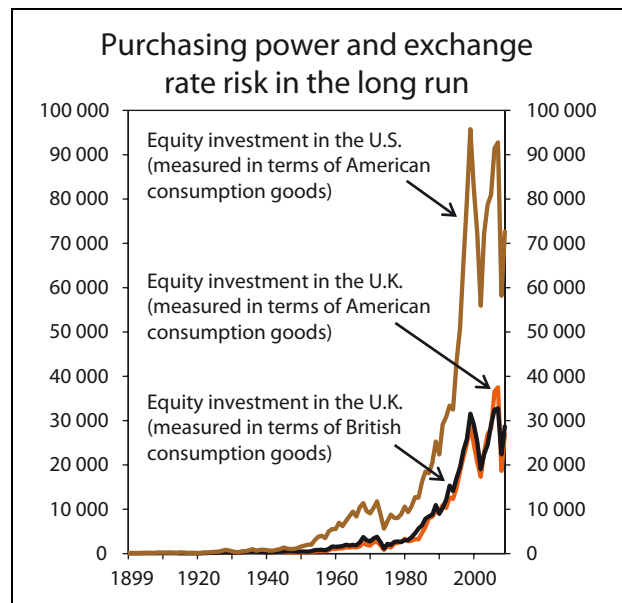


Figure 2.10 Purchasing power development of equity investments in the US and UK, measured in American or British consumer goods. Indices 1899 = 100

Accumulated total return deflated using consumer price indices.

Source: Elroy Dimson, Paul Marsh and Mike Staunton (2002), *Triumph of the Optimists: 101 Years of Global Investment Returns*, Princeton University Press, and Morningstar.

Figure 2.10 illustrates the study of Professors Dimson, Marsh and Staunton to which the Strategy Council referred. The figure shows that the development of the real purchasing power of an equity investment in the United Kingdom has, over time, been the same regardless of whether it is measured in terms of British or American goods. The difference between the two, which is a measure of deviations from international purchasing power parity, comprises the exchange rate risk of the investment. By comparison, the difference between the returns in the US and UK equity markets has been significant. From a long-term perspective, it therefore appears more important to spread risk by investing in more countries than to avoid exchange rate risk.

The Strategy Council also discussed the question of short-term currency hedging, i.e. hedging against temporary deviations from international purchasing power parity. The Council pointed out a number of important problems relating to the Fund's ability to achieve effective short-term currency hedging. It highlighted, among other things, the fact that the hedging need is difficult to estimate, as both the Fund's current currency exposure and the target (optimal currency

exposure) are difficult to define. This makes the advantages of currency hedging uncertain. The Council pointed out that the advantages of any currency hedging must be assessed by reference to the increased costs and the additional risk involved, such as, for example, increased counterparty risk linked to currency hedging agreements. The Council concluded that:

«The best, and simplest, solution may be to invest in weights close to market capitalization or, perhaps, GDP-based weights.»

2.4.5 The Fund's international reference currency

Formally, the GPFG is the name of an account with Norges Bank held by the Ministry of Finance. The account balance is set as equal to the value in kroner of Norges Bank's GPFG investment portfolio. The account is included in the central government accounts, and the investment portfolio accounts form an integral part of Norges Bank's accounts. Both of these sets of accounts are kept in Norwegian kroner.

However, the value in kroner of the Fund is not a suitable measure of the Fund's international purchasing power. The number of goods and services that may be imported for the value of the Fund is only dependent on the foreign exchange reserves of the Fund, and not on the value of the Fund in Norwegian kroner. Accordingly, it is important to use an international currency unit to measure the development of the Fund's international value, both for the reporting of achieved results and for decisions regarding the Fund's investment strategy.

Current practice is to calculate the development of the Fund's international purchasing power using a basket of currencies corresponding to the currency composition of the Fund's benchmark. In principle, it could be desirable for the measurement of the Fund's international purchasing power to be established on an independent basis. Some obvious alternative currency baskets are:

- a basket based on import weights;
- a basket based on GDP weights; or
- a basket equal to the composition of the International Monetary Fund's special drawing rights (SDRs).

As the Fund, from a national perspective, is to finance the purchase of goods and services which are produced internationally, it might be desirable

to use a measure of purchasing power that is based on Norway's future import patterns; see the discussion in section 2.4.1 and box 2.6 above. However, it is difficult to estimate this pattern precisely, so any measure will be an approximation.

Moreover, there is no established general measure of international purchasing power parity. While it is true that SDRs are a well-established international currency unit, the composition of the unit reflects that it is supposed to serve as a reserve currency for the world's central banks. With their current composition, SDRs therefore appear to be a rather narrow measure of the GPFG's international purchasing power.

As the GPFG's actual portfolio is relatively similar to the benchmark, the current practice means that the Fund's actual currency composition will normally be relatively similar to the currency composition of the Fund's reference currency. If a reference currency was chosen that is materially different, it would mean increased *measured* risk, even if the actual composition of the investments remained unchanged, i.e. if there was unaltered *actual* risk. A difference of this kind in measured risk is due to the fact that currency movements affect the value of the investments stated in the reference currency. If international purchasing power parity holds true over time, exchange rate risk will be erased over time. Shifting the reference currency from the current system might therefore easily give the impression that the risk of the Fund is greater than what is felt appropriate for a long-term investor like the GPFG.

2.4.6 The assessments of the Ministry

The GPFG's investments are made with a very long time horizon. The fiscal policy guideline implies that Norway will be able to make withdrawals from the Fund every single year, forever. Over such a long period, exchange rates may be expected to be, on average, close to their long-term equilibrium levels.

The Fund is exposed to many different risk factors, and exchange rate risk is one of them. The Fund's equity portion of 60 percent entails a significant exposure to market risk in global equity markets. From this perspective, the GPFG's exchange rate risk is relatively small, in the sense that exchange rate risk will be less important for the Fund's total risk over time.

In the Ministry's view, a new review of relevant research indicates that the GPFG's exchange rate risk is smaller than previously assumed, and rela-

tively small in any event. Accordingly, there no longer appears to be a basis for as strong a concentration of the investments in Europe as the Fund features at present. Global production capacity and global securities markets are increasingly located in other parts of the world. Over time, therefore, the proportion of the Fund that is invested in Europe should be reduced in favour of greater proportions in the rest of the world.

Such changes to the Fund's geographical composition must be implemented over time. Large, abrupt shifts in the composition of the Fund's investments are not relevant. The expected inflows into the Fund in the years ahead mean that a large proportion of the changes can be made through the choice of new investments, i.e. without sales.

As the proportion of emerging markets is smaller in Europe than in the rest of the world, a redistribution from Europe to the rest of the world would mean an overall increase in the proportion of the Fund which is invested in emerging markets. Other trends also support the proposition that investments in emerging markets may gradually account for an ever-larger proportion of the GPFG's total equity portfolio. The Ministry is of the opinion that several factors provide grounds for considering whether the Fund's investments in emerging markets should in fact increase by more than follows from the development of the size of the markets and a reduction in the weight assigned to Europe.

Consideration should be given to whether the system of regional weights remains appropriate. The relevant starting point for a new geographical distribution is market weights for the equity portfolio and GDP weights for the fixed-income portfolio, but other considerations must also be taken into account to ensure that the distribution maximises the Fund's international purchasing power subject to a moderate level of risk.

The Ministry will continue to work on determining a new geographical distribution. Changes of material importance to the Fund's risk and expected returns will be presented to the Storting before being implemented. At the same time, it may be appropriate to begin implementing changes in accordance with the assessments presented in this report during the course of the current year. This must be considered by reference to the fact that adaptation to a new distribution will in any event be implemented gradually over time.

In the Ministry's view, it could be desirable in itself for the measure of the Fund's international purchasing power to be independent of the invest-

ment strategy. However, it is unclear how such a reference currency should be composed, and any target would necessarily be an approximation. A calculation system that is substantially different from the current system would mean increased measured risk, and could easily give the impression that the risk of the Fund had increased. Due to the Fund's long time horizon, the GPFG's total exchange rate risk is relatively small, and smaller than previously assumed. Accordingly, no reference currency should be chosen that can easily give the impression of increased risk. The Ministry therefore intends to continue the current practice of using the benchmark's currency basket.

In principle, attempts could be made to separate the Fund's currency distribution from the Fund's geographical distribution by means of various forms of currency hedging strategy. In practice, however, it is unclear what currency exposure a portfolio of international securities has, and what currency exposure it is desirable for the GPFG to have. Moreover, currency hedging means increased costs and counterparty risk, and will increase the operational complexity of the Fund. Currency hedging must be assessed by reference to its utility value. In the long term, international purchasing power parity can be expected to hold reasonably well, and there is reason to maintain that exchange rate risk accounts for a relatively small part of the Fund's total risk. In the Ministry's view, there is therefore no reason to expend resources on long-term currency hedging.

2.5 The fixed-income portfolio

2.5.1 Introduction

The initial transfers to SPU in 1996 and 1997 were invested exclusively in treasuries issued by a few industrialised countries. Since that time, the Fund's equity portion has increased, and the proportion of fixed-income has dropped correspondingly. At the same time, the fixed-income investments have been expanded to encompass more markets and segments. The expansion of the Fund's fixed-income benchmark is reflected in the number of securities included in the benchmark. In 2010, 11,200 securities were included in the fixed-income benchmark, compared to less than 1,000 securities in 1998.

The experience gained during the financial crisis, among other things, has led the Ministry to conduct a review of the return and risk properties of different parts of the fixed-income market in

order to re-evaluate the management of these investments. The fixed-income market is described in more detail in box 2.8.

The review of the fixed-income management is also part of the follow-up of Report to the Storting 10 (2009–2010), in which the Ministry discussed the need to assess the Fund's fixed-income benchmark in the light of weaknesses in the current benchmark, and the question of including exposure to systematic risk factors in the Fund's benchmarks.

The Ministry has engaged two external experts, Professor Stephen Schaefer and Mr Jörg Behrens, a consultant, (hereafter shortened to SB), to consider problems linked to systematic risk factors in the fixed-income market. Their report (hereafter referred to as the SB report) is available on the Ministry's website (www.government.no/gpf). In addition, the Ministry has received advice and assessments relating to the Fund's fixed-income investments from Norges Bank; see the letters to the Ministry of 6 July 2010 and 18 March 2011. The Ministry has also received a comprehensive report containing background information from Norges Bank, which has been published on the Ministry's website.

Below, a review is provided of returns and risk in various parts of the market. This is followed by a description of the composition of SPU's current fixed-income benchmark, the advice of Norges Bank and SB, and the Ministry's assessments.

2.5.2 Risk and returns in the fixed-income market

The return on a fixed-income portfolio is partly comprised of a direct return in the form of coupons (interest payment), and partly the result of changes in the value of the portfolio. Changes in value are caused, among other things, by changes in the market rates of interest («interest rate risk») and inflation expectations, altered prospects regarding the issuer's ability and willingness to service the loan («credit risk»), and changes in the degree of tradability in the secondary market («liquidity risk»).

The value of a bond varies with the interest rate level. Most bonds entitle the holder to a specified interest payment (coupon), which is fixed for the entire term of the bond. When the general interest rate level declines, investors will be willing, all other things being equal, to pay more for a given stream of future coupon payments. The value of a bond will therefore rise when the general interest rate level declines. By contrast, bond

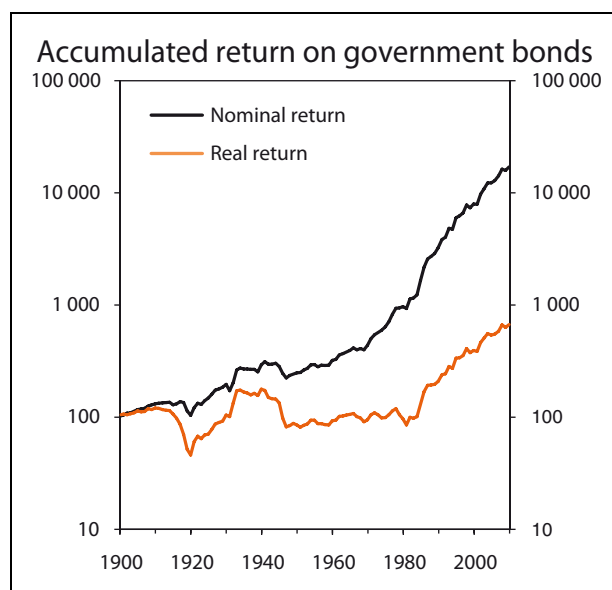


Figure 2.11 Total return on global treasury bonds in the period 1900–2010, measures in USD. Nominal return and real return. Indices 1900 = 100. Logarithmic scale.

Source: Elroy Dimson, Paul Marsh and Mike Staunton (2002), *Triumph of the Optimists: 101 Years of Global Investment Returns*, Princeton University Press, and Morningstar.

prices will decline when the interest rate level rises.

Sensitivity to variations in the interest rate level is often measured using the term «duration». Duration indicates what percentage change in value a bond experiences when the interest rate level changes by one percentage point. A fixed-income portfolio with long maturity, and thus long duration, will be more sensitive to interest rate changes than fixed-income portfolios with a short maturity.

In the case of bonds with a fixed interest rate and agreed maturity date, an investor will know precisely what cash flows he will receive from the investment, as long as the issuer of the bond meets its obligations. What the investor does not know, is what the value of these payments will be when adjusted for inflation. The inflation-adjusted return is referred to as the real return, and indicates the amount of goods and services an investor could buy with the invested capital. Inflation thus constitutes a risk to the purchasing power of the capital which is invested in nominal bonds.

There are bonds which are not sensitive to developments in inflation, referred to as real, or inflation linked bonds. In the case of these bonds, the payments to the investor consist of a fixed amount plus an amount that tracks the develop-

Box 2.8 More about the fixed-income market

A bond is a tradable loan with a maturity of more than one year. Fixed-income issuers (borrowers) may include public authorities, banks, and other large private enterprises. The bond is redeemed by the issuer upon maturity, and during the period between issue and maturity, the issuer pays interest (called the coupon) to the owner of the bond. Most bonds have a fixed nominal interest rate, i.e. the coupon is an amount agreed in advance, but there are various types of bonds, including ones featuring floating interest rates, zero coupons or gradual repayment. Many bonds are backed by different forms of collateral, or they may embed optionality, such as the right to repay the loan earlier than the maturity date. A bond is traded in the primary market when it is issued by a borrower and purchased by many investors. Bonds are freely tradeable, i.e. investors can buy and sell bonds (the secondary market).

Figure 2.12 shows the distribution of nominal fixed-income debt across main segments. The numbers do not cover the entire fixed-income market, but do provide a good picture of the investment opportunities open to an institutional investor.

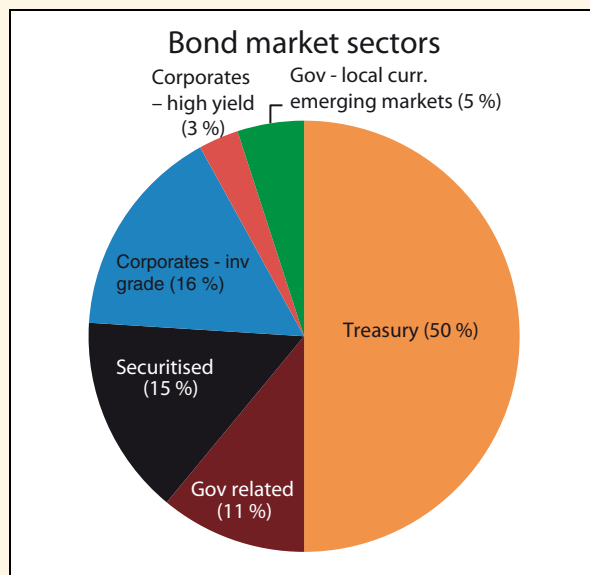


Figure 2.12 The main segments of the global market for nominal fixed income. Distribution as at 30 september 2010.

Source: Norges Bank

Treasuries

Treasuries in developed markets are the dominant segment in the case of both real (inflation-linked) bonds (close to 100 percent of the market), and nominal bonds (50 percent of the market).

The market for treasuries is dominated by a few currencies. According to Norges Bank, almost 95 percent of nominal treasuries in developed markets are issued in Japanese yen, US dollars, Euros or British pounds.

Treasuries issued in local currencies by states in emerging markets account for around 5 percent of the market for nominal bonds.

Government-related bonds

The treasury segment is often limited so as only to include treasuries issued in the state's own currency. The government related bond sector encompasses, among other things, treasuries issued in the currency of another country, bonds issued by municipalities and other public sector bodies, bonds issued by businesses that are partly owned by, or that receive support from, the public sector, and bonds issued by multilateral institutions such as the World Bank.

Securitised bonds

Different types of securitised bonds account for 15 percent of the market for nominal bonds. Such bonds are primarily issued by financial institutions and secured by a portfolio of underlying loans, most commonly mortgages. In the US, the securitised bond market is almost as large as the treasury market. In Europe, securitised bonds («covered bonds») make up a large market in several countries, but this market remains relatively small in comparison to the market for treasury bonds.

Investment-grade corporate bonds

The market for investment-grade corporate bonds is about equal in size to the market for asset-backed bonds.

Box 2.8 (cont.)

The US is the largest, most liquid and well-functioning market for such bonds. The European corporate bond market is growing, and now accounts for a significant share of the investment opportunities in countries like France and the Netherlands. However, there are large differences between the European countries. The market for corporate bonds in France is about three times as large as the equivalent market in Germany, where private enterprises make greater use of bank loans as a source of financing.

High-yield corporate bonds

Corporate bonds with high credit risk account for 3 percent of the market for nominal fixed income, and are dominated by bonds issued in US dollars. Such bonds are not currently included in SPU's benchmark, but Norges Bank can invest in them subject to a limit of 3 percent of the fixed-income portfolio. This ensures, among other things, that the Bank is not forced to sell bonds immediately if they are downgraded and fall below the «investment grade» threshold.

Barclays Global Aggregate is a global benchmark for investment-grade nominal fixed income. The benchmark is compiled on the basis of market capitalization weights. This means that each bond has a weight in the benchmark corresponding to the bond's share of the total fixed-income market. The total market value of the benchmark amounts to around NOK 210,000 billion. A study of the Barclays Global Aggregate Index therefore provides a good indication of the general developments in the fixed-income market.

Figure 2.13 shows that the four segments treasury, government-related, corporate and asset-backed have grown at almost the same rate over the last 10 years. However, it is worth noting that the relative share of treasury bonds has risen by two percentage points since the beginning of the financial crisis in 2007.

As shown in figure 2.14, there have been small differences in total accumulated returns of the different segments during the period 2001–2010. The picture becomes more nuanced when this period is split up. During the first seven years, corporate bonds achieved the highest accumulated return, but large losses in 2008

meant that corporate bonds had the lowest accumulated return at the beginning of 2009. In the last two years, corporate bonds have again given the highest return of all of the segments.

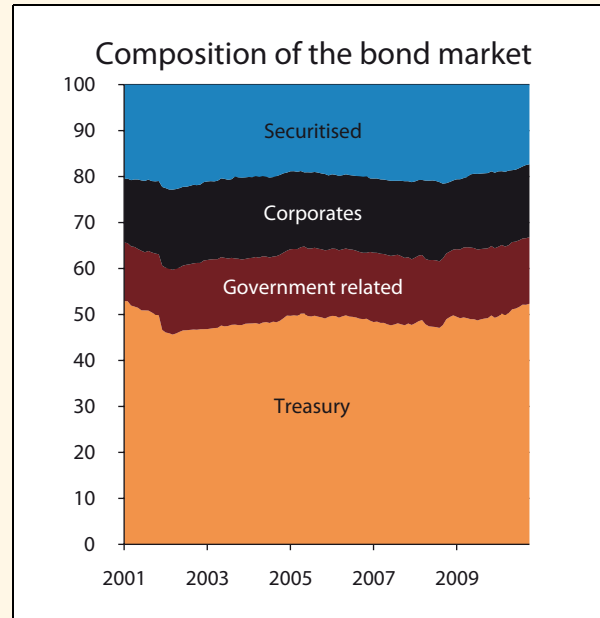


Figure 2.13 Composition of the Barclays Global Aggregate benchmark. Percentages.

Source: Barclays

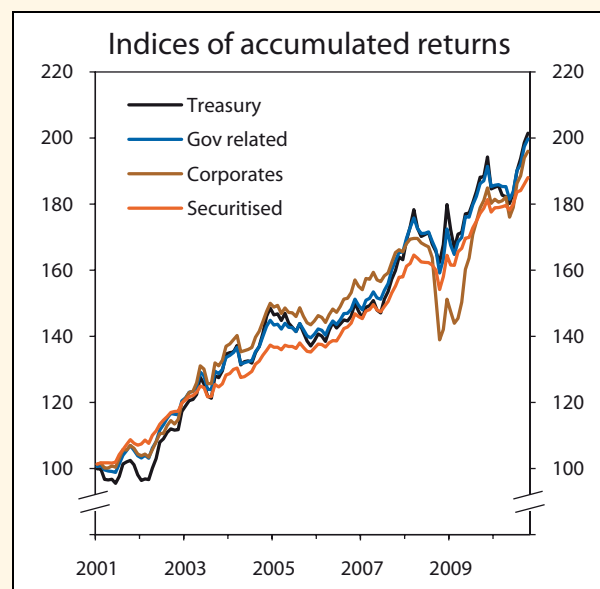


Figure 2.14 Evolution of accumulated returns for each segment of the Barclays Global Aggregate index. Index value 1 January 2001 = 100.

Source: Barclays

ment of a price index. However, the market for real bonds only accounts for a small part of the global fixed-income market.

Figure 2.11 shows historical returns on a global portfolio of nominal treasury bonds since 1900, before and after inflation. On average, the nominal return has been 4.7 percent annually over the last 110 years (measured in US dollars). Corrected for inflation, the return has been 1.7 percent (measured in US dollars).

The development since 1900 shows that fixed-income investments have not been risk free for investors who wish to secure the highest possible purchasing power for their capital. The period is characterised by three periods of surprisingly high inflation, following the first and second world wars and during the oil crisis of the 1970s. During the first 85 years of this period, the real return was zero on average. However, in the last 25 years, the global fixed-income market has been marked by falling interest rates; see figure 2.15. Falling interest rates have produced capital gains for investors, and thus relatively high returns from a historical perspective. During the period 1985–2010, the real return was 5.9 percent annually. Interest rate levels are now so low that they cannot fall much further during the next 25 years. Accordingly, looking forward, one cannot expect a corresponding period of large capital gains on fixed income. The return on fixed-income investments in the last 25 years is therefore not representative of what can be expected in future.

A global fixed-income portfolio like SPU's has exposure to various types of risk. At the same time, many bonds are affected by the same type of risk. It is therefore useful to discuss the risk associated with a fixed-income portfolio by reference to the portfolio's exposure to different risk factors. The SB report seeks to identify and describe the different risk factors in the fixed-income market.

Term risk

Term risk is the risk associated with holding a bond with a long maturity (fixed interest rate for the entire period), rather than rolling over bonds with short maturity (floating interest rate for the same period). By holding a fixed-rate bond for the entire period, the investor has to bear the risk of unexpected changes in real interest rates and inflation. The «term premium» is a compensation for bearing this risk. The SB report shows that changes in the term premium typically explain 95 percent of the variation in the return on a diversified fixed-income portfolio.

It is reasonable to assume that the term premium will be positive. This is because fixed-income investors will normally demand a higher interest rate as compensation for the interest rate risk linked to locking in the interest rate for a long period. The SB report shows that the term premium was weakly positive throughout the previous century (averaging 0.7 percentage points in the US and 1.0 percentage points in the UK). However, the term premium varied so much that there is insufficient statistical support for expectations of a positive term premium. One explanation for the low average term premium may be a high demand for long-maturity bonds by institutional investors with long-term liabilities, such as pension funds. For such investors, long-maturity bonds will reduce total risk, as the value of their pension liabilities and fixed-income investments will move in the same direction when the interest rate level changes.

The researchers Cochrane and Piazzesi et al. have shown in two studies of the market for American treasuries that the term premium is weakly positive, but that it varies over time. According to the researchers, historical returns indicate that it is possible to predict when the term premium will be positive and when it will be negative.

Norges Bank has written that most academic contributions to the literature on the term premium indicate that it varies over time. Investors should harvest time-varying term premia by varying the duration of their fixed-income portfolio.

In its long-term projections, the Ministry has assumed an average term premium of 0.5 percentage points for GPF's fixed-income benchmark; see last year's report.

Credit risk and other risk factors

Credit risk in the fixed-income market is the risk of issuers going bankrupt or otherwise failing to meet their payment obligations to the lender. This gives rise to a credit premium in the form an interest rate which lies above the interest rate on corresponding bonds with negligible credit risk, such as treasuries with high credit quality.

The report of the Strategy Council 2010, which is discussed in chapter 2.2 of this report, shows that historical returns support expectations of both a term premium and a credit premium in the fixed-income market. However, the Council writes that the theoretical basis is stronger for the credit premium, as bonds with credit risk will be less tradable and will generate the largest losses during «bad times», such as financial crises. The Strategy

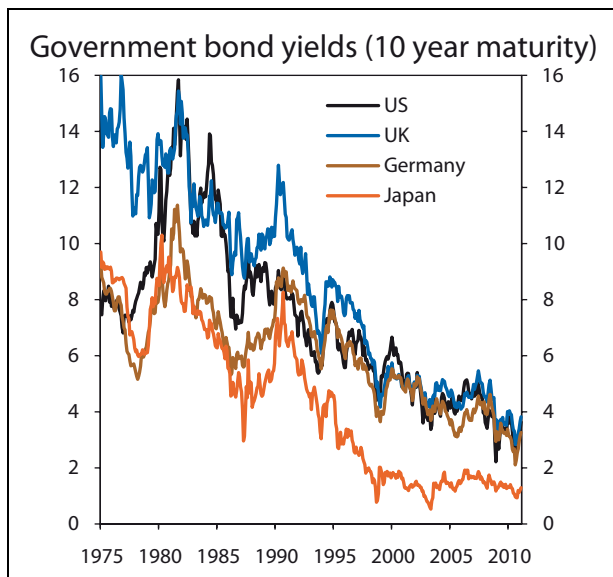


Figure 2.15 Interest rate on treasury bonds with 10 years to maturity. Percentages.

Source: EcoWin

Council is of the view that this fact supports a higher expected return than on treasuries.

In the SB report, the average annual return on corporate bonds with high credit risk («high-yield bonds») is calculated at around 4 percent above treasuries returns during the period 1983–2010. It is estimated that around half of this additional return is a credit premium, while other risk premia explain the remaining part of the additional return. These other risk premia are linked to liquidity risk and volatility risk (the sensitivity of bonds to volatility in the equity market). Together, these three risk factors, along with changes in the yield curve, explain around 60 percent of the variation in the return on US high-yield bonds during the period. However, the relative importance of each risk factor varies over time.

Correspondingly, SB shows that, over the same period, around 70 percent of the variation in the return on US corporate bonds with low credit risk can be explained by the same risk factors. The annual return in this segment was around 0.4 percent higher than in the US treasury market.

SB points out that some fixed-income investments are characterised by stable and positive returns over long periods of time, while they occasionally fall sharply in value. Common risk factors behind this return pattern may be liquidity risk and volatility risk, as well as credit risk. During the financial crisis, exposure to these factors resulted in large declines in bond values.

Norges Bank's analyses of the credit premium are primarily based on data from the US market, because this market offers long time series covering several economic cycles. History shows that investors have harvested a positive premium for investing in corporate bonds rather than treasuries, even when losses resulting from bankruptcies are factored in. The interest rate differential between five-year US treasury and corporate bonds with the credit rating BBB was 2 percentage points on average during the period 1953–2010. The interest rate differential has varied considerably over time within the interval 0–7 percent. The return on credit risk exposure has correlated with the return on the equity market, but the degree of correlation has not been constant over time. The interest rate differential has a tendency to increase during periods of large equity market declines. This causes the value of corporate bonds to fall when the equity market declines strongly. When the equity market rises sharply, on the other hand, corporate bonds do not show the same strong equity market correlation.

The size of the credit premium will depend on the credit quality of the issuer. Research has shown that the difference in interest rates on bonds with and without credit risk is also affected by other risk factors than credit, and that it is difficult to quantify the individual contributions.

2.5.3 GPFG's fixed-income benchmark

GPFG's strategic fixed-income benchmark is based on the fixed-income benchmarks Barclays Global Aggregate and Barclays Global Inflation Linked, with some adjustments; see below. Since the establishment of the Fund, the benchmark for fixed-income investments has been adjusted gradually. The most important development has been the geographic expansion of the benchmark through the inclusion of new currencies and the introduction of additional bond-market segments. The changes have been based on the desire for diversification and better representation of the investment opportunities.

The benchmark currently consists of fixed income issued in 11 currencies, grouped into three regions: Europe, America/Africa and Asia/Oceania. The three regions have fixed weights of 60, 35 and 5 percent respectively. The basis for the Fund's geographic distribution and currency spread is discussed in more detail in chapter 2.4. Compared with the market weights of the Barclays Global Aggregate, GPFG's fixed regional weights mean a marked downweighting of fixed

income issued in Japanese yen and an upweighting of European currencies. Within each region, market weights are used, with one exception as described below.

In 2002, the benchmark was expanded to include non-government-guaranteed bonds, and in 2005 inflation-linked bonds were included in the benchmark. Figure 2.16 shows the development of the sector distribution of the fixed-income benchmark over time, while figure 2.17 shows the current sector distribution in each region.

In connection with the expansion of the benchmark in 2002, an assessment was undertaken of the concentration of credit risk in the part of the fixed-income portfolio which is issued in US dollars. The Ministry decided to deviate from market weights in this part of the portfolio to limit the issuer-specific credit risk associated with two large agencies in the US (Fannie Mae and Freddy Mac); see previous discussion in chapter 3.5 of the 2006 National Budget and chapter 3.2 of Report to the Storting 16 (2007–2008).

The combination of fixed regional weights, a re-weighting in the part of the fixed-income portfolio issued in US dollars, and a limitation to only domestic treasuries in Switzerland and Asia and Oceania mean that the GPF's fixed-income benchmark differs somewhat from normal market-weighted standard benchmarks like Barclays Global Aggregate and Barclays Global Inflation Linked.

In SB's analyses, Barclays Global Aggregate is used as an approximation of the Fund's bench-

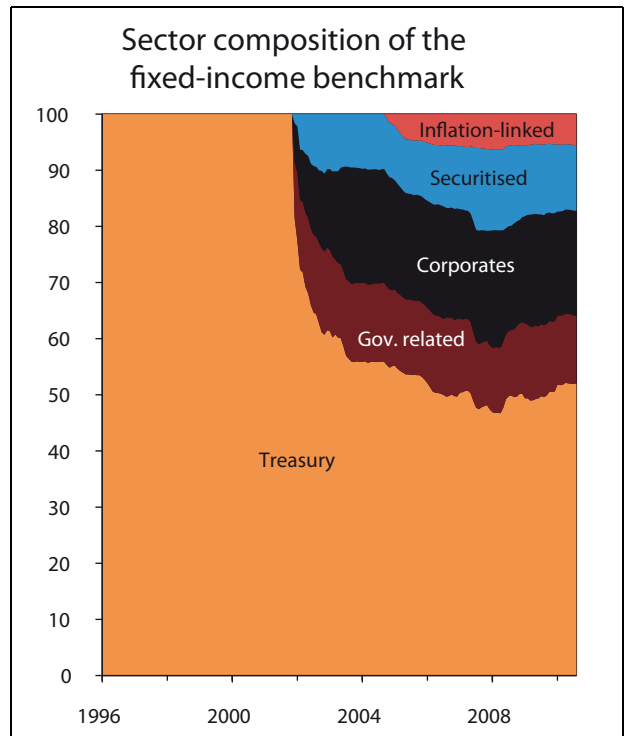


Figure 2.16 Development of the sector distribution of the GPF's fixed-income benchmark. Proportions in percent.

Source: Norges Bank and the Ministry of Finance

mark. The analyses show that a small number of risk factors explain most (92 percent) of the variation in the return on the Barclays Global Aggregate. Changes in the yield curve explain

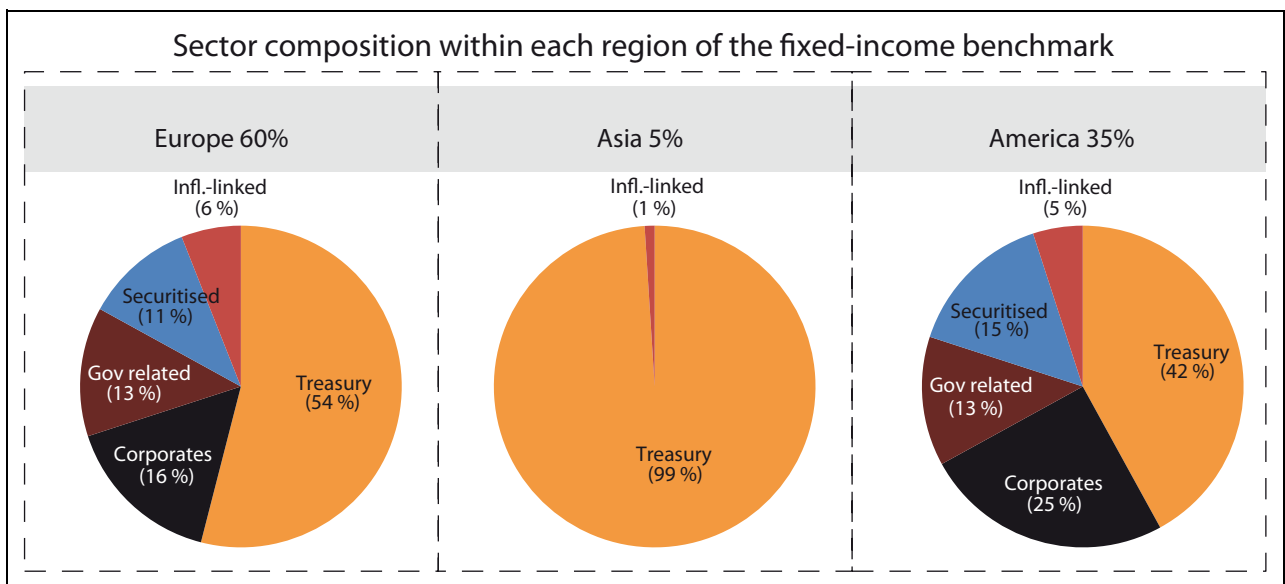


Figure 2.17 Composition of the GPF's fixed-income benchmark in each region as at 31 January 2011. Proportions in percent.

Source: Norges Bank

most of the variation in the return on treasuries, and a large part of the variation in the return on the other segments of the fixed-income market. The analyses also show that risk premiums and the underlying risk factors are difficult to measure, due to limited access to historical return figures and difficulties in distinguishing the individual premiums. A further complication is that the risk premiums appear to vary strongly over time. The authors recommended closer investigation of whether it is possible to achieve better estimates using data based on more frequent observations than once a month.

2.5.4 The role of fixed income in the GPFG's total portfolio

The composition of the GPFG's fixed-income investments should be based on assessments of what role these investments should have in the Fund as a whole.

In general, three different roles of the fixed-income portfolio can be identified. This is expanded upon below.

Fixed income reduce fluctuations in the Fund's total return

The Ministry reviewed expected risk and real returns on fixed income and equities in Report to the Storting 10 (2009–2010). In the long-term projections, annual risk (volatility), is estimated at 6 percent for fixed income with high credit quality, compared to 16 percent for shares. On the other hand, the expected annual real return on fixed income is lower (2.7 percent, compared to 5 percent for shares).

The return on a portfolio containing both fixed income and equities is expected to fluctuate significantly less than the return on a pure share portfolio. This is due both to the fact that fixed-income returns vary less than the return on shares, particularly in the short and medium term, and the fact that returns on equities and fixed income do not fluctuate in tandem.

Model calculations show that the ratio between annual return and risk is improved by spreading the investments across more assets than shares only (diversification). Such diversification can also be achieved through other asset classes, such as property and alternative investments. However, these markets are less liquid, and smaller in size, than the fixed-income market.

The ability of fixed income to mitigate the risk associated with a portfolio of riskier assets has

been particularly noticeable during periods of unrest or crisis in the financial markets, when deep and well-functioning treasuries markets, particularly the US market, have been seen as a «safe haven» for investors. Most recently, this was the case for a time during the financial crisis, when dramatic declines in the equity markets coincided with abnormally high returns in the US treasury market.

However, nominal fixed income do not have equally favourable diversification properties during periods of unexpectedly high and varying inflation. Under such conditions, the returns on equities and (nominal) fixed income will fluctuate more in tandem, at the same time as the fixed-income return declines. During periods of deflation, on the other hand, nominal fixed income will perform well compared to shares and other asset classes.

Fixed income contributes liquidity

A fixed-income portfolio provides cash flows in the form of coupons and principals that fall due. These cash flows are predictable in the sense that they are contractual. Cash flows from fixed income involving high credit risk are naturally less secure.

For some investors, particularly pension funds and insurance companies, predictable cash flows are highly valuable, as they can be adapted to financial commitments. In the GPFG's case, predictable cash flows are less important, as the fund has no special ongoing commitments; see the discussion in chapter 2.2. and chapter 6.

The management of the Fund aims to keep the proportion of equities and fixed income relatively fixed during periods of fluctuating prices. This means, for example, that the Fund will systematically buy shares when the market is falling, to keep the equity portion at around 60 percent (referred to as rebalancing). Access to current liquidity makes it easier to carry out this kind of rebalancing.

Fixed income with high credit quality are often easily realisable. This is particularly true of treasuries. Such bonds therefore comprise a liquidity reserve for GPFG which may be used, among other things, to undertake rebalancing.

Fixed income provides exposure to risk factors

Fixed-income investments provide exposure to different sources of systematic risk (see the discussion above), and can therefore be a source of returns.

2.5.5 The advices of SB and Norges Bank

The report by Schaefer and Behrens does not contain specific advice regarding which benchmark the Ministry should choose. In their view, the current benchmark is based on a well-diversified index involving low exposure to credit risk, and is reasonably liquid. In the view of the authors, the rules for inclusion and exclusion of fixed income indicate that it is largely investable. These are characteristics that are valuable to the GPF. However, SB also points out that the benchmark's exposure to interest-rate risk and credit is not necessarily optimal, or appropriate for the Fund.

SB advocates splitting the fixed-income portfolio up into two or more portfolios, adapted to different purposes. While one part of the portfolio (the core portfolio) should be cultivated as a risk-lesening investment, it would be sensible to establish one or more satellites that have the objective of cultivating exposure to main risk-factor groups, such as liquidity, credit and other factors.

A clear objective for each portfolio would make it easier to decide how much capital should be invested in the core and satellites, respectively.

The core portfolio safeguards the strategic role of the fixed-income portfolio in relation to the other asset classes – to moderate fluctuations and provides liquidity for rebalancing. The core portfolio should only encompass risk factors that are relatively simple to monitor. In practice, the core portfolio would be dominated by treasuries of the

highest credit quality, as such bonds both are liquid and have a tendency to appreciate in value during depressions. According to SB, the core portfolio could also include corporate bonds of the highest credit quality, as these help to spread risk further and are only exposed to skewed risk factors to a very limited extent.

Exposure to skewed risk factors should, in SB's view, only occur in one or more satellites which are separated from the core portfolio. Establishing a satellite for each main group of skewed risk factors would make the risk exposure more transparent and manageable.

Applying this segmentation, SB also proposed that Norges Bank's mandate for the management of SPU's fixed-income investments should distinguish between a index tracking mandate and a risk-taking mandate. The incentives for managers should accord with the different purposes of such mandates – either to track an index where the objective is a minimal tracking error, or to take specific risk according to a clearly defined rule set for the purpose of securing the highest possible (risk-adjusted) return.

Figure 2.18 illustrates a model in which a limited number of satellites are established, where the objective of each portfolio is to maximise returns within its own framework. According to SB, the satellites should be managed on the basis of a total-return requirement, as it would be difficult to define benchmarks for the satellites.

SB highlighted the following advantages of introducing a portfolio structure of this kind:

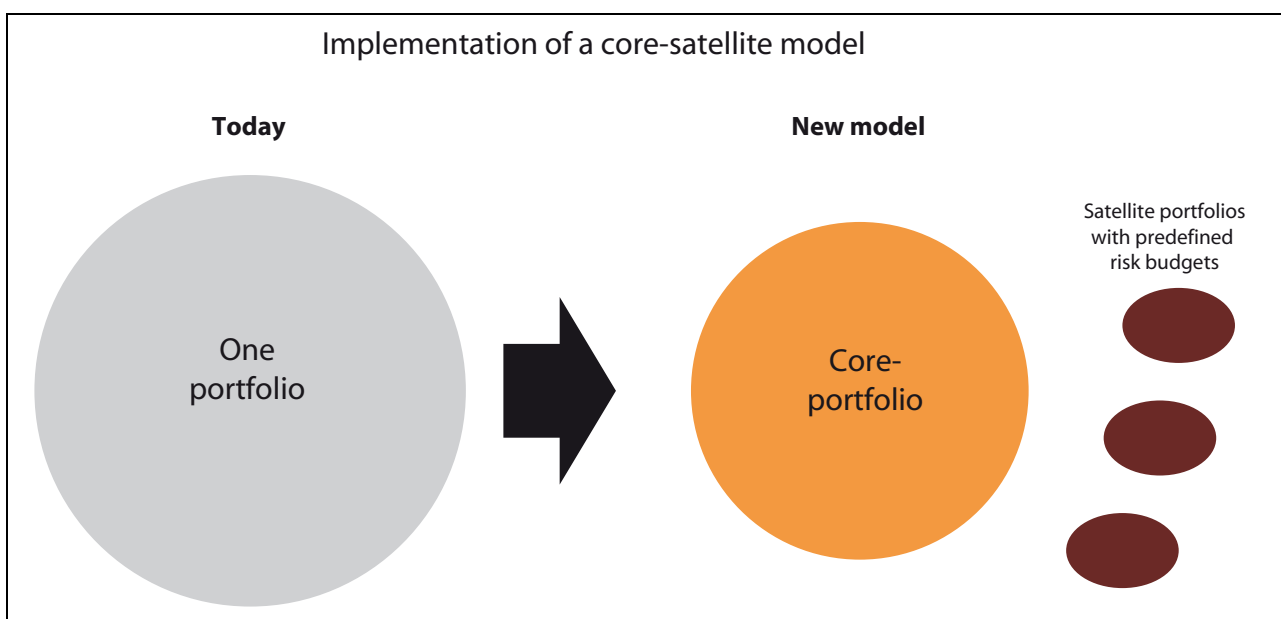


Figure 2.18 Illustration of the transition to a structure involving core and additional portfolios.

Source: Schaefer and Behrens (2011)

- Increased transparency, clear distribution of responsibility and improved incentive structures.
- Reduced opportunities for surprising drops in value.
- Improved risk-adjusted returns.

It is argued that monitoring returns and risk separately for each sub-portfolio (the core portfolio and the satellites), ensures better follow-up. The mandates and incentive structures of the core portfolio and the satellites can be designed in accordance with the objectives of the respective portfolios.

The authors took the view that it would be easier to identify and communicate the risk inherent in the fixed-income portfolio if the Ministry were to split the Fund's interest-rate investments into a core portfolio with the primary objective of moderating the risk of the Fund and injecting liquidity and satellites with the objective of harvesting risk premiums. This would make it easier to secure support for the risk-taking among the owners of the Fund. The authors also stated that this kind of portfolio structure would provide a better framework for analysing which risk factors it might be profitable to be exposed to in the long term. Such analyses create «competition» between skewed risk factors, as exposure is only maintained to the factors which are most profitable. In the long term, this could, in the authors' view, help to secure higher risk-adjusted returns for the Fund.

The recommendation of Norges Bank

In Norges Bank's letter to the Ministry of 18 March 2011, the Bank gave advice regarding the benchmark for the Fund's fixed-income investments. The Bank's starting point was that the fixed-income benchmark should function as a long-term measure of operational management, and be based on leading, easily available benchmarks in order to ensure the greatest possible openness and transparency.

Like SB, the Bank pointed out that the return and risk properties of a broadly composed market portfolio of fixed income can be recreated through a limited number of fixed income and few issuers; see the description in section 2.5.2. Implementing index tracking of a market-weighted fixed-income portfolio will thus be unnecessarily complex.

The Bank pointed out that the risk properties of the Fund's fixed-income benchmark have changed over time, and that structural changes,

including in the capitalisation of banks, will affect the composition of the strategic benchmark in a manner that does not necessarily support the long-term management objectives. The management of the Fund should therefore not automatically be adapted to such changes in market-weighted benchmarks.

The Bank took the view that the strategic benchmark cannot reflect all risk to which the Fund should be exposed at any given time, and that such assessments must be based on the exercise of discretion and form part of operational management. Norges Bank will therefore establish an operational benchmark.

The operational benchmark is intended to ensure adaptation to structural changes in the market, and to address technical weaknesses in the strategic benchmark. In the design of the operational benchmark, the Bank will also adjust the weight the different fixed income are to have in the portfolio by establishing rules for exposure to individual issuers, particular sectors and types of fixed income.

The Bank also wrote that its analyses of systematic risk factors show that both credit and term premiums have varied over time, sometimes significantly. This is consistent with the analyses of systematic risk factors in the SB report. As the GPFG has a long investment horizon and large risk-bearing capacity, the Fund should vary its exposure to different risk factors over time. According to the Bank, such adaptations should be undertaken by Norges Bank, and not by the Ministry. In the design of the operational benchmark and internal management strategies, the Bank will facilitate such variable exposure to different risk factors. In the operational management of the Fund, the Bank will make decisions relating to deviations from the Ministry's benchmark based on the expected development of risk premiums in the market.

This means that the term and element of credit risk of the operational benchmark would vary significantly over time, and deviate from the strategic benchmark. The Bank wrote that the deviations might be larger and have a different character and different time horizon than what would normally fall under «active management». The operational benchmark would be established within the current framework for active management, and would be a tool for communicating the adaptations undertaken by the Bank in the management of the fixed-income investments within the framework of the management mandate.

The Bank analysed how the different main sectors – treasuries, corporate bonds and securi-

tized bonds – safeguard the strategic aims of the asset class.

The Bank wrote, among other things, the following about treasuries:

«Government securities featuring with high credit quality can reduce the risk of the portfolio, particularly during periods of economic setbacks and during periods of increasing risk aversion in the markets. In addition, such investments will normally be liquid.»

According to the Bank, the correlation between the different treasury markets increases during periods of declining economic activity (recession). If doubt arises about a state's ability to service its national debt (sovereign risk), the liquidity of the market for the affected treasuries may fall considerably.

To analyse the properties of corporate bonds from a portfolio perspective, Norges Bank uses a simulation model featuring constant equity and fixed-income proportions of 60 percent and 40 percent, respectively. A number of simulations are carried out which involve different combinations of treasury and corporate bonds within the fixed-income investment ratio. The simulations show that it is advantageous to include corporate bonds with high credit quality, as this improves the ratio between risk and returns for the total portfolio. Corporate bonds with high credit quality have particularly improved the portfolio's ratio between returns and risk during upturns. During downturns, the effect is the opposite. Simulations involving high yield bonds show that these most often have a negative effect on the portfolio properties, and that they should therefore not be included in the strategic benchmark. In its letter, the Bank drew the following conclusion:

«Corporate bonds increase the expected return, but simultaneously increase the correlation between the asset class and equity instruments, most of all during periods of strong declines in the equity markets. The strategic benchmark should therefore establish a clear distinction between these two types of fixed income, as they have different functions in the Fund's portfolio.»

In its analyses of securitized bonds, the Bank distinguishes between American and European securitized bonds. The American market for securitized bonds is dominated by fixed income secured on mortgages guaranteed by federal agencies like

Fannie Mae and Freddy Mac. The Bank pointed out, among other things, that the maturity of these securitized bonds is uncertain. This is due to the properties of American mortgages, as mortgage-holders are entitled to refinance fixed-rate loans. This means that many American securitized bonds are repaid entirely or partly when the interest rate level falls. Accordingly, they do not enjoy the same rise in value as other fixed income when market interest rates fall. This segment of the market therefore appears less suited to moderating declines in the value of a portfolio featuring a 60 percent equity portion.

European covered bonds are primarily issued by banks and secured on mortgages or loans to the public sector. There is no uncertainty about their maturity. European covered bonds are therefore more comparable to corporate bonds with the highest credit quality than American securitized bonds. Overall, Norges Bank concluded that European covered bonds should not be included in the benchmark, as their properties can be covered by a mix of treasuries and corporate bonds.

Fixed income issued in US dollars make up the majority of the government related segment of the Barclays Global Aggregate. The two federal institutions Fannie Mae and Freddy Mac have such a dominant position in relation to government related bonds issued in US dollars that the Ministry has formulated a downweighting rule for such bonds; see the discussion in section 2.5.3. Norges Bank went one step further, proposing that government related bonds should no longer be included in the strategic benchmark.

Norges Bank proposed a simplification of the current benchmark through the exclusion of some parts of the market. The Bank's advice was that 70 percent of the benchmark for nominal fixed income should comprise treasuries, while corporate bonds should account for 30 percent. Corporate bonds currently comprise around 20 percent of the strategic fixed-income benchmark. In isolation, therefore, increasing this type of bond to 30 percent would increase the credit risk of the portfolio. On the other hand, the Bank proposed excluding other sectors of the market (for example securitized bonds), which also involve credit risk. The sectors whose exclusion is proposed currently account for 25 percent of the Fund's benchmark. The proposed increase in the proportion of corporate bonds is therefore not expected to alter the total credit risk of the benchmark significantly.

Generally available benchmarks for corporate bonds are based on a market-weighting principle.

Norges Bank pointed out that a market-weighted benchmark for government bonds will mean an increase in the Fund's exposure to countries with growing national debt. A better approach may be for the government bond portfolio to be weighted on the basis of the production capacity which is to finance the national debt. The Barclays Global Treasury GDP-weighted benchmark has been developed with the aim of using GDP as a weighting criterion for the government bonds of different countries. There are two versions of the benchmark: GDP-weighting of each individual country and GDP-weighting of 10 regions with market weighting within each region. Norges Bank proposed the use of GDP-weighting at individual country level within the euro area. Moreover, the Bank pointed out that there is no direct connection between GDP and the ability of companies to finance their debt. Large structural differences between the markets for corporate bonds in different currencies mean that GDP weights are not particularly appropriate for this segment of the market.

The Bank's proposal regarding a new benchmark can be summarised as follows:

- The proportion of nominal fixed income in the Fund's strategic asset allocation should be calculated as 40 percent less the net value of the Fund's property investments and the market value of the Fund's strategic benchmark for inflation-linked bonds.
- The strategic benchmark for the Fund's nominal fixed income should be composed on the basis of the Barclays Global Treasury GDP-weighted and Barclays Corporate Bond Indices.
- The allocation to government bonds and corporate bonds in the strategic benchmark for nominal fixed-income investments should be set to 70 percent and 30 percent, respectively. The actual weights should be rebalanced to the strategic weights every month.
- The strategic benchmark for government bonds and corporate bonds would, as at present, comprise the currencies USD, CAD, EUR, GBP, SEK, DKK, CHF, JPY, AUD, NZD and SGD.

2.5.6 The Ministry's assessments

Norges Bank's letter and the SB report are useful inputs to the Ministry's efforts to develop the Fund's fixed-income management further.

The Bank and SB have the same view regarding the roles fixed income should play in the Fund's strategic asset allocation. The current

fixed-income investments primarily play two roles in the management of SPU:

- The fixed income investments can help to improve the ratio between expected returns and risk in the Fund as a whole. This is because the value of many fixed income – primarily those issued by states or businesses with very high creditworthiness – only fluctuates in line with the value of the Fund's share portfolio to a limited degree. Even though such investments have a relatively low expected return, they play an important role with regard to diversification. These fixed-income investments are often easy to liquidate, and are therefore also a source of liquidity. Among other things, this can make it easier to maintain a fixed equity portion of 60 percent over time.
- The fixed-income investments help in the harvesting of risk premiums in addition to the premium linked to interest-rate risk. This applies particularly to the risk factors of credit and liquidity. The external report shows that these risk factors are linked to long periods of small, but stable, positive contributions to the Fund's return, but also to periods featuring significant declines in value.

In Report to the Storting 10 (2009–2010), it was pointed out that the current benchmark for fixed-income investments has moderated the fluctuations in the Fund's returns, and functioned as a buffer against equity market declines. The market value development of, among other things, corporate bonds which are exposed to the credit, liquidity and volatility risk factors has pulled in the opposite direction, but the benchmark encompasses limited exposure to these factors.

However, the analyses of the Bank and SB indicate that there is room for improvement in the current fixed-income benchmark. An important consideration in connection with any adjustment of the Fund's benchmark will be to highlight the purpose of the various parts of the fixed-income investments. Basing the composition of the Fund's fixed-income investments on different return and risk properties will allow the fixed-income investments to be better adapted to the Fund's long time horizon, size and liquidity need. Moreover, such adjustment may ensure better identification, management and reporting of risk, and contribute to alignment of interests between the Ministry as principal and Norges Bank as the operational manager.

The report by Professors Ang, Goetzman and Schaefer, which was discussed in last year's

report on the Fund, recommended defining the desired risk exposure for each risk factor, and including the exposure in the Fund's benchmark. Norges Bank's letter and the SB report show that it is difficult in practice to isolate the various risk factors in the fixed-income market. It appears more sensible to base the Ministry's further work on analyses of the risk exposure imparted to the Fund by the various sectors of the current benchmark. This is consistent with the recommendation of the Strategy Council to maintain an investment strategy with a primary focus on distribution across different asset classes, rather than switch to a factor-based approach. Wider analyses of systematic risk factors will nevertheless be an important part of efforts to development the Fund's investment strategy further; see the above discussion of such factors in the fixed-income market.

In its further work, the Ministry will assess whether the fixed-income benchmark should be simplified as proposed by Norges Bank. The Ministry will also make a decision on Norges Bank's proposal to introduce fixed weights for government and corporate bonds of 70 percent and 30 percent respectively. In practice, the Bank's proposal involves splitting the strategic fixed-income benchmark in two; one part government bonds and one part fixed income from private issuers. Such division with fixed weights and rebalancing may, in the Ministry's view, provide an element of dynamic rules for allocation to credit risk in line with the current rules on rebalancing between equities and fixed income. This may be sensible in order to exploit the Fund's advantages by acting counter-cyclically in the market. The Bank's proposal regarding splitting does not go as far as SB's proposal, as the latter also proposed changes regarding the investment universe.

SB was of the opinion that it would be sensible to split the fixed-income portfolio up in order to cultivate the two identified roles of a core portfolio and one or more satellites, respectively. SB stated that the latter should comprise separate satellites for each main group of skewed risk factors. SB mentioned investments in high yield bonds and fixed income issued in local currencies in emerging markets as examples of investments that should be isolated in individual satellites.

The Ministry agrees that an approach of this kind would make the Ministry's framework better equipped to include investments that currently form part of the investment universe but are not included in the Ministry's strategic asset allocation. However, in practice the Bank has, thus far, either not taken up these investment opportunities (fixed income issued in local currencies in emerging markets), or only taken them up sparingly (high yield bonds).

The need to split up the fixed-income portfolio must also be considered in the light of measures already implemented in recent years. Norges Bank has adjusted the management of the fixed-income portfolio. Among other things, the Bank has terminated most of the external mandates for the management of the fixed-income portfolio, and withdrawn approval for a number of interest-rate instruments. Moreover, the Ministry has required the Bank to introduce supplementary risk limits in addition to expected tracking error. Requirements are also imposed in relation to the diversification of the risk associated with active positions, as are requirements for the management and measurement of risk in more ways than before; see the detailed discussion in chapter 5.2. This means that the risk associated with the Fund's fixed-income portfolio is delimited in a better manner than previously. Reference is also made to the discussion in Report to the Storting 20 (2008–2009) and Report to the Storting 10 (2009–2010).

The proposals regarding the simplification of the fixed-income benchmark and the potential further development of the mandate in accordance with the recommendations in the SB report could, in the Ministry's view, be implemented without material changes in expected returns and risk. The Ministry will consider whether making such changes during the course of the year may be relevant. The Ministry will submit any major adjustment of the management of the fixed-income portfolio to the Storting before a final decision is made. The Ministry will provide an account of the work done on the further development of the Fund's fixed-income management operations in next year's report to the Storting on the management of the Fund.

3 The investment strategy for the GPFN

3.1 Introduction

Special characteristics of the Fund and the market place

The capital base of the GPFN originates from surpluses in the national insurance scheme between the introduction of the national insurance scheme in 1967 and the late 1970s. The formal organisation of the GPFN was changed from 2008 by highlighting the distinction between the assets making up the GPFN and Folketrygdfondet as the manager of these assets. The assets were deposited with Folketrygdfondet, which manages such assets in its own name and in accordance with a designated mandate issued by the Ministry. The return on the assets in the GPFN is not transferred to the Treasury, but is added to such assets on an ongoing basis.

The main part of the assets of the GPFN is invested in the Norwegian equity and fixed income markets. The characteristics of the Fund, such as size and a long time horizon, distinguish the GPFN from many other investors in the Norwegian market. Size entails certain benefits, hereunder the ability to exploit economies of scale in the asset management activities. At the same time, the dominant size of the Fund in the Norwegian market results in certain limitations with regard to the ability to make major changes to the composition of the portfolio over a short period of time. The Norwegian market is, moreover, characterised by low liquidity in the equities of several companies, which adds to the challenges in relation to the implementation of portfolio adjustments.

The investment strategy

The Fund's investment strategy, as expressed through the benchmark adopted by the Ministry, forms the basis for the management of the GPFN. The benchmark provides a detailed description as to how the assets of the Fund shall be invested. The benchmark is divided into equities (60 per cent) and fixed income instruments (40 per cent), and into two geographical regions; Norway (85

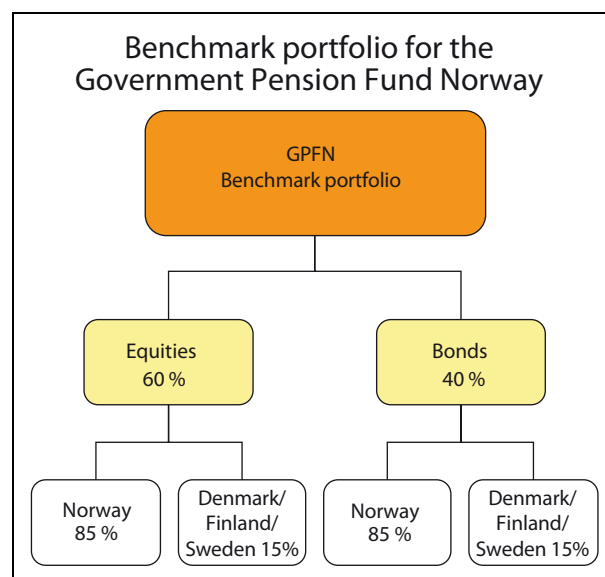


Figure 3.1 Strategic benchmark for the GPFN

Source: Ministry of Finance

per cent) and the Nordic region excluding Iceland (15 per cent), cf. figure 3.1. The Ministry has chosen the Oslo Stock Exchange as the provider of the two equity benchmarks, whilst Barclays Capital has been chosen as the provider of the benchmark indices for the fixed income investments. The mandate for the GPFN provides a more detailed description of the composition of the benchmark for the Fund.

Folketrygdfondet may, within certain limits, deviate from the benchmark with a view to generating excess return (active management). The Ministry has, in the mandate for the GPFN, defined a 3 per cent per year limit on deviations as measured by tracking error, cf. the discussion in Section 5.2.4. This limit has remained the same since 2008, after it was reduced from 3.5 per cent in 2007, cf. figure 3.2. Prior to the reorganisation of Folketrygdfondet as a company by special statute in 2008, the limit as to tracking error was determined by the Board of Directors of Folketrygdfondet.

Tracking error is a statistical risk measure, which expresses by how much the difference in

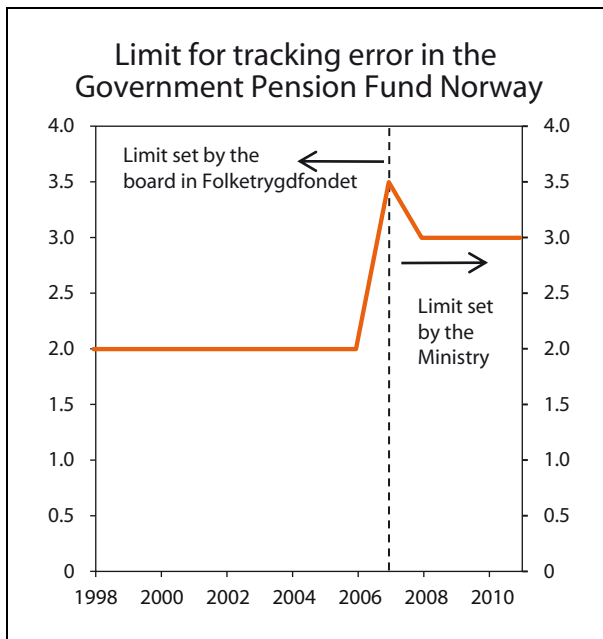


Figure 3.2 Limit on tracking error in the GPFN. Per cent

Source: Ministry of Finance and Folketrygdfondet

returns between the actual investments and the benchmark is expected to vary. The 3 per cent limit means, under certain statistical assumptions, and provided that Folketrygdfondet fully exploits such limit, that the difference in returns between the actual investments and the benchmark is expected to be less than 3 percentage point in two out of three years. The difference is expected to be less than 6 percentage points in 19 out of 20 years and less than 9 percentage points in 99 out of 100 years.

3.2 Evaluation of the active management of the GPFN

3.2.1 Background

Folketrygdfondet was requested, in the context of last year's evaluation of the active management of the GPFN, to assess the relevance to the GPFN of the external reports the Ministry received on that occasion. In January 2010, Folketrygdfondet commented on these reports in a letter to the Ministry. Folketrygdfondet stated that active management of the GPFN would continue to remain the best way of generating added value, cf. Report No. 10 (2009-2010) to the Storting. In last year's Report, the Ministry announced that it would revert with evaluations of the active management of the GPFN.

The Ministry has commissioned three external reports as part of its effort to evaluate the active management of the GPFN. MSCI Barra has been appointed by the Ministry to perform an analysis of the performance of the GPFN, whilst Professor Thore Johnsen of the Norwegian School of Economics and Business Administration has assessed the basis for active management in the future. Moreover, Folketrygdfondet has, in a letter to the Ministry, elaborated on its earlier assessment of the active management of the GPFN and presented a plan for the active management activities. The external reports have been posted on the Ministry's website (www.government.no/gpf).

3.2.2 Active management performance

MSCI Barra has analysed the active management performance in respect of the GPFN over the period January 1998 – June 2010. The analysis covers the Fund as a whole, as well as the four sub-portfolios (Norwegian equities, Nordic equities, Norwegian fixed income instruments and Nordic fixed income instruments). The methodology used has similarities with that used in the review of the active management of the GPFN last year, cf. Report No. 10 (2009-2010) to the Storting. Weight has been attached to examining, inter alia, whether the achieved return can be linked to systematic risk factors.

The main conclusion is that although the element of active management over the period January 1998 – June 2010 has been relatively minor, it has, all in all, contributed to increasing the return on the Fund, whilst having at the same time contributed to reducing the level of risk associated with the Fund. The performance data show that a major part of the return is caused by exposure to market risk.¹ Folketrygdfondet's management of the GPFN has resulted in the risk associated with the Fund having generally been lower than that associated with the benchmark. This applies, in particular, to the two equity portfolios. The finding implies that the value of the actual portfolio of the Fund has tended to be slightly less volatile than that of the market in general, i.e. that the Fund tends to slightly outperform the market when general market developments are weak, and to slightly underperform the market when market returns are high.

¹ The market factor expresses a risk premium associated with being exposed to general market developments, and is defined as the return on the benchmark index less the risk-free rate of interest.

Below follows a more detailed discussion of performance with regard to equity and fixed income management, and with regard to the Fund as a whole.

Equity management

Folketrygdfondet's active management of the *Norwegian equity portfolio* has contributed an average annual gross excess return (before costs) of 1.22 percentage points over the period January 1998 – June 2010. The achieved performance may, generally speaking, reflect management skill and/or luck (so-called alpha), or the asset manager having assumed more risk than implied by the investment strategy (so-called beta). MSCI Barra has therefore analysed whether the return on the Fund may be linked to various systematic risk factors. The analysis estimates that the (risk-adjusted) excess return is 1.72 percentage points when such risk factors are taken into consideration.² Moreover, the findings show that the fluctuations in the return on the benchmark explain more than 97 per cent of the variation in the return on the Norwegian equity portfolio. Consequently, general market developments explain virtually all variation in the return on the portfolio.

MSCI Barra has also examined to what extent the active management performance and the exposure to various risk factors have changed over time. The findings show that the Norwegian equity portfolio has generally been underweighted in relation to market risk and the size factor, whilst the exposure to the value factor over time has oscillated around zero. It is noted, at the same time, that the exposure to market risk was reduced ahead of the financial crisis, and that this may have made a positive contribution to the active management performance in 2008.

² The exposure to market risk is estimated at 0.91 in the scenario with three systematic risk factors (the finding is statistically significantly less than 1). The findings for the two other risk factors imply that the Norwegian equity portfolio has been overweight in large-cap companies and growth companies, respectively, relative to the benchmark. The overweight in large-cap companies has to do with the fact that it is challenging for a large player in a small market to achieve cost-effective and market-neutral exposure to small-cap companies. MSCI Barra has, incidentally, examined the effect from including other known risk factors like momentum and liquidity, but concludes that this does not materially change the findings. Professor Thore Johnsen questions, in his report, whether the relatively low measured risk associated with the portfolio (the underweighting in relation to market risk) may be caused by the beta value having been underestimated, and notes that the Norwegian equity portfolio includes equities with low liquidity, which may result in a certain "sluggishness" in equity prices.

In the *Nordic equity portfolio*, active management over the period May 2001 – June 2010 has generated an average annual gross excess return of 0.26 percentage points, which is less than the excess return achieved on the Norwegian equity portfolio. The Nordic equity portfolio has been underweighted in relation to market risk, as well as the size factor and the value factor. This results in the (risk-adjusted) excess return increasing from 0.26 to 0.68 percentage points. Almost all variation in the return on the Nordic equity portfolio may be explained by fluctuations in the return on the benchmark.

Fixed income management

The management of the *Norwegian fixed income portfolio* has delivered an average annual gross negative excess return of 0.06 percentage points over the period January 1998 – June 2010. When the role played by systematic risk factors is taken into consideration, the estimated positive excess return is 0.17 percentage points. The improvement in performance after adjustment for systematic risk factors reflects the fact that the risk associated with the Norwegian fixed income portfolio has generally been significantly lower than that associated with the benchmark (underweight in relation to market risk). At the same time, the portfolio has been exposed to higher credit risk and interest rate risk than the benchmark. Furthermore, the fluctuations in the return on the benchmark explain 92 per cent of the variation in the return on the Norwegian fixed income portfolio.

The analysis of the exposure to systematic risk factors over time shows that the Norwegian fixed income portfolio has generally been underweighted in relation to market risk. At the same time, exposure to market risk (and to other risk factors) has varied over time. The underweight in relation to market risk has been gradually reduced since 2006, and the portfolio has been overweight in relation to market risk since the end of 2008.

The *Nordic fixed income portfolio* has over the period March 2007 – June 2010 delivered an average annual gross excess return of 0.48 percentage points, which is better than the performance of the Norwegian fixed income portfolio. When adjusted for exposure to risk factors, the excess return is estimated at 0.54 percentage points. The risk associated with the Nordic fixed income portfolio has been somewhat lower than that associated with the benchmark, but the element of

active management has, all in all, been relatively modest. Virtually all return on the Fund can be explained by the return on the benchmark.

The overall portfolio

For the Fund as a whole, the excess return over the period January 1998 – June 2010 is estimated at 0.57 percentage points, when taking into consideration the role played by systematic risk factors. This is significantly higher than the (unadjusted) excess return of 0.36 percentage points, which principally reflects the risk associated with the Fund having generally been lower than that resulting from general market developments. More than 97 per cent of the fluctuations in the return on the Fund can be explained by the fluctuations in the return on the benchmark, whilst the remaining portion may be attributed to active investment decisions. In its report, MSCI Barra concludes that the active management of the GPFN has, all in all, created some value, although it also notes that the statistical explanatory power of the findings is relatively weak.

3.2.3 The basis for active management

Neither the report from Professor Thore Johnsen, nor the submission from Folketrygdfondet, suggests a change to mechanical adherence to the benchmark of the Fund through passive index management. Both reports note that both the size of the Fund and special characteristics of the Norwegian market make it difficult to implement purely passive management. It is also noted that the Fund enjoys certain advantages that one should be able to utilise through active management.

Folketrygdfondet notes, in its submission, that the Fund held 9.3 per cent of the market value of all companies in the benchmark for Norwegian equities (the main index of the Oslo Stock Exchange) as per yearend 2009.³ This makes the GPFN one of the largest investors on the Oslo Stock Exchange. In the Norwegian fixed income market, the Norwegian fixed income portfolio of the GPFN represented 5.9 per cent of the value of the benchmark. Management of a large portfolio in a small market poses a number of asset management challenges, hereunder that major

changes to the composition of the portfolio take longer to implement. The dominant size of the Fund in the Norwegian market and the fact that parts of the market are characterised by low liquidity therefore make it difficult to distinguish unequivocally between active and passive management, and against this background Folketrygdfondet advises against the passive management of the GPFN.

Folketrygdfondet has stated that it expects an annual excess return relative to the benchmark of 0.40 percentage points, as calculated before costs, and notes that this is supported by the performance achieved since 1998:

«Since 1998, the annual average excess return on the GPFN has been 0.45 percentage points. In 2006, the asset composition of the GPFN was changed by way of the redemption of part of the investments of the State and the repayment of the capital to the State. If the historical return on the portfolio and the benchmark portfolio is adjusted for this fact and the current benchmark portfolios are used, the estimated average annual excess return is 0.36 percentage points. Folketrygdfondet aims for active management to generate an annual excess return of 0.40 percentage points before management costs over time.»

Please refer to Box 3.1 for a more detailed account of the relationship between expected excess return and the creation of value in respect of the GPFN.

Folketrygdfondet also emphasises that active management interacts positively with other aspects of the management activities, hereunder the exercise of ownership rights:

«Folketrygdfondet is committed to the active exercise of ownership rights and the follow-up of bond loans for purposes of safeguarding the financial interests of the GPFN and contributing to long-term value creation. It is our experience that good ownership and creditor follow-up requires expertise and knowledge of the companies. It is therefore an important principle for Folketrygdfondet that the exercise of ownership and creditor rights must form an integrated part of the investment activities. Folketrygdfondet shall be a credible player and achieve results in the exercise of its ownership rights. We must therefore have the necessary knowledge and expertise to assess the issues owners need to address. The expertise used

³ The main index is adjusted for free flow, i.e. shareholdings that are not deemed freely transferable are excluded. The portion of the equity market that is not freely transferable is significantly higher in Norway than in other markets.

Box 3.1 Expected excess return and value creation in the GPFN

The cost of active management is, when taken in isolation, higher than the cost of passive management because active management requires, in relative terms, more resources. Since the purpose of having an active management framework is to achieve a higher return than through passive management, the most relevant question for the owner is whether one has, through active management, obtained a higher return, net of all costs, than one would in a theoretical passive management scenario. The difference in returns may be referred to as the net value creation from active management.

Nevertheless, the measure normally used for active management performance is the difference between the gross return (return before the deduction of management costs) on the Fund and the return on the benchmark, which may be referred to as the gross excess return. Whilst the gross excess return may be established from the financial statements of the Fund, the net value creation from active management needs to be estimated, since one will then be comparing the actual return with a theoretical passive management scenario. In order to estimate net value creation one needs to take into consideration the facts that the actual portfolio incurs transaction costs, that the Fund earns income from securities lending, etc., and that the management costs would have been lower in case of passive management. Since the estimated income and costs under passive management are based on a significant element of discretionary assessment, there will also be considerable uncertainty associated with the net value creation estimate.

The management of the Fund's portfolio involves transaction costs that are not taken into account in the calculation of the return on the benchmark. It must therefore be expected, as a general rule, that passive equity and fixed income funds will in practice earn a return lower than that on the benchmark, cf. the discussion in Report No. 10 (2009-2010) to the Storting.

Folketrygdfondet has estimated the costs relating to rebalancing of the benchmark of the Fund at 0.03 per cent of the assets. Costs will also be incurred on an ongoing basis because the composition of the benchmark index is changed continuously. Folketrygdfondet has estimated this cost to fall in the range of 0.06-0.10 per cent as an annual average.

On the other hand, securities lending generates income that is not included in the calculation of the return on the benchmark. Folketrygdfondet may lend securities in its portfolio in return for a compensation. The income from these activities is not included in the gross excess return figure. Furthermore, Folketrygdfondet earns income in connection with the implementation of share issues involving pre-emptive rights (in the form of an underwriting commission). Folketrygdfondet estimates that the total income from securities lending and underwriting commissions falls into the range of 0.03-0.04 per cent

The return on the benchmark less 0.04-0.11 percentage points would, based on the transaction cost and lending income estimates of Folketrygdfondet, seem a reasonable estimate as to the return in a theoretical passive portfolio indexation scenario.

Conversion from gross excess return to net value creation from active management also requires an estimate as to how much higher the management costs have been as the result of active management. Folketrygdfondet has estimated, on an uncertain basis, that about one fourth of the actual overall management costs relate to active management, thus implying that the passive management costs may be estimated at 0.06-0.08 per cent.

Folketrygdfondet notes, in its statement, that the active management target is an annual excess return of 0.40 per cent before costs. This corresponds to a net excess return of 0.30 per cent after the deduction of actual management costs of 0.10 per cent (2009 figures). The net excess return from passive management may, at the same time, be estimated at minus 0.10-0.19 per cent on the basis of the above estimates. Consequently, the net value creation from active management, as compared to passive management, may be estimated at 0.40-0.49 per cent, which implies that net value creation from active management, as estimated by Folketrygdfondet, is of the same magnitude as the reported gross excess return since 1998. In other words, the estimate is based on an actual return exceeding that on the benchmark by 0.30 percentage points after the deduction of all costs, and an estimated net return in a theoretical passive management scenario that is at least 0.10 percentage points below that on the benchmark, cf. Table 3.1.

Box 3.1 (cont.)

Table 3.1 Gross excess return and net value creation from active management of the GPFN

	Excess return, as measured in basis points
<i>Gross excess return measure</i>	+40
Actual management costs	-10
<i>Net excess return</i>	+30
Return on the benchmark index	0
Passive management transaction costs	-6 to -10
Rebalancing costs	-3
Income from underwriting commission	0 to 1
Income from securities lending	2 to 4
<i>Estimated gross differential return if passive management</i>	-4 to -11
Management costs if passive management	-6 to -8
<i>Net differential return if passive management</i>	-10 to -19
<i>Net value creation from active management</i>	+40 to +49

Source: Folketrygdfondet

Consequently, the cost and income estimates in Table 3.1 suggest that the gross excess return provides a good ongoing measure of value cre-

ation, and the Ministry will therefore attach weight to this measure in its ongoing follow-up.

for such purposes has been accumulated by Folketrygdfondet over many years, by continuously monitoring developments on the part of the companies and by maintaining a dialogue with the companies and with relevant market players. We are of the view that ownership follow-up improves when the managers responsible for ownership follow-up are also responsible for making active investment decisions in relation to deviations from the benchmark portfolio.»

Folketrygdfondet is of the view that a passive management mandate may limit the impact of its active ownership activities because, inter alia, it will result in an inability to divest or reduce holdings in a company that fails to take into consideration the inputs and view of its shareholders. Folketrygdfondet therefore believes that active management of the portfolio may add more clout

to the active ownership activities than would passive management.

In his report, Professor Thore Johnsen notes that the GPFN differs from other investors in terms of, inter alia, the long time horizon of the Fund. Professor Johnsen believes that its long-time perspective potentially is of high value, but he also notes that the dominant size of the Fund in the Norwegian market, in combination with low liquidity in several companies, poses challenges in terms of both passive and active management. These challenges have to do with avoiding an unfavourable effect on market prices from the purchase and sale of securities by the Fund, which may contribute to increasing the transaction costs associated with the management of the Fund. He therefore believes that these special characteristics of the Fund and the market place exclude not only ongoing close-to-index management, but also active management strategies based on frequent selection of securities as well as

tactical allocation between the asset classes equities and fixed income instruments, or between systematic risk factors.

Professor Johnsen also notes that the long time horizon implies that the Fund may make selective purchases of underpriced securities during periods of market turbulence. Furthermore, he notes that the Fund may, through the established rebalancing regime, exploit fluctuations in the risk premium in the equity market over time. He believes that the Fund may thereby, through selective or countercyclical transactions, play an important stabilising role in the Norwegian market, and that this type of effects must also be taken into consideration in the assessment of active management.

3.2.4 Main active management strategies

Folketrygdfondet bases its statement on the premise that the assets of the Fund shall be invested in line with the benchmark index stipulated by the Ministry («management of the market portfolio»). Furthermore, Folketrygdfondet seeks, by way of active management, to achieve a return in excess of the return on the benchmark («active management strategies»). However, the practical implementation involves the management of the market portfolio being conducted from the perspective of the active management strategies. The reason given for this interaction by Folketrygdfondet is that active choices have to be made to sustain and maintain a certain market exposure.

Strategies for the management of the market portfolio

An important part of the management of the market portfolio is the maintenance of a large portfolio of equities and fixed income instruments, hereunder the reinvestment of assets accruing to the portfolio in the form of dividends, coupons, maturities and other corporate events, the maintenance of the appropriate foreign exchange exposure, and the monitoring and implementation of the index changes. The management of the market portfolio also involves the planning and execution of rebalancing.

Folketrygdfondet notes that certain characteristics of the benchmark indices make it difficult to achieve the desired market exposure in a cost-effective manner. This is particular the case in relation to the fixed income investments, with the inclusion requirements of the index provider (Barclays Capital) making the index less representa-

tive for the Norwegian market. The following characteristics of the benchmark index for the fixed income investments contribute to this:

- *Required size:* Any individual loan needs to exceed 300 mill. Euros (about NOK 2.4 bill.) in order to be included in the benchmark for the fixed income investments (the Barclays Global Aggregate Index). The purpose of such a size criterion is to ensure that the loans included in the index have good pricing sources. At the same time, the consequence is that a number of smaller loans are not included in the index. The size criterion therefore results in the benchmark including a limited number of issuers, especially as far as concerns the benchmark for Norwegian fixed income investments (which includes 16 private issuers, the three largest of which represent more than half the value of the index). Consequently, the credit risk associated with the benchmark is highly concentrated.
- *Required external credit rating:* Furthermore, the issuer of the bond loan needs an external credit rating from one of the three credit rating agencies Moody's, Standard & Poor's or Fitch, corresponding to moderate to high credit quality (so-called «investment grade»). This implies the exclusion of both high-risk bonds (so-called «high yield») and loans without external credit rating from the benchmark. In practice, however, the number of loans excluded as the result of this criterion is small, because most bond loans in the Norwegian market will not, in any event, meet the size criterion. In addition, the credit rating criterion implies that loans will be removed from the index when downgraded to high yield bonds. Folketrygdfondet notes that experience shows that such bonds have generated a relatively high risk-adjusted return, and one of the reasons for this is that regulatory requirements mean that many investors need to divest when their bonds fall below investment grade.
- *Required remaining term to maturity, etc.:* The benchmark only includes loans with a remaining term to maturity of more than one year and with a fixed interest rate. A large portion of the loans issued in the Norwegian market for credit-linked notes carry floating interest rates. This implies that the benchmark only covers a minor part of the investment universe for fixed income instruments.

Furthermore, the management of the market portfolio involves a need for a rebalancing and reweighting of the benchmark. The composition

of the benchmark indices for equities is changed twice a year, and Folketrygdfondet notes that adapting the portfolio to such index changes poses challenges because the liquidity of the equities of some of the companies that enter or exit the index is limited. Folketrygdfondet is of the view that this would make passive management challenging.

The benchmark indices for the fixed income investments are changed monthly. This implies, *inter alia*, changes to the maturities of the index in various currencies. Furthermore, the portion of government bonds in the Norwegian benchmark is reweighted monthly, whilst the index provider's method for foreign exchange hedging of the return back into Norwegian kroner implies monthly updates. As far as the Nordic benchmark is concerned, the currency composition may also change as the result of loans entering or exiting the index. Folketrygdfondet notes that it does not intend to exploit these changes for purposes of achieving excess return. Folketrygdfondet therefore emphasises, in its asset management activities, managing the exposure to such undesired risk factors in such a way as to minimize their contributions to active management.

Folketrygdfondet states that the most comprehensive form of rebalancing takes place when the asset weights in the benchmark move away from the fixed strategic weights. The experience from the financial crisis is that the execution of such rebalancing is very demanding. Major changes to asset weights as the result of fluctuations in equity and fixed income prices may imply that major changes are required to the composition of the portfolio. Folketrygdfondet notes that considerations relating to the execution of rebalancing make active management more demanding, thereby curtailing the scope for generating excess return. At the same time, rebalancing does itself require active choices to be made.

Active management strategies

Folketrygdfondet aims to achieve the highest possible return over time, relative to the benchmark of the Fund. It seeks to realise this objective through active management strategies. Weight is attached to basing the active investment decisions on thorough company analyses, whilst at the same time seeking to exploit changes to systematic risk factors to the extent possible. Active choices relating to over- or underweighting between the asset classes equities and fixed income instruments do

not, on the other hand, form a key part of the active management strategy of Folketrygdfondet.

The Ministry has, through the mandate for the GPFN, stipulated a 3 per cent limit on the deviation from the benchmark, as measured by the tracking error, cf. the more detailed discussion in Chapter 5.2. Folketrygdfondet believes that it is appropriate for the element of active management to vary over time within an tracking error interval of 1 – 2.75 percentage points under normal market conditions, with the degree of utilisation of the risk limit depending on relevant investment opportunities.

Moreover, Folketrygdfondet emphasises that it is an active and countercyclical investor, and that it does not aim to utilise the maximum risk limit at all times. Neither does it aim for a constant level of risk over time, but seeks instead to exploit what it perceives to be mispricing in the market. Folketrygdfondet notes that such a strategy will imply that it may, in periods of market turbulence, utilise the risk limit to a high degree, whilst one may deem a lower degree of utilisation appropriate during more stable periods.

The active management strategies are based on the premise that one seeks to draw on the advantages of the Fund in terms of size and a long-term perspective. The Fund has the capacity to accept high risk and can thereby withstand major fluctuations in the value of the Fund. Folketrygdfondet notes that its asset management activities are subject to fewer regulatory limitations than those of other investors in terms of, *inter alia*, liquidity, capital adequacy, etc., which means that it is not forced to make undesired changes to the compositions of the portfolio during periods of turbulence.

In fixed income management, these strengths imply that Folketrygdfondet may increase the credit risk through the credit cycle, on the basis that the active management strategies can be implemented without market fluctuations necessitating unwanted adjustments to the portfolio. The active strategies within fixed income management are, furthermore, based on a good diversification of risk and a low risk of loss of the loan principal. Folketrygdfondet emphasises that it has, as a long-term investor, a special advantage that enables it to act countercyclically, and that may, through thorough credit analyses, generate added value on the part of the GPFN.

In equity management Folketrygdfondet seeks to invest countercyclically, hereunder during periods when the markets are less well-functioning and the pricing of risk is abnormal.

Folketrygdfondet emphasises that a long investment horizon facilitates the making of investments in respect of which it takes a long time for the underlying value to be realised. Furthermore, it emphasises that the Fund has an informational advantage through, inter alia, privileged access to the companies in which the Fund is invested. Folketrygdfondet notes that the high risk-bearing capacity of the Fund enables it to participate in restructurings and recapitalisations of companies during periods when general market developments are weak and the access to capital is limited.

The active management strategies of Folketrygdfondet attach weight to risk in the effort to identify companies that are expected to make a positive contribution to value creation.

The Fund is a major owner in many companies and Folketrygdfondet also seeks to contribute to value creation through the exercise of its ownership rights. Folketrygdfondet is of the view that accumulated expertise and a good investment process will over time contribute to a higher return on the equity portfolio than on the benchmark. It is also noted that an investment process based on thorough analyses and active investment decisions may serve to reduce risk.

The active management strategies of Folketrygdfondet within equity management imply that the equity portfolios will normally achieve a higher return than that resulting from general market developments when markets fall, and that one will normally obtain a weaker return than the benchmark during strong upturns. Folketrygdfondet notes that this investment profile has over time resulted in excess return on the part of the GPFN. When analysing return developments this shows up as underweighting in relation to market risk, cf. Section 3.2.2. Folketrygdfondet notes, in its statement, that certain studies show that portfolios with low volatility may under certain conditions achieve a higher return than the average market return, with lower risk.

In his report, Professor Thore Johnsen notes that the Fund appears to have chosen an active management strategy that is appropriately adapted to the size disadvantage of the GPFN. It is noted, in this regard, that the Norwegian equity management activities combine limited risk (as measured by tracking error) with company positions that deviate from the index, generally as the result of prior index changes, i.e. that the Fund refrains from selling equities that have been excluded from the index or from purchasing equities that have been included. Professor Johnsen

believes that this has contributed to reducing the transaction costs of the Fund when compared to more passive index management. He also believes that it may have contributed to reducing the risk associated with the Fund, inasmuch as companies that have exited the index have generally had lower risk than companies that have entered the index.

Professor Johnsen takes the view that the active management of the Norwegian equity portfolio by Folketrygdfondet is characterised by low-frequency and long-term positioning. Moreover, he notes that management of the Norwegian equity portfolio has been characterised by Folketrygdfondet having replaced a large number of companies in the benchmark with less liquid companies outside the index, in addition to traditional over-/underweighting of companies relative to the benchmark. In his report, Professor Johnsen notes that excluded index companies have been associated with significantly higher overall risk and market risk than the companies included in the portfolio that do not form part of the benchmark. This may, according to Professor Johnsen, be why the Norwegian equity portfolio of the GPFN has generally delivered a lower return than the benchmark in periods of market upturn and a higher return in periods of downturn. It may also explain why the Fund has had both a higher average return and lower risk than the benchmark, which may be caused by the Fund having reaped a liquidity premium without any apparent downside risk being associated therewith, as one would expect with more illiquid positions.

Systematic risk factors

Last year's evaluation of the active management of the GPFG showed that the performance may, in large part, be explained by systematic risk factors. Professors Ang, Goetzmann and Schaefer therefore recommended, in their report, that more weight be attached to efforts relating to the Fund's exposure to systematic risk factors.

The Ministry has, against this background, attached weight to establishing, in its review of the active management of the GPFN, what role such factors may play in the management of the Fund, and whether it is appropriate for these to be reflected to a greater extent in the investment strategy of the Fund.

MSCI Barra's analysis shows that the return on the Fund can only to a very limited extent be attributed to systematic risk factors, other than the exposure to the market in general (market

risk), cf. Section 3.2.2. Folketrygdfondet notes, in its statement, that systematic risk factors like company size, liquidity and general market developments may, in general, contribute to explaining the return on an equity portfolio, although such risk factors are not particularly suitable as the basis for making decisions about future equity investments (i.e. for inclusion into the benchmark). This is because it is difficult to achieve exposure to such risk factors on a scale that is of relevance to the GPFN. Folketrygdfondet believes, on the other hand, that term and credit premium are two risk factors that are more suitable as a basis for making decisions about future investments (within fixed income management), but notes, at the same time, that incomplete data makes it difficult to incorporate these into the benchmark in an appropriate manner.

In his report, Professor Thore Johnsen notes that the challenges relating to defining a set of risk factors, constructing an investable portfolio of risk factors and executing a reallocation over time within the index between these portfolios, is virtually unachievable in a small local market like the Norwegian one. In his report, Professor Johnsen shows how different definitions of, for example, a Norwegian company size factor, result in different historical risk premiums and different variations over the business cycle. This is caused by, inter alia, a pronounced sector and company concentration on the Oslo Stock Exchange.

3.2.5 The Ministry's assessments

The Ministry notes, by way of introduction, that experience from the financial crisis illustrated the importance of the active management of the Government Pension Fund being based on a solid foundation and broad support for the role played by active management as part of an overall investment strategy for the Fund. The Ministry has, against this background, performed a detailed assessment of the active management of the GPFN, cf. Report No. 10 (2009-2010) to the Storting.

Discussion of the basis for, and scope of, active management

In assessing whether an active management framework can be expected to improve the performance of the Fund over time, the Ministry has attached particular weight to the following:

- Both Folketrygdfondet and Professor Johnsen note that the dominant size of the Fund in the

Norwegian market and special characteristics of the market place (low liquidity in a number of companies) suggest that it is not appropriate to have a purely passive indexation strategy. The Ministry shares this view.

- It should be possible to exploit the size and long-term perspective of the Fund to the advantage of the Fund through active management. Size may, inter alia, result in cost reduction and scope for attracting the necessary expertise, as well as informational advantages. Furthermore, the long-term perspective of the Fund may represent an active management advantage because the Fund is not, for example, forced to realise losses at inappropriate times. Size may, at the same time, represent a disadvantage in the practical execution of asset management, hereunder because it would be difficult to expand the scale of certain active strategies to a volume of relevance to the Fund. The dominant size of the Fund in the Norwegian market will also pose challenges in relation to the scope for making large changes to the composition of the portfolio over a short period of time.
- The benchmark indices for the equity and fixed income portfolios of the Fund are stipulated by the Ministry on the basis of long-term assessments. The statement from Folketrygdfondet notes weaknesses in the benchmark indices of the Fund, in particular with regard to the fixed income investments. A certain room for deviation from the benchmark is necessary to enable Folketrygdfondet to exploit these weaknesses, and for facilitating cost-effective adaptation to the index. This also needs to be considered in the context that there exist no attractive alternatives to the current benchmark for the fixed income investments.
- Folketrygdfondet has stated that active management may have positive reciprocal effects on, inter alia, the exercise of the ownership rights of the Fund. The Ministry attaches weight to the role of the Fund as a responsible investor. The Fund is a large owner in the Norwegian equity market. This implies both an obligation and an opportunity to exercise ownership rights. The exercise of ownership rights, also in relation to individual companies, is necessary to attend to the financial interests of the Fund. Even if other funds may not attach weight to the choice between active and passive management as being of importance to the effectiveness of active ownership activities, the Ministry deems it laudable that Folketrygdfon-

det attaches weight to utilising the potential that may be offered by reciprocal effects between active asset management in relation to individual companies and the exercise of ownership rights.

The Ministry is of the view that these circumstances suggest that there should be some room for deviation from the benchmark in the management of the GPFN. Purely passive index management would encumber the Fund with unnecessary costs, and special characteristics of the Fund offer a potential for excess return over time that should be exploited to some degree. In addition, there is cause to believe that a certain element of active asset management may have positive reciprocal effects on other parts of the management activities.

The active management framework forms part of the overall investment strategy for the Fund. The basis for assessing the active management framework should therefore, like other parts of the strategy, be premised on a trade-off between expected return and risk. The Ministry has attached special weight to the following in that context:

- The external review has demonstrated that there are weaknesses associated with the benchmark indices of the Fund and that the Fund may enjoy active asset management advantages in relation to, inter alia, costs and a long-term perspective. These factors suggest that there should be some room for deviation from the benchmark.
- Generally speaking, a certain loss ought to be perceived as equally negative for the owner, irrespective of the origin of the loss. In this sense, a strategy involving little risk in the benchmark and relatively wide room for active management should be perceived as equivalent to a strategy involving more risk in the benchmark and correspondingly less in the active management activities. Nevertheless, some weight must be attached to the consideration that a significant negative excess return in an individual year may impair confidence in the asset manager, even if the performance as measured over a longer period of time is favourable. This suggests, when taken in isolation, that the room for deviation from the benchmark should be moderate.
- The analyses that have now been conducted confirm that it is the benchmark, as adopted by the Ministry, that makes the dominant contribution to the risk associated with the Fund.

The element of active management has been very moderate in the context of the overall risk associated with the Fund. The reports do not provide specific advice in the form of a recommended figure for the active asset management limit, but the Ministry is of the understanding that they support the position that the limit should still remain moderate.

- An excess return in line with Folketrygdfondet's own target of 0.4 percentage points annually will represent a considerable amount over time.

In addition to assessments of return and risk, the Ministry has examined whether the active management framework will have consequences for the concurrence of interests between the owner and the asset manager of the Fund. The management of the GPFN requires Folketrygdfondet to recruit and retain personnel with specialised expertise. These people have to be recruited in competition with other participants in a market where the use of performance-based remuneration is widespread. This applies, generally speaking, to both active and passive management. Although the purpose of performance-based remuneration is that the asset manager shall have the same interest in a favourable return as the owner, there is nevertheless a risk that individuals and groups of people may face incentives that are not aligned with the owner's objective for the management of the Fund. As far as active asset management is concerned, this may especially be the case if there is a large discrepancy between the time horizon of an active management strategy and the evaluation period used in any applicable bonus systems.

Challenges relating to potential conflicts of interest between the owner and the asset manager may therefore, on a general basis, suggest that active management should be limited in scope. The owner of the Fund has, at the same time, a clear interest in the establishment of a performance-based culture on the part of the asset manager, with a focus on both increased income and reduced costs. This may be supported by a well-designed remuneration system.

The new mandate for the GPFN makes Folketrygdfondet subject to the same requirements as to remuneration policies and practices as apply to employees of financial institutions in Norway, cf. the Regulations of 1 December 2010 No. 1507 relating to Remuneration Policies and Practices in Financial Institutions, Investment Firms and Investment Fund Management Companies. This

implies that the policies and practices shall contribute to promoting, and provide incentives for, good management and control of the risk associated with the management activities, counteract excessive risk taking, and contribute to the prevention of conflicts of interest.

As far as the formulation of the active management risk limit is concerned, the Ministry believes that it is not appropriate for it to take the form of a target figure for active risk, cf. the discussion in last year's Report. Such a target figure may, in some situations, encourage the asset manager to assume more risk than would be desirable. The Ministry believes, on the other hand, that there are good reasons for making the limit less sensitive to general turbulence in the market. The new mandate for the GPFN therefore includes the following provision (cf. Section 3-6):

«Folketrygdfondet shall organise asset management with a view to ensuring that the annualised standard deviation of the differential return between the actual portfolio and the actual benchmark index, on an ex ante basis (tracking error), does not exceed 3 percentage points.»

The wording in the provision to the effect that asset management shall be organised «with a view to» not exceeding the limit implies that the tracking error may be higher in very special situations, cf. the discussion in Chapter 5.2.

In its statement, Folketrygdfondet notes that the utilisation of the tracking error limit will vary over time, depending on the investment opportunities identified on an ongoing basis, and that it must be expected to be higher in periods of general market turbulence than in more stable periods. The Ministry is of the view that such a strategy supports the effort to exploit the advantages of the Fund, but points out, at the same time, that although investment opportunities seem to vary over time, this is a challenging investment strategy. The analysis from MSCI Barra lends, nevertheless, some support to the idea that Folketrygdfondet has the ability to adapt the level of risk in the Fund to varying market conditions.

The Ministry has noted, moreover, that Folketrygdfondet has established an internal limit for tracking error of 2.75 percentage points, and that the measured active risk in the last two years has varied between 1.02 and 2.88 percentage points.

The Ministry notes that the limit on tracking error for the GPFN (3 per cent) is higher than the

limit stipulated for the GPFG (1 per cent). The Ministry is of the view that there are several reasons why the tracking error limit should be higher in respect of the GPFN than in respect of the GPFG:

- There are material differences between the GPFG and the GPFN in terms of both the size of the Fund and special characteristics of the market. The GPFG is, relatively speaking, a minor participant in a large market, where the percentage ownership stakes are generally small, whilst the GPFN is a large participant in a small market, where the percentage ownership stakes are generally large. Besides, the Norwegian equity and fixed income markets are less liquid than the market internationally. The differences in size and liquidity imply that it is more challenging for the GPFN than for the GPFG to make portfolio adjustments. Calculations made by Folketrygdfondet show that even passive management would require an tracking error limit of 1.5 percentage points in respect of the Norwegian equity portfolio, as a minimum, in order to be practicable.
- The dominant size of the GPFN in the Norwegian equity and fixed income markets implies that the Fund may, in certain situations, influence the functioning of the market. Passive management may imply that the Fund is forced to sell at a time when doing so would be unfortunate, and this may have negative effects for the market in general. The lessons from the financial crisis were that active choices are required in order to keep to the strategy in volatile markets.

The Ministry is of the view that the experience with the current tracking error limit of 3 per cent is, on the whole, favourable. The Ministry has therefore concluded, based on an overall assessment, that the current active management limit should continue to apply. The limit will be reviewed in connection with the regular reviews of the active management activities now envisaged by the Ministry, cf. below.

The decision of the Ministry to uphold the current tracking error limit must also be seen in the context of the requirement stipulated by the Ministry, in the new mandate for the GPFN, for Folketrygdfondet to adopt supplementary risk limits for the asset management activities, in addition to tracking error. The Ministry is of the view that this will contribute to a better risk management framework for the asset management activities than before.

An expectation of excess return over time

The Ministry has stipulated the following return objective in the mandate for the GPFN (cf. Section 1-1):

«Folketrygdfondet shall seek to achieve the highest possible return over time, net of costs, as measured in Norwegian kroner.»

The Ministry has examined whether the active management performance ambitions should be quantified. An explicit objective of achieving the highest possible return within an active management framework may contribute to clarifying the objective and the expectations with regard to Folketrygdfondet, hereunder the management of the market portfolio and the active management activities.

The tracking error limit represents the key regulation of the scope of active management. The Ministry examined, in the context of the evaluation of the active management of the GPF, whether a target figure or interval should be stipulated in respect of the tracking error, cf. Chapter 2 of Report No. 10 (2009-2010) to the Storting. The Ministry concluded that it would be more appropriate to express the active management ambitions by quantifying the expected net value creation from active management over time than to stipulate a target figure for the utilisation of the tracking error limit. It was emphasised, at the same time, that the Fund's net value creation from active management should be evaluated in the context of the limit of the deviation from the benchmark.

There is no definite answer as to what constitutes a reasonable ratio between risk and expected return in active management activities. The following nevertheless provide some indication:

- Folketrygdfondet's own objective. In its statement, Folketrygdfondet has expressed an ambition of achieving an annual excess return (before costs) from active management in the average amount of 0.40 per cent, based on the current tracking error limit of 3 per cent
- Achieved performance. Over the period January 1998 – December 2010, Folketrygdfondet has on average achieved an annual gross excess return of 0.46 per cent.

The Ministry has concluded, based on an overall assessment, that one should expect an annual net value creation from active management within the

range of ¼-½ percentage points on average over time. The achieved excess return must, at the same time, be assessed on the basis of the risk associated with this activity. Net value creation will, as an approximation, be measured as gross excess return, i.e. the difference in return between the actual portfolio and the benchmark, cf. the discussion in Box 3.1.

When calculated over long periods of time, an excess return in line with the above objective will represent a considerable contribution to the overall return on the Fund. It corresponds to about NOK ½ billion per year, given the current size of the Fund.

Active management is not expected to have any material impact on the overall risk associated with the Fund over time, based on Folketrygdfondet's strategy for the management of the GPFN. The active management activities of Folketrygdfondet have actually contributed to reducing the risk associated with the Fund since 1998 if measured by the Fund's standard deviation, which is a common risk measure. The realised volatility of the actual portfolio over the entire period 1998-2010 was 8.7 per cent, as against 9.3 per cent for the benchmark.

Systematic risk factors

Neither the statement from Folketrygdfondet, nor the report from Professor Thore Johnsen, recommend that more weight be attached to systematic risk factors in the efforts relating to the investment strategy of the Fund. Both reports note that it is difficult to define an unequivocal set of risk factors of relevance to the Norwegian equity market, whilst known risk factors in the Norwegian market are not sufficiently stable over time. It is also noted that it is difficult to achieve exposure to such risk factors on a scale of relevance to the GPFN.

The Ministry shares the view that it would not be appropriate to attach more weight to systematic risk factors in the management of the GPFN. The Ministry believes, at the same time, that it is important for Folketrygdfondet to seek, in its ongoing reporting on the Fund, to explain to what extent exposure to relevant systematic risk factors has contributed to the return on the Fund.

Interaction effects between the management of the Norwegian and the Nordic portfolios

The Ministry has, in connection with the review of the active management of the GPFN, requested

Folketrygdfondet to provide an account of any interaction effects between the management of the Norwegian and the Nordic portfolios.

Folketrygdfondet notes, in its statement, that asset management in Norway and in the Nordic region is, in the main, based on the same management strategy and investment process, which reflects an experience of positive interaction and expertise transfer effects. Folketrygdfondet believes that the expanded range of information accessed by the asset managers because they operate in a more international investment universe has a positive effect of the asset management activities, hereunder that it makes it easier to catch on to market changes at an earlier stage. Moreover, it is emphasised that taking a view on individual investments through active management in the Nordic region adds further to the knowledge base, which is also deemed important for purposes of adding, developing and retaining relevant expertise within Folketrygdfondet.

In his report, Professor Johnsen notes that there is no active value creation from the management of the Nordic equity portfolio before the deduction of costs, and that neither should one expect Folketrygdfondet to enjoy any special advantage in the active management of Nordic equities. Nor is the Fund sufficiently large in the Nordic markets, believes Professor Johnsen, to be able to benefit from economies of scale. Professor Johnsen proposes a reassessment of the expansion of the Nordic equity benchmark, which was implemented in 2007, in order to reduce the management costs, whilst at the same time not completely eliminating the analysis benefits reaped in respect of Norwegian asset management. He also believes that it is difficult to see any strong arguments in favour of a continued Nordic fixed income management.

The Ministry has noted that the active management performance in respect of the Nordic investments has, all in all, been positive since the commencement of these investments. The Minis-

try has, at the same time, noted that the active management performance achieved in respect of the Nordic equity portfolio is weaker than the performance in respect of the Norwegian equity portfolio, and that there has in the last two years been a negative excess return on the Nordic equity portfolio, cf. the discussion in Chapter 4.2.

The Ministry deems it appropriate for the issue of interaction effects between the management of the Norwegian and the Nordic portfolios to form part of the periodic and comprehensive evaluations of the active management activities that are now being envisaged, cf. below.

Periodic reviews of the active management activities

The estimates as to future returns from the active management activities are uncertain. Over time, the overall active management activities need to be evaluated on the basis of the performance achieved. A prerequisite for a certain element of active management is periodic and comprehensive reviews of the active management of the GPFN. Such reviews may result in the extent of active management being either increased or decreased. It will also be appropriate, on the occasion of these reviews, to evaluate whether gross excess return still appears to be a representative measure of the value creation from active management activities. Other matters that should be examined are whether Folketrygdfondet exploits potential reciprocal effects between active management activities and other parts of its asset management activities. The Ministry intends, against this background, to conduct such periodic reviews of the active management activities at the beginning of every session of the Storting, in line with what has previously been announced in respect of the active management of the GPFN, cf. Chapter 2 of Report No. 10 (2009-2010) to the Storting.

4 Asset management follow-up

4.1 Asset management performance

4.1.1 GPFG performance

Market value developments

The market value of the GPFG as per yearend 2010 was NOK 3,077 billion, prior to the deduction of the asset management costs for 2010, cf. figure 4.1. This represented a NOK 437 billion increase on the previous year. The increase in fund assets was primarily caused by the inflow of new capital and the favourable returns achieved by the Fund on its investments, cf. figure 4.2. The aggregate capital inflow to the Fund over the period 1996-2010 amounts to NOK 2,508 billion, prior to the deduction of asset management costs, whilst the aggregate return, as measured in the Fund's currency basket, over the same period amounted to NOK 746 billion. A strengthening of Norwegian kroner reduced, when taken in isolation, the assets of the Fund by NOK 160 billion, but this has no impact on the international purchasing

power of the Fund. Total management costs over the period 1996-2010 were NOK 16 billion.

The increase in the equity portion from 40 to 60 per cent has, together with strong growth in fund assets, increased the Fund's percentage ownership stakes in the equity markets. A continuation of major capital inflows to the Fund will result in a continued increase in its percentage ownership stakes in the equity markets. The ownership stakes of the Fund in the companies included in the benchmark index for equities (FTSE All Cap) averaged about 1 per cent as per yearend 2010, cf. figure 4.3. The percentage ownership stake in the bond markets increased somewhat in 2010, but has declined overall in recent years, cf. figure 4.4. The main reason for this is that the fixed income portion of the Fund has been reduced from 60 to 40 per cent. In addition, the bond market has expanded in size, partly because of increased borrowing needs in many countries during the financial crisis.

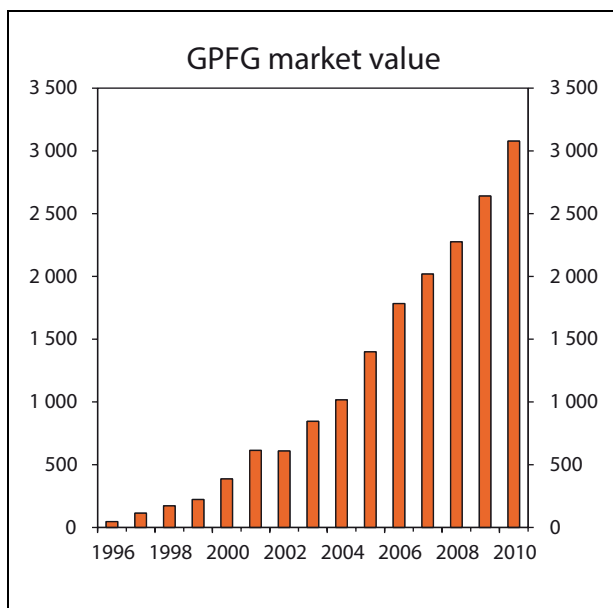


Figure 4.1 The market value of the GPFG, 1996-2010. NOK billion

Source: Norges Bank and the Ministry of Finance

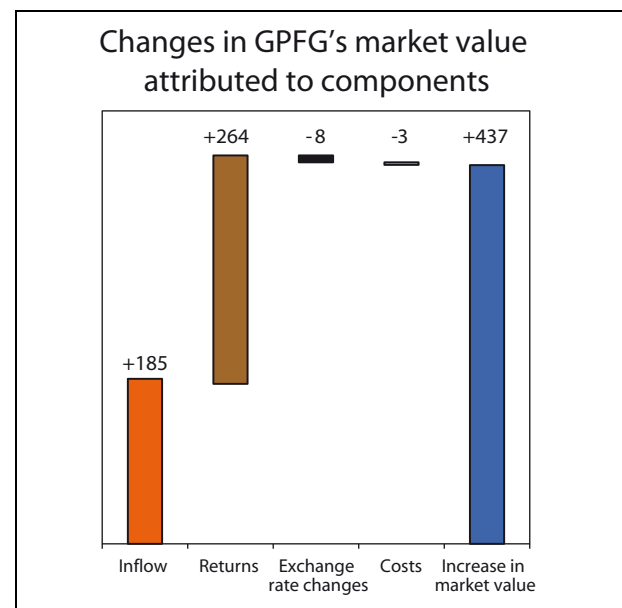


Figure 4.2 Developments in the market value of the GPFG in 2010, as attributed to various components. NOK billion

Source: Norges Bank and the Ministry of Finance

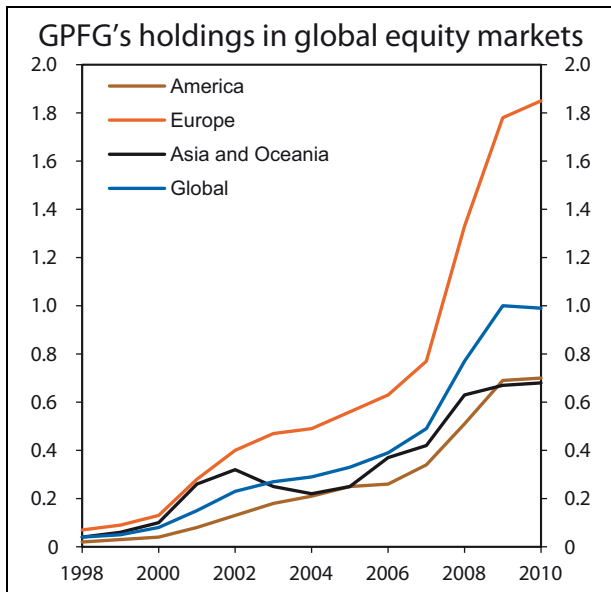


Figure 4.3 Percentage ownership stakes of the GPFG in world equity markets. Per cent of the market capitalisation of the FTSE All Cap index.

Source: Norges Bank and the Ministry of Finance

Economic and financial developments

Economic growth revived during 2010. This was most pronounced in Asia, but the Americas also developed favourably. Developments in Europe were more mixed. Some countries, like Sweden

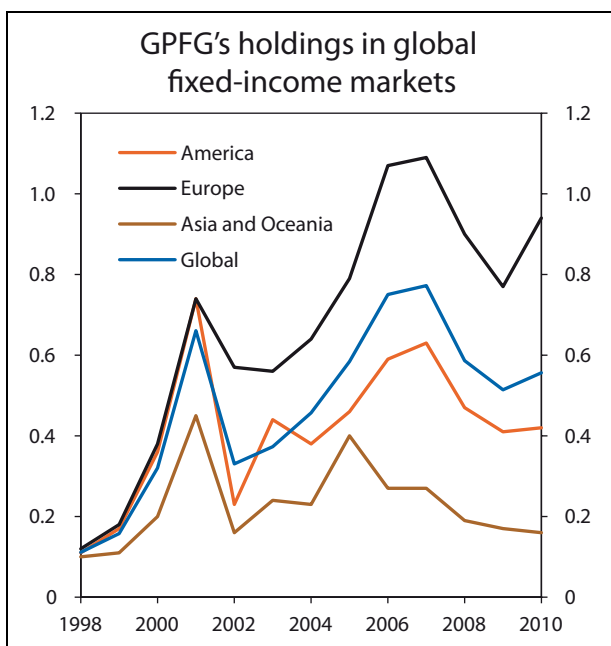


Figure 4.4 Percentage ownership stakes of the GPFG in world bond markets. Per cent of the market capitalisation of the Barclays Global Aggregate index

Source: Norges Bank and the Ministry of Finance

and Germany, experienced strong growth, whilst other countries saw weak or negative growth. Developments in Europe were heavily influenced by challenges pertaining to high debts and the funding of budget deficits. This applied to Greece and Ireland in particular, but partly also to Portugal and Spain. The impact on the euro of any payment difficulties on the part of one of the euro-zone member states, and the scope of financial support from the other states in such a scenario, were associated with uncertainty. Such uncertainty influenced the global equity market in the first half of 2010. In May 2010, the EU and the IMF reached agreement on a crisis package totalling 750 billion euros, which somewhat reduced the uncertainty. Global equity markets developed positively from the late summer of last year.

Many countries have experienced mounting inflation throughout 2010. Nevertheless, many countries have kept their key policy rates unchanged at very low levels out of fear of a contraction in economic growth in the event of the stimuli being scaled back. Bond interest rates traced, in large part, developments in the equity market. Interest rates declined during the first half of 2010, resulting in high bond yields. This was reversed in the autumn, and interest rates climbed. Interest rates on 10-year government bonds in the United States, Japan and the main EU countries at the beginning of 2011 were somewhat below those at the beginning of 2010, cf. figure 2.15 in Chapter 2.

Returns

The aggregate rate of return on the benchmark of the GPFG in 2010 was 8.57 per cent, as measured in the currencies (the currency basket) of the benchmark. The rate of return on the benchmark for the equity investments was 12.61 per cent, and the rate of return on the benchmark index for the fixed-income investments was 2.58 per cent. Figure 4.5 shows developments in the Fund's benchmark indices since 1998.

The rate of return on the Fund was 9.62 per cent in 2010, cf. Table 4.1. High returns over the last two years mean that the average rate of return on the Fund since 1998 is now in excess of 5 per cent, up from less than 3 per cent in 2008. See also Box 4.1.

Return on the equity portfolio of the Fund was high in 2010, whilst the return on the fixed-income portfolio was somewhat lower, cf. figure 4.6. Over the period from 1998 to 2010, the aggregate return on the fixed-income portfolio exceeded that on the

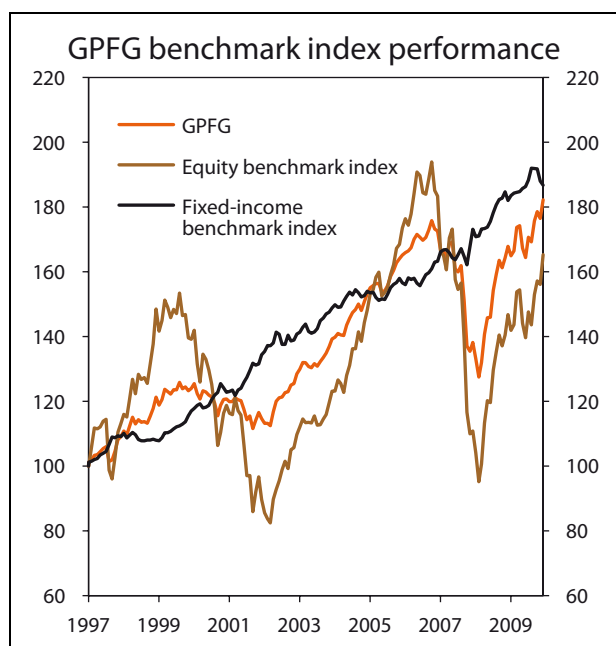


Figure 4.5 Developments in the benchmark indices of the GPFG. Index as per 31 December 1997 = 100

Source: Norges Bank and the Ministry of Finance

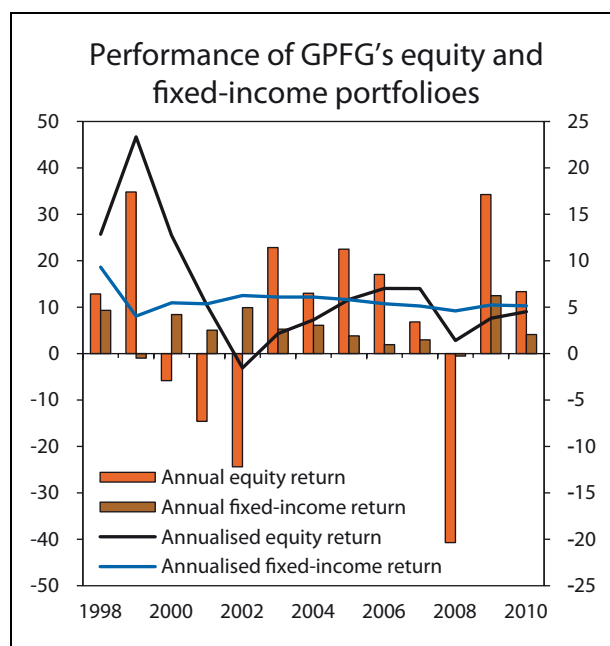


Figure 4.6 Return on the equity and fixed-income portfolios of the GPFG. Return per year (left axis) and annualised over the period from 1998 until each individual year (right axis). Per cent

Source: Norges Bank and the Ministry of Finance

equity portfolio. Large parts of the world economy has been through two recessions over this period, during which equity prices experienced a major slump; first after the IT bubble burst in 2000 and

then again when the financial crisis occurred in 2008. The interest rates on long-term bonds have declined over the same period, which has boosted the return on the fixed-income portfolio.

Table 4.1 Rates of return on the GPFG in 2010, over the last 3 years and over the period 1998-2010. Annual geometric average. Per cent

	Last year	Last 3 years	1998-2010
<i>GPFG</i>			
Actual portfolio	9.62	1.84	5.04
Benchmark index	8.57	1.83	4.73
Excess return (percentage points)	1.06	0.00	0.31
<i>Equity portfolio</i>			
Actual portfolio	13.34	-3.37	4.51
Benchmark index	12.61	-3.40	3.94
Excess return (percentage points)	0.73	0.04	0.57
<i>Fixed-income portfolio</i>			
Actual portfolio	4.11	5.22	5.15
Benchmark index	2.58	4.58	4.92
Excess return (percentage points)	1.53	0.64	0.22

Source: Norges Bank and the Ministry of Finance

The aggregate gross excess rate of return on the Fund (before management costs) was 1.06 percentage points in 2010. This was caused by a 0.73 percentage point excess return on the equity portfolio and a 1.53 percentage point excess return on the fixed-income portfolio. Norges Bank reports that about two thirds of the excess return was realised on internally managed funds, whilst the remainder originated from externally managed funds. The Fund's investments in commodity-based equities and financial equities generated higher returns than those of the benchmark indices, whilst investments in technology equities underperformed. The main excess return contributors in the fixed-income portfolio were the investments in US mortgage-backed securities and European corporate bonds. The Fund also benefited from its holdings of government debt from several Southern European countries being less than those in the benchmark.

The Ministry has previously expressed an expectation for an annual net value creation from active management of about $\frac{1}{4}$ per cent on average over time. The gross excess return may serve as an approximation for this variable, cf. Report No. 10 (2009-2010) to the Storting. Figure 4.7 shows the annual gross excess return over the period 1998-2010, as well as the annualised excess return since 1998. The considerable negative excess return in 2008 resulted in a negative

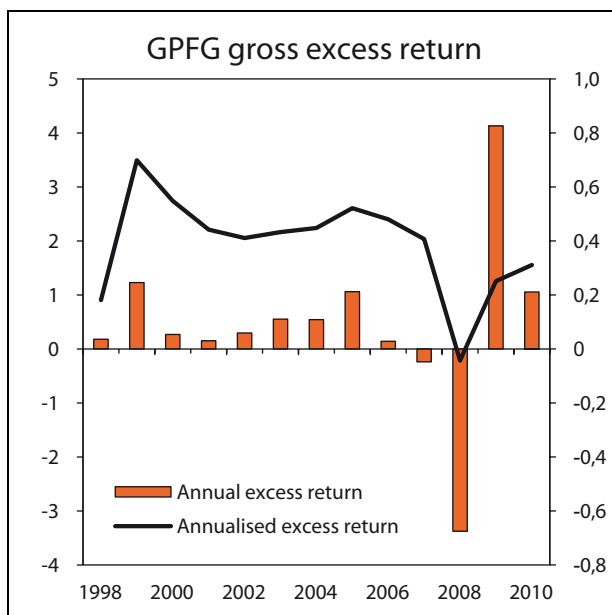


Figure 4.7 Gross excess return on the GPFG over the period 1998-2010. Excess return per year (left axis) and annualised over the period from 1998 until each individual year (right axis). Per cent

Source: Norges Bank and the Ministry of Finance

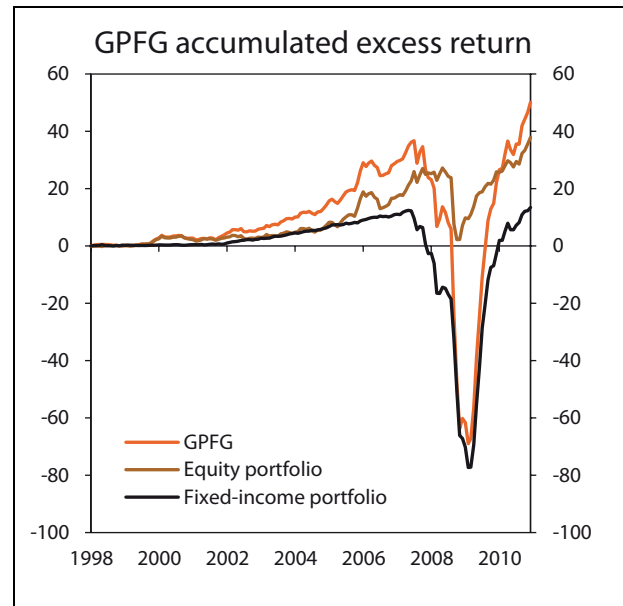


Figure 4.8 Accumulated excess return on the GPFG. NOK billion

Source: Norges Bank and the Ministry of Finance

excess return on the Fund for the entire period from 1998 to 2008 as a whole. The favourable outcome of active management in 2009 and 2010 contributed, however, to increasing the average annual gross excess return, which was 0.31 percentage point as per yearend 2010, i.e. somewhat higher than the $\frac{1}{4}$ per cent target. The Ministry has calculated the gross excess return on the Fund for the period 1998-2010 at about NOK 50 billion in aggregate,⁴ cf. figure 4.8.

The real rate of return is measured in order to trace developments in the Fund's purchasing power, i.e. the nominal rate of return adjusted for the general inflation. Inflation is measured on the basis of the same country allocations as is the currency basket. Figure 4.9 shows annual and annualised real rates of return over the period 1997-2010, after the deduction of management costs. The real rate of return in 2010 was 7.57 per cent, whilst the annual average real rate of return over the period from 1997 to 2010 was 3.33 per cent. This represents an increase of about 1.8 percentage points since yearend 2008.

Performance of the benchmark indices are of very great importance to the total return on the Fund. Active management has made an important, but minor, contribution to the total return.

⁴ The excess return in Norwegian kroner is calculated by multiplying the excess return over the month by the assets at the beginning of such month, and thereafter adding up this number over all the months. Consequently, the calculation does not take the compound interest effect into consideration.

Box 4.1 Investment horizon and performance measurement

In the short run, equity prices are influenced by expectations as to the future earnings of the company, changes in the risk-free rate of return, as well as changes in the risk premium required by investors on equity investments. This is also discussed in Chapter 2.2 of this Report in which it is noted that risk premiums appear to vary over time. When the risk premium in the stock market increases, equity prices decline. Consequently, changes in risk premiums are one reason why equity prices decline in times of volatility, and contribute to an increase in equity values when market volatility falls back down.

Developments in the market value of the investments are important for investors with a short investment horizon. For such investors, the market fluctuations will in themselves occasion transactions in the market. Short-term investors may have loans or other obligations that make it necessary for them to sell equities as a result of these having declined in value. For long-term investors, with both the willingness and the ability to hold on to the securities through volatile times, short-term fluctuations are of lesser importance. For these investors it

may be more relevant to watch developments in companies' earnings and dividend payments. The usual way of reporting developments in an equity portfolio is by measuring returns, as measured by changes in market value over periods of one quarter or one year. For investors with a long horizon it may in addition be desirable to report other, more long-term, measures with regard to developments in the value of the companies in which they are invested. One way of expanding the performance measurement horizon is to look at moving averages in returns over several years, for example 3, 5 or 10 years. Another possibility is to report indicators as to underlying developments in company performance. These may be, for example, developments in key ratios relating to earnings or dividends, typically relative to book equity or the sum of equity and liabilities on the part of the companies.

The Ministry will be embarking of an assessment as to which measures are suited for supplementing the regular reporting of the returns on the GPFG and the GPFN.

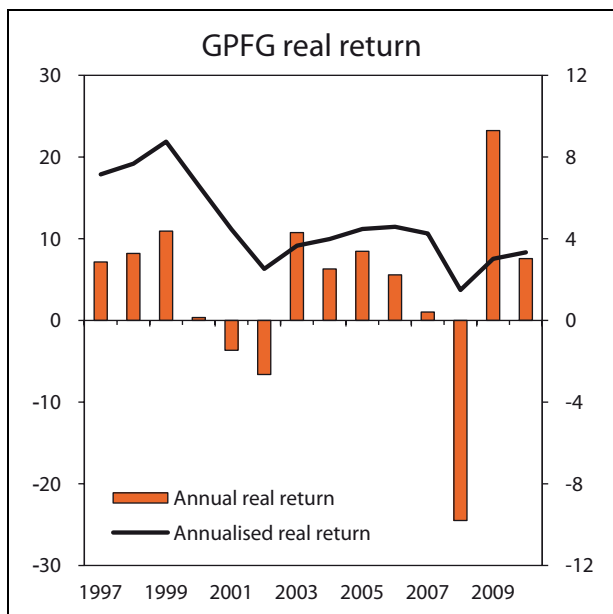


Figure 4.9 Real rate of return on the GPFG, net of asset management costs. Real rate of return per year (left axis) and annualised over the period from 1997 until each individual year (right axis). Per cent

Source: Norges Bank and the Ministry of Finance

This shows that the decisions relating to the asset allocation of the Fund have been the main determinants of the return on the Fund over this period, and not decisions relating to active management.

Risk

The risk associated with an investment is often measured as the standard deviation of the return on such investment. The standard deviation provides a measure as to the volatility of returns. The standard deviation of the total return on the GPFG depends on the standard deviations of the equity and fixed-income returns, what portions of the Fund are comprised of equities and fixed-income instruments, respectively, as well as how the returns on equities and fixed-income instruments are correlated.

Figure 4.10 shows that the fluctuations have been much more pronounced for the equity benchmark than for the fixed-income benchmark. The fluctuations tend to increase during periods of major economic uncertainty, such as during the financial crisis in 2008. The covariation between

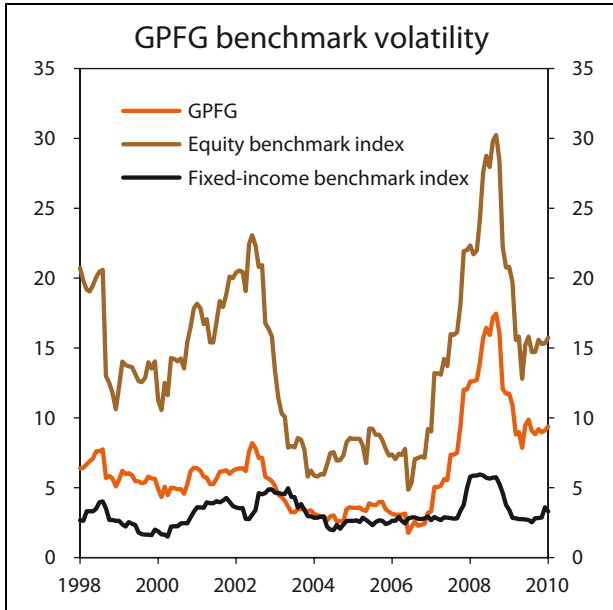


Figure 4.10 Rolling 12-month standard deviation of the benchmark indices of the GPFG. Per cent
Source: Norges Bank and the Ministry of Finance

the returns on the equity and the fixed-income benchmarks have also tended to change significantly during times of crisis. Figure 4.11 shows the covariation between the benchmarks over the period from 1998-2010, as measured by their correlation. A correlation of 1 suggests that the returns are moving in perfect tandem, a correlation close to zero means that the returns are

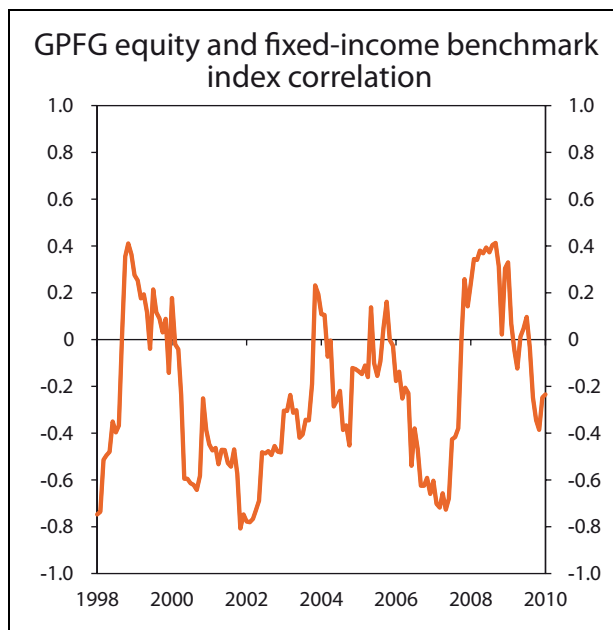


Figure 4.11 Correlation between developments in the equity and the fixed-income benchmarks of the GPFG.
Source: Norges Bank and the Ministry of Finance

moving independently of each other, whilst a negative correlation means that the returns are moving in opposite directions. The figure shows that the correlation increased considerably during the financial crisis.

It was expected that the standard deviation of the overall benchmark would increase as a result of the increase in the equity portion from 40 to 60 per cent. The increase in the standard deviation experienced in the autumn of 2007 reflected the increased equity portion, increases in the standard deviations of the equity and the fixed-income benchmarks, as well as an increase in the covariation between the equity and the fixed-income benchmarks. As per yearend 2010, both the covariation and the standard deviations had reverted to their average levels for the period 1998-2010. It can therefore be assumed that the standard deviation of the overall benchmark as per yearend 2010 was close to what will represent a new average level as the result of the increased equity portion. One must be prepared for potentially major fluctuations in the standard deviation of the benchmark of the Fund in future as well.

Active management on the part of Norges Bank means that the return on the actual portfolio deviates from the return on the benchmark. The mandate issued by the Ministry in respect of the management of the GPFG stipulates that the Bank shall invest the assets of the Fund with a view to ensuring that the expected tracking error does

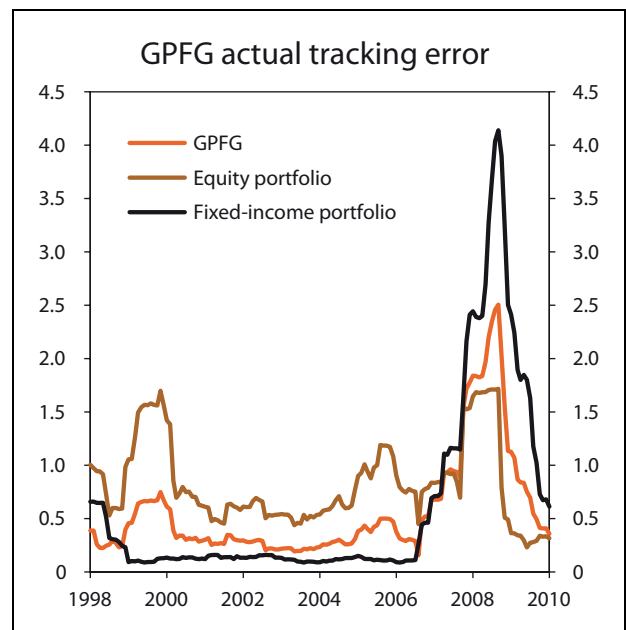


Figure 4.12 Rolling 12-month actual tracking error of the equity and fixed-income portfolios of the GPFG, as well as of the Fund itself. Per cent
Source: Norges Bank and the Ministry of Finance

not exceed 1 per cent, cf. the more detailed discussion in Chapter 5.2. The expected tracking error is a model-generated estimate of the potential magnitude of future fluctuations. It may happen, since this is an estimate, that the actual excess return exceeds 1 per cent without this representing any violation of the mandate. However, if this happens often it would suggest that the actual calculation model suffers from weaknesses. Figure 4.12 shows the developments in the actual tracking errors of the equity and the fixed-income portfolio, respectively, and for the Fund as a whole. The figure shows that the actual fluctuations in the excess return on the Fund were large during the financial crisis, but became significantly less during 2010. As per the beginning of 2011, the actual tracking error was well below 1 per cent.

Active management on the part of Norges Bank implies that the risk associated with the actual portfolio may increase somewhat relative to that associated with the benchmark. Figure 4.13 shows developments in the standard deviations of the actual portfolio and the benchmark. The figure shows that the risk associated with the actual portfolio has been about the same as the risk associated with the benchmark for most of the time. The financial crisis represented an exception, with the risk associated with the Fund exceeding that associated with the index, which was in large part caused by parts of the Fund's fixed-income investments. The

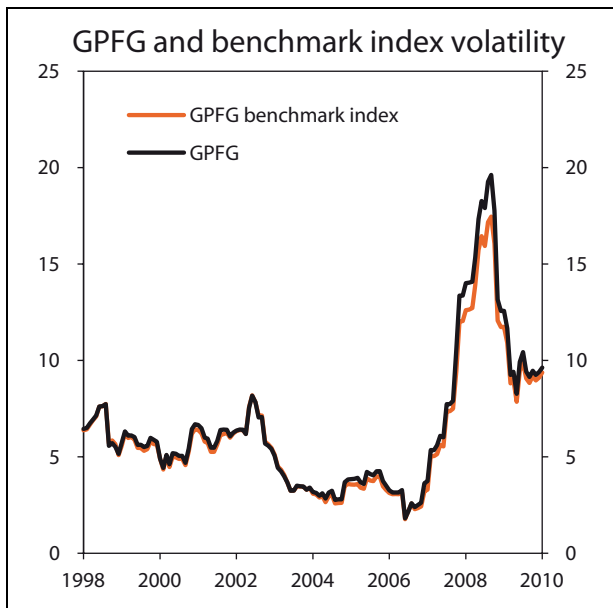


Figure 4.13 Standard deviation of the actual portfolio of the GPF and of the benchmark index. Per cent

Source: Norges Bank and the Ministry of Finance

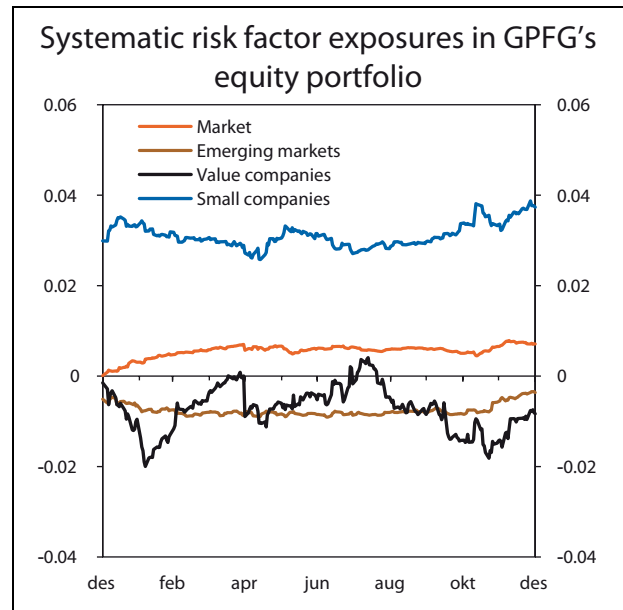


Figure 4.14 Systematic risk factors in the equity portfolio of the GPF during 2010. Coefficients from regression analysis.

Source: Norges Bank and the Ministry of Finance

main part of these fixed-income investments was no longer included in the portfolio as per yearend 2010. The figure shows that the risk associated with the benchmark is the predominant determinant of the risk associated with the Fund, and that active management only represents a minor contribution.

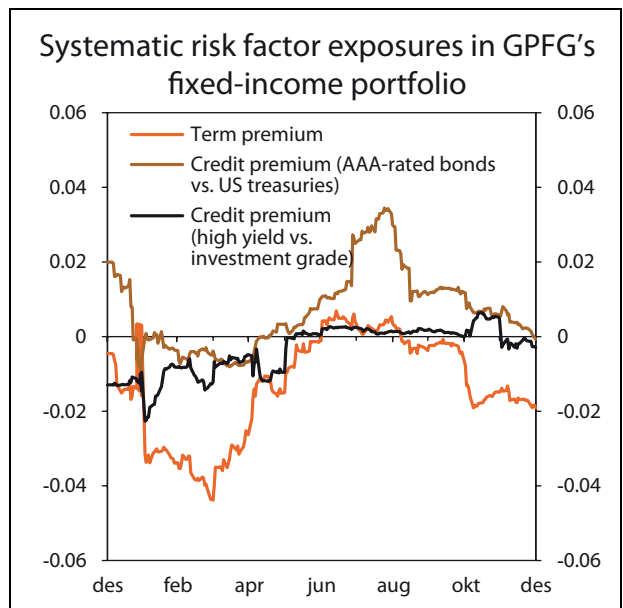


Figure 4.15 Systematic risk factors in the fixed-income portfolio of the GPF during 2010. Coefficients from regression analysis

Source: Norges Bank and the Ministry of Finance

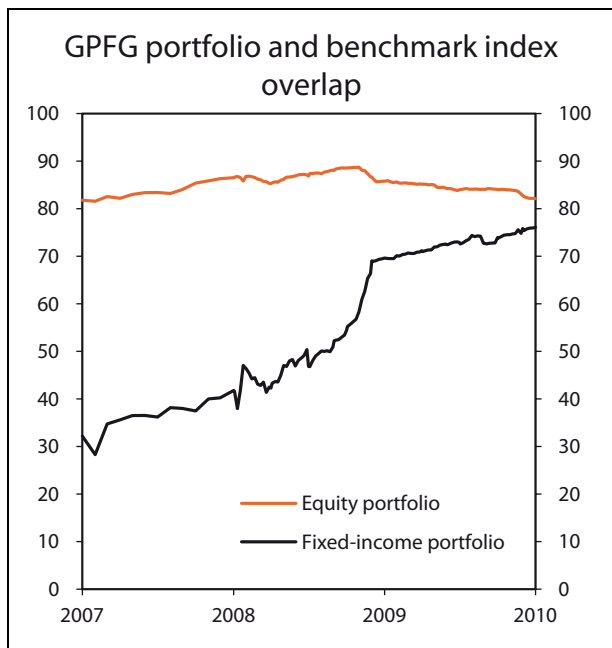


Figure 4.16 Degree of concurrence between the actual portfolios of the GPFG and its respective benchmark indices. Per cent

Source: Norges Bank and the Ministry of Finance

Both the equity portfolio and the fixed-income portfolio involve exposures to systematic risk factors, cf. the discussion in Chapter 2 of this Report. Figure 4.14 shows the estimated exposure of the equity portfolio to some of these factors. It indicated that the equity portfolio had more exposure to small-cap companies than the benchmark throughout 2010, whilst its exposure to the other systematic risk factors was both less and more variable. Figure 4.15 shows the exposure to systematic risk factors in the fixed-income portfolio. The figure suggests that the fixed-income portfolio was, through 2010, invested in bonds of somewhat shorter average maturity than that of the bonds in the benchmark, and that the portfolio was overweight in currencies with a high interest rate level. In addition, the portfolio was somewhat more exposed than the benchmark to bonds with credit premiums.

One way of defining an active management framework is to limit what portion of the securities of the portfolio may differ from the securities of the benchmark index. Figure 4.16 shows developments in the degree of concurrence with regard to the equity and the fixed-income portfolio, respectively, of the GPFG. A 100 per cent concurrence means that the actual portfolio is absolutely identical to the benchmark, and consequently that the actual portfolio entails exactly the same risk as the benchmark. The figure shows that the

concurrence has remained more or less unchanged in recent years as far as the equity portfolio is concerned, at somewhat in excess of 80 per cent.

In comparison, there has been a significant increase in the degree of concurrence with regard to the fixed-income portfolio in the wake of the financial crisis.⁵ As per yearend 2010, concurrence was somewhat in excess of 75 per cent.

Norges Bank may, in its management of the GPFG, take ownership stakes of up to 10 per cent in any one individual company. As per yearend 2010, the Fund's largest percentage ownership stake was 9.1 per cent in the Hong Kong-listed China Water Affairs Group. The Fund held percentage ownership stakes in excess of 5 per cent in a total of 17 companies.

In addition to the risk described in this Section, there is a risk of errors being made in the management of the GPFG that may result in an economic loss or reputational loss. This type of risk is referred to as operational risk, and is discussed in Section 4.2.1

Costs

The mandate Norges Bank has been given by the Ministry of Finance implies that the actual management costs of the Bank are covered up to an upper limit, which for 2010 was fixed at 0.10 per cent (10 basis points) of the average market value of the Fund. In addition, Norges Bank is compensated for such portion of the fees of external managers as is the result of achieved excess returns.

The management costs, exclusive of performance-related fees for external managers, amounted to NOK 1,973 mill. in 2010. This represents an increase of somewhat in excess of 8 per cent over 2009. The size of the Fund also increased during the year, with the implication that costs measured as a share of assets under management declined from 7.8 basis points in 2009 to 7.0 basis points in 2010. Consequently, management costs, exclusive of performance-related fees, are well below the upper limit. Inclusive of performance-related fees for external managers, the costs amounted to NOK 2,959 mill., or about 10.5 basis points on assets under management. This represents a reduction of 3.5 basis points since 2009. The main reason for the reduction is that the excess return

⁵ A security in the fixed-income portfolio is deemed to be equivalent to a security in the benchmark if these are issued by the same borrower.

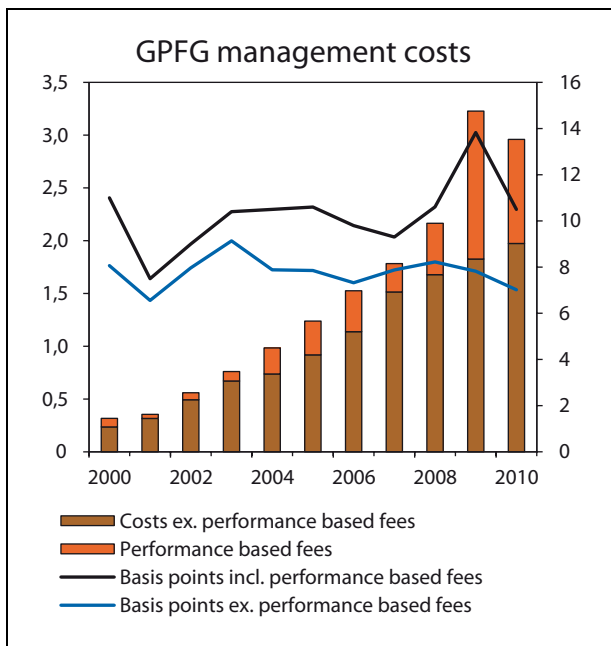


Figure 4.17 Development in the asset management costs of the GPFG. Measured in NOK billion (left axis) and in basis points (right axis)

Source: Norges Bank and the Ministry of Finance

generated by the external managers was lower in 2010 than in 2009.

Figure 4.17 shows developments in the GPFG management costs over time. The costs, as measured in Norwegian kroner, have increased significantly. As measured in relation to assets under management, the overall asset management costs have remained relatively stable. Costs may be separated into fixed and variable costs. The variable costs will normally increase in line with the assets of the Fund. These include, for example, costs relating to custodianship services and to transactions. Other costs tend to be more independent of the assets of the Fund. It is not necessarily the case, for example, that the number of managers is doubled if assets are doubled. An increase in the value of the Fund should therefore, when taken in isolation, be accompanied by a reduction in total costs as measured in basis points of the assets of the Fund. However, more complex management may have the opposite effect. The benchmark of the GPFG has been subjected to major changes since the start-up in 1996, hereunder through the inclusion of equities in emerging markets, the inclusion of corporate bonds and the establishment of a real estate portfolio. It is more expensive to manage these asset classes than to manage equities or government bonds in developed markets. In addition, more complex management means that the monitoring and control func-

tions of Norges Bank need to be reinforced. It is likely that the expanded real estate investments ahead will result in some increase in costs; see also the discussion in Chapter 2.1.

CEM Benchmarking Inc. has compared the costs of the Fund with the costs of comparable funds. The comparison shows that the costs of the GPFG are somewhat below the average costs of the other funds. The main reason for this is that the GPFG has a low portion under external management, and that internal management within Norges Bank is relatively cost effective.

Environment-related investments

2009 saw the establishment of a programme within the GPFG, focused on environment-related investment opportunities. The investments are made under the same regulatory framework as governs the Fund's other investments in equities and fixed-income instruments.

The Ministry has laid down, in the mandate for the management of the GPFG, special reporting requirements with regard to the environment-related investments, which imply that Norges Bank shall provide a specific account of environment-related investments in its annual report on the management of the GPFG.

Figures from Norges Bank show that the environment-related investments amounted to NOK 25.7 billion as per yearend 2010; an increase of NOK 7.3 billion on the previous year. This represents a much faster expansion than originally envisaged.

The investments are effected by way of Norges Bank giving mandates to internal and external managers. The number of environment-related mandates (management assignments) increased from four as per yearend 2009 to nine as per yearend 2010. Three of the mandates concerned investments within water management. These may be investments in companies that develop technology to improve the quality of water, or that develop infrastructure for cleaning and distributing water. A further three of the mandates encompass investments within environmental technology that may contribute to enhanced energy efficiency or a reduction in environmentally harmful emissions. The last three mandates address investments within clean energy, which may involve companies that generate renewable energy or that develop equipment for the generation of renewable energy.

The environmental investments will predominantly be investments in equities that are already

included in the GPFG benchmark. Such investments will result in the Fund choosing, through active management, to overweight certain companies relative to the weights of such companies in the benchmark. The investments under the environmental programme are thereby additional to the investments that would have been made in the same companies by mechanically replicating the benchmark of the Fund. The environmental contribution from such overweighting will be difficult to measure.

It was originally envisaged that the aggregate amount of both the environmental programme and a potential investment programme focused on emerging markets might be in the region of NOK 20 billion invested over a five-year period, cf. Report No. 20 (2008–2009) to the Storting.

The work of the Ministry on the evaluation of a potential investment programme focused on emerging markets is discussed in Chapter 2.4. The establishment of such a programme is not envisaged for the time being. However, ambitions with regard to the scope of environmentally-oriented investments have increased in line with the success in developing these activities more swiftly than originally expected.

The investments focused on the environment form part of the assets actively managed by Norges Bank. The amount of such investments may therefore vary over time, as agreements with some managers are terminated, whilst others are taken on. It is therefore appropriate for the desired amount of these investments to be expressed as an interval within which the Bank shall normally retain such investments. The Ministry proposes that the investments focused on the environment should normally be within the interval NOK 20-30 billion. The amount of these investments will thereby exceed the overall amount originally envisaged in respect of the two programmes.

Assessment of the performance of the GPFG

The Ministry is very satisfied with the performance achieved in 2010. The Ministry is also satisfied with the active management performance achieved over time.

4.1.2 GPFN performance

Market value developments

The market value of the GPFN as per yearend 2010 was NOK 135 billion; about NOK 18 billion

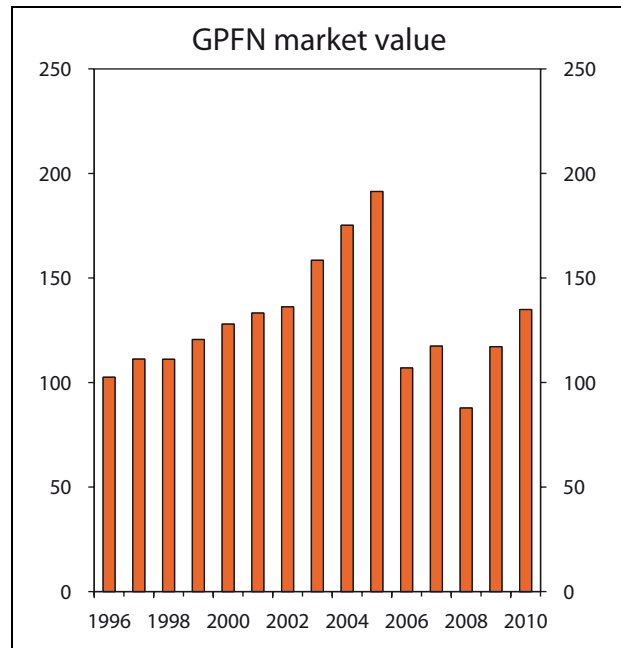


Figure 4.18 The market value of the GPFN. NOK billion

Source: Folketrygdfondet and the Ministry of Finance

more than at the beginning of the year, cf. figure 4.18. The increase reflected the favourable return on the Fund.

The assets of the GPFN are invested in Norway and the Nordic region. The GPFN is one of the main investors on the Oslo Stock Exchange. As per yearend 2010, the Norwegian equity portfolio of the GPFN represented about 9 per cent of the value of the benchmark index. The corresponding figure for the other Nordic stock exchanges is about 0.3 per cent. The fixed-income benchmarks of the GPFN encompass only part of the overall fixed-income market in Norway and the Nordic region. If Folketrygdfondet were to have invested only in the fixed-income instruments that are included in the indices, the GPFN would have owned somewhat in excess of 6 per cent of the fixed-income instruments in the Norwegian index and just under 0.2 per cent of the fixed-income instruments in the Nordic index. In order to achieve improved performance, Folketrygdfondet is using its scope, through active management, for investing a major portion of the portfolio in securities that are not encompassed by the indices.

Economic and financial developments

Economic growth was relatively good in the Nordic region in 2010, when compared to other European countries. The Nordic equity markets have partially mirrored the major trends in the global

equity market through 2010, but have generally developed somewhat more positively. The best performer was the Danish equity market, with a return of about 37 per cent.

Inflation in all the Nordic countries has followed an upwards trajectory in 2010. The consumer price index in Sweden increased by about 2.3 per cent relative to the level as per yearend 2009, whilst the consumer price indices in the other countries gained between 2.8 and 3.0 per cent. Sweden is the only Nordic country to have significantly changed its key policy rate, with a 1.0 percentage point increase, despite expanding economic growth and mounting inflation in the Nordic countries. The interest rates on long-term bonds in the Nordic countries traced, in large part, interest rate developments in global bond market;

declined during the first half of 2010 and then increasing through the autumn. As per yearend 2010, the interest rates on 10-year government bonds were somewhat lower than at the beginning of the year in all the Nordic countries.

Returns

The aggregate rate of return on the benchmark of the GPFN in 2010 was 14.71 per cent, as measured in Norwegian kroner. The rate of return on the Norwegian and the Nordic equity benchmark, respectively, was 18.35 per cent and 29.67 per cent, whilst the return on the Norwegian and Nordic fixed-income benchmark was 6.68 per cent and 3.11 per cent, respectively, as measured in Norwe-

Table 4.2 Rates of return on the GPFN in 2010, over the last 3 years and over the period 1998-2010. Per cent

	Last year	Last 3 years	1998-2010 ¹
<i>GPFN</i>			
Actual portfolio	15.27	4.84	7.01
Benchmark index	14.71	3.51	6.56
Excess return (percentage points)	0.56	1.33	0.46
<i>Norwegian equity portfolio</i>			
Actual portfolio	19.11	-1.26	8.42
Benchmark index	18.35	-3.60	6.72
Excess return (percentage points)	0.76	2.34	1.70
<i>Nordic equity portfolio</i>			
Actual portfolio	28.18	0.46	3.74
Benchmark index	29.67	-0.45	3.41
Excess return (percentage points)	-1.49	0.91	0.34
<i>Norwegian fixed-income portfolio</i>			
Actual portfolio	7.47	8.77	6.10
Benchmark index	6.68	7.61	6.10
Excess return (percentage points)	0.79	1.16	0.00
<i>Nordic fixed-income portfolio</i>			
Actual portfolio	3.65	6.23	5.53
Benchmark index	3.11	5.53	5.03
Excess return (percentage points)	0.54	0.70	0.51

¹ The Nordic equity investments commenced in May 2001, whilst the Nordic fixed-income investments commenced in february 2007.

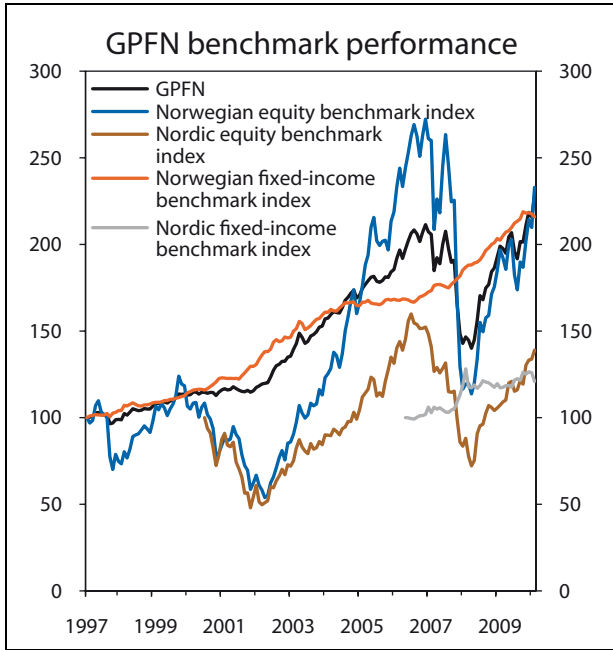


Figure 4.19 Developments in the benchmark indices of the GPFN. Index 31 December 1997 = 100 for the GPFN and the Norwegian equity and fixed-income benchmarks. Index 31 May 2010 = 100 for the Nordic equity benchmark. Index 31 March 2007 = 100 for the Nordic fixed-income benchmark.

Source: Folketrygdfondet and the Ministry of Finance

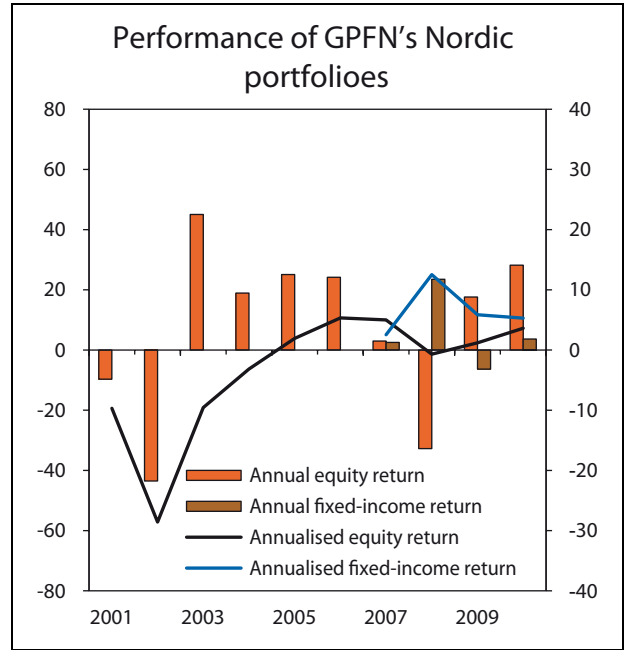


Figure 4.21 Return on the Nordic equity and fixed-income portfolios of the GPFN over the period 1998-2010. Return per year (left axis) and annualised over the period from 1998 until each individual year (right axis). Per cent

Source: Folketrygdfondet and the Ministry of Finance

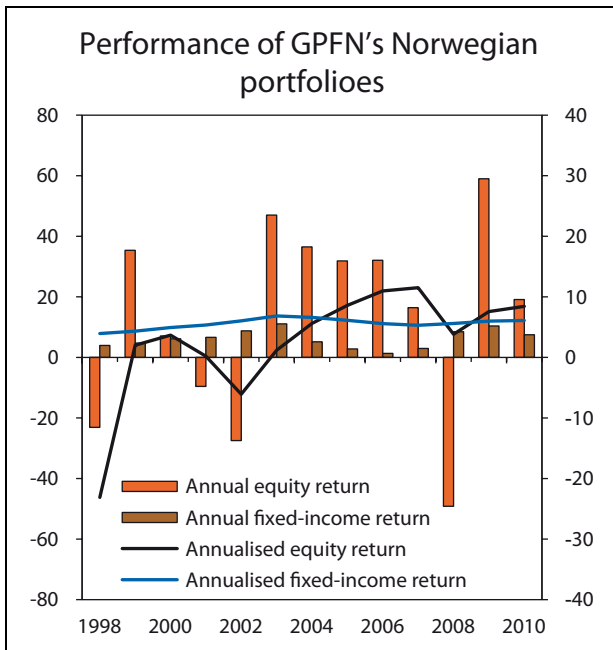


Figure 4.20 Return on the Norwegian equity and fixed-income portfolios of the GPFN. Return per year (left axis) and annualised over the period from 1998 until each individual year (right axis). Per cent

Source: Folketrygdfondet and the Ministry of Finance

gian kroner. Figure 4.19 shows developments in the Fund's benchmark indices since 1998.

The rate of return on the Fund was 15.27 per cent in 2010, cf. Table 4.2. High returns over the last two years mean that the average rate of return on the Fund since 1998 is now somewhat in excess of 7.0 per cent, up from about 4.2 per cent in 2008.

Both the equity portfolios and the Norwegian fixed-income portfolio achieved favourable overall returns in 2010, whilst the Nordic fixed-income portfolio experienced a somewhat lower return, cf. figures 4.20 and 4.21. The Norwegian equity portfolio registered a higher return than did the Norwegian fixed-income portfolio over the period from 1998 to 2010.

The aggregate gross excess return on the GPFN was 0.56 percentage points in 2010. This reflected positive excess returns on the fixed-income portfolios and the Norwegian equity portfolio, whilst the Nordic equity portfolio registered a negative excess return. Folketrygdfondet reports that the main cause of the positive excess return on the Norwegian equity portfolio was the selection of individual equities within the manufacturing industry, whilst the negative excess return on the Nordic equity portfolio was caused by the equities

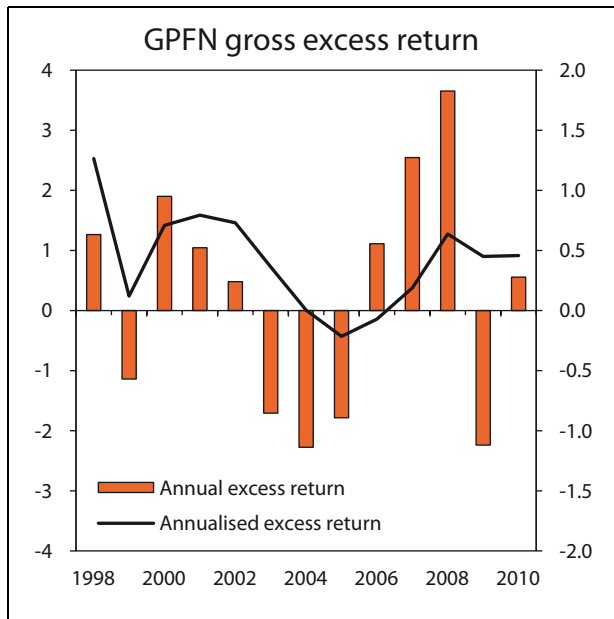


Figure 4.22 Gross excess return on the GPFN over the period 1998-2010. Excess return per year (left axis) and annualised over the period from 1998 until each individual year (right axis). Per cent

Source: Folketrygdfondet and the Ministry of Finance

selected within the financial, energy and telecoms industries. A major cause of the positive excess return on the Norwegian fixed-income portfolio was a different exposure to corporate bonds than that suggested by the benchmark. One of the main contributors to the positive excess return on

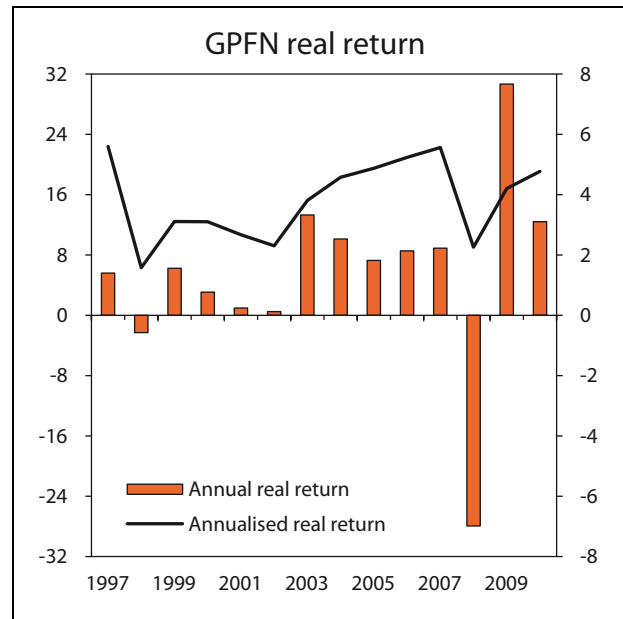


Figure 4.24 Real rate of return on the GPFN, net of asset management costs, over the period 1997-2010. Real rate of return per year (left axis) and annualised over the period from 1997 until each individual year (right axis). Per cent

Source: Folketrygdfondet and the Ministry of Finance

the Nordic fixed-income portfolio was its overweight in subordinated debt.

In its plan for the active management of the GPFN, Folketrygdfondet stated that it expects to achieve an excess return in the active management of the GPFN of about 0.4 percentage points before costs over time, cf. the discussion in Chapter 3.2 of this Report. Figure 4.22 shows the annual gross excess return over the period 1998-2010, as well as the annualised excess return from 1998. As per yearend 2010, the annualised excess return was 0.46 percentage points, i.e. somewhat in excess of expectations. The gross excess return over the period 1998-2010, as measured in Norwegian kroner, is just under 4 NOK billion⁶, cf. figure 4.23.

Figure 4.24 shows the annual and annualised real rate of return net of costs over the period 1997-2010. The real rate of return net of costs in 2010 was 12.4 per cent, whilst the annual average real rate of return over the period from 1997 to 2010 was 4.8 per cent. This represents an increase in the average real rate of return of about 2.5 percentage points since yearend 2008.

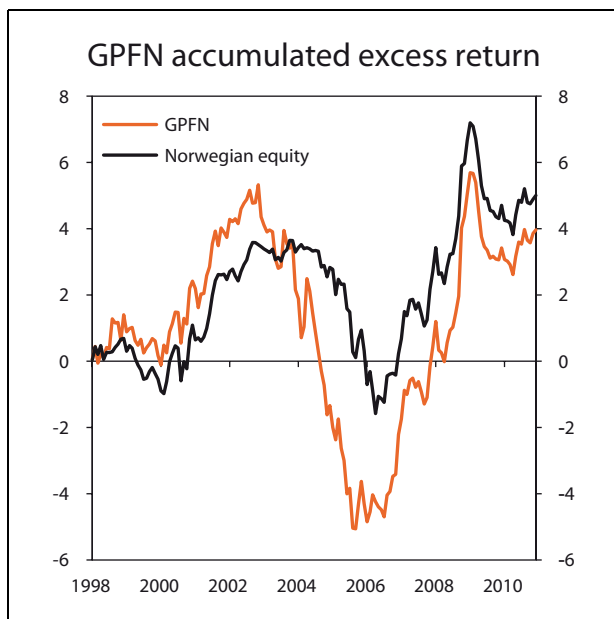


Figure 4.23 Accumulated excess return on the GPFN. NOK billion

Source: Folketrygdfondet and the Ministry of Finance

⁶ The excess return in Norwegian kroner is calculated by multiplying the excess return over the month by the assets at the beginning of such month, and thereafter adding up this number of all the months. Consequently, the calculation does not take the compound interest effect into consideration.

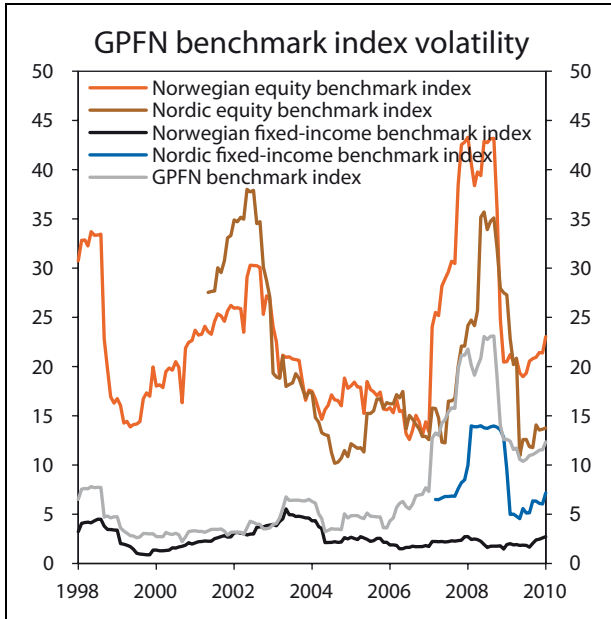


Figure 4.25 Rolling 12-month standard deviation of the benchmark indices of the GPFN. Per cent

Source: Folketrygdfondet and the Ministry of Finance

Active management of the GPFN has made an important contribution to the total return over the period 1998–2010, but developments in the benchmark indices are the most important factor in explaining the total return. This shows that the decisions relating to the asset allocation have been the main determinants of the return on the Fund over this period, and not decisions relating to active management.

Risk

Figure 4.25 shows that the return fluctuations are much more pronounced for the equity benchmark than for the fixed-income benchmark of the GPFN, and that the standard deviations vary considerably over time. The account loans arrangement was terminated in December 2006. This resulted in the assets of the Fund being halved, whilst the equity portion increased at the same time. As from January 2007, the Fund was able to invest 50 per cent of its assets in equities, based on acquisition cost. This was increased to 60 per cent in January 2008, but then based on market value. It was expected, against the background of the increase in the equity portion, that the standard deviation of the overall benchmark would increase. However, the actual increase that took place from the autumn of 2007 was also caused by higher standard deviations of the equity and fixed-income benchmarks and a somewhat higher covariation between equities and fixed-income instru-

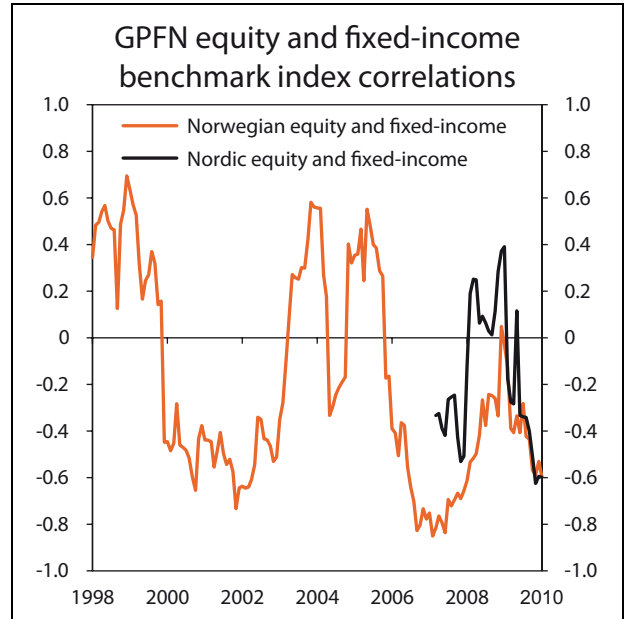


Figure 4.26 Correlation between developments in the equity and the fixed-income benchmarks of the GPFN

Source: Folketrygdfondet and the Ministry of Finance

ments, cf. figure 4.26. As per yearend 2010, both the covariation and the standard deviations had reverted to levels somewhat below the averages since 1998. It may therefore be assumed that the standard deviation of the overall benchmark as per yearend 2010 was close to, or even somewhat below, what would represent a new normal level.

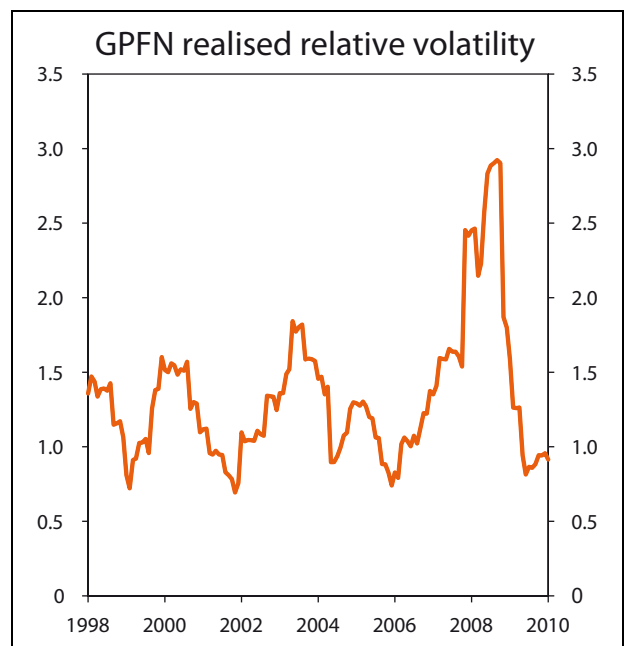


Figure 4.27 Rolling 12-month actual tracking error of the GPFN. Per cent

Source: Folketrygdfondet and the Ministry of Finance

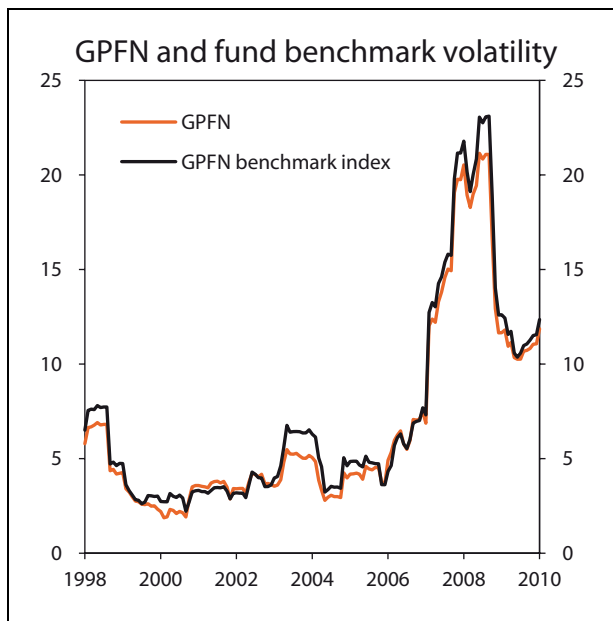


Figure 4.28 Standard deviation of the actual portfolio of the GPFN and the benchmark index. Per cent

Source: Folketrygdfondet and the Ministry of Finance

The mandate issued by the Ministry in respect of the management of the GPFN stipulates that Folketrygdfondet shall invest the assets of the Fund with a view to ensuring that the expected tracking error does not exceed 3 per cent. Figure 4.27 shows the developments in the actual tracking errors of the Fund and the equity and fixed-income portfolios, respectively. The figure shows that the actual fluctuations in the excess return were large during the financial crisis, but have remained below 3 per cent throughout the period from 1998 to 2010. The actual tracking error at the beginning of 2011 was about 1 per cent.

Active management on the part of Folketrygdfondet does not necessarily imply that the overall risk associated with the actual portfolio exceeds the risk associated with the benchmark. Folketrygdfondet may, for example, choose to assume major positions in companies whose equity prices normally are less volatile than the market, and to refrain from investing in companies whose equity prices tend to be highly volatile. In addition, the Fund may achieve improved diversification of risk by investing in equities and fixed-income instruments that are not included in the index, cf. the more detailed discussion in Chapter 3.2. Consequently, it is possible to achieve lesser fluctuations in the value of the actual portfolio than in that of the benchmark. Figure 4.28 shows developments in the standard deviations of the actual portfolio and

the benchmark. The figure shows that the risk associated with the actual portfolio has for major parts of the period been somewhat less than the risk associated with the benchmark, and this has especially been the case during periods when market fluctuations have increased. The benchmark is the predominant determinant of the risk associated with the Fund, but the figure shows that active management has at times contributed to reducing the overall risk to some extent.

Both the equity portfolios and the fixed-income portfolios are exposed to systematic risk factors that influence the risk and return of the various investments. See Section 3.2.2 for a discussion of which exposures to systematic risk factors have resulted from the active management of the GPFN.

Typically, several companies will be removed from or added to the equity benchmarks of the GPFN over the course of a year. This implies, as far as the Norwegian equity portfolio is concerned, that Folketrygdfondet must purchase or sell major shareholdings if it wants to avoid deviations from the index. Purchases or sales will normally be spread over time to avoid influencing the price of the equities. Consequently, the concurrence between the benchmark and the portfolio will be reduced at the time of the implementation of the change to the benchmark, and will thereafter gradually increase until the trade has been comple-

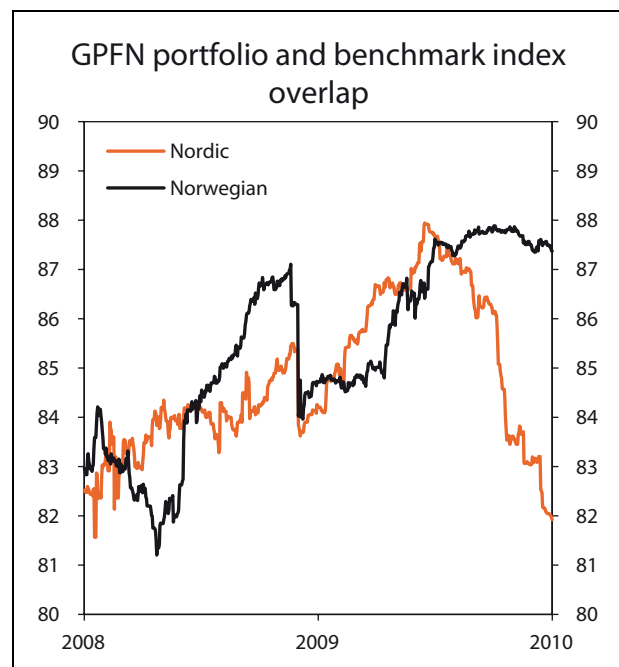


Figure 4.29 Degree of concurrence between the actual equity portfolios of the GPFN and its benchmark indices.

Source: Folketrygdfondet and the Ministry of Finance

ted. Figure 4.29 shows developments in the degree of concurrence for the equity portfolios of the GPFN. As per yearend 2010, the actual concurrence of the Norwegian equity portfolio was somewhat in excess of 87 per cent, whilst the concurrence of the Nordic equity portfolio was about 83 per cent.

Folketrygdfondet may, in its management of the Fund, take ownership stakes of up to 15 per cent in any Norwegian company, and up to 5 per cent in a company in the other Nordic countries. As per yearend 2010, the Fund's largest percentage ownership stake in a Norwegian company was 10.9 per cent, whilst its largest percentage ownership stake in a Nordic company was 1.4 per cent.

Costs

The mandate Folketrygdfondet has been given by the Ministry of Finance implies that the actual management costs of Folketrygdfondet are covered up to an upper limit, which is fixed as a Norwegian kroner amount.

The management costs amounted to NOK 90.9 mill. in 2010, well within the upper limit of NOK 110.7 million. The reason for the underspending has to do with the implementation of new management systems having been postponed until 2011. Measured as a share of average assets under management, the costs were about 7.6 basis points in 2010.

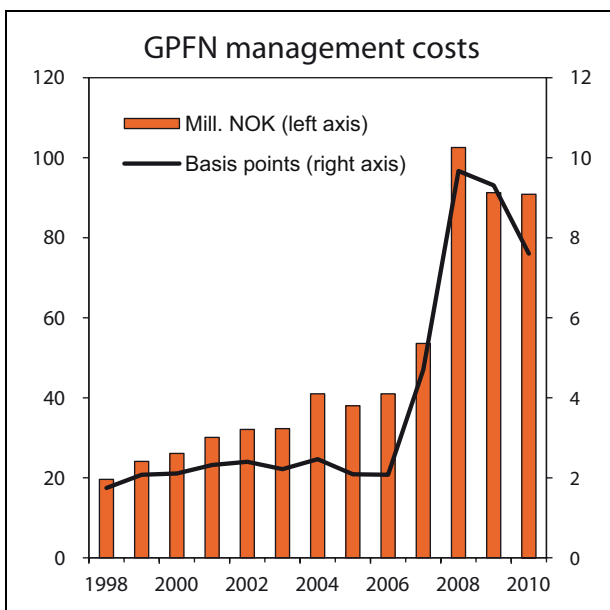


Figure 4.30 Development in the asset management costs of the GPFN. NOK million (left axis) and basis points (right axis)

Source: Folketrygdfondet and the Ministry of Finance

Figure 4.30 shows how the costs have developed over time. The costs have increased significantly over the last four years, both in Norwegian kroner and measured as a share of assets under management. These years have involved major changes to the management of the GPFN. The assets of the GPFN were reduced by somewhat in excess of 100 NOK billion in connection with the termination of the account loans arrangement in December 2006, without any reduction in costs. The equity portion was also increased from below 20 per cent in 2006 to a strategic weighting of 60 per cent in 2008. Moreover, Folketrygdfondet was converted to a company by special statute in 2008, and much stricter requirements were imposed in terms of the management and control of risk, as well as reporting. This resulted in Folketrygdfondet having to make significant investments on the systems side, and also increase its number of man-years within these areas in order to meet the new requirements.

CEM Benchmarking Inv. has compared the costs of the Fund with the costs of comparable funds, and has concluded that the costs of the GPFN are lower than the average costs of the other funds. The main reason for the low costs is that the GPFN has internal management only, which typically is less expensive than external management.

Assessment of the performance of the GPFN

The Ministry is satisfied with the performance achieved in 2010. The Ministry is also satisfied with the achieved active management performance.

4.2 Follow-up of the management framework

4.2.1 Operational risk in the management of the GPFG

Operational risk may be defined as the risk of economic losses or loss of reputation as the result of deficiencies in internal processes, human error, systems error or other losses caused by external circumstances that are not a consequence of the market risk associated with the Fund. Unlike other main categories of risk, such as market risk, credit risk and liquidity risk, there is no expected return linked to operational risk.

The Ministry has, in the mandate for the management of the GPFG, imposed requirements with regard to the management, measurement

and control of operational risk. Furthermore, the Ministry has imposed, in the Regulations relating to Risk Management and Internal Control at Norges Bank, general and overarching requirements with regard to risk management and controls in relation to the activities of the Bank. The Executive Board of Norges Bank has, on the basis of these requirements, adopted risk management principles for its asset management unit; Norges Bank Investment Management (NBIM), which has established, in line with these principles, a framework for internal control and the management of operational risk. The framework analyses operational risk in the form of errors or undesired events. A probability is assigned to each undesired event, together with a description of the consequences should such event occur. The Bank attaches weight to the assessment of:

- inherent risk, which is the underlying risk associated with the activities, prior to the implementation of measures and controls that may reduce the risk;
- current risk, which is the level of risk after controls and measures; and
- expected future risk, which is the level of risk if additional measures are implemented.

Norges Bank's annual report on the management of the GPFG for 2010 explains, in more detail, how this framework is used in the management of the operational risk associated with the management of the assets of the Fund. Such management involves the identification of potential risk factors that may result in loss, and the assessment of probabilities and consequences of potential undesired events. The Bank systematically seeks to identify, assess and reduce operational risk in all steps of asset management. If one single risk factor or the overall current level of risk is estimated to fall outside the limits stipulated by the Executive Board of Norges Bank, additional measures are implemented in order to reduce the expected future risk.

Norges Bank will identify, on an ongoing basis, errors or undesired events in its asset management. Considerable weight is therefore attached to improving internal processes, thus making the probability or error as small as possible. In general, the Bank will seek to reduce the risk of undesired events to the lowest level deemed appropriate, based on a trade-off between the expected benefit from additional risk-curtailling measures and the costs of implementing the measures.

The Executive Board of Norges Bank has stipulated a risk tolerance for operational risk, implying that the financial consequence of all undesired

events during the course of a normal year shall be well below NOK 500 mill., measured as a gross figure (i.e. it aggregates both gains and losses). The overall financial consequences are expected to be in the region of NOK 200-300 mill., as an annual average, which corresponds to about NOK 0.01 per NOK 100 under management.

In 2010, NBIM experienced a total of 320 undesired events in the management of the GPFG. The estimated financial consequences of these events were NOK 38 mill. gross, of which NOK 24 mill. were losses and NOK 14 mill. were gains. More than two thirds of the events were caused by technical errors or violations of, or faults in, internal processes, practices and procedures.

There were five minor violations, on the part of the Bank, of the guidelines laid down by the Ministry for the management of the Fund. The violations had to do with the Bank holding, as the result of an error, securities from companies that were excluded from the investment universe of the Fund. The Bank notes that all errors were discovered and swiftly rectified.

The Ministry notes that asset management is a complex activity, requiring a high level of specialist expertise and management systems. This is particularly the case with the management of as large a fund as the Government Pension Fund. Large, complex organisations must expect the continuous identification of errors that may inflict losses (or gains) on the organisation. The Ministry has noted that Norges Bank has established a comprehensive system for identifying, assessing and reporting on the operational risk associated with its management activities, and that it is working systematically to reduce the level of risk associated with such management activities at the lowest level deemed appropriate. The Ministry is of the understanding that the Bank, in its management of the operational risk, trades off the need to keep the probability of undesired events as low as possible against the costs incurred as the result of increased control activities. The Ministry is of the view that it is neither appropriate, nor possible, to organise the management of the GPFG with a view to zero tolerance for error. Nevertheless, it is important for management of the risk associated with the asset management activities to be developed on an ongoing basis in line with the size and complexity of the Fund.

The Ministry also notes that last year's Report described an external review of risk management in the GPFG. The review conducted as a assurance engagement given by the Supervisory Coun-

cil of Norges Bank to the external auditor of the Bank, and which included, inter alia, the framework for the management of operational risk. The report concluded that the Bank had, in all important respects, designed and implemented a framework for the management of operational risk that is in conformity with recognised stands. At the same time, the review uncovered a few minor deviations with regard to the management of operational risk, cf. Report No. 10 (2009-2010) to the Storting. The Ministry notes with satisfaction that these deviations have been remedied or are in the process of being remedied, cf. the report of 6 april 2011 from the Supervisory Council of Norges Bank to the Storting.

4.2.2 Use of external managers in the management of the GPFG

The Ministry has previously announced that a comprehensive review of the use of external managers in the management of the GPFG will be presented, thus enabling the Storting to discuss the issue of the use of external managers and their fees in a broader context. It is noted, in this regard, that the Supervisory Council, which is appointed by the Storting, has, following input from the Ministry and with the assistance of the external auditor of the Bank, conducted an independent review of the external management of the GPFG. The report from the external auditor of the Bank is described in more detail in the report of 6 april 2011 from the Supervisory Council to the Storting, and is discussed briefly below.

The need for using external managers

For the main part, the assets of the GPFG are managed internally by Norges Bank. Nevertheless, there is a need for a certain element of external management, which has to do with the fact that it is hardly realistic for the Bank to develop, in a cost-effective manner, internal asset management of a high quality in all the markets in which the Fund is invested. For example, the Ministry has, as owner – with broad-based support from the Storting – decided that part of the assets of the Fund shall be invested in so-called emerging markets. The investments of the Fund are, against this background, spread across 46 countries. It may also be desirable to use external management companies with specialist expertise and local knowledge to identify investment opportunities that may add value to the Fund, for example in relation to specific sectors or markets. A certain

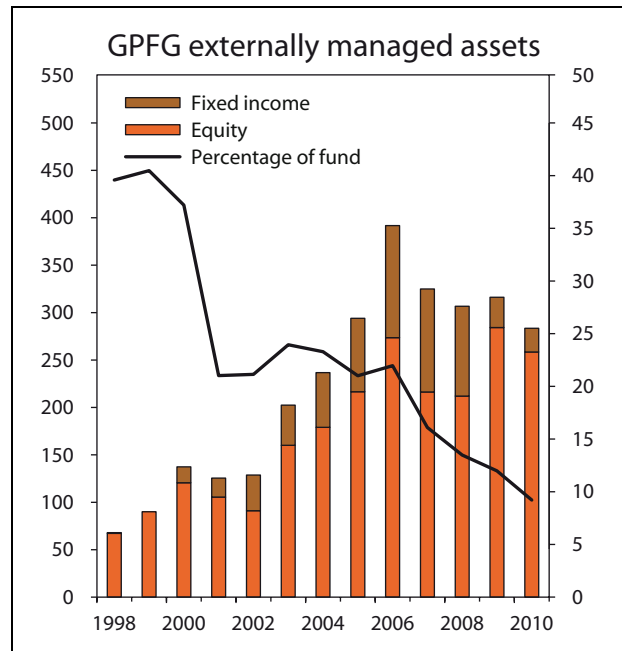


Figure 4.31 Assets of the GPFG that were externally managed as per yearend 2010. NOK billion (left axis) and percentage of overall assets (right axis)

Source: Norges Bank

element of external management may also improve asset management, inasmuch as it can be used as a benchmark for the internal management activities of Norges Bank. Consequently, there are a number of reasons why it may be appropriate for the Bank to supplement its internal asset management through the procurement of management services from external organisations.

In 1998, 40 per cent of the assets of the GPFG were managed by external management companies. The high portion had to do with Norges Bank choosing to outsource all equity management to external management companies when the Ministry permitted investments in equities. The portion of the Fund managed externally has since been gradually reduced in line with the development of internal expertise on the part of the Bank. As per yearend 2010, NOK 283 billion, or just over 9 per cent of the assets, was managed externally, cf. figure 4.31. A total of 62 external management assignments (mandates) had been established, which were managed by 45 different organisations. The majority of these mandates were within equity management.

The process for the selection of external managers

The selection of external management companies is based on an extensive and thorough process.

The process includes, inter alia, information gathering, analyses, meetings and evaluations. It will normally be between six and eight months from the initial meeting between the Bank and an external manager, until a management assignment decision is made.

The initial phase of this process involves Norges Bank conducting an assessment of potential external management companies for a specific management assignment, which it does through the gathering of information from participants in the market and database searches. Thereafter, companies that are considered potential candidates for a management assignment need to fill in a questionnaire in which they disclose the ownership situation of the company and its assets under management, its investment process and its personnel, as well as the portfolio investments of the company. It will normally be Norges Bank that makes contact with an external management company, encouraging it to apply for the relevant management assignment, but management companies are also permitted to apply for management assignments without having been approached.⁷ The preliminary assessments form the basis for deciding which management companies Norges Bank would like to meet with.

The Bank will thereafter hold meetings with all relevant candidates, which may in certain cases be 20-30 different management companies. The meetings will be held on the premises of the managers, a procedure that Norges Bank deems to be important because it facilitates meeting the people who influence the investment decisions, risk management, etc. The Bank selects, on the basis of these preliminary discussions, a limited number of management companies that are followed up through a more comprehensive process, which involves, inter alia, the gathering of additional information with regard to organisation, track record, expertise, etc.

The concluding phase involves the Bank making its decision on the selection of a company, with its expectations as to the ability of the manager to create added value over time being a key element of such assessment. Other factors to which weight is attached are the market knowledge of the manager, what sources of information are being used, as well as how analyses and research differ from those of other participants. The Bank notes, in its annual report on the GPF for 2010, that analyses of the track records of the

management company and discussions with individuals within the company concerning company-specific circumstances form the main basis for the selection of an external manager.

Framework for the use of external managers

The appointment of external management companies forms part of the operational management activities of Norges Bank. The Ministry has, through designated Regulations relating to Risk Management and Internal Control, made the bodies of the Bank accountable for risk management and internal control also in circumstance where management assignments have been outsourced. The asset management unit of the Bank (Norges Bank Investment Management, NBIM) has a control and compliance department, which is charged with ensuring compliance with these provisions. Moreover, the Internal Audit unit of Norges Bank shall examine the internal control and practices of the Bank, as well as other circumstances of relevance to the activities of the Bank.

This division of responsibilities means that Norges Bank has, generally speaking, established comprehensive procedures for the assessment of external management companies prior to the granting of any assignment to them. The procedures involve a comprehensive assessment of the return expectations and risks relating to the relevant investment assignment. Moreover, the Bank reviews replies to detailed questionnaires and also makes several visits to the management company, cf. above.

Furthermore, the Bank performs a thorough review of the organisation and risk control systems of the company, as well as what licenses the management company hold from national authorities. In order to qualify for appointment as an external manager, the management company must have satisfactory ethical rules and regulations, a good division of responsibilities between departments within the company and an appropriate internal organisation. The company must also hold a license in a country with satisfactory regulation and supervision of the financial sector. In addition, Norges Bank has appointed an international auditing firm to perform independent evaluations of the background, reputation and integrity of the relevant manager – which also include looking for potentially controversial issues.

The agreed investment assignment is also evaluated from the perspective of risk controls, and a binding agreement is concluded on the

⁷ Information about relevant management assignments is available on the Bank's website; www.nbim.no.

basis of the Bank's standard forms of agreement. The agreement sets out the rights and obligations of the manager, including comprehensive reporting requirements. The funds allocated to each management company are deposited in designated, separate accounts in respect of each management assignment, which represents an additional safeguard.

The management of the mandates is thereafter followed up closely within Norges Bank on the basis of the said framework, and measures are taken if the expectations and the guidelines in the agreement are not adhered to. In the most serious cases, the mandate is terminated. The Bank has ensured that any agreement may be terminated with immediate effect, with the portfolio being transferred to alternative management the following day.

The Bank holds regular meetings with each management company, and a comprehensive review of documentation, reporting and other relevant circumstances takes place once a year. Such review also includes a visit to the premises of the management company.

Besides, the procedures for the following up of the financial terms under the agreements with management companies are based on the premise that Norges Bank shall receive invoices from each management company on a quarterly basis. The invoices are checked against remuneration rates in the management agreements and an independent calculation of assets under management and any excess return. The Bank makes no payment of remuneration until the invoiced remuneration has been checked and approved in accordance with the internal invoice processing procedures of the Bank.

Remuneration of external managers

The mandate stipulated by the Ministry with regard to the GPFG requires the remuneration structure in agreements with external managers to be aligned with the financial interests of the Fund, hereunder that it shall take into consideration the time horizon of the relevant investment strategies. Moreover, the individual agreements with managers concerning performance-related fees are required to be structured in such a manner as to ensure that the Fund retains the main part of any excess return.

The management assignment on behalf of Norges Bank is premised on the objective of achieving the highest possible return, net of costs. This implies that the Bank must weigh the scope

for high returns against the costs the Bank will incur in achieving the highest possible return. Investments are a matter of uncertainty (risk) and expectation about future returns, as well as the costs associated therewith. Norges Bank prioritises the assessment of all these factors in respect of each agreement concluded with an external management company. The agreements are concluded within a fixed framework. The basis for the conclusion of such agreements is to ensure that the Fund will achieve the highest possible value, net of costs.

The costs, or fees, of external management companies tend to comprise two elements. There is a fixed fee paid on the basis of the market value of the portfolio of the financial instruments that fall within the scope of the management assignment, and a variable fee paid on the basis of the attractiveness of the return performance under the assignment relative to the performance of the market to which the assignment pertains. Fixed fees shall, generally speaking, only cover the costs relating to the specific management assignment, and the Bank notes that such fees are considerably below market standard for the assignment.

As far as performance-related fees are concerned, Norges Bank introduced a new structure in 2009 that aimed to ensure a longer investment horizon on the part of the individual external managers as well. The new structure implies that managers will only receive payment of a certain percentage of the accrued fee during the first five years. The payment ratio will become higher as the management assignment remains in operation for a longer period of time. The Bank seeks, by retaining part of the fee, a higher degree of alignment between the incentives of managers and the overarching objective of the Fund; the highest possible return at a moderate level of risk. At the same time, the Bank has decided that the performance-related fee will depend on the excess return achieved since the management assignment was established. This implies that a manager must, if such manager experiences a period of negative excess return, recoup the entire negative excess return before any performance-related fees start to accrue again. It will therefore normally be the case that the total fee paid in relation to a management assignment will not, even over many years, exceed a fixed percentage of the excess return generated under the management assignment.

In addition, the fee paid in any single year is subject to a maximum limit (cap), which is a specific percentage of the assets under management.

Any fee accrued in excess of such cap may fall due for payment later on, but only if the excess return achieved since start-up still remains positive at such point of time. The Bank notes, in its annual report on the GPFG for 2010, that following the amendments made to the fee structure, it does not expect future fees in any single year to reach levels corresponding to the largest payments made in 2009. It is also noted that all external management assignments established as from 2010 are subject to the new structure.

Norges Bank operates on the premise that each individual agreement with external managers is designed such as to make the overall fees (the sum total of fixed and performance-related fees) as low as possible relative to the expected attractiveness of the return performance under the management assignment. An assessment is in each individual case made of the structure of the assignment and of local or specific market conditions. In addition, the assessments of the Bank may be influenced by factors like the manager's expertise, distinctive qualities and scope for generating excess return.

Norges Bank notes that the Bank will normally, as a large and recognised investor with a long investment horizon, be in a strong negotiation position when dealing with external management organisations. However, it is noted that there is strong competition for the capacity of many managers, and not every manager is willing to accept the terms of the Bank.

A large portion of the external management fees depends on the excess return achieved. Total management costs will therefore normally be higher in years characterised by good performance. Besides, specialised management assignments will normally require more resources and command somewhat higher fees. It is noted in the annual report on the GPFG that the portion of specialist mandates has increased in recent years, whilst good performance has been achieved. The Bank notes, furthermore, that the costs relating to external management are nevertheless at a low level relative to the market for corresponding assignments.

External management value creation

The Ministry follows up on the results of the management of the GPFG on a continuous basis. The annual Report on the Government Pension Fund provides an assessment of developments in the aggregate return on the Fund, hereunder the return achieved through active management.

Moreover, the Ministry performs an assessment of the management costs. The Ministry is committed to keeping overall management costs at a low level, and has therefore established a system of regular independent reviews, which compare the management costs of the Bank to the costs of other major funds internationally. These comparisons show that the cost level of the Bank is, generally speaking, relatively low, cf. the discussion in Chapter 4.1.

The Ministry's assessment of value creation in the management of the GPFG is focused on developments in the overall return on, and costs of, the Fund, and not on value creation through external management taken in isolation. In this context, the Ministry notes that the active management of the GPFG is subject to review on a regular basis, cf. Report No. 10 (2009-2010) to the Storting, with an emphasis on assessing active management performance against the excess return expectations of Norges Bank's and the Ministry, and on comparing these to the management cost level.

In its annual report on the GPFG, Norges Bank notes that experience with the appointment of external management companies to perform the management of parts of the equity portfolio is very good. The overall contribution from external equity management to the excess return on the GPFG was NOK 22.4 billion as per yearend 2010, whilst fees paid to these managers amounted to NOK 6.7 billion. External management experience is more mixed with regard to fixed income investments than with regard to equity investments, which is primarily due to poor results during the financial crisis. The external fixed income management assignments of the Fund have now for the main part been terminated.

External review of the use of external managers by Norges Bank

The Supervisory Council of Norges Bank's has, based on input from the Ministry and with the assistance of the external auditor of the Bank, conducted an independent review of the risk management and control framework relating to the use of external managers for the GPFG. The review has involved an assessment by the auditor as to whether the framework is in line with recognised and relevant standards, and as to whether it has been implemented in conformity with its design.

The assessment is based on a set of measurement criteria derived from relevant standards.

The measurement criteria are applied to four main areas: organisational structure, measurement of returns, risk management, as well as selection and follow-up. On this basis, the Auditor has conducted a thorough review of written documentation, meetings held, etc., to determine whether the processes and systems of the Bank in relation to these main areas are in accordance with the established criteria.

The auditor concludes in its report that in all material respects Norges Bank has designed and established an external management framework that is in accordance with recognised and relevant standards, cf. the discussion in the report of 6 april 2011 from the Supervisory Council to the Storting.

The Ministry's assessments

The Ministry emphasises that the management of the Government Pension Fund shall be of a high ethical standard and in conformity with recognised principles for the management of sovereign wealth funds. Furthermore, the Ministry is committed to the maximum possible transparency concerning the management of the GPF, within the limits required for the proper implementation of Norges Bank's management assignment. Broad-based confidence in the asset management activities is conditional upon transparency.

Independent international studies show that the management of the nation's savings is, generally speaking, characterised by a high degree of transparency.⁸ Norges Bank currently publishes a complete list of external managers, specified by the two asset classes equities and fixed income. Furthermore, it publishes total assets under management with external managers, specified into equities and fixed income. The Bank also discloses total fees to external managers, hereunder performance-related fees. It also specifies what portion of the positive/negative excess return achieved can be attributed to external management, again specified into equities and fixed income. The Ministry is of the view that the Bank currently all in all discloses external management details in line with internationally recognised practice.

Norges Bank enjoys a strong negotiation position vis-à-vis external managers as the result of the size and standing of the Fund. This implies that the Bank will normally get access to the best managers internationally, and that it may be able to obtain lower fees than many other customers. The scope for achieving favourable terms may be impaired if details in the contracts with individual managers are published. Names of individual managers, assets under management and accrued fees will normally be perceived as commercially sensitive information. Publication of this type of information may therefore result in the Bank having to pay a higher price for external management services than at present, and may prevent access to the best managers. The Ministry is therefore of the view that transparency considerations need to be balanced against considerations relating to the effective implementation of the asset management assignment.

The Ministry is committed to organising the management of the GPF in the most cost effective manner. Comparisons with other funds show that the cost level of the Bank is, generally speaking, relatively low, cf. above.

The mandate of the GPF requires the Fund to retain the main part of any excess return achieved when using performance-related remuneration of external managers. However, no general rule has been introduced to the effect that all agreements concluded with external managers shall feature a cap on performance-related remuneration. This reflects the fact that agreements concluded with external management companies are, in general, the outcome of a negotiation process, with remuneration structure being one of several elements subject to negotiation. The assessments of the Bank, in the context of the specific negotiations, will be based on what best serves the financial interests of the Fund.

The issue of what remuneration structure, hereunder what combination of fixed and performance-related fees, is the most appropriate in each individual case, must be assessed on the basis of the premises underpinning the conclusion of the agreement. The Ministry is of the view that there are good reasons to let the Bank itself decide what remuneration structure would best serve the interests of the Fund in each individual case. At the same time, it is important that the Bank in its remuneration structure decision takes into account the reputation of the Fund and the importance of general support for its asset management. It is evident that very high fees to

⁸ See, inter alia, the ranking from the Peterson Institute for International Economics, in which the GPF was ranked on top in a comparison of sovereign wealth funds in terms of openness, accountability and transparency (<http://www.iie.com/publications/briefs/truman4983.pdf>)

individual managers may represent a challenge to the reputation of the Fund.

Norges Bank has introduced a new structure for the performance-related fees, with the purpose of ensuring a longer investment horizon also on the part of the external managers. The new structure implies, inter alia, that limitations are imposed on the fee paid in any single year (cap). The Ministry is of the view that such a measure will contribute to support the reputation of the Fund.

It is important, at the same time, to adhere to the established principles for the division of roles and responsibilities between the owner and the manager. The Ministry has emphasised that there shall be a real delegation of responsibility to the Bank, and that the regulations from the Ministry shall, to the maximum possible extent, have the nature of a framework. The new mandate of the GPFG is based on this overarching principle. Only on this premise is it meaningful to hold the Bank accountable for the performance achieved. It might therefore seem somewhat arbitrary if the Ministry were to impose detailed requirements with regard to individual elements of highly complex agreements with external managers that are agreed through negotiations. A more detailed wording of the guidelines might result in a system in which more of the operational asset management in practice would be shifted to the Ministry, which would be neither possible nor appropriate.

The Ministry has concluded, based on an overall assessment, that the current provision in the mandate of the GPFG, to the effect that the Fund shall retain the main part of any excess return achieved, should be supplemented by a new provision stating that the Bank shall impose a cap on performance-related fees paid to external management companies. The wording of the provision should be general, and in line with the new structure of the Bank's external management agreements.

Moreover, the Ministry notes that a comprehensive system for independent control, both internally and externally, has been established at Norges Bank, and the Ministry is of the view that this provides, all in all, adequate control with the activities of the Bank, hereunder control of agreements with external managers.

4.2.3 Independent review of the inflow of capital, etc., to the GPFG

The Supervisory Council of Norges Bank has, as part of its supervision activities, conducted, after

input from the Ministry and with the assistance of the external auditor of the Bank, an independent review of the framework for risk management and control in relation to the inflow of capital to the GPFG and exposure to the benchmark. It has also been examined whether the Bank has followed up on those recommendations in the previous Ernst & Young report that are of relevance to the inflow of capital and exposure to the benchmark, cf. Report No. 16 (2007-2008) to the Storting.

The auditor's review shows that Norges Bank has designed and implemented a framework for the management and control of the inflow of capital and exposure to the benchmark which is, in all material respects, in accordance with recognised and relevant standards. The auditor concludes, moreover, that the Bank has, in all material respects, implemented the relevant recommendations from the earlier Ernst & Young report.

The auditor's review is discussed in more detail in the report of 6 april 2011 from the Supervisory Council to the Storting.

4.2.4 Assurance statement pertaining to Folketrygdfondet's management of the GPFN

Folketrygdfondet performs the management of the GPFN on behalf of, and pursuant to guidelines laid down by, the Ministry. The agreement with the auditor establishes, as part of the follow-up of the management activities of Folketrygdfondet, a so-called assurance engagements. It is stipulated that the assurance engagement for 2010 shall encompass both the internal control system of Folketrygdfondet and Folketrygdfondet's compliance with guidelines, cf. the discussion of the methodology of a assurance engagement in the National Budget 2011.

In its assurance statement for 2010, the auditor concluded that it has not become aware of any circumstances that give reason to assume that the internal control system of Folketrygdfondet is not, in all material respects, in accordance with recommended international practice. It is noted, moreover, that best practices are evolving on an ongoing basis, and that Folketrygdfondet should continue the development of its own risk management and intern control methodology in line with the evolvement of such practice. In particular, the global financial crisis revealed that the handling of credit and counterparty risk has become ever more challenging for all asset managers. This implies that one needs to establish processes aimed at identifying leading international practice

within all parts of the organisation and seek to replicate such practice.

As far as compliance with guidelines on the part of Folketrygdfondet is concerned, the auditor concludes that it has not become aware of any circumstances that give reason to assume that there are any material violations of provisions laid down in the Act relating to Folketrygdfondet, as well as in any regulations, supplementary guidelines or management agreement adopted by the Ministry of Finance.

The assurance statement from the auditor has been made available on the website of the Ministry (www.government.no/gpf).

4.3 Responsible investment practice

4.3.1 Introduction

A broad approach to responsible investment practice has been developed over time in the management of the Government Pension Fund. The GPFG and the GPFN are managed in conformity with ethical principles and on the basic premise that returns on the Funds over time are dependent on good corporate governance and well-functioning markets. Both Norges Bank and Folketrygdfondet have expanded their active ownership activities in line with international developments in this field, whilst also seeking a higher degree of interaction between active ownership activities and portfolio management. This means, inter alia, that factors which have often not been deemed to be of direct financial relevance, for example environmental and social factors, may nevertheless carry weight because they may influence returns in the long run.

In March 2010, the Ministry of Finance introduced new Guidelines for Responsible Investment Practice in the management of the GPFG. These guidelines are addressed partly to Norges Bank and partly to the Council on Ethics for the GPFG. The introduction of new guidelines forms part of the Ministry's follow-up of the findings from the evaluation of the ethical guidelines for the GPFG of 2004. The Ministry of Finance envisaged, in the wake of the evaluation, a more comprehensive strategy for the responsible investment practice of the GPFG. The main areas now encompassed by this strategy are:

- international cooperation and contribution to the development of best practices;
- a targeted environmental investment programme;

- research and analysis;
- active ownership;
- observation of companies; and
- exclusion of companies.

The Ministry of Finance, Norges Bank, Folketrygdfondet and the Council on Ethics for the GPFG all participate in the international debate relating to responsible investment practices, and cooperate with other players in order to contribute to the development of best practices within their areas.

In 2010, the Ministry participated in a working group under the auspices of the World Economic Forum. The working group drafted a report on sustainable investment practices along the entire investment chain from capital owner to company. The report is described in more detail in Box 4.2.

The active ownership activities still remain a key tool in the responsible investment practice efforts of the Government Pension Fund. The exercise of ownership rights in respect of the GPFG and the GPFN is based on a joint platform of internationally recognised principles. At the same time, the measures used in such activities differ somewhat in view of the different sizes and investment strategies of the Funds. The exclusion of companies is a measure reserved for special cases, and a last resort after the willingness and ability of the company to improve its practices has been examined. Exclusion is primarily a measure applicable to the GPFG, in accordance with the Guidelines on Observation and Exclusion from the GPFG.

In this Chapter, the Ministry reports on the main aspects of the active ownership activities of Norges Bank and Folketrygdfondet and on the work of the Council on Ethics in 2010.

The Ministry's participation in a research project on the impact of climate changes on the capital markets and the work on an environmental investment programme are discussed in more detail in Chapter 2.2 and Chapter 4.1.

Active ownership

The basic principles for active ownership are the same for the GPFG and the GPFN, cf. Box 4.3. Norges Bank and Folketrygdfondet have formulated their own active ownership principles, based on these basic principles. The active ownership activities of Norges Bank and Folketrygdfondet are discussed in more detail in Sections 4.3.2 and 4.3.3, respectively.

Box 4.2 Report on sustainable investments

During its annual meeting in Davos, the World Economic Forum launched a report on sustainable investments. In 2010, the Ministry of Finance participated in a working group in relation to the preparation of the report. Sustainable investment practice is defined in the report as an investment practice that integrates long-term environmental and social criteria and good corporate governance considerations in the investment and active ownership activities, in order to achieve the best possible risk-adjusted return.

The report emphasises the important role of the financial market in the effort to achieve sustainable economic development, and is of particular interest because it looks at challenges and solutions for the entire economic system, from capital owners to companies. Such a broad approach is necessary in order to reduce several important obstacles to sustainable investment practice. The report addresses potential measures within the following areas:

- improved information on environmental and social factors of financial relevance;
- reinforced expertise, thus enabling both investors and corporate management to evaluate such information;
- changes to incentive structures, such as to better safeguard long-term, sustainable interests; and
- improved governance structure between companies and capital owners to achieve better long-term value creation.

The report outlines solutions within these areas for, inter alia, capital owners, asset managers and companies, as well as auditing and regulatory bodies. The report emphasises that capital owners should pay special heed to increased transparency with regard to the environmental and social characteristics of their investments. The report proposes that asset managers should have compensation systems that are more focused on long-term excess return. Companies should promote structured dialogues with investors on issues relating to the environment, society and corporate governance. Auditing and regulatory bodies should contribute to integrated reporting, with relevant information on environmental and social matters forming part of the general corporate reporting.

Many of the challenges and opportunities discussed by the WEF report fall under the «principal-agent» theme: How can we as owners ensure that our interests are taken into consideration throughout the entire investment chain? Part of the key to achieving good solutions is to exercise clear and predictable ownership. This requires good communication between owners and companies, with owners clearly signalling the types of information to which they attach weight in their investment decisions. The WEF report proposes a number of solutions as to how an increased degree of such joint understanding may be achieved, and it is a useful contribution to improving the dialogue between capital owners and companies.

Exclusion and observation of companies

The Guidelines on Observation and Exclusion from the GPFG, of March 2010, stipulate that companies shall be excluded from the Fund if they manufacture certain specified products. Companies may also be excluded if they are deemed to contribute to, or themselves being responsible for, grossly unethical conduct as defined in the Guidelines. Since 2002, the Ministry of Finance has excluded 52 companies pursuant to the criteria in the Guidelines on Observation and Exclusion on the basis of recommendations from the Council on Ethics for the GPFG. Moreover, the Ministry has placed one company

under observation pursuant to the same Guidelines.

Nordic companies (outside Norway) form part of the investment universe of both the GPFG and the GPFN. The Ministry of Finance takes the view that if the Ministry decides to exclude a company, such company should be excluded from both funds. This follows from Report No. 24 (2006-2007) to the Storting and from Section 3-6 of the management mandate for the GPFN. The Ministry of Finance has decided, against this background, to exclude one company from the GPFN.

The work of the Council on Ethics in relation to the Guidelines on the Observation and Exclu-

Box 4.3 Basic principles for active ownership

The exercise of ownership rights as part of the management of the Government Pension Fund is based on the UN Global Compact, the OECD Principles of Corporate Governance (Corporate Governance Guidelines) and the OECD Guidelines for Multinational Enterprises. These international principles define norms for good corporate governance and impose requirements concerning responsible environmental and social corporate practices. Norges Bank and Folketrygdfondet have defined their own guidelines for their exercise of ownership rights in keeping with these principles. In 2006, the UN published a set of principles aimed at investors: the «Principles for Responsible Investment» (PRI). The PRI are based on factors linked to corporate governance and environmental and social conditions affecting financial returns, and facilitate accounting for these factors in asset management and active ownership. The Ministry of Finance, Norges Bank and Folketrygdfondet are all members of the PRI. The Ministry of Finance reports on compliance with the PRI in its management of the GPFG and the GPFN, respectively, partly on the basis of information provided by Norges Bank and Folketrygdfondet.

The UN Global Compact

The UN Global Compact defines a total of 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, 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.

Some 8,700 companies and organisations in more than 130 countries have joined the UN Global Compact. The members are encouraged

to report annually on their compliance with the principles.

OECD Principles of Corporate Governance

These principles are very extensive and mainly address the basis for effective corporate governance, the rights of shareholders and key ownership functions, the equitable treatment of shareholders, transparency and disclosure, and the responsibilities and liabilities of boards of directors.

OECD Guidelines for Multinational Enterprises

These guidelines are voluntary principles and standards for responsible business practices in different areas in accordance with laws applicable to multinational companies. The OECD guidelines for multinational companies represent the only multilaterally recognised and detailed regulatory framework that member states are obliged to promote. They contain recommendations on a number of matters, including public disclosure of company information, the working environment and employee rights, environmental protection, combating bribery, consumer interests, the use of science and technology, competition, and tax liability.

The UN Principles for Responsible Investment

The UN Principles for Responsible Investment are an initiative of the UN Environment Programme Finance Initiative and the UN Global Compact. The initiative is aimed at the owners of assets, asset managers and their professional service partners, all of whom are encouraged to sign the principles. The principles cover aspects linked to being a responsible and active owner by taking environmental, social and corporate governance issues (ESG) into account in asset management and active ownership. Integration of this kind will also have consequences for what type of information investors request from companies and what the companies are expected to report on. The members of PRI have a duty to report on their compliance with the principles on an annual basis. Norges Bank contributed to the drafting of the principles.

sion of Companies from the GPFG is described in more detail in Section 4.4.4 below.

Tools used in responsible investment practice

Key to the Government Pension Fund's responsible investment practice is contribution to companies being managed in a good and sustainable manner, which may in the longer run also affect economic development and the return of the Fund. The tools available in the management of the GPFG and the GPFN are to be used with this in mind.

In 2010, the Ministry introduced observation as a new tool in the responsible investment practice of the GPFG. Observation enables one to signal deep concern over a situation to a company, whilst at the same time holding up the possibility of positive change. This expands the range of available tools, and enables a more fine-tuned reaction than plain exclusion.

The purpose of excluding companies is to avoid investments in companies that contribute to grossly unethical activity. When a company is excluded from the investment universe of the GPFG it may signal what is held to be a minimum ethical standard in a given situation, but at the same time exclusion will not, in itself, contribute to improving the situation for the affected environment or people. Observation is about monitoring a situation in which there is a potential for positive development. This tool will typically be suitable in case of doubt as to whether or not the exclusion requirements are met, or as to future developments, or if deemed appropriate for other reasons. The objective in using such a tool will be to contribute to improved corporate practice.

The Guidelines on Observation and Exclusion from the GPFG stipulate that the Ministry shall make an assessment as to whether other tools may be suited to reducing the risk of grossly unethical activity, prior to any decision being made to exclude a company. The Council on Ethics may recommend, pursuant to the same Guidelines, that a company shall be placed under observation.

Although the range of tools available in respect of the GPFG has been expanded, there will still be many problematic situations that are not addressed. The Fund holds a small stake in many of the world's listed companies – about 8,500 – and therefore it is not possible to fully prevent the GPFG from being invested in companies that may, for various reasons, be subject to criticism. An important strength of the Guide-

lines for Responsible Investment Practice is that they are implemented in a predictable and credible manner over time. This implies that Norges Bank and the Council on Ethics must be given sufficient time to complete processes and assessments in relevant cases, hereunder that the companies are given the opportunity to present their version of the case, or to implement necessary measures. The Ministry has, in order to provide the maximum possible scope for good and predictable processes, included provisions on the exchange of information and on coordination between Norges Bank and the Council on Ethics in the Guidelines on Observation and Exclusion from the GPFG.

4.3.2 Responsible management practice and active ownership activities with regard to the GPFG

The overarching objective of Norges Bank in its active ownership activities is to safeguard the financial interests of the GPFG, in line with the management mandate for the GPFG. The Bank shall, furthermore, integrate considerations relating to good corporate governance, environmental and social issues throughout its investment activities, in line with internationally recognised principles for responsible investment practice. The integration of these considerations shall pay heed to the investment strategy of the Fund and the Bank's role as a financial manager. This is an ambitious objective that was included in the Bank's mandate on the basis of the evaluation process. The objective is in conformity with the PRI principles; see Box 4.3. Norges Bank seeks, in line with this objective, to promote responsible investment in its management activities. The Bank performs, hereunder, analyses of the environmental and social risks associated with the companies and the markets in which the Fund is invested. The analyses may reveal issues that the Bank will seek to change through dialogue with a company's executives or through its voting in a company. Such analyses are carried out by, and used, across the departments within Norges Bank Investment Management. Analysts working within active ownership and the asset managers at Norges Bank share the information from, for example, meetings with companies.

The active ownership activities of Norges Bank have their basis in internationally recognised, global standards, like the OECD *Principles of Corporate Governance*, the OECD *Guidelines for Multinational Enterprises* and the UN *Global Com-*

pact. These are supplemented by the corporate governance and voting guidelines of Norges Bank, and by Norges Bank's document series that communicates specific expectations as to companies' handling of children's rights, climate changes and water resources.

Focus areas in the active ownership activities of the GPFG

During the course of 2010, Norges Bank has refined and strengthened its active ownership activities. The best prospects for an impact through such activities are achieved by stability, predictability and the adoption of a long-term perspective. The six strategic focus areas selected by Norges Bank are:

- equal treatment of shareholders;
- shareholder influence and board accountability;
- well-functioning, legitimate and efficient markets;
- climate change;
- water management; and
- children's rights.

Good corporate governance is necessary for the development of profitable businesses. It safeguards shareholders' rights and ensures a fair distribution of returns. The equality of shareholders and shareholder influence are therefore central to Norges Bank's corporate governance activities. The focus area «well-functioning, legitimate and efficient markets» encompasses fundamental questions about the way markets work, as well as issues concerning good corporate governance. The Bank has been active in efforts to improve market standards, including liquidity and transparency in the market for covered bonds in Europe. Norges Bank has also focused on environmental and social factors that influence companies' business environments and development, and thus also the Fund's assets. The priority areas climate change, water management and children's rights were selected on this basis.

Tools used in the active ownership activities

The tools available to Norges Bank in its active ownership activities are linked to the Fund's ownership stakes in various companies. Participation in the voting at general meetings is one of the primary means for a shareholder to express its opinions. Norges Bank has established its own

Box 4.4 Implementation of the focus areas of climate changes, water management and children's rights.

Norges Bank expects the companies in which the Fund is invested to handle risk associated with climate changes, water resources and children's rights. These factors may have a negative or positive influence on the company's own business and on the Fund's investments in other companies. Norges Bank describes what it expects from companies in the document series «NBIM Investor Expectations», which features one document for each focus area.

The documents are targeted at companies with activities or suppliers in sectors and regions exposed to risk associated with climate changes, water resources and children's rights, respectively. Norges Bank systematically evaluates how companies in the portfolio meet the expectations. The evaluations are based on information available in the public domain. The findings from the evaluations are published in annual status reports. Norges Bank uses the status reports as a basis for dialogue with the companies, with a view to improving the risk handling, reporting and transparency of companies in this regard.

Norges Bank held meetings with 70 companies concerning these three focus areas during the course of 2010. The Bank also holds meetings with various special interest organisations on a regular basis, as well as with Norwegian and international experts, in order to stay updated on developments within climate change, water management and children's rights.

voting guidelines and publishes its voting on each individual matter. Norges Bank is working actively to contribute to more efficient processes for global voting, and aims to vote at all general meetings of companies in which the Fund has holdings.

Norges Bank also uses dialogue with individual companies, collaboration with other investors, participation in international networks and organisations, input to regulatory authorities, contact with research bodies, and public communication of opinions and expectations.

When choosing a tool, Norges Bank considers, inter alia, what offers the best scope for success, relative to the required resource commitment. Sometimes it may be most expedient to strive to exert an influence on the contents of regulatory frameworks, as these have an impact on all the companies in the same market. In other cases, change can be achieved through dialogue with one or more companies.

Voting and shareholder proposals

In 2010, Norges Bank continued to follow up on the quality of the work carried out by boards of directors, which also seems to be a growing focus for other institutional investors in the wake of the financial crisis. The Bank emphasises the responsibility of the board for the follow-up and remuneration of company executives. Furthermore, the Bank conveys its view that the roles of chairperson of the board and chief executive should be kept separate. In 2010, Norges Bank submitted shareholder proposals for the appointment of an independent chairperson of the board of five US companies. None of the proposals were supported by a majority of the votes in the general meetings of the companies, but support in four of the companies was higher than in 2009, when the Bank first submitted such proposals. The Bank's position that these roles should be kept separate is now supported in amended guidelines from ISS – Investor Shareholder Services – which is the world's largest voting advisor for institutional investors. The amendment is effective as from 2011.

A large portion of the environment-related shareholder proposals in 2010 requested, like in 2009, companies to adopt targets for reducing their emissions of greenhouse gases, as well as to report on measures to reduce such emissions. The number of shareholder proposals relating to improved water management was higher than in 2009. These requested, to a large extent, companies to report on the impact of manufacturing processes and waste management on water supplies, as well as on measures to reduce the risk of negative environmental impact. The number of shareholder proposals requesting companies to adopt guidelines for the observance of human rights did not change much from 2009, whilst the number of proposals addressing global labour standards continued to decline.

Environmentally and socially-related shareholder proposals are specifically examined by ana-

lysts at Norges Bank. In addition to the assessments forming the basis for the general voting guidelines of the Bank, specific assessments may also be made in respect of individual proposals. The purpose is to vote in accordance with what the Bank deems to serve long-term shareholder values.

Collaboration with other investors

Norges Bank collaborates and is in regular dialogue with other asset management institutions for purposes of influencing individual companies or to exchange information and assessments. The Bank discussed voting, share capital increases, board appointments and matters relating to the focus areas of water, climate and children's rights during the course of 2010.

Norges Bank requested, together with some German investors, a German court to examine whether the board of Porsche SE exceeded its powers and imposed excessive risk on the minority shareholders of the company in its attempt to acquire full control of Volkswagen over the period 2005-2009. The reason for the request was that an examination may reveal whether the families in control of Porsche SE had other objectives than the other shareholders of the company when the takeover strategy was adopted. It is important for Norges Bank, from the perspectives of both principle and financial interest, to establish good corporate governance to prevent controlling owners from obtaining benefits to the detriment of the other shareholders.

Norges Bank has for several years collaborated with other investors with regard to companies' climate change management. In 2010, Norges Bank embarked on a collaboration with a large US investor concerning a dialogue with a selection of US companies in carbon-intensive industries. The objective of this effort is for the companies to improve their reporting and transparency with regard to how they handle risk associated with the greenhouse gas emissions of such companies.

Norges Bank participates in organised investor networks like, for example, the *International Corporate Governance Network* (ICGN) and the *Asian Corporate Governance Association* (ACGA). In september 2010, NBIM visited companies, trade associations and regulatory authorities in Tokyo to discuss developments in corporate governance in Japan.

Follow-up of individual companies

Norges Bank works to protect its shareholder rights, hereunder when companies fail to comply with the transparency requirements of the Bank concerning transactions with close associates, and when Norges Bank and other minority shareholders are treated unfairly. The Bank is, amongst other things, committed to protecting the preemptive rights of the shareholders in relation to share issues, in order to protect the minority shareholders against dilution. Moreover, Norges Bank exercises the right of shareholders to block share issues in order to prevent transactions that are deemed to be unprofitable or that may result in unwarranted benefits for company executives or selected shareholders. These issues will also be raised in dialogues with companies.

In 2010, the views of Norges Bank were increasingly listened to and accommodated by the portfolio companies. Several companies contacted Norges Bank to get information about how the Bank intended to vote at the general meetings of such companies, and the Bank was frequently consulted on its requirements with regard to the expertise of the board and the appointment of board members. The expanded contacts contributed to Norges Bank being in several instances able to influence the criteria for nomination of a chairperson or member of the board of a company. The Bank also communicated its views to the companies in relation to mergers and acquisitions, asset allocation and other strategic choices.

Norges Bank adopts a systematic approach to the focus areas of climate changes, water management and children's rights. As described in Box 4.4, companies in sectors that are particularly exposed to risk associated with the three focus areas are examined and followed up, from the perspective of the Bank's expectations, on an annual basis. In 2010, the Bank for the first time performed an assessment of the companies' reporting with regard to water management. Norges Bank will publish status reports on climate changes, water management and children's rights in 2011.

The judicial system is also used in certain cases. In september 2010, Norges Bank instituted proceedings against Citigroup Inc. Norges Bank is seeking damages in respect of material losses incurred by the Bank as a shareholder as a result of the corporation and some of its former and current executives providing the market, over the period january 2007 – january 2009, with mislead-

ing accounting details on Citigroup, which kept the stock price artificially high. In addition to direct actions, Norges Bank is every year, as a shareholder, a passive member of a number of class actions brought in the United States.

Industry collaboration

In 2008, Norges Bank and another major European investor launched a dialogue with some of the world's main cocoa suppliers and chocolate manufacturers concerning child labour in the cocoa production in West Africa. In the autumn of 2010, these companies were amongst those launching an industry initiative with an action plan to combat child labour in the cocoa production. In 2010, Norges Bank continued its follow-up efforts with regard to another industry initiative to combat child labour in the seed production in India. A report from June 2010, commissioned by the International Labour Rights Forum, India Committee of the Netherlands and Stop Child Labour, concludes that the proportion of child labour in the total labour force on the farms that produced hybrid seeds for the companies Bayer AG and Monsanto had declined from 53 per cent in 2003-04 to less than 3 per cent in 2009-2010. Norges Bank will continue its follow-up of both of these industry initiatives in 2011.

Input to regulatory authorities – improved market standards

By getting the authorities and other standard setters to impose stricter corporate governance requirements, it becomes easier for the shareholders to hold the board and company executives accountable for their decisions and to strengthen the protection of shareholder rights.

In 2010, Norges Bank continued its efforts to improve market standards. The Bank presented its views, as an investor, with regard to company reporting to, amongst others, the International Accounting Standards Board (IASB), the Global Reporting Initiative, the Singapore Exchange and the EU Commission. As far as the improvement and exercise of shareholder rights are concerned, Norges Bank has, inter alia, provided input to the U.S. Securities and Exchange Commission (SEC) and to the Financial Reporting Council (FRC) in the United Kingdom. The SEC issued a new rule offering some improvement in terms of facilitating competing candidates for appointment to directorships. The FRC published a revised updated corporate governance standard, under which the

main rule is that board appointments shall be made every year. Both of these represent standard improvements that Norges Bank advocated in 2009. Norges Bank's consultative statements are available on the Bank's website.

Work on new expectation documents

In 2010, Norges Bank published a revised version of its expectation document on companies' climate change management. The intention was to communicate more clearly its expectation that companies shall integrate risk associated with climate change in their strategy and risk management. In addition, the Bank has highlighted its expectations of continuous improvement in terms of emission intensity and increased transparency with regard to companies' interaction with lawmakers and regulatory authorities.

Norges Bank will also be publishing expectation documents that describe the other focus areas of the Bank. Equal treatment of shareholders and board accountability are discussed in the Bank's *Corporate Governance Principles and Voting Guidelines*, and will be addressed in more detail through the publication of the expectation documents.

Norges Bank is preparing an expectation document relating to the focus area Well-functioning, legitimate and efficient markets. Issues relating to corporate transparency and reporting are important in this context, and will form part of such expectation document. Other themes also need to be examined, like for example transparency on pricing, predictability, equal treatment and efficient settlement systems. Efforts to improve market standards, which are discussed above, are relevant in this context.

Since corporate transparency and reporting in general are important to the Bank as a large and international asset manager, this theme is reverted to in a number of key documents relating to the active ownership activities of Norges Bank. These issues are addressed in the Bank's *Corporate Governance Principles and Voting Guidelines* and in the existing expectation documents. Norges Bank has also signed the *Investors' Statement on Transparency in the Extractive Sector*, in which the Bank endorses the *Extractive Industries Transparency Initiative*⁹ and the principles for enhanced transparency in the extractive industries. In June 2010, the Hong Kong Stock Exchange introduced its new regulations requiring, in line with a suggestion from Norges Bank in 2009, companies that extract mineral resources to

report on environmental risk, health risk and safety risk.

4.3.3 Responsible management practice and active ownership activities with regard to the GPFN

The Board of Directors of Folketrygdfondet has adopted guidelines on the exercise of ownership rights in the GPFN that are based on the «*Norwegian Code of Practice for Corporate Governance*» and the UN Global Compact, as well as on the OECD Principles of Corporate Governance and the OECD Guidelines for Multinational Enterprises. Folketrygdfondet has chosen to accord special priority to themes that are assumed to involve the highest financial risk in relation to the overall portfolio of the GPFN:

- Reporting and communication on measures relating to ethical issues, hereunder how companies adhere to ethical norms and comply with their own ethical guidelines.
- Corruption, which may involve a considerable financial risk as the result of reputational damage, exclusion from markets, judicial processes, the imposition of fines, etc.
- Greenhouse gas emissions, which involve both environmental costs and financial costs as the result of, inter alia, ever-increasing energy prices, potential CO₂ tax and the consequences of reputational damage.

Folketrygdfondet reports annually on its exercise of ownership rights and normally publishes its Ownership Report in autumn. The report provides an account of the activities Folketrygdfondet has carried out in order to attend to its ownership interests which covers, inter alia, specific matters on the agenda of general meetings, relevant matters raised by Folketrygdfondet with the companies, as well as the number and type of offices held by employees of Folketrygdfondet.

Folketrygdfondet deems it important to follow up on the executive salary policies of companies for purposes of safeguarding shareholder value. This involves, inter alia, assessing whether executive salary schemes are designed such as to actu-

⁹ The Extractive Industries Transparency Initiative (EITI) establishes a global transparency standard for the oil, gas and mining industries. One aims, through principles and criteria adopted by the EITI, for a standard for the publication of payment flows between companies in the extractive industries and the authorities. Authorities, organisations and businesses - hereunder investors - all support the initiative.

ally contribute to more effective and performance-oriented corporate management. Folketrygdfondet also looks at any options schemes, and what these entail in terms of transfer of assets from the shareholders to company executives.

Adherence to ethical principles in the asset management activities

The ethical guidelines of Folketrygdfondet apply to the entire investment portfolio. In its follow-up of the ethical principles, Folketrygdfondet attaches weight to, inter alia, examining whether the company bases its business on actions or omissions that represent violations of human rights, environmental damage, corruption and other violations of fundamental ethical norms. Different methods are used in the follow-up of the various sub-portfolios.

Active ownership is an important tool in the management of the Norwegian equity portfolio. This involves, inter alia, Folketrygdfondet raising relevant ethical issues with company executives, thus enabling the companies to rectify unacceptable conditions. If the companies fail to take the necessary measures after such a discussion, Folketrygdfondet may contemplate raising the matter in the general meeting. If such a process does not succeed either, Folketrygdfondet must eventually consider a sale of equities in the company. Folketrygdfondet takes ethical issues into consideration as far as fixed-income investments are concerned as well, and relevant measures will be evaluated and implemented in case a violation of the investment principles of Folketrygdfondet is uncovered.

Information gathering and company dialogue

Folketrygdfondet continuously reviews the equity and fixed-income portfolio through Internet searches in editorial sources around the world. The searches are made systematically, and Folketrygdfondet is notified if companies in the portfolio are linked to key ethical themes like corruption, human rights, child labour and the environment. The intention is to monitor whether the companies adhere to their own guidelines and do not violate recognised ethical norms and international treaties. Corresponding notifications have also been established in respect of the fixed-income investments. In addition, Folketrygdfondet gathers information from sources available in the public domain, such as annual reports and informa-

tion directly from the companies and from external SRI initiatives.

In 2010, Folketrygdfondet expanded its participation in international initiatives, conferences and seminars addressing ethical and responsible investments and in collaboration projects in Norway. Participation in such forums enables Folketrygdfondet to share experiences with regard to responsible investment practice, as well as to learn from other investors and organisations.

Since late 2009, Folketrygdfondet has devoted more resources to its work on responsible investments, in particular with regard to the analysis of so-called ESG (Environmental, Social and Corporate Governance) issues. This enables Folketrygdfondet to perform more comprehensive analyses on the efforts individual companies employ in relation to corporate governance, human rights, corruption, environmental measures and other issues that may be of relevance to value creation in the long run. The ESG analyses have been made available to the portfolio managers in the equities department, such as to integrate this information into the evaluation of individual companies. This has resulted in relevant issues being raised, to a larger extent than before, in meetings with company executives.

Folketrygdfondet has during 2010 been in direct dialogue with several companies concerning various ESG-related issues. An important focus area in the dialogue with several companies has been requests for improvement in public reporting in the fields of the environment and social responsibility. Companies' efforts to reduce social and environmental risk should be visible to investors and other stakeholders. In 2010, Folketrygdfondet informed five companies that expanded reporting in these areas would be desirable. Folketrygdfondet will continue to follow up on this in 2011. In addition, one company was encouraged to prepare publicly available anti-corruption guidelines and two companies were encouraged to publish guidelines on the management of environmental issues. Folketrygdfondet has also pursued a dialogue with two companies concerning their activities in regions where human rights violations are a serious problem.

In 2010, Folketrygdfondet maintained a dialogue with several companies concerning environmental and ethical issues that also received attention in the media. Clarification of facts and an assessment of the risk of contributing to unethical activities through investments in the company form important parts of the dialogue.

Participation in international initiatives and collaboration with other investors

Folketrygdfondet adopted and signed the UN Principles for Responsible Investment (PRI) in 2008; see Box 4.3 for a more detailed discussion of the PRI. In 2010, the Ministry of Finance reported on adherence to the PRI principles in the management of the GPFN based on, inter alia, input from Folketrygdfondet. Reporting to UN PRI has been a valuable experience for Folketrygdfondet, and has contributed to identifying areas in which efforts may be expanded in future.

At the end of 2009, Folketrygdfondet decided to join the Carbon Disclosure Project (CDP). As a CDP participant, Folketrygdfondet gets access to replies received on the CDP website.

20 of the 37 companies in the Norwegian equity portfolio of Folketrygdfondet that received the CDP questionnaire for 2010 responded. Information gathered from Norwegian companies through CDP concerning their various approaches to the climate issue has been incorporated into Folketrygdfondet's analysis of climate-related risks in the Norwegian equity portfolio. The risks and opportunities of individual companies in relation to climate change, as well as their targets for reduction of greenhouse gas emissions, are included in the company-specific ESG analyses, and form the basis for dialogue with the companies. A company's decision not to respond to the CDP questionnaire is deemed to give cause for a follow-up and potential dialogue with the company. Folketrygdfondet believes the CDP to be a useful initiative, and has therefore decided to continue its support of the project in 2011.

Folketrygdfondet has participated in the project Sustainable Value Creation since 2008. The purpose of the project is to actively influence Norwegian listed companies to pursue a sustainable development. This is an important prerequisite for long-term value creation. The project involved the distribution on behalf of the investors of a questionnaire to all companies included in the main index of the Oslo Stock Exchange. The companies were asked whether they have guidelines that address key elements within corporate responsibility and sustainability, to whom these guidelines apply, in whom they are vested and by whom they are implemented, as well as about compliance reporting. The responsibility of the board for these areas was also addressed in this survey.

The Sustainable Value Creation project has contributed to the initiation of positive processes. The intention behind this survey is not only to

establish the current status of corporate efforts in this area, but also to contribute to the companies being encouraged to enhance their own sustainable value creation activities. The findings from the previous round in 2009 are incorporated into Folketrygdfondet's ongoing analysis of the companies in which investments are made, and contribute to the basis for dialogue with company executives.

4.3.4 Observation and exclusion of companies

Under the Guidelines on Observation and Exclusion from the GPFG introduced on 1 March 2010, companies are to be excluded if they contribute to, or are themselves responsible for, grossly unethical activities. The detailed criteria for product-based and conduct-based exclusion have been carried over from the ethical guidelines for the GPFG of 2004. Decisions to exclude companies from the Fund are made by the Ministry of Finance, based on advice from the Council on Ethics for the GPFG. As per 1 april 2011, the Ministry of Finance has excluded a total of 52 companies, based on advice from the Council on Ethics. An overview of these companies is provided in Tables 4.5 and 4.6.

The Council on Ethics examines on a regular basis whether the grounds for exclusion of a company still apply, and may on the basis of new information recommend that the Ministry of Finance reverse an exclusion decision. Between the introduction of the previous ethical guidelines and 1 april 2011, five companies have been accepted back into the investment universe of the GPFG because their exclusion is no longer justified.

Five more companies have been excluded from the Fund since the previous Report to the Storting on the management of the Fund, whilst one company has been accepted back into the investment universe.

Product-based exclusion

The guidelines establish that the assets of the Fund shall not be invested in companies that, themselves or through entities they control:

- produce weapons that violate fundamental humanitarian principles in their normal use;
- produce tobacco; or
- sell weapons or military materials to states mentioned in Section 3.2 of the supplementary guidelines for the management of the Fund; at present Burma.

Table 4.3 Overview of companies excluded on grounds of production of tobacco and certain types of weapons

Product	Date	Company
Anti-personnel mines	26 april 2002	Singapore Technologies Engineering
Cluster munitions	31 august 2005	Alliant Techsystems Inc, General Dynamics corporation, Lockheed Martin Corp., Raytheon Co.,
	30 november 2009	Poongsan Corporation New
	31 December 2007	Hanwha Corporation
	31 December 2008	Textron Inc.
Nuclear arms	31 December 2005	BAE Systems Plc, Boeing Co., EADS Co ¹ , EADS Finance BV, Finmeccanica Sp. A., Honeywell International Corp., Northrop Grumman Corp., Safran SA.
	31 December 2007	Gen Corp. Inc. Serco Group Plc.
	28 february 2009	Dongfeng Motor Group Co Ltd.
Sale of weapons and military materials to Burma	28 february 2009	Dongfeng Motor Group Co Ltd.
Production of tobacco	31 December 2009	Alliance One International Inc., Altria Group Inc., British American Tobacco BHD, British American Tobacco Plc., Gudang Garam tbk pt., Imperial Tobacco Group Plc., ITC Ltd., Japan Tobacco Inc., KT&G Corp, Lorillard Inc., Philip Morris International Inc., Philip Morris Cr AS., Reynolds American Inc., Souza Cruz SA, Swedish Match AB, Universal Corp VA and Vector Group Ltd.
	28 february 2011	Shanghai Industrial Holdings Ltd

¹ The company EADS was initially excluded on 31 august 2005 on the grounds of its involvement in the production of cluster munitions. EADS no longer produces cluster munitions. However, the company is involved in the production of nuclear arms, and the Ministry of Finance upheld the company's exclusion on 10 May 2006 on these grounds.

Source: Ministry of Finance

The Revised National Budget for 2004 provides an exhaustive list of weapons covered by the product-based exclusion criteria: chemical weapons, biological weapons, anti-personnel mines, undetectable fragmentation weapons, incendiary weapons, blinding laser weapons, cluster munitions and nuclear arms. The Fund shall not invest 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 products 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 regardless of how large or small a share the tobacco production represents of the company's overall operations.

Altogether, the Ministry of Finance has excluded 37 companies from the Fund on the basis of 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, a further 18 companies have been excluded on grounds of tobacco production, and one company has been excluded on grounds of sale of military materials to Burma.

Table 4.4 Companies excluded on grounds of conduct

Grounds for exclusion:	Date	Company
Contribution to serious or systematic human rights violations	31 May 2006	Wal-Mart Stores Inc. and Wal-Mart de Mexico SA de CV
	31 July 2010	
Severe environmental damage		Africa Israel Investments Ltd. Danya Cebus
	31 May 2006	Freeport McMoRan Copper & Gold Inc.
	31 October 2007	Vedanta Resources Plc., Sterlite Industries Ltd. Madras Aluminium Company
	30 June 2008	Rio Tinto Ltd. and Rio Tinto Plc.
	30 november 2008	Barrick Gold Corp
	31 October 2009	Norilsk Nickel
	31 July 2010	Samling Global Ltd.
Gross violations of fundamental ethical norms	31 January 2011	Lingui Developments Berhad
	31 August 2009	Elbit Systems Ltd.

Source: Ministry of Finance

Conduct-based exclusion

A company shall be excluded from the Fund if it contributes to, or is itself responsible for:

- serious or systematic human rights violations, such as, for example, murder, torture, deprivation of liberty, forced labour, the worst forms of child labour and other child exploitation;
- 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.

All in all, 15 companies have been excluded from the GPFG pursuant to these criteria. Three of the companies were excluded on grounds of contributing to serious or systematic human rights violations, ten companies were excluded because they were deemed to cause severe environmental damage, one company was excluded on grounds of other particularly gross violations of fundamental ethical norms and two companies were excluded on grounds of serious violations of individuals' rights in situations of war or conflict. One of these companies was excluded on grounds of both the environmental and the human rights criteria.

In november 2007, the Council on Ethics recommended exclusion of Siemens AG on grounds of gross corruption. In March 2009, the Ministry of Finance placed the company under observation for four years, to allow the Council on Ethics and Norges Bank to monitor developments in the company. If new instances of corruption are detected in the company, the threshold for exclusion will be very low. The Council on Ethics and Norges Bank submit an annual report to the Ministry of Finance on developments in the company.

As a result of the revision of the ethical guidelines, the system for the observation of companies has been formalised. The Council on Ethics may now recommend that the Ministry of Finance place a company under observation, and the Ministry of Finance may opt to use observation irrespective of whether the Council on Ethics recommends exclusion or observation. Thus far, the Ministry of Finance has not received any observation recommendation from the Council on Ethics.

The Council on Ethics' work on product-based exclusion

The criteria for product-based exclusion are such that all companies with production covered by the

guidelines are to be excluded from the Fund. The Council on Ethics has established a monitoring system to identify these companies. An external consultant continuously monitors the Fund's portfolio and the companies that have been excluded from the Fund, and reports each quarter to the Council on companies that may have activities in violation of the criteria. The Council is also collaborating with other investors on a consultancy assignment to map which companies produce cluster munitions. The Council on Ethics investigates all the companies in respect of which there are reasonable grounds to believe that their activities are in violation of the guidelines.

Normally, the Council on Ethics contacts the companies if there is reason to believe that they are engaged in production in violation of the guidelines. If a company confirms the information invoked by the Council, the Council will render an exclusion recommendation. Companies that do not reply when approached are recommended for exclusion if the Council's documentation shows that there is a high probability that the company has products that violate the exclusion criteria.

This procedure offers a reasonable degree of assurance that companies producing products that violate the criteria in the guidelines will be excluded from the Fund. Nevertheless, it cannot be guaranteed that all companies will at all times be correctly screened by the Council's monitoring system. Particular difficulties may be encountered in establishing whether companies are involved in the sale of military materials to Burma.

The Council on Ethics' work on conduct-based exclusion

Whereas product-based exclusion is largely a matter of proving that a company makes a specific product, it is more difficult to determine whether the preconditions for conduct-based exclusion are met. Such determination will necessarily be a matter of a discretionary assessment. An important and challenging issue is what it takes to conclude that a company contributes to unethical conduct if such company is not directly responsible for said conduct. In many cases it is also harder to find credible evidence that supports serious allegations of unacceptable conduct in the operations of a company. The Council on Ethics therefore conducts its own thorough investigations to identify and assess companies that may be involved in

human rights violations, environmental damage, corruption or other violations of ethical norms.

A number of external consultants carry out regular Internet-based searches for news items about all the companies in the portfolio. These searches are performed in several languages, including English, Spanish, Russian and Mandarin. The Council on Ethics receives monthly reports about companies accused of complicity in human rights violations, or of corruption, severe environmental damage or other conduct encompassed by the ethical guidelines. If several companies are accused of similar violations of norms, the Council on Ethics seeks to adopt a comprehensive perspective in examining such accusations. Among these, the Council selects the most serious cases for further investigation.

The amount of news items available varies geographically and thematically. Access to information is not the same in all countries, and some industries are discussed more often than others. In 2010, the Council on Ethics has to a greater extent than before been studying specific business types or sectors in order to supplement the ongoing monitoring of the portfolio. This has brought up issues that may be of relevance to the work of the Council on Ethics, and that would not necessarily have been identified through the monitoring of news items.

In its selection of cases, the Council on Ethics attaches weight to how serious the norm violations are, whether a company is accused of several counts of unethical conduct, whether it is likely that such conduct will continue, and the scope for documenting the conduct of which the company is accused, etc. The intention is to identify companies in respect of which there is an unacceptable risk that violations of the ethical guidelines are taking place and are expected to continue. Weight is attached to a number of factors in the more detailed assessment of a company. The degree of severity of the norm violation is reassessed, and the Council also investigates whether the violation is systematic and whether norm violations have been reported in several of the company's activities. The Council also evaluates how serious the norm violation is compared to the conduct of other companies with similar activities and compared to other companies in the same country or region. It is essential that the alleged norm violations can be supported by facts. Moreover, there must be an unacceptable risk that the norm violations will continue in future.

The Guidelines on Observation and Exclusion from the GPFG allows for the Council on Ethics to

contact companies that are under assessment at an earlier stage of such assessment than was previously the case. When the Council on Ethics contacts a company, such company receives information about the ethical guidelines and what circumstances may result in exclusion under the guidelines. The company is also informed about the potential outcomes of the ongoing assessment. The intention behind such contact is to gather information for purposes of evaluating whether the exclusion of the company in question would be justified. The companies may be requested to respond to specific questions or to submit specific documents to the Council. At times, this results in the companies offering or requesting meetings with the Council. Consequently, the Council on Ethics has in 2010 been in closer contact with companies under assessment than has previously been the case.

The information provided by the companies must be assessed against information from other sources. There is often a need for supplementary information to shed additional light on cases, over and above that available in the public domain. In this work, the Council on Ethics makes use of consultancy firms, research institutions and non-governmental organisations, often based in the country where the violations of norms are alleged to take place. This may involve fieldwork and evaluation of documentation. It may be difficult to obtain

specific and reliable documentation about the issues examined by the Council.

In many cases, closer investigation shows that the probability of future norm violations is less than originally assumed. It may be that old events have been reported in news items, or that the company has implemented measures to remedy the situation. In such cases, the Council does not pursue the matter unless new information is received suggesting that the company ought to be reassessed. The Council on Ethics is committed to describing the grounds for an exclusion recommendation in detail and to providing thorough documentation. Any assertions made are supported by reference to a specific source, and often to several sources. If the Council on Ethics remains of the view, following a comprehensive assessment, that a company should be excluded or be placed under observation, the Council requests the company to comment on a draft recommendation. It is not uncommon for companies to request new meetings and wishing to provide additional information at this stage.

It is unrealistic to expect that all companies that contribute to serious violations of norms worldwide will be identified. Although the Council on Ethics initiated a special news search for companies domiciled in certain parts of Asia in 2009, there is still limited information available about companies from these markets.

5 Further development of the management framework

5.1 Introduction

The Storting has, in the Act relating to the Government Pension Fund, made the Ministry of Finance responsible for the management of the Fund. At the same time, the Act is based on the premise that operational management shall be handled by Norges Bank and Folketrygdfondet, respectively, cf. Section 2 of the Act. The Ministry has issued provisions on Norges Bank's and Folketrygdfondet's management of the GPFG and the GPFN, respectively, in separate mandates. The mandates describe the general investment framework in the form of benchmark indices and general management limits, and contain provisions on risk management, reporting and responsible investment practice. The mandates are general in nature and focused on principles, and are based on the understanding that Norges Bank and Folketrygdfondet will adopt more detailed internal rules.

The Act relating to the Government Pension Fund and the mandates issued by the Ministry defines the general framework for the management of the two parts of the Government Pension Fund. The framework is available at the Ministry's website (www.government.no/gpf), whilst supplementary rules laid down by the Executive Board of Norges Bank are available on the Bank's website (www.nbim.no). Supplementary rules laid down by the Board of Directors of Folketrygdfondet will be made public on its website (www.fff.no) in line with the transitional provisions in the new mandate for the GPFN.

The management model for the Government Pension Fund is based on a clear division of responsibilities and roles between the owner and the manager. The model's point of departure is that the formal organisation of asset management and decisions that contribute to determining the overall level of risk of the Fund shall be sanctioned by the Storting, cf. figure 5.1. This is primarily achieved through the deliberation of the annual Report on the Government Pension Fund, which provides the Storting with an opportunity to discuss important aspects of the management of the

Fund in a broader context. The Ministry adopts, based on the deliberations of the Storting, a general framework for, and provisions on, asset management. These are supplemented by more detailed limits and rules at the various decision-making levels down through the management chain. The management model implies that the main part of the risk associated with the Fund is in practice determined through the deliberations by the Storting, whilst there is a relatively low degree of delegation to the asset manager of decisions that influence the overall level of risk of the Fund.

Last year's Report provided a broad presentation of the system for the follow-up of the management of the Government Pension Fund, including the division of responsibilities and roles between the various bodies involved in the supervision and control of the Fund, cf. Chapter 4 of Report No. 10 (2009-2010) to the Storting. It followed from such presentation that the Supervisory Council, which is appointed by the Storting, has a general responsibility for supervising the activities of Norges Bank, including its management of the GPFG. The Supervisory Council appoints the external auditor of the Bank, which audits the financial reporting of the Bank, and organises a designated secretariat that performs ongoing supervision duties. A system of regular, independent reviews of the Bank's management activities, so-called assurance engagements, has also been introduced in order to strengthen the supervision function of the Supervisory Council. The Ministry has, in that context, initiated a dialogue with the Supervisory Council to provide input for the auditing and supervision programmes in order to ensure that the need of the Ministry for follow-up as against the GPFG is attended to, cf. Proposition No. 58 (2008-2009) to the Odelsting. Moreover, a statutory requirement has now been introduced to the effect that the Supervisory Council shall submit, directly to the Storting, an annual statement on the supervision of the operations of the Bank, cf. Proposition No. 101 L (2009-2010).

The Storting has previously stated that it shares the view of the Ministry that Norges Bank must be allowed a certain degree of freedom in

the performance of the management assignment, and that detailed intervention from the Ministry on an ongoing basis is neither possible nor desirable, cf. Recommendation No. 277 (2008-2009) to the Storting and Recommendation No. 373 (2009-2010) to the Storting. Furthermore, the Storting has now made more specific comments with regard to the division of responsibilities between the various bodies involved in the supervision of the management of the Government Pension Fund, cf. Recommendation No. 138 (2010-2011) to the Storting:

«The Committee endorses the division of responsibilities implied by the provisions of the Government Pension Fund Act and the Central Bank Act, as well as the Storting's deliberation of last year's Report on the Government Pension Fund. This implies that the Office of the Auditor General shall ensure that the Ministry of Finance manages the Fund in conformity with the expectations and resolutions of the Storting, whilst the Supervisory Council shall, on the basis of the work carried out by the external auditor, ensure that Norges Bank's

management activities are in compliance with the guidelines issued by the Ministry. The Internal Audit unit at the Bank shall ensure that internal guidelines issued by the Executive Board, within the scope of the Bank's mandate, are followed up on.»

and Recommendation No. 246 (2010-2011) to the Storting:

«...The Committee notes that the Supervisory Council of Norges Bank has appointed an external auditor to attend to the auditing of the affairs of the Bank.

The majority of the Committee members, all members with the exception of the members from the Progress Party and the Liberal Party, believe that it is not necessary for the Office of the Auditor General to perform checks, in addition thereto, on Norges Bank and the Government Pension Fund Global.»

The Ministry concludes, based on the above, that there is currently broad political agreement on the division of responsibilities and roles with

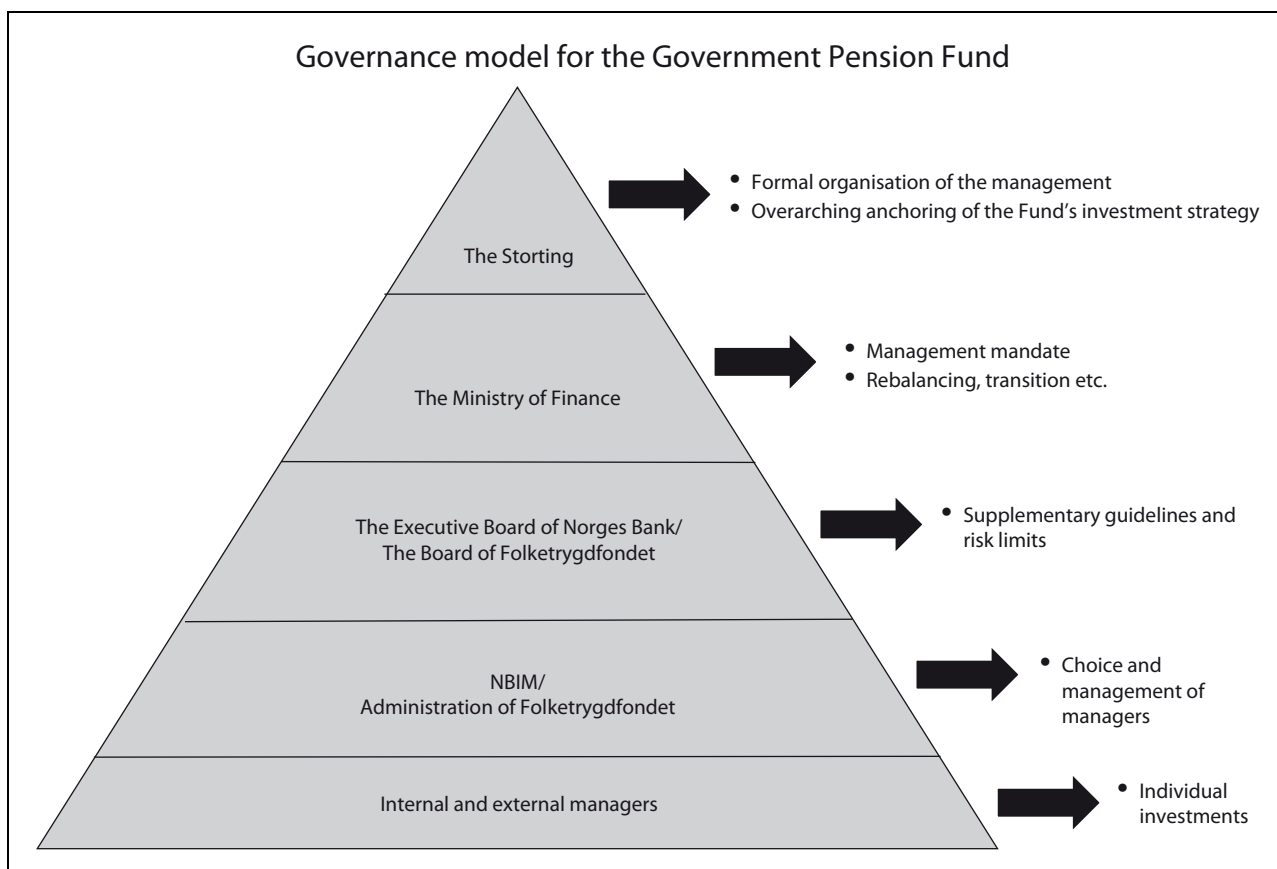


Figure 5.1 The governance model for the Government Pension Fund

Source: Ministry of Finance

Box 5.1 The report of the Financial Crisis Committee

The Financial Crisis Committee was appointed in June 2009 to assess the Norwegian financial market, including the regulation of the Norwegian financial market, from the perspective of the international financial crisis and experience gained therefrom. The Committee was instructed to, inter alia, describe the underlying causes of the financial crisis and examine whether specific national circumstances contributed to the development of the crisis in Norway. The Committee submitted its report on 25 January 2011, as the NOU 2011:1 Better Prepared for Financial Crises.

The mandate of the Financial Crisis Committee did not encompass the framework for the management of the Government Pension Fund, but several parts of the report of the Committee are nevertheless of relevance to the management of the Fund:

- *General lessons.* The Committee notes that the strong economic performance prior to the financial crisis led to over-optimism and unrealistic risk assessments. A lack of knowledge and exaggerated optimism resulted in misjudgements, misguided investments and excessive borrowing. Inappropriate incentives were also an important cause of the international financial crisis. Financial institutions benefited from circumventing regulations. Internally in many financial institutions weaknesses in management and remuneration systems resulted in bonuses being awarded to employees who assumed excessive risk on behalf of the institution. There was also an exaggerated belief in well-functioning markets, amongst both government authorities and market participants. At the same time, an increasing degree of mutual interdependence between countries contributed to an insufficient diversification of risk.
- *The importance of confidence and a robust framework.* The financial crisis demonstrated that there is a need to inspire confidence that the Fund and the macroeconomic framework can withstand a new crisis when the petroleum revenues will eventually subside. Stress testing of the portfolio of the GPFG may be a useful tool in shedding light on this issue.
- *The need for liquidity in the longer run.* The financial crisis had a major impact on the valuation of financial assets and resulted in major changes to the liquidity of such assets. The Committee notes, in its report, that this is not necessarily a problem for an investor with a long investment horizon and a limited need for access to liquid assets. It is also noted that long-term investors may instead, during a crisis, benefit from higher risk premiums, whilst at the same time contributing to more well-functioning markets. The Committee notes that a high level of ambition in fiscal policy necessitates large buffers. The Committee is of the view that countries with cyclical resource revenues, like Norway, should maintain particularly large buffers as their revenues may decline quite dramatically in the event of an international downturn. The Government Pension Fund looks set to grow significantly over the coming years. However, in the longer run the ongoing inflow of capital to the Fund will diminish, and the annual outflows from the Fund will eventually exceed the inflow of new capital. This will not necessarily weaken the ability of the Fund to absorb risk, but means that investments generating a continuous inflow of liquid funds may become more attractive than before. It may also impact on the investment strategy of the Fund, hereunder the portion of its assets that should be invested in more liquid financial instruments.
- *The need for improving risk management and operational management.* The financial crisis illustrated the need for better identifying, managing and communicating risk, cf. Report No. 10 (2009-2010) to the Storting. The crisis also uncovered weaknesses in risk management and operational management, which resulted in, inter alia, a comprehensive reorganisation of asset management on the part of Norges Bank with significantly enhanced risk management and reporting.
- *Remuneration of asset managers.* The financial crisis highlighted the lack of alignment of interests between the principal and the asset manager. In 2010, Norway adopted new rules on remuneration policies and practices in financial institutions (EU directive), which shall contribute to promoting, and provide incentives for, good management and control of the risk associated with asset management, counteract excessive risk taking and contribute to the prevention of conflicts of interest. These provisions have also been made applicable to Norges Bank and Folketrygdfondet in relation to the management of the GPFG and the GPFN, respectively.
- *The importance of the diligent exercise of ownership rights.* One factor contributing to the financial crisis was deficient corporate governance. An important aspect of the exercise of ownership rights is enhancing the accountability of the board of directors and the senior executives of a company.

regard to the follow-up of the management of the GPFG, hereunder the division of responsibilities and roles between the various bodies supervising and performing checks on the Fund.

The Ministry works continuously to further develop the framework for the management of the Government Pension Fund in line with best practice internationally. It is, at the same time, challenging to ensure that the framework develops in line with the investment strategy, the growth in the assets of the Fund, as well as international developments within frameworks and supervision methodology for large asset managers. Report No. 10 (2009-2010) to the Storting presented a number of measures that have been implemented for purposes of strengthening control and supervision of the management of the Fund, with the support of a broad majority within the Storting. Key measures that have been implemented recently are the enhancement of the supervision function of the Supervisory Council of Norges Bank, the introduction of new auditing arrangements for Norges Bank, the adoption of the new Regulations relating to Risk Management and Internal Controls at Norges Bank, the adoption of the new Regulations relating to Financial Statements, etc., for Norges Bank and the adoption of new mandates for the management of the GPFG and the GPFN. The Ministry is therefore of the view that it is important to give the measures that have now been implemented time to work, before making any major changes to the framework for the management of the Government Pension Fund.

It was announced, in last year's Report on the management of the Government Pension Fund, that one would examine whether the findings and assessments of the Financial Crisis Committee should have consequences for the management of the Fund. The Financial Crisis Committee presented its report on 25 January 2011, as the NOU 2011:1 Green Paper; Better Prepared for Financial Crises. The Committee does not make specific recommendations with regard to the framework for the management of the Government Pension Fund, but notes that it is important, in a macro-economic context, for the GPFG to include a sufficient amount of liquid assets, cf. Chapter 12 of the report. It also identifies various factors that may be of relevance to the management of the Fund, and lessons to be learned from the financial crisis were noted, cf. Box 5.1. The Ministry will draw on the assessments and perspectives of the Committee in its ongoing efforts to further develop the

framework for the management of the Government Pension Fund.

5.2 New provisions on the GPFG and the GPFN

In 2009, the Storting resolved to amend the Central Bank Act, thus authorising the Ministry to issue specific financial reporting provisions for Norges Bank, including the GPFG, in the form of administrative regulations, cf. Proposition No. 58 (2008-2009) to the Odelsting.

The Ministry laid down new Regulations relating to the Annual Financial Statements, etc., of Norges Bank on 1 January 2011. The Regulations imply that the financial reporting in respect of the GPFG will be based on the International Financial Reporting Standards (IFRS), cf. the more detailed discussion in Section 5.2.1 below.

The Ministry has previously announced a review of the regulatory framework for the management of the GPFG, cf. Report No. 20 (2008-2009) to the Storting and Report No. 10 (2009-2010) to the Storting. One of the premises of such review was to clarify the division of responsibilities and roles between the Ministry and Norges Bank, as well as to introduce more stringent requirements with regard to the regulation of the risk involved in the asset management activities. The Ministry has also announced a revision of the provisions governing Folketrygdfondet's management of the GPFN, cf. Report No. 10 (2009-2010) to the Storting.

In late 2010, the Ministry adopted new provisions on the management of the GPFG and the GPFN, with effect from 1 January this year. The new provisions are set out in separate mandates issued to Norges Bank and Folketrygdfondet, respectively, cf. the more detailed discussion in Section 5.2.2 below.

5.2.1 New financial reporting provisions for Norges Bank

On 1 January 2011, the Ministry laid down new Regulations relating to the Annual Financial Statements, etc., of Norges Bank. The Regulations are based on a proposal circulated for consultation on 8 July 2010 and the submitted public consultation feedback, and comprise the following main elements:¹⁰

¹⁰ The consultation paper and consultative statements are available on the Ministry's website.

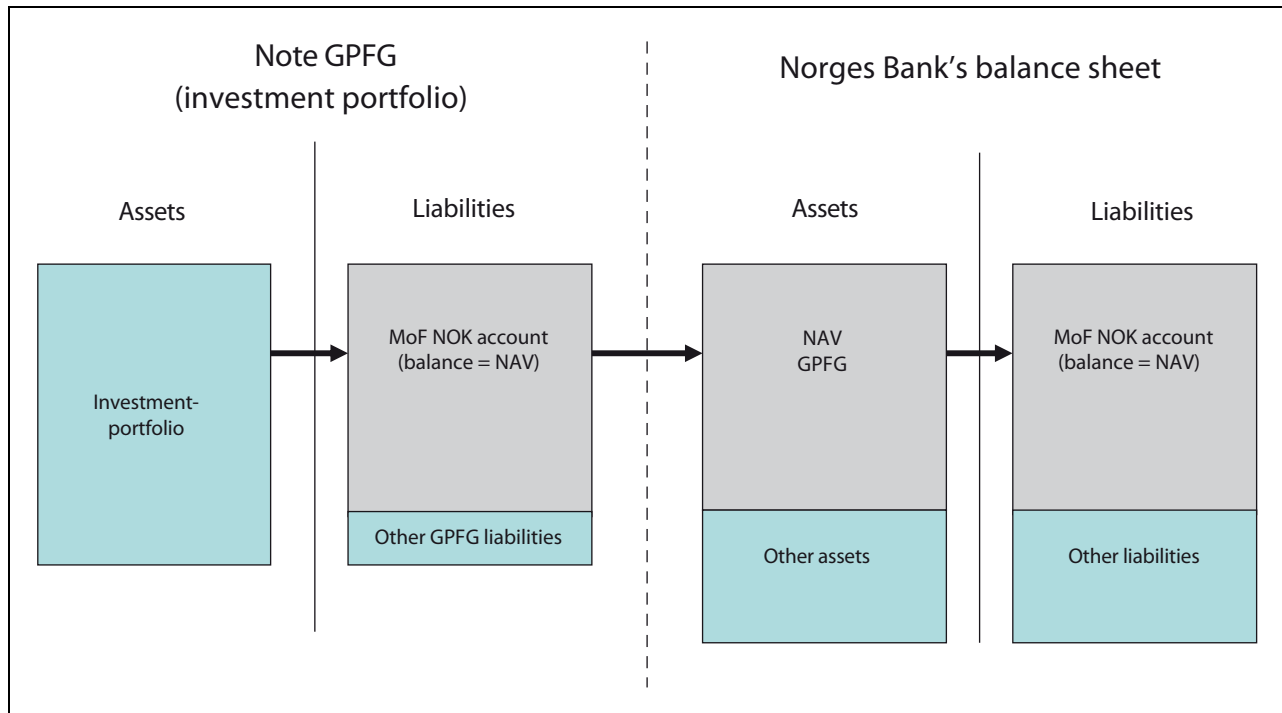


Figure 5.2 The relationship between the statement of financial position of Norges Bank and footnotes on the GPFG. Investments for the GPFG are referred to as the «investment portfolio» in the Regulations

Source: Ministry of Finance

- Norges Bank is required to prepare annual financial statements and annual reports in conformity with the provisions of the Accounting Act pertaining to large enterprises, based on the International Financial Reporting Standards (IFRS), cf. Section 3-9 of the Accounting Act.
- The annual financial statements of Norges Bank shall include financial reporting in respect of the GPFG. Certain specific requirements are stipulated as to information disclosure in relation to the GPFG in the annual financial statements.
- Certain specific requirements are stipulated as to Norges Bank's financial reporting on the investments in respect of the GPFG (in notes to the annual financial statements and, if applicable, quarterly reports on the GPFG).

International Financial Reporting Standards (IFRS)

Section 3-9 of the Accounting Act requires listed enterprises to prepare annual financial statements in compliance with the International Financial Reporting Standards, as adopted by the EU Commission and incorporated into the EEA agreement (hereinafter referred to as the IFRS). Other reporting entities may choose to adhere either to the IFRS or to the other provisions of the Accounting Act. Banks are subject to separate financial

reporting provisions set out in regulations laid down pursuant to the Accounting Act, which imply, in the main, that banks are required to prepare financial statements that adhere to the recognition and measurement provisions of the IFRS.

The International Monetary Fund (IMF) has devised guidelines for evaluating the quality of the framework of central banks in countries that are granted loans by the IMF. It is a requirement that financial reporting takes place in conformity with internationally recognised financial reporting standards. IMF refers to the following three standards: US GAAP, the financial reporting framework of the European Central Bank (ECB) and the IFRS.

The Ministry is of the view that there are a number of reasons why Norges Bank should be required to prepare financial statements conforming to the IFRS:

- The IFRS is the most suitable financial reporting framework out of the three frameworks recommended by the IMF. It would be inappropriate to require Norges Bank to comply with US GAAP, since the IFRS are applied within the EEA. The financial reporting framework of the ECB only covers traditional central banking activities. Since it has been decided, amongst other things, that Norges Bank shall invest part of the assets of the GPFG in unlisted real

estate, it is necessary to choose a financial reporting framework that also encompasses such investments.

- The IFRS have been introduced, in full or in part, as the financial reporting framework for more than 70 central banks, including the central banks in the United Kingdom, Australia, New Zealand, Hong Kong and Singapore.
- Norwegian banks are required to apply the IFRS or IFRS-adapted regulations.
- Norges Bank's financial reporting in respect of the GPFG should conform to standards that are recognised in the countries in which the Fund investments are made. The Bank is, through its management of the GPFG, one of the world's largest governmental investors (so-called Sovereign Wealth Funds). In recent years, both the media and the authorities in several countries have focused increasingly on foreign governmental investors that acquire ownership stakes in the listed companies of such countries. The Ministry therefore attaches considerable weight to asset management transparency, in respect of both the investment strategy of, and the financial reporting on, the GPFG.

The new financial reporting regulations require, against this background, Norges Bank to adhere to the IFRS as far as concerns the Bank's reporting on the investments in respect of the GPFG (the regulations use the term of «investment portfolio»). The IFRS is also to be adhered to in the financial reporting on the other activities of Norges Bank, with two exceptions:

- In the presentation of the financial status (the statement of financial position) in the annual financial statements of Norges Bank, the Norwegian kroner account of the GPFG and the equivalent value thereof shall be entered on one line (continuation of current practice).
- If Norges Bank establishes subsidiaries for purposes of holding assets as part of its management of the GPFG, such subsidiaries shall be consolidated into the financial reporting on the GPFG. These subsidiaries shall be therefore included on the line for the Norwegian kroner account of the GPFG and the equivalent value thereof in the presentation of the financial status (the statement of financial position) in the annual financial statements of Norges Bank.

The mandate issued by the Ministry in relation to Norges Bank's management of the GPFG sets out reporting requirements that supplement the finan-

cial reporting requirements in the financial reporting regulations, cf. the discussion in Section 5.2.2 below.

Financial reporting on the GPFG is included in the annual financial statements of Norges Bank

In formal terms, the GPFG is a deposit in an account with Norges Bank, cf. Figure 5.2. The assets are managed by Norges Bank in conformity with the mandate issued by the Ministry. The asset management activities form a material part of the activities of Norges Bank, and the Executive Board of the Bank is responsible for adherence to the mandate. The underlying legal structure therefore suggests that the asset management activities should be reported on in the financial statements of Norges Bank. It will not be appropriate, from such a perspective, to require separate financial statements to be prepared in respect of the investment portfolio. The Ministry notes that separate financial statements in respect of the GPFG might result in different solutions under the principle-based provisions of the IFRS. It would be unfortunate if Norges Bank had to provide, in different public documents, conflicting information about the same factual situation. The Ministry has concluded, against this background, that reporting on the GPFG shall be required in the form of notes to the financial statements of Norges Bank, whilst relevant excerpts from such financial statements shall be included in a separate annual report on the GPFG.

Special financial reporting requirements in respect of the GPFG

The Ministry is of the view that the investments pertaining to the Fund should, as a main rule, be measured at «fair value». Normally, such measure will best reflect developments in the real value of the Fund, and thereby be best suited for purposes of informing the users of the financial statements of how Norges Bank has performed its asset management obligations. The Ministry notes, at the same time, that a requirement for measurement at «fair value» may create a misleading impression of the actual situation in cases where the observed market prices are subject to considerable uncertainty. This may be the case during periods, or in markets, that are less liquid, in the event that no agreement has been established with regard to any acceptable alternative valuation method. For this reason, a number of exemptions are made to the requirement for measurement at «fair value» under the IFRS. These exemptions are understood and recognised in financial reporting and

investor circles, both in Norway and internationally. If exemptions from the IFRS are adopted within this area, however, it may result in the financial statements becoming less informative, which may present the Bank with unnecessary challenges in relation to international contracting parties that make use of information from financial statements. The Ministry has concluded, based on an overall assessment, that no deviations from the IFRS should be adopted in this respect, although reasons are required to be specified if financial assets and financial liabilities are not classified at «fair value through profit or loss».

The Ministry notes that the stated objective of the investment strategy of the GPFG is to maximize the international purchasing power of the Fund, cf. the discussion in Chapter 2.2 of Report No. 10 (2009-2010) to the Storting. When analysing the investment strategy, the Ministry attaches considerable weight to the expected average real rate of return in the long run (a time horizon of 15 years is used in the simulations of the Ministry), as measured in the currency basket of the benchmark of the Fund. When reporting the percentage return the main weight is also placed on the actual real rate of return as measured in the currency basket of the benchmark of the Fund in the long run (since the start-up of the Fund). Considerations relating to consistency between the objective of the investments and the reporting of the achieved performance suggest, when taken in isolation, that one ought to calculate accounting profit or loss before exchange rate and inflation effects, i.e. that one should ideally identify an exchange rate effect (exchange rate effects between the currency basket of the benchmark and Norwegian kroner) and an inflation effect from the nominal profit or loss of the GPFG for the year. Since it is not consistent with recognised financial reporting practice to present developments in real value as a separate line in an income statement, the Ministry has concluded that it would not be appropriate to require only foreign exchange effects to be identified in the income statement either. It will be more appropriate for the Ministry to present such analyses in reports to the Storting on the management of the GPFG. The Ministry has concluded, against this background, that no unconditional requirement should be introduced implying that exchange rate effects should be presented on a separate line, although Norges Bank shall describe in notes what calculation method has been used if exchange rate effects are nevertheless identified.

The Office of the Auditor General has proposed that the financial reporting regulations for Norges Bank shall require the notes to include information on the portion of the external auditor's fees that relate to the GPFG, specified by auditing and consultancy services, respectively. The Ministry is of the view that it is more appropriate for the Supervisory Council of Norges Bank's to provide information about which resources the Supervisory Council devote to control of the financial statements of the Bank and on supervision of the activities of the Bank in its annual statement to the Storting, cf. Section 30, new Sub-section 4, of the Central Bank Act, which entered into effect on 1 January 2011.

5.2.2 New mandate for Norges Bank's management of the GPFG

On 8 November 2010, the Ministry adopted a new mandate for Norges Bank's management of the GPFG, which entered into effect on 1 January 2011. The mandate was updated on 21 December 2010 through the inclusion of new provisions on remuneration policies and practices.

The new mandate implies that the regulation of the GPFG is now consolidated into one document, unlike the previous situation when asset management was governed by three sets of rules (regulations, supplementary guidelines and a management agreement). Such consolidated regulation will contribute to making the regulatory framework for the Fund more user friendly and easily accessible. At the same time, the new mandate is more comprehensive than the previous sets of rules. Moreover, the mandate addresses areas that were not addressed by the previous sets of rules, whilst the provisions are more detailed. The Ministry has also adopted the perspective that the regulation of asset management shall still establish a framework only, thus implying that Norges Bank shall need to supplement the overall framework and principles with more detailed internal rules for operational implementation of the management activities, cf. Chapter 5.1.

Main principles in the new mandate

The new mandate is formulated on the basis of the following main principles, which enjoy the support of a broad majority of the Storting, cf. Report No. 10 (2009-2010) to the Storting and Recommendation No. 373 (2009-2010) to the Storting:

- It shall reflect the attitudes of the political authorities as to what constitutes an acceptable risk on the part of the Fund.
- Norges Bank shall adopt supplementary risk limits for its asset management activities.
- The Ministry shall stipulate general qualitative requirements in relation the risk associated with active management.
- Responsibility for formulating rules on the operationalisation of the management assignment shall be delegated to the Executive Board of Norges Bank, although the mandate shall specify themes of relevance to Norges Bank's internal regulation.
- It shall reflect the principle of comprehensive public disclosure of asset management information, and shall include public reporting requirements relating to the performance of the management assignment in conformity therewith.

Besides, the Ministry has operated on the premise that financial reporting provisions are laid down in the Regulations relating to the Annual Financial Statements, etc., of Norges Bank, cf. Section 5.2.1.

Strategic asset management plan

A new provision in the mandate for the GPFG is the requirement that Norges Bank shall prepare a strategic plan outlining how the management assignment should be performed. The mandate requires the plan to be updated on a regular basis and if material changes to the asset management should occur, and that it shall be evaluated on a regular basis whether the objectives in the plan have been met. Norges Bank has, in the context of the publication of the annual report on the management of the GPFG for 2010, made public the strategic plan for the period 2011-2013 on its website (www.nbim.no).

Instruments permitted in the asset management

The mandate implies that Norges Bank may invest the assets of the Fund in financial instruments and in cash deposits, although within certain limitations. In order to cater to the need for effective implementation of the management assignment, and to facilitate the exploitation of the special characteristics of the Fund, the mandate includes two new provisions that imply a certain expansion in instrument use relative to previous regulatory frameworks. Firstly, the assets of the Fund may be

invested in private equity, provided that the board of the relevant company has expressed an intention to apply for a listing in a regulated and recognised market place. In addition, it has been specified that the assets of the Fund may be invested in financial instruments and derivatives that accrue to the portfolio as the result of corporate events, for example company winding ups.

The regulation of the market risk associated with the equity and fixed income portfolios – tracking error

The key regulation of the market risk assumed in the management of the equity and fixed income portfolios is the limit with regard to tracking error. Tracking error is a risk measure applicable to active management, and expresses how much the return difference between the actual portfolio and the benchmark is expected to vary. Such return differences reflect the efforts of Norges Bank to achieve excess return through deviating from the benchmark (active management).

It follows from the mandate for the GPFG that the Bank shall organise the management activities with a view to ensuring that the tracking error does not exceed 1 per cent. This limit means, under certain statistical assumptions, and provided that Norges Bank fully exploits such limit, that the difference in returns between the actual portfolio and the benchmark is expected to be less than 1 percentage point in two out of three years. The difference is expected to be less than 2 percentage points in 19 out of 20 years and less than 3 percentage points in 99 out of 100 years.

Moreover, the provision on tracking error in the mandate for the GPFG to the effect that the management activities shall be organised «with a view to» implies that the Bank may, in very special situations, decide to accept a higher tracking error when implementing such provision.

The specific method used to calculate tracking error forms a very important part of the operationalisation of this risk measure, cf. Report No. 10 (2009-2010) to the Storting. The mandate stipulates a requirement to the effect that Norges Bank shall establish a method for the calculation of tracking error, which method is subject to the approval of the Ministry.

Norges Bank recommended, in a letter of 31 December 2010 to the Ministry, a change in the method for the calculation of tracking error. The new method was approved by the Ministry on 12 January 2011. The method implies that the calculation of tracking error is based on weekly observations of the prices of the financial instruments that

are included in the portfolio, based on a three-year history, with equal weight being attached to all observations for purposes of the calculation. Previously, the calculation was based on daily price observations, with more weight being attached to the most recent observations than to observations in the more distant past, which in practice implied that a lot of weight was attached to the most recent daily observations.

The new calculation method will provide a higher degree of concurrence between the measurements of tracking error and the time horizon of the active investments. The method implies that changes in the measured tracking error are primarily determined by changes to the Bank's absolute deviation from the benchmark (i.e. changes to the active positions), and not by short-term market fluctuations. This will contribute to reducing the risk of unfortunate management adaptations, for example by way of the assets of the Fund being sold at unfavourable times.

The old method for the calculation of tracking error was relatively sensitive to general market turbulence. Short-term changes in market conditions thereby had a relatively rapid impact on calculated active risk, as for example observed during the financial crisis. At the same time, the method implied that the measured active risk reverted to lower levels fairly rapidly after a period of market turbulence because the calculation was based on a short measurement period. Since the new calculation method is based on a longer measurement period (thus implying that the observations from periods of market turbulence are not eliminated as swiftly from the calculation base), one will also expect that measured active risk remains at a somewhat higher level following such periods, cf. figure 5.3.

The Ministry notes that the change to the method for the calculation of tracking error, with more weight being accorded to observations in the more distant past, will imply a higher degree of stability in the measured active risk associated with the GPFG. At the same time, this will contribute to the measured tracking error reflecting short-term fluctuations in the differential return to a lesser extent than before. The Ministry is nevertheless of the view that the risk measure may provide an improved basis for ongoing risk management in respect of the Fund, inasmuch as the new calculation method is expected to provide a higher degree of concurrence between the time horizon of the active investments and the measurement period with regard to active risk. The new

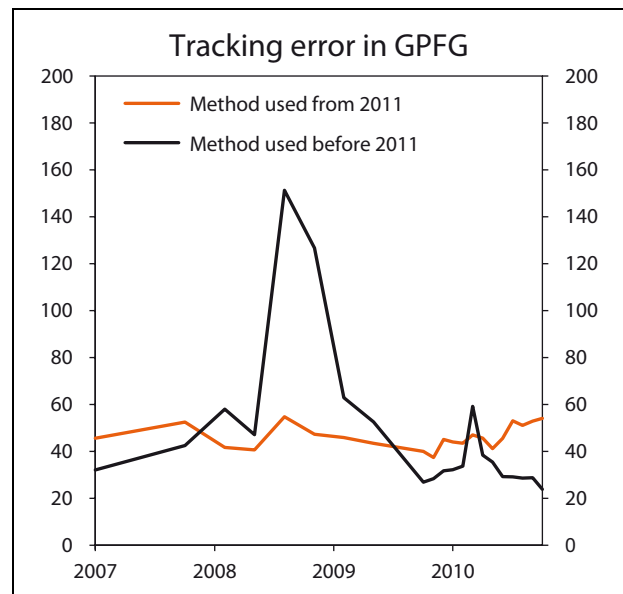


Figure 5.3 Tracking error of the GPFG as calculated by the new and old methods. Basis points (1 basis point = 0.01 per cent)

Source: Norges Bank

method means that changes in reported tracking error will, to a larger extent than before, reflect changes in the active positions of the Bank, as opposed to changes in the general level of risk in the market.

Credit risk limit based on credit rating

In addition to the provision on tracking error, the mandate for the GPFG imposes restrictions on the universe of permitted investments through a separate limit on credit risk based on credit rating. It follows from the mandate that the Bank shall organise its management activities with a view to ensuring that high yield bonds (credit rating below «investment grade») do not represent more than 3 per cent of the market value of the fixed income portfolio. The purpose of this provision is to prevent the Fund from being forced to sell bonds that are downgraded at unfavourable times.

The provision will contribute to limiting the exposure to financial instruments that do not, based on experience, lend themselves well to monitoring through the risk measure of tracking error. It is, at the same time, challenging to define one single, robust and operationable measure to limit this type of risk, and there are also weaknesses associated with overreliance on the credit rating as part of risk management. The Ministry is nevertheless of the view that the establishment of a specific limit for credit risk based on credit rating will, for the time being, represent an appro-

appropriate measure that may contribute to curtailing the risk associated with the fixed income investments – over and above the general requirements imposed in relation to the management, measurement and control of risk.

The Ministry also refers to the evaluation work in relation to a potential change to the benchmark for the fixed income investments of the Fund, cf. Chapter 2.5 of this Report. A change to the benchmark may occasion amendments to the provisions in the mandate concerning asset management risk-taking limits, hereunder the credit rating criterion and the high yield-bond limit.

Supplementary risk limits

The Ministry has previously noted weaknesses in the risk measure of tracking error, cf. the National Budget 2006. These weaknesses were highlighted during the financial crisis, and emphasised the need for supplementing tracking error by other risk measures, cf. Report No. 10 (2009-2010) to the Storting. The Ministry has therefore, in the mandate for the GPF, stipulated a requirement that Norges Bank shall define supplementary risk limits in addition to tracking error, whilst at the same time stipulating requirements as to the diversification of risk in the active position and a requirement that the Bank shall manage and measure the risk on the basis of a larger number of main categories than was previously the case.

A requirement is stipulated to the effect that supplementary risk limits shall be adopted in respect of the following main categories: minimum concurrence between the actual portfolio and the benchmark, credit risk, liquidity risk, counterparty exposure, leveraging including gross exposure to various asset classes and reinvestment of received cash collateral. The Ministry notes that leveraging and reinvestment of cash collateral may now only take place with a view to the effective performance of the management assignment, and not to increase the exposure of the Fund to risky assets.

The requirements under the mandate imply that the supplementary risk limits shall be presented to the Ministry no less than four weeks prior to their planned implementation. Norges Bank has explained, in a letter of 3 December 2010 to the Ministry, the supplementary risk limits adopted by the Executive Board. The Ministry has replied, in a letter of 21 December 2010 to the Bank, that the explanation has been duly noted.

The Ministry is of the view that the supplementary risk limits will contribute to ensuring a more finely-tuned system for the regulation of risks associated with the asset management activities, whilst the regulation of the Fund on the part of the Ministry still takes the form of a general framework.

Guidelines for real estate investments

The new mandate includes provisions on real estate investments. The provisions correspond to the rules adopted by the Ministry on 1 March 2010, with the exception of certain added clarifications.

Rules on remuneration policies and practices

The Ministry has previously announced that rules on remuneration policies and practices corresponding to those applicable to financial institutions in Norway shall also apply to Norges Bank's management of the GPF. The Ministry has, against this background, included provisions on guidelines for and limitations on remuneration policy and practice in the mandate for the GPF. The provisions imply that the Regulations of 1 December 2010 No. 1507 relating to Remuneration Policies and Practices in Financial Institutions, Investment Firms and Investment Fund Management Companies, as subsequently amended, have been made applicable to the asset management operations of the Bank, with necessary adaptations. The Ministry has specified, in a letter to the Bank, that necessary adaptations refer to technical matters only, and that Norges Bank is not to be subjected to a more lenient treatment than that applied to those that fall within the scope of the remuneration regulations.

Reporting provisions

The mandate imposes strict requirements on the Bank's reporting on its management of the GPF, with the general perspective being maximum possible transparency within the limitations required for the proper implementation of the management assignment. Furthermore, the Executive Board is required to make public management principles, guidelines and limits.

The Ministry is of the view that the general public will, both through the requirements under the new mandate and through the new financial reporting provisions that have been made applicable to Norges Bank, receive more information

about the asset management activities than was previously the case, hereunder more information about the return on the Fund's investments, the risk associated with the Fund and the remuneration in the asset management operations of Norges Bank.

Guidelines for responsible investment practice

The new mandate also includes provisions on responsible investment practice, hereunder principles for corporate governance. The provisions correspond to the responsible investment practice rules that were laid down by the Ministry on 1 March 2010, except that certain clarifications have been made and that the provisions have been tailored to the format of the mandate. These provisions, together with the *Guidelines for observation and exclusion of companies from the GPFG*, replace the former ethical guidelines for the GPFG. The main features of the ethical guidelines have been incorporated into the new provisions, whilst the Ministry has expanded the strategy for responsible investment practice with new measures, cf. the discussion in Report No. 10 (2009-2010) to the Storting.

The provisions on responsible investment practice in the mandate for the GPFG note that the management of the Fund assets shall be premised on the objective of achieving the highest possible return. It is emphasised that favourable returns in the long run will depend on a sustainable development in the economic, environmental and social sense. Furthermore, it is emphasised that favourable returns over time will also depend on well-functioning, legitimate and effective markets. This is in line with the Ministry's discussion of the purpose of the work on responsible management in Report No. 20 (2008-2009) to the Storting. It is also in conformity with Norges Bank's work on developing the active ownership activities.

The mandate requires Norges Bank to have internal guidelines for purposes of integrating good corporate governance, environmental and social considerations into the overall investment activities, in line with internationally recognised principles for responsible investment practice. The Ministry expects that it will follow from the internal guidelines how these considerations are integrated into the investment activities in respect of the various asset classes, for both the internally managed and the externally managed part of the portfolio.

The mandate also requires material changes to the prioritisations of the Bank in the exercise of its ownership rights to be submitted to the Ministry for its comments prior to a final decision being made. Moreover, the Bank's plans shall be circulated for public consultation before being submitted to the Ministry, in order to ensure a broad range of inputs. Such a procedure has been adopted by Norges Bank in its work on drafting specific company expectations in the areas of water management and climate change management. The Bank is also required to actively contribute to the development of sound international standards within responsible investment practice and corporate governance.

Norges Bank shall, according to the mandate, report quarterly and annually on its work on responsible investment practice. The annual report shall include a comprehensive presentation of, inter alia, the Bank's voting in general meetings, material changes to the prioritisations of the Bank in its active ownership activities, the efforts of the Bank to integrate good corporate governance, environmental and social considerations into asset management, as well as the contributions of the Bank to the development of sound international standards within responsible investment practice and corporate governance, etc.

It was stated in Report No. 10 (2009-2010) to the Storting that one aims to clarify what criteria form the basis on which the Ministry may, in special cases, impose restrictions on investments in government bonds issued by certain countries:

«The current framework for the management of the Fund, supplementary guidelines section 3.2, gives the Ministry the option of barring investments in Burmese government bonds. The criteria for such a decision are not, however, contained in section 3.2. It may therefore be appropriate to formalize such an arrangement on a more general basis. Exclusion of government bonds issued by certain countries should only be decided where comprehensive UN sanctions have been adopted, or where Norway has supported other large-scale international initiatives aimed at a specific country. Only on such a basis would it be appropriate to make exceptions from the fundamental principle that the Fund shall not implement measures against states.»

The new mandate for the GPFG includes a provision in accordance with this. The Fund assets shall not, according to such provision, be invested

in fixed income instruments issued by governments or government-linked issuers in exceptional cases where the Ministry has barred such investments based on large-scale international initiatives that Norway supports and that are aimed at specific countries.

5.2.3 New mandate for Folketrygdfondet's management of the GPFN

The Ministry adopted, on 21 December 2010, a new mandate for Folketrygdfondet's management of the GPFN, which entered into effect on 1 January 2011. The mandate implies that earlier provisions, in the form of regulations, supplementary guidelines and a management agreement, have now been consolidated in one document. The mandate is, incidentally, based on the same main principles as the new mandate for the GPFG, cf. Section 5.2.2 above.

The previous rules on the management of the GPFN were much more detailed than the provisions under the new mandate. In particular, there is a distinct difference in the degree of detail in the requirements with regard to the measurement, management and control of risk. This has to do with, amongst other things, Folketrygdfondet having made material investments in new management systems in connection with its reorganisation as a company by special statute in 2008 and its adaptations to the new regulatory framework. The Ministry is of the view that it was appropriate for the former rules on the GPFN to be highly detailed in order to clearly express expectations in relation to operational management in the context of the reorganisation, hereunder in relation to the management systems that were to be established. The Ministry is of the view that the operations of Folketrygdfondet as a company by special statute have been sound, and Folketrygdfondet has, inter alia, devoted considerable efforts to enhancing its asset management activities in conformity with stricter requirements as to the measurement, management and control of risk.

The new mandate for the GPFN does not imply that the requirements as to the measurement, management and control of risk will be less strict than before, but it will to a greater extent be the responsibility of the Board of Directors of Folketrygdfondet to develop the detailed risk management provisions, within the general framework defined by the Ministry.

The provisions in the new mandate for the GPFN correspond, in the main, to those in the

mandate for the GPFG, apart from the deviations implied by differences in the investment universe and other special characteristics.

The Ministry has previously stated, with regard to Norges Bank's management of the GPFG, that detailed regulation and ongoing intervention from the Ministry in respect of the asset management activities is neither appropriate, nor desirable, cf. Report No. 20 (2008-2009) to the Storting. This general principle also enjoys the broad support of the Storting, cf. Recommendation No. 277 (2008-2009) to the Storting.

This principle also applies to Folketrygdfondet's management of the GPFN. It follows from the mandate for the management of the GPFN that Folketrygdfondet is responsible for making the various investment choices, within the general framework defined by the Ministry. The Fund shall make individual investments on a commercial basis, independently of the Ministry of Finance, and such investment decisions will not be presented to the Ministry in advance either. The same principle shall apply to the exercise of ownership rights, which is intended to safeguard the financial interests of the GPFN. The mandate for the GPFN includes a requirement that the exercise of ownership rights shall be based on internationally recognised principles, such as the UN Global Compact and the OECD Principles of Corporate Governance and the OECD Guidelines for Multinational Enterprises.

The Ministry notes that the limit as to tracking error is significantly higher in respect of the GPFN (3 per cent) than in respect of the GPFG (1 per cent), which has to do with, inter alia, the Fund's dominant size in the Norwegian market and special characteristics of this market, cf. the more detailed discussion in Chapter 3.

The Ministry also notes that the limit on investments in high yield bonds is significantly higher in respect of the GPFN (25 per cent) than in respect of the GPFG (3 per cent), whilst at the same time being somewhat more flexible. The difference reflects, inter alia, differences between the Norwegian bond market and the international bond markets in several respects. The credit risk associated with an investment in high yield bonds within the 25 per cent limit is nevertheless perceived to be limited.

The Ministry has laid down transitional provisions relating to Folketrygdfondet's implementation of the new mandate, which imply that certain of the provisions will only enter into effect in the second half of 2011.

Part II
Topic article

6 Simulation of the real value of the Government Pension Fund 20 years into the future

In Report No. 10 (2009-2010) to the Storting, the Ministry presented updated estimates as to long-term real returns, risk (volatility) and correlations for global portfolios of equities, fixed income and real estate. These estimates were used to simulate the real value of the Government Pension Fund Global (GPF) over a 15-year period. The simulation focused on expected developments in value, as well as the uncertainty associated therewith in the form of confidence intervals.

However, the simulation did not take into account the net inflow to the Fund from the surplus on the Fiscal Budget. These inflows are expected to be significant also in the coming years, although they will decline as a percentage of the value of the Fund. In the National Budget 2011, for example, the net inflow to the Fund was estimated at NOK 153 billion, or about 5 per cent of the value of the Fund. The ongoing inflows will therefore result in a stronger growth in the value of the Fund than suggested by the simulation without inflows.

This topic article presents simulations of the value of the Fund that also include the expected inflows to the Fund. Two issues are examined: a) How large can the Fund be expected to become during the years up to 2030, and how much uncertainty is associated with the projection? b) How large will the net inflow to the Fund be as a proportion of the value of the Fund, and how uncertain is this projection? Will the Fund go from net inflow to net outflow, and when?

The simulations assume that the actual use of petroleum revenues over the fiscal budget is 4 per cent of the value of the Fund each year. This is consistent with a spending of petroleum revenues that follows the 4 per cent trajectory of the fiscal rule over time. However, it is not taken into account that the fiscal rule allows for the actual spending of petroleum revenues to deviate from the 4 per cent trajectory at times, which represents an important source of uncertainty in the analysis.

The simulations are based on the Ministry's long-term estimates as to real return, volatility and correlations, which remain unchanged from last

year. It is emphasised that these estimates are intended to apply in the very long run, and therefore will not necessarily be representative with regard to shorter periods of time, such as for example the coming 20-year period. The Ministry has thus far not prepared specific estimates for this period, or corresponding estimates more generally, cf. the discussion in Chapter 8 of Report No. 10 (2009-2010) to the Storting. The use of the long-term estimates in the simulations is another source of simulation uncertainty.

Simulation tool

The model used in the simulations is discussed in more detail in previous Reports to the Storting on the Management of the Government Pension Fund.¹¹ The model has been refined recently to provide a more realistic description of, inter alia, the risk of major losses in the financial markets (so-called stochastic or time-varying volatility), and ongoing inflows to the Fund. A description of the simulation model will be posted on the Ministry's website (www.government.no/gpf).

Briefly summarised, the real value of the Fund over time are simulated by way of a so-called Monte Carlo (stochastic) model, which «draws» a large number of potential paths that the value of the Fund may follow for a given number of years into the future. The outcomes, which are «measured» at the end of the period, provide information about the expected value and the uncertainty around this expectation. The model used by the Ministry is based on known pricing processes for financial assets that allow for deviations from the normal distribution (stochastic volatility and «mean reversion»). This enables a more realistic description of the returns.

The model simulates the stochastic evolution of the portfolio's underlying equity and fixed-income benchmarks and exchange rates in Europe, the Americas and Asia/Oceania. The sim-

¹¹ Reports No. 24 (2006-2007) and No. 16 (2007-2008) to the Storting.

ulations are made using nominal figures, which at the end of the investment horizon are deflated by the chosen (deterministic) price index for conversion into real values.

The simulations presented here use Norwegian kroner as the reference currency.

Inflow to the Fund is given by the value of the net cash flow to the State from petroleum activities (cf. forecasts until 2030 in the National Budget 2011), less 4 per cent of the value of the Fund as per the end of the previous year. The model assumes, furthermore, some uncertainty with regard to the future net cash flow (the level of the path follows a normal distribution, with the forecast in the National Budget 2011 as the expected value¹²).

The simulations are made on the basis of the current strategic asset allocation and regional distribution. Return contributions from active management are not included. The value of the Fund is simulated from year-end 2010 (value NOK 3,077 billion) until year-end 2030.

Findings

Figure 6.1 shows the simulated real value of the GPFG for the next 20 years (in NOK billions at 2011 prices). The expected path (the median) is represented by a solid black line. The real value of the Fund is expected to grow to somewhat in excess of NOK 7,400 billion in 2030. The orange and brown fans show the 68 per cent and 95 per cent confidence intervals, respectively, which under the adopted assumptions represent the probability that the real value will fall within these intervals. The figure shows that there is considerable uncertainty associated with the size of the Fund 20 years from now. However, there is a very high probability that the real value of the Fund will increase. The probability that the real value of the Fund in 2030 will be lower than its value as per year-end 2010 is estimated to be less than 1 per cent.

Figure 2.2 (cf. Chapter 2) shows that the net inflow to the Fund is expected to decline as a proportion of the value of the Fund.¹³ The expected path (the median) is again represented as a solid

¹² The standard deviation of the normal distribution is assumed to be 10 per cent. The stochastic variation in the level of future net cash flows is not correlated to other stochastic variables in the model.

¹³ By the Fund is here meant the value of the Fund as per the end of the year during which the inflow is effected, and not its value as per the end of the preceding year, on which the fiscal rule is premised.

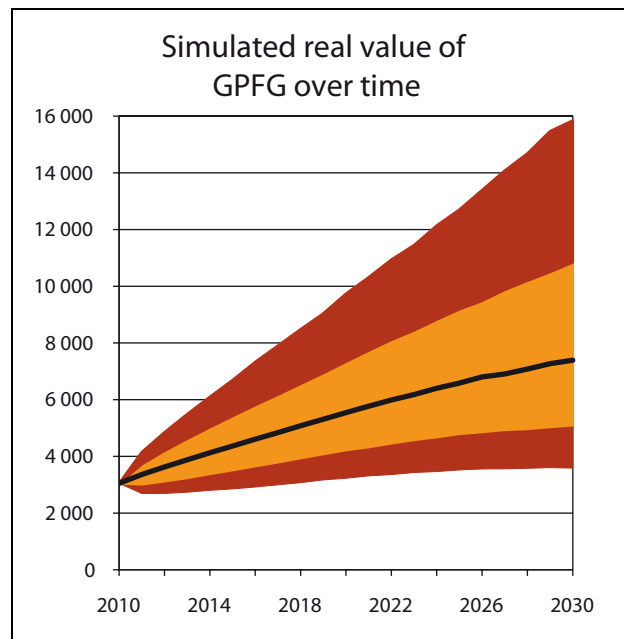


Figure 6.1 Simulated development in the real value of the GPFG until 2030. NOK billion at 2011 prices

The expected path (the median) is represented by the solid black line. The orange and brown fans show 68 and 95 per cent confidence intervals, respectively.

Source: Ministry of Finance

black line, whilst the coloured fans show 68 and 95 per cent confidence intervals. Whilst the proportion in 2010 was about 5 per cent, it is expected to decline below zero around 2020, and to be about minus 2.4 per cent in 2030 (net outflow). The figure shows that this expected path is, under the adopted assumptions, associated with an uncertainty of 1 – 2 percentage points. Given these assumptions it is, nevertheless, almost certain (probability of more than 99 per cent) that the net inflow, as a proportion of the value of the Fund, will be negative in 2030. In practice, this means that capital will need to be retrieved from the Fund, which implies a certain liquidity need. However, the expected net outflow is lower than the expected real return (which is somewhat in excess of 4 per cent), thus implying that the real value of the Fund is expected to increase also 20 years from now, as shown in Figure 6.1.

A possible measure of the risk associated with the Fund may be the risk of large net outflows as a proportion of the value of the Fund. In the simulations, a large net outflow in a single year can be triggered by a large decline in the value of the Fund through the fiscal year, while the net cash flow as a proportion of the value of the Fund as per the end of the previous year will be low (less

than 4 per cent). Under the stated assumptions, the simulation shows with a 95 per cent probability that the largest net outflow as a proportion of the value of the Fund until 2030 will fall within the interval 1.4 – 3.8 per cent (median 2.8 per cent). There is a very low probability (less than 0.1 per cent) of an annual net outflow as a proportion of the Fund in excess of 5 per cent over the coming 20-year period.¹⁴

There will always be uncertainty associated with this type of simulations. The findings presented here are influenced by, inter alia, the assumption with regard to the spending of petroleum revenues. Other elements of uncertainty are the assumptions with regard to future real returns, risks and correlations and their applicability to the coming 20-year period, and whether the simulation model to a sufficient extent absorbs the probability of very large losses in the asset markets. It may therefore be of interest to compare these simulations with findings from so-called historical simulations, in which historical return figures are used instead of model-simulated ones, but to retain the assumptions with regard to portfolio composition and inflows. Historical real return data for equities and government bonds going back to 1900¹⁵ provide 92 over-

lapping 20-year periods that can be used to simulate the annual real return on the GPFG into the future.

According to this historical simulation, the real value of the GPFG will in 2030 be between NOK 2,667 and 19,556 billion at 2011 prices, with a median of NOK 8,521 billion. Furthermore, the simulation shows that the net outflow in 2030 will be between 0 and 3.7 per cent of the value of the Fund. The median net outflow is 2.5 per cent. Over the period until 2030, the largest net outflow will be between 0.8 and 3.7 per cent of the value of the Fund, with a median of 2.7 per cent. In particular, historical developments over the 20-year periods until 2000-2002 result in relatively large simulated net outflows (3.5 – 3.7 per cent). These periods are characterised by many years of high returns, followed by some years of major contractions in the stock market.

The findings from the historical simulation are reasonably consistent with the findings from the simulation model.

The Ministry of Finance

r e c o m m e n d s :

Recommendation of 8 april 2011 from the Ministry of Finance on the Management of the Government Pension Fund in 2010 is submitted to the Storting.

¹⁴ A higher equity portion would have resulted in a somewhat higher probability of large net outflows, according to the analysis.

¹⁵ Credit Suisse Global Investment Returns Sourcebook (2011), and Elroy Dimson, Paul Marsh and Mike Staunton (2002) *Triumph of the Optimists: 101 Years of Global Investment Returns*, Princeton University Press, and Morningstar.

Appendix 1

Government Pension Fund Global – investment strategy for nominal bonds

Letter of 18 March 2011 from Norges Bank to the Ministry of Finance

1 Introduction

The goal for the management of the Government Pension Fund Global is to achieve the greatest possible long-term international purchasing power with moderate risk. The investment strategy for the fund needs to be based on the fund's long investment horizon and assessments of the expected return and risk on different investment options.

In our letter to the Ministry of Finance of 6 July 2010, we outlined how the investment strategy for the fund should be developed.

In this letter, we offer advice on what role the strategic benchmark index should play in the management of the fund, and how the strategic benchmark index for nominal bonds should be composed. Norges Bank has undertaken a broad review of bond market theory and empirics in a separate report (hereinafter referred to as "the report") which has been submitted separately as a basis for the Ministry's further work.

2 Challenges in the use of strategic benchmark indices

The strategic benchmark index for nominal bonds should reflect the role this asset class plays in the fund, and the long-term risk and return expectations for this asset class. It should serve as a long-term yardstick for operational management and must be based on market-leading, readily available indices to ensure the greatest possible openness and transparency.

The risk characteristics of the fund's strategic benchmark index have evolved over time. This evolution has been driven by structural changes, primarily on the supply side of the fixed-income market, as described in more detail in the report. Lower interest rate levels have led to an increase in the issuance of bonds with long maturities.

Looking ahead, new regulations for the financial sector may affect the supply of bank bonds¹ and how different parts of banks' capital structure are treated. Developments in government finances may also impact the risk characteristics of the fund's investments in government securities. Structural changes of this kind will affect the composition of the strategic benchmark index in ways that do not necessarily favour the long-term goal for the management of the fund. Its management should not therefore be automatically adjusted to such changes in the strategic benchmark index.

The return and risk on a bond portfolio are driven primarily by movements in interest rates, movements in the term structure of interest rates, and movements in the credit spread between bonds with an element of credit risk and government bonds. These are factors which bear little relation to the individual borrower. The return and risk characteristics of a broadly composed market portfolio can be recreated with a limited number of bonds from a small number of issuers. The risk reduction an investor achieves by spreading investments across many different bonds is limited. Index management of a market-weighted bond portfolio will not therefore result in an efficient portfolio and will be unnecessarily complex to implement.

The most widely used indices are market-weighted. The principle of market weighting means that borrowers which issue large volumes of bonds have a greater weight in the benchmark index. An increase in debt can impair debt-servicing capacity, and so a market-weighted bench-

¹ See the Basel Committee on Banking Supervision's Results of the comprehensive quantitative impact study (December 2010), available from www.bis.org. Assuming no changes in banks' funding structure, the report estimates banks' long-term funding shortfall at 2.89 trillion euro. By way of comparison, the market value of the bank sector in the Barclays Capital Global Aggregate Index was around 1.6 trillion euro in January 2011.

mark index will probably not be the best approach for diversifying the risk of loss due to default.

The use of readily available, investable and verifiable market indices as a basis for the strategic benchmark index presents challenges for the management of the fund. The weaknesses of the indices underlying the strategic benchmark index are well-documented.² These indices mechanically exclude bonds which the credit rating agencies feel no longer meet given standards of quality. Nor do they include floating-rate bonds or bonds with an outstanding amount below a certain level. In our letter of 23 December 2009 on active management of the fund, Norges Bank argued that these weaknesses require us to invest differently to the index.

In our letter of 6 July 2010, we wrote that the strategic benchmark index cannot reflect all risk to which the fund should be exposed at any given time. Such assessments need to be discretionary and part of the operational management of the fund. This indicates that Norges Bank should establish an operational benchmark portfolio within the framework of the management mandate.

Through this operational benchmark portfolio, we will seek to ensure timely adjustment to structural changes and address technical weaknesses in the strategic benchmark index. In the design of the operational benchmark portfolio, we can adjust the weighting regime by establishing rules for exposure to particular issuers, sectors or types of bonds.

Deviations between the strategic benchmark index and the operational benchmark portfolio will draw on the risk limits in the mandate, but may differ in size, character and time horizon from what would normally be considered to be within the scope of active management. The operational benchmark portfolio will be a tool for communicating the adjustments we make in the management of bond investments within the framework of the management mandate.

3 Investments in nominal bonds

Over long time periods, the real return from investing in nominal bonds has been considerably lower than from investing in the equity market,

² See, for example, Barclays Capital's *Capturing the Credit Spread Premium* (June 2010, Kwok Yuen Ng and Bruce Phelps) and *Fallen Angels* (14 December 2010, Arik Ben Dor and Jason Xu).

while variations in the realised real return have been roughly the same size. In the short and medium term, these investments may help reduce fluctuations in the fund's overall return. This is the most important strategic goal for the fund's investments in nominal bonds. Within the asset class, it is particularly the element of credit risk that determines risk and return characteristics.

The fund's strategic benchmark index for bonds currently consists of the subgroups of government bonds, government-related bonds, securitised bonds and corporate bonds. The report describes how bonds in these subgroups serve the strategic goals for the asset class to differing degrees. Our opinion is that these goals will be best served if the strategic benchmark index is composed of government and corporate bonds.

Government securities of high credit quality can reduce the risk in the portfolio, especially in periods of economic decline and in periods of growing risk aversion in the markets. These investments will normally also be liquid. The report discusses how developments in sovereign debt could impact on government securities' credit and liquidity quality, and the consequences this could have for expected real returns.

Corporate bonds increase the expected return, but also increase the asset class's covariance with equity instruments, especially in periods with sharp falls in equity markets. The strategic benchmark index should therefore draw a clear line between these two types of bond, as they play different roles in the fund's portfolio.

Our proposal is that government-related and securitised bonds should no longer be part of the fund's strategic benchmark index. The risk characteristics of these segments are more complex and do not necessarily help serve the strategic goals for investments in nominal bonds. US asset-backed securities in particular have different characteristics to nominal fixed-income investments, due partly to an element of option risk.

4 Exposure to sources of systematic risk

In Report No. 10 (2009-2010) to the Storting, the Ministry of Finance writes that systematic risk should be given greater attention in the management of the fund. In our letter of 6 July 2010, we established that the fund is particularly well-suited to bearing certain types of systematic risk and should therefore probably have different expo-

sure to these sources of systematic risk than a market-weighted average.

Analyses of asset allocation have traditionally been based on an assumption of a stable risk structure between the major asset classes. Such an assumption can be misleading. The report presents a theoretical framework for describing time variations in risk premia over time and across asset classes. As the fund has a long investment horizon and considerable risk-bearing capacity, the fund's exposure to different risk premia should vary over time.

The most important sources of systematic risk in the fixed-income market are the credit premium and the term premium. Both of these premia have varied often considerably over time. The theory and empirics of these risk premia are presented in more detail in the report.

The credit premium is the excess return an investor realises by investing in a bond with a larger element of credit risk than a government bond with the same maturity. Historically, this premium has generally been positive. The expected return on an investment in corporate bonds must compensate for weaker liquidity, higher default risk and a tendency for defaults to come during economic downturns. These last two components have many similarities with the risk premium an investor can harvest in the equity market.

The report shows how the compensation for investing in corporate bonds has historically been higher than realised default losses. Our review of the literature and our own analysis indicate that the fund should have some exposure to the credit premium, which should be expressed in the strategic benchmark index through an allocation to corporate bonds.

The report describes various approaches to how the credit premium can be decomposed, and how the composition of the compensation to the investor has varied over time. We also show how the portfolio characteristics of investments in corporate bonds are affected by the business cycle and interest rates. Norges Bank's operational benchmark portfolio should be adjusted dynamically to capture time variations in the credit premium.

The term premium is the excess return that an investor realises by holding a bond with a longer maturity rather than continuously reinvesting in securities with shorter maturities.

We find no theoretical or empirical support that a specific maturity of the benchmark index best captures the term premium. Instead, the literature suggests that dynamic adjustment of the

portfolio to changes in the term structure of interest rates is necessary to achieve this. This kind of dynamism cannot be built into the strategic benchmark index, but must be achieved through the operational benchmark portfolio and management adjustments.

In the design of the operational benchmark portfolio and internal management strategies, Norges Bank will allow for dynamic adjustment to such time-varying investment opportunities. This means that, in the operational management of the fund, Norges Bank will take actual asset and risk allocation decisions on the basis of the expected return for risk premia in the fixed-income market. The operational benchmark portfolio's maturity and credit risk will therefore vary considerably over time and deviate from the strategic benchmark index.

5 Principles for setting the benchmark index and currency distribution

The fund's strategic benchmark index for bonds currently consists of three regional portfolios assigned fixed weights. Within each of these three regions, the strategic benchmark index is market-weighted.³ In our letter of 6 July 2010, we noted that the relationship between these regional weights and the goal for the fund's management is unclear.

The goal of the greatest possible long-term international purchasing power is best served by broad ownership of the production capacity for the goods and services of which the fund is to finance the purchase. The strategic benchmark index's currency composition should reflect these considerations.

A market-weighted index for the allocation to government bonds means that the fund's exposure to countries with growing government debt will increase. A better approach may be for the portfolio of government bonds to be weighted on the basis of the production capacity financing that debt. The fund's strategic benchmark index for bonds was GDP-weighted in each of the three strategic regions up until the expansion of the benchmark index in 2002. The arguments that were behind the replacement of GDP weights for

³ With the exception of a reweighting between different segments of the bond market in the US. In the Swiss and Asian markets, the benchmark index consists solely of government bonds.

government bonds with market weights seem less relevant today.

The big emerging markets of India and China now account for around 10 percent of global GDP, yet the markets for government bonds in these currencies are not immediately investable for an international investor and so do not meet the criteria for widely used market indices. Nor are these markets investable for the fund to the extent that a GDP weighting would require.

Within the euro area, each individual country should be assigned a weight corresponding to that country's share of the currency union's GDP.

There is no direct relationship between GDP and companies' ability to service their debt. Substantial structural differences between the markets for corporate bonds in different currencies mean that GDP weights are not particularly appropriate. Generally available indices for corporate bonds are based on a market weighting principle.

Government and corporate bonds play different roles in the fund's portfolio, and this warrants a separate allocation to corporate bonds within the asset class of nominal bonds. Our recommendation is that the strategic benchmark index for nominal bonds is composed of 70 percent government bonds and 30 percent corporate bonds. This should be seen in the light of the fact that corporate bonds currently account for around 20 percent of the strategic benchmark index for bonds and 16 percent of the market portfolio.⁴ Other sectors with an element of credit risk, such as securitised and government-related bonds, currently account for 25 percent of the fund's benchmark index and 32 percent of the market portfolio. However, the element of credit risk in these segments is considerably lower than for corporate bonds.⁵

The changes in currency composition that would result from the proposed changes in the strategic benchmark index are shown in the report. The currency mix will be relatively stable over time. The biggest change relative to today's index is a reduction in the level of euro in the strategic benchmark index.

Consideration could therefore be given to assigning European currencies a special adjustment factor of around 2 during a transitional

⁴ Defined as the Barclays Capital Global Aggregate Index.

⁵ Based on figures from Barclays Capital as at 31 December 2010, the option-adjusted spread was around 75 basis points for government-related and securitised bonds that are part of the Barclays Capital Global Aggregate Index, and around 230 basis points for corporate bonds that are part of the same index.

period. This approach would allow for the future introduction of currencies that are not sufficiently investable today, and limit the need for large portfolio adjustments in the short term. The impact of such a factor on the currency composition of the benchmark index is shown in the enclosure.

6 Design of the strategic benchmark index for nominal bonds

The report compares the risk characteristics of a stylised version of our proposal for a new strategic benchmark index for nominal bonds with today's benchmark index. The proposed benchmark index has had attractive return and risk characteristics during the period that we have analysed. Our recommendation for the design of the strategic benchmark index for the fund's nominal fixed-income investments can be summed up as follows:

- The fund's strategic allocation to nominal bonds should be 40 percent less the net value of the fund's real estate investments and the market value of the fund's strategic benchmark index for inflation-linked bonds.
- The strategic benchmark index for the fund's nominal bonds should be based on the Barclays Capital Global Treasury GDP-weighted Index⁶ and the Barclays Capital Corporate Bond Index.
- The allocations to government bonds and corporate bonds in the strategic benchmark index for nominal fixed-income investments should be 70 percent and 30 percent respectively. The actual weights should be rebalanced to the strategic weights monthly.
- The strategic benchmark index for government bonds and corporate bonds should consist of the following currencies: USD, CAD, EUR, GBP, SEK, DKK, CHF, JPY, AUD, NZD and SGD.

The changes we recommend to the strategic benchmark index for the fund's nominal bonds could be made operational from 1 July this year.

Yours faithfully
Øystein Olsen
Yngve Slyngstad
Enclosure

⁶ Barclays Capital's GDP-weighted bond indices are presented in more detail in the report.

Currency distribution of the benchmark index

	GPD weights	Weights in current benchmark portfolio		Weights in proposed benchmark portfolio		Weights in proposed benchmark portfolio (factor 2 for European currencies)	
			% of segment		% of segment		% of segment
Corporate bonds		19,7 %	% of segment	30,0 %	% of segment	30,0 %	% of segment
AUD				0,2 %	0,6 %	0,1 %	0,4 %
CAD		0,4 %	1,9 %	0,9 %	3,0 %	0,6 %	2,2 %
CHF				0,4 %	1,2 %	0,5 %	1,8 %
DKK		0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %
EUR		8,3 %	42,2 %	8,7 %	29,0 %	12,7 %	42,3 %
GBP		1,9 %	9,8 %	2,1 %	7,0 %	3,1 %	10,2 %
JPY				1,8 %	6,1 %	1,3 %	4,4 %
NZD				0,0 %	0,0 %	0,0 %	0,0 %
SEK				0,0 %	0,0 %	0,0 %	0,0 %
SGD				0,0 %	0,0 %	0,0 %	0,0 %
USD		9,1 %	46,1 %	15,9 %	52,9 %	11,5 %	38,5 %
Government-related bonds		12,9 %	% of segment				
AUD							
CAD		1,0 %	8,0 %				
CHF							
DKK		0,0 %	0,0 %				
EUR		7,1 %	55,1 %				
GBP		1,0 %	7,8 %				
JPY							
NZD							
SEK		0,1 %	0,4 %				
SGD							
USD		3,7 %	28,7 %				
Securitised bonds		12,4 %	% of segment				
AUD							
CAD		0,0 %	0,0 %				
CHF							
DKK		0,3 %	2,4 %				
EUR		5,5 %	44,5 %				
GBP		0,3 %	2,3 %				
JPY							
NZD							
SEK		0,6 %	4,9 %				
SGD							
USD		5,7 %	45,9 %				
Government bonds		55,0 %	% of segment	70,0 %	% of segment	70,0 %	% of segment
AUD	2,6 %	0,4 %	0,8 %	1,8 %	2,6 %	1,3 %	1,8 %
CAD	3,7 %	0,8 %	1,4 %	2,6 %	3,7 %	1,8 %	2,6 %
CHF	1,3 %	0,5 %	0,8 %	0,9 %	1,3 %	1,2 %	1,8 %
DKK	0,8 %	0,5 %	0,9 %	0,6 %	0,8 %	0,8 %	1,2 %
EUR	32,7 %	26,1 %	47,5 %	22,9 %	32,7 %	32,1 %	45,9 %
GBP	6,6 %	6,2 %	11,4 %	4,6 %	6,6 %	6,5 %	9,2 %
JPY	12,8 %	4,9 %	8,9 %	8,9 %	12,8 %	6,3 %	9,0 %
NZD	0,3 %	0,1 %	0,1 %	0,2 %	0,3 %	0,2 %	0,2 %
SEK	1,2 %	0,4 %	0,7 %	0,8 %	1,2 %	1,1 %	1,6 %
SGD	0,5 %	0,2 %	0,3 %	0,3 %	0,5 %	0,2 %	0,3 %
USD	37,6 %	14,9 %	27,1 %	26,3 %	37,6 %	18,5 %	26,4 %
Total		100,0 %		100,0 %		100,0 %	

	Weights in current benchmark portfolio	Weights in proposed benchmark portfolio	Weights in proposed benchmark portfolio (factor 2 for European currencies)
AUD	0,4 %	2,0 %	1,4 %
CAD	2,2 %	3,5 %	2,5 %
CHF	0,5 %	1,3 %	1,8 %
DKK	0,8 %	0,6 %	0,8 %
EUR	47,0 %	31,6 %	44,8 %
GBP	9,5 %	6,7 %	9,5 %
JPY	4,9 %	10,8 %	7,6 %
NZD	0,1 %	0,2 %	0,2 %
SEK	1,1 %	0,8 %	1,2 %
SGD	0,2 %	0,3 %	0,2 %
USD	33,4 %	42,2 %	30,0 %
Total	100,0 %	100,0 %	100,0 %

Appendix 2

Folketrygdfondet's active management of the Government Pension Fund Norway

Letter of 1 December 2010 from Folketrygdfondet to the Ministry of Finance

Dear Sirs,

We refer to the letter of 20 August 2010 from the Ministry of Finance, in which the Ministry requests Folketrygdfondet to submit analyses and assessments in relation to the active management of the Government Pension Fund Norway (the GPFN). In the said letter, the Ministry also requests Folketrygdfondet to prepare a business plan for the active management activities based on the general advice and assessments of Folketrygdfondet.

Against this background, Folketrygdfondet has carried out an assessment of the active management activities and prepared a plan for the management of the GPFN. The main aspects are presented in this letter, with more detailed discussion being provided in enclosures.

Folketrygdfondet is of the understanding that the duties relating to the management of the GPFN may be separated into four parts:

- Achieve the market exposure desired by the principal, as expressed through the defined benchmark portfolio
- Achieve the highest possible return over time, given the benchmark portfolio and the risk limit adopted by the Ministry of Finance
- Safeguard financial interests through the exercise of ownership and creditor rights
- Strategic advice to the Ministry of Finance relating to the GPFN

Folketrygdfondet is a responsible asset manager that creates, through size and ability to adopt a long-term perspective, added value in the management of public assets. Folketrygdfondet has established management strategies that are tailored to the general management mandate and the objective of generating added value relative to the stipulated benchmark portfolios. The management strategies encompass both the effort to obtain the market exposure desired by the principal and the effort to achieve the best possible excess return

within stipulated risk limits. However, the practical implementation will often be an integrated process, because active choices need to be made in order to retain and maintain market exposure.

The Norwegian equity and fixed-income markets are small in an international context. The Oslo Stock Exchange, for example, represents no more than 0.4 per cent of the global equity markets. Folketrygdfondet is a large player in the Norwegian stock market, holding about 4.4 per cent of the value of all companies on the Stock Exchange as per year-end 2009. The Benchmark index of the Oslo Stock Exchange excludes shareholdings that are not freely transferable. The Norwegian stock portfolio of the GPFN represents 9.3 per cent of the Benchmark index. Folketrygdfondet is also a large player in the Norwegian fixed-income market, and the Norwegian fixed-income portfolio of the GPFN represented about 5.9 per cent of the value of the benchmark portfolio for Norwegian fixed-income instruments as per year-end 2009.

The management of a large portfolio in a small market raises many practical issues. The size of the GPFN implies, in combination with low liquidity in individual equities and fixed-income instruments, that it is in many cases difficult to maintain the traditional distinction between active and passive management. Based on assessments of these issues, Folketrygdfondet does not recommend passive management of the GPFN. Folketrygdfondet believes that the special characteristics of the Norwegian stock and bond markets, as well as the size of the GPFN and its long investment horizon, mean that a return-oriented and responsible investment approach requires active management.

Folketrygdfondet benefits from its ability to operate with a stable framework and a regulatory basis that enables it to invest countercyclically. The predictability provided by the framework contributes to distinguishing the active management

of the GPFN from that of many other actively managed portfolios, inasmuch as it is possible to maintain a long investment horizon without being forced to perform unwanted dispositions. In addition, the size of the GPFN contributes to enabling Folketrygdfondet to conduct cost-effective active management.

The active investment decisions of Folketrygdfondet are based on quantitative and qualitative evaluations of individual companies, sectors, securities, market developments and macroeconomic conditions. In order to facilitate the implementation of active management strategies, Folketrygdfondet has attached weight to the development of an asset management organisation with high expertise, clear responsibilities, well-defined investment strategies, defined decision-making processes, good portfolio follow-up and responsible corporate governance. An important element of the organisational set-up is the integration of risk control and return follow-up in the asset management activities. The active management activities are premised on investment processes intended to ensure continuity and predictability in the ongoing portfolio follow-up.

Although Folketrygdfondet is a large player in the Norwegian market and a smaller player in the Nordic market, asset management activities in both Norway and the Nordic region are primarily based on the same management strategy and process. An important reason for this is that Folketrygdfondet has experienced positive interactions and knowledge transfer effects from managing both Norwegian and Nordic equity and fixed-income portfolios. The expanded access to information achieved by the asset managers through operating in a more international investment universe is deemed to have a positive effect on their asset management work, hereunder by making it easier to pick up on market changes at an earlier stage. Such knowledge is further expanded by making decisions about individual investments through active management in the Nordic region, which also contributes to Folketrygdfondet becoming a better asset manager in the Norwegian market. In addition, this is deemed to be important for purposes of being able to attract, develop and retain the appropriate expertise at Folketrygdfondet.

The Norwegian stock and credit markets are, from an investment perspective, highly concentrated. However, although Nordic investments only represent 15 per cent of the overall portfolio, investments in this market are often more liquid, and consequently offer more flexibility and scope

for increased diversification when portfolio adaptations are to be implemented.

The Ministry of Finance has requested Folketrygdfondet to comment on what role exposure to systematic risk factors may play in the active management of the GPFN. Folketrygdfondet is of the view that benchmark indices based on known systematic risk factors are not well suited for a large investor in the Norwegian market. As far as the Norwegian stock market is concerned, we register that various systematic factors, like for example company size and liquidity, may contribute to explaining market developments, but we are unable to conclude that these are particularly suited for purposes of evaluating asset management or as a basis for making decisions about future investments. The reason for this is, inter alia, that there is limited scope for trading such factors on a scale of relevance to the GPFN, given its size in the Norwegian stock market. As far as the fixed-income portfolio is concerned, the systematic factors term premium and credit are made use of in the asset management activities. However, we are unable to see, given the lack of available data, how these factors may be expressed in an appropriate manner in the benchmark portfolio.

Folketrygdfondet is committed to the active exercise of ownership rights and the follow-up of bonds for purposes of safeguarding the financial interests of the GPFN and contributing to long-term value creation. It is our experience that good ownership and creditor follow-up requires expertise and knowledge of the companies. It is therefore an important principle for Folketrygdfondet that the exercise of ownership and creditor rights must form an integrated part of the investment activities. Folketrygdfondet shall be a credible player and achieve results in the exercise of its ownership rights. We must therefore have the necessary knowledge and expertise to assess the issues owners need to address. The expertise used for such purposes has been accumulated by Folketrygdfondet over many years, by continuously monitoring developments on the part of the companies and by maintaining a dialogue with the companies and with relevant market players. We are of the view that ownership follow-up improves when the managers responsible for ownership follow-up are also responsible for making active investment decisions in relation to deviations from the benchmark portfolio.

A passive mandate may result in the corporate governance inputs of Folketrygdfondet making less of an impact. This is, inter alia, because

Folketrygdfondet would in such case not be able to divest, or underweight, its holdings in a company that fails to pay sufficient heed to the feedback and views of its shareholders. Folketrygdfondet is therefore of the view that active management of the portfolio has more of an impact on corporate governance than does passive management.

Since 1998, the annual average excess return on the GPFN has been 0.45 percentage points. In 2006, the asset composition of the GPFN was changed by way of the redemption of part of the investments of the State and the repayment of the capital to the State. If the historical return on the

portfolio and the benchmark portfolio is adjusted for this fact and the current benchmark portfolios are used, the estimated average annual excess return is 0.36 percentage points. Folketrygdfondet aims for active management to generate an annual excess return of 0.40 percentage points before management costs over time.

Yours faithfully,
Folketrygdfondet

Erik Keiserud, Chairman of the Executive Board

Olaug Svarva, Managing Director

Enclosures

Appendix 3

Glossary of terms used in the Report

Active management

Active management involves the asset manager composing, on the basis of own analyses and assessments, a portfolio that deviates from the benchmark established by the owner of the assets. The purpose of such deviations is to achieve an excess return relative to the return on the benchmark. The Ministry of Finance has defined qualitative and quantitative limits for the GPFG and the GPFN, which regulate the deviations from the benchmark. See *Differential return*, *Index management*, *Benchmark* and *Tracking error*.

Actual benchmark

The composition of the actual benchmark is based on the strategic benchmark. See *Strategic benchmark* and *Rebalancing*.

The mandates permit Folketrygdfondet and Norges Bank to manage the assets with some deviations from the actual benchmark (active management). The actual benchmark forms the basis for managing risk in the context of the active management activities, and serves as the benchmark against which the asset manager's performance is measured. See *Active management* and *Actual portfolio*.

Actual portfolio

The term actual portfolio designates investments included in the Fund. The actual portfolio will normally deviate from the benchmark. See *Active management* and *Benchmark*.

Arithmetic return

Average arithmetic return is the mean value of all the numbers in a time series. It is calculated by adding up the return achieved in different time periods and dividing the sum by the number of periods. If the return in year 1 is 100 per cent and the return in year 2 is -50, average arithmetic return equals 25 per cent ($= (100 + (-50)) / 2$). See *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 owner's underlying risk preferences and return expectations and is expressed through the benchmark as far as the Government Pension Fund is concerned. Within the limits of the investment mandate, the asset managers 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

The benchmark for the GPFG encompasses three asset classes: equities, bonds and real estate (under establishment). The GPFN includes two asset classes: equities and bonds. See *Bond*.

Bond

A bond is a transferable loan with a maturity of more than one year. Bonds are redeemed by the issuer (lender) 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 specific predetermined amount, but bonds are available with different features, hereunder with floating interest rate, zero coupon or with a 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 sensitivity of the security (or the portfolios) to the return of the market portfolio exposed to risk.

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 a contracting party failing to fulfil its legal obligations. Counterparty risk arises, inter alia, upon the conclusion of non-listed derivatives contracts and in connection with the settlement of securities trades. See *Credit risk*.

Covariance

See *Correlation*.

Credit risk

Credit risk is the risk of loss as the result of an issuer of a security, or a counterparty to a securities transaction, failing to fulfil its legal obligations, for example as the result of bankruptcy. Credit risk, counterparty risk and market risk are partially overlapping concepts.

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 financial markets, it will also vary with changes in the exchange rates 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 krone exchange rate. In order to measure the return independently of developments in the Norwegian krone exchange rate, 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 that are included in the benchmark. If, for example, equities denominated in US dollars represent 35 per cent of the benchmark for equities, then dollar will make up 35 per cent of the currency basket.

Differential return

Differential return is the difference in return between the actual portfolio and the benchmark. A positive differential return is referred to as positive excess return, whilst negative differential return is referred to as negative excess return. See *Actual portfolio* and *Benchmark*.

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. It is against this background that the benchmark of the Government Pension Fund is spread across different asset classes and a broad range of countries, sectors and companies. See *Benchmark*.

Duration

Duration is a measure as to how long time it takes, on average, for the cash flows (coupons and principal) from a bond to become payable. The value of a bond is sensitive to interest rate changes, and the sensitivity increases with the duration. See *Bond*.

Emerging markets

The term emerging markets designates the financial markets in countries that are not yet considered developed economies. There is no unambiguous set of criteria that defines whether a market is emerging. The Ministry uses the classifications of the index provider FTSE. FTSE's classification of emerging markets is based on, inter alia, gross national product per capita and the characteristics of the market, such as size, liquidity and regulation.

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 ser-

vices 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 the possible outcomes and is equal to the average return on an investment over a period of time if it is repeated many times. If an investment alternative has a 50 per cent probability of a 20 per cent appreciation, a 25 per cent probability of a 10 per cent appreciation and a 25 per cent probability of a 20 per cent depreciation, the expected return is 10 per cent: $(20 \times 0.5) + (10 \times 0.25) + (-20 \times 0.25) = 10$. See *Return*.

Externality

Externalities are production or consumption costs or benefits that do not accrue to the decision maker. An example may be costs relating to greenhouse gas emissions (negative externality) or education (positive externality). Externalities lead to market failure, and a different use of resources than the economically optimal solution. Government-based solutions to externality problems include, inter alia, direct and indirect taxes, quotas and subsidies.

Financial investor

The term financial investor designates an investor with a primarily financial objective for its securities investments. A financial investor will often prefer to be a small owner in many companies, rather than a large owner in a few companies, in order to spread risk. See *Strategic investor*.

Fundamental analysis

Fundamental analysis primarily aims to analyse the factors that influence the 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 in the stock market 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 stock price. See *Active management*.

Geometric return

Geometric return (or time-weighted return) indicates the average growth rate of an investment. The geometric return is always lower than the arithmetic return for the same period (see the example under arithmetic return). This is because of the compound interest effect. If a year of weak return, for example -10 per cent, is followed by a year of 10 per cent return, the amount invested will not have been recouped. The more pronounced the variation in the annual return, the greater the difference between the arithmetic and the geometric return. In quarterly and annual reports, return over time is most commonly reported as geometric average. See *Arithmetic return*.

Index

An index encompasses a set of securities defined on the basis of the selection criteria and weighting methods adopted by the index provider. Securities indices are provided by securities exchanges, consultancy firms, newspapers and investment banks. They may, for example, be based on countries, regions, market weights or sectors. When an index is used as a return measure in respect of a specific securities portfolio, it is referred to as a benchmark. See *Index management* and *Benchmark*.

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 to the maximum possible extent. If the composition of the actual portfolio is identical to the composition of the benchmark, the return on the actual portfolio will be equal to the return on the benchmark, before the deduction of management costs. If the benchmark includes most of the securities traded on the market, index management will achieve a return that reflects the return on the market as a whole. See *Index* and *Benchmark*.

Inflation

Inflation is an increase in the general price level in the economy.

Inflation risk

Inflation risk is the risk of a loss of purchasing power as the result of unexpected high 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, money market funds and sovereign wealth funds. Banks and hedge funds may also be classified as institutional investors.

International purchasing power parity

According to the theory of international purchasing power parity a broad range of goods should cost 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. There has over time evolved a consensus among many researchers to the effect that international purchasing power parity applies in the longer run. Purchasing power 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*.

Liquidity premium

Liquidity premium is an expected compensation for illiquidity as a special characteristic of an asset, such as transfer costs and transfer obstacles associated with such asset, as well as premium in respect of the tendency for illiquid assets to underperform in times of downturn, such as financial crises and contracting stock markets. One will commonly expect higher liquidity premiums outside listed markets, for example within real estate, infrastructure and unlisted equities. In practice, liquidity premiums are difficult to define precisely and difficult to measure. See *Risk premium*.

Market efficiency

In simplified terms, the efficient market hypothesis implies that the price of security, such as a share or bond, at all times reflects all the available information on the fundamental value of the asset. If this hypothesis is correct, it will be impossible for a manager to consistently «beat the market». Active management would thus play only a minor role in terms of adding value. 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 fluctuations in the market prices of equities, currencies, commodities and credit. It is normally assumed that an investor must accept higher market risk in order to achieve a higher expected return. See *Expected return*.

Market weights

A portfolio or index is market 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.

Negative excess return

See *Differential return*.

Nominal return

Achieved return measured in nominal prices, i.e. without inflation adjustment. See *Inflation* and *Real return*.

Operational risk

Operational risk may be defined as the risk of economic losses or loss of reputation as the result of deficiencies in internal processes, human error, systems error or other losses caused by external circumstances that are not a consequence of the market risk associated with 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 refer to situations in which there is not a complete alignment of interests between the person issuing an assignment (the principal) and the person charged with performing such assignment (the agent). In situations of asymmetric information, e.g. where the efforts of the agent cannot be fully observed by the principal, the agent may conduct himself in ways, and make decisions, that are not in the best interest of the principal. Principal-agent problems are well known from political and economic literature and theory. In the asset markets, principal-agent problems may, generally speaking, 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.

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 the return measured in constant prices or in terms of purchasing power. See *Inflation* and *Nominal return*.

Rebalancing

The Ministry has adopted a strategic benchmark for the Fund with a fixed allocation across asset classes and regions. Since returns develop differ-

ently in respect of each asset class and each region, the portfolio will over time move away from the strategic allocation. The Fund therefore has in place rules on the rebalancing of the portfolio. The rules imply that the Fund has an actual benchmark that is permitted to deviate from the strategic allocation. In the case of deviations exceeding preset limits, the necessary assets are purchased and sold to bring the actual benchmark into conformity with the strategic benchmark. See *Actual benchmark* and *Strategic benchmark*.

Relative return

See *Differential return*.

Return

Historical return is calculated as the change in the market value of the Fund from one specific date to another, and is often referred to as absolute return. See *Arithmetic return* and *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 risks that can be quantified and risks that are difficult to quantify. An example of the former is the market 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 way of quantifying risk. See *Market risk*, *Operational risk*, *Credit risk*, *Systematic risk* and *Standard deviation*.

Risk factors

Risk factors are factors that may influence the return on investments. Such a risk factor is referred to as systematic risk if it cannot be eliminated through diversification. Developments in interest rates, inflation and business cycles are risk factors that are difficult to eliminate through diversification, and that represent systematic risk factors. A systematic relationship between the return on certain securities and their sensitivity to a systematic risk factor is an indication that the risk factor is priced in the market. This implies that investors require an expected return in excess of the risk-free rate of interest; a so-called

risk premium, to accept exposure to the systematic risk factor. Known risk premiums in the stock market are the equity premium and the liquidity premium. The equity premium relates to the uncertainty as to future economic growth, whilst the liquidity premium relates to the uncertainty as to future transaction costs. A systematic relationship between the return on equities and their size and valuations has also been identified, but it is unclear what types of underlying risks these factors reflect. Important risk factors and premiums in the bond market include term, credit and liquidity risk. See *Diversification*.

Risk premium

See *Risk factors*.

Standard deviation

Standard deviation is a statistical measure of the risk associated with a portfolio. It indicates how much the value of a variable (here the portfolio return) can be expected to fluctuate. 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 per cent or increasing in value by more than y per cent during a given period.

If normally distributed, the probability of returns deviating from the average return by less than one standard deviation is 68 per cent. In 95 per cent of the cases, the return will deviate by less than two standard deviations. Nevertheless, 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

The basic investment strategy of the Ministry in respect of the Government Pension Fund is expressed through a strategic benchmark for each of the GPFN and the GPFG. These specify a strategic asset allocation, which signifies a certain allocation of the assets of the Fund across different assets and geographical regions. See *Asset allocation*.

The strategic benchmark for the GPFG currently features 60 per cent equities and 40 per cent fixed-income instruments. A real estate portfolio representing 5 per cent of the Fund will be established over time, and will be counterbalanced by a corresponding reduction in the fixed-income portion. Moreover, the benchmark is divided into three geographical regions, of which Europe carries the most weight.

The benchmark for the GPFG encompasses several thousand individual companies and bonds, which are determined by the criteria adopted by the index providers for the inclusion of securities in the benchmark index. The Ministry has chosen FTSE as the provider of the benchmark index for equities, which comprises equities included in the FTSE «Global Equity Index Series All Cap». The index is made up of a given number of country indices with weights based on market values. Furthermore, the Ministry has chosen Barclays Capital as provider of the benchmark index for bonds, which comprises bonds that are included in the indices Barclays Global Aggregate and Barclays Global Real. The index is made up of a certain number of sub-indices based on currencies and sectors with weights reflecting the nominal amounts outstanding. See *Actual benchmark*.

Strategic investor

The term strategic investor applies to an investor that, unlike a financial investor, actively seeks to exploit ownership for purposes beyond the purely financial, for example to effect a certain change in behaviour. For a strategic investor it is important to achieve influence over the company, typically through a large ownership stake and a seat on the board of such company. See *Financial investor*.

Systematic risk

Systematic risk is the part of the risk that relates to developments in a broadly composed and well-diversified portfolio. See *Risk factors*.

Tracking error

The owner of the assets will normally define limits as to how much risk the asset manager may take. A common method is to define a benchmark, together with limits as to how much the actual portfolio may deviate from the benchmark. The Ministry of Finance has defined limits, applicable to Norges Bank and Folketrygdfondet, in the form of a target for the expected tracking error,

which is the expected standard deviation of the difference in returns between the actual portfolio and the benchmark. The limit applicable to Norges Bank is a 1 percentage point expected tracking error, whilst the limit applicable to Folketrygdfondet is 3 percentage points. 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 benchmark for the GPFG by less than 1 percentage point, and deviate from the return on the benchmark for the GPFN by

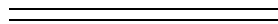
less than 3 percentage points. See *Active management*, *Actual portfolio* and *Benchmark*.

Unlisted investments

Unlisted investments are investments in assets that are not listed on regulated market places.

Volatility

Variation in return. Measured as standard deviation. See *Standard deviation*.



Published by:
Norwegian Ministry of Finance

Internet address:
www.government.no

Cover illustration: Jiri Havran, detail from the
Ministry of Finance's interior decoration

Printed by:
07 Oslo AS 05/2011