Perspectives on managing the Government Pension Fund Global

Speech by Governor Svein Gjedrem at the Norwegian Polytechnic Society on 2 November 2010

The text below may differ from the actual presentation. This speech does not contain assessments of the economic situation or current interest rate setting.

A thought-provoking finding in economics is what is called “the resource curse”. In a 1995 study the economists Jeffrey Sachs and Andrew Warner [1] demonstrated that resource-rich countries generally do not become wealthier. Natural resource wealth is not necessarily a blessing, but is more often than not a curse. They argue that spending this wealth crowds out industries that are exposed to international competition, thereby reducing growth capacity – the so-called Dutch disease.

Halvor Mehlum, Kalle Moene and Ragnar Torvik [2] find that the relationship between economic development and natural resources is more complex; many countries become poorer after discovering abundant natural resources, others become wealthier. They conclude that the quality of the institutional framework is decisive. Vast natural wealth can often induce interest groups to devote considerable time and energy to rent-seeking, weakening a country’s productivity. High quality institutions rein in this tendency.

The oil fund, now called the Government Pension Fund Global, has helped Norway to escape the resource curse. I shall first speak about how the mechanisms for the Fund were developed.

I would also like to take the opportunity to express Norges Bank’s views on how the Fund’s strategy can be further developed. The Fund’s investment performance, which receives a great deal of attention, is primarily determined by the allocation of assets across different classes such as equities and bonds. Asset allocation is an important component of the Fund’s strategy.

Chart: Timeline for managing Norway’s petroleum wealth

After Norway discovered oil in the North Sea in 1969, it became clear early on that this would be a source of substantial wealth. The revenue would transform Norwegian society [3]. In 1983, the Committee on the Future of Petroleum Activity [4] – chaired by Hermod Skånland who was appointed central bank governor in 1985 – launched the idea of an oil fund. The proposal was to set up an equalisation fund. According to the Committee, government oil revenues would be transferred to the fund. Each year, an average of the past years’ oil revenues would be transferred to the central government budget and spent on a par with other revenues.

The Committee had limited confidence in the government's ability to save: The Committee stated the following concerning a savings fund:

"It is up to the political authorities to determine whether such a fund construction designed to avoid a future decline in income is realistic. The Committee chooses not to build on such an assumption."

The notion of a sovereign oil fund matured through the 1980s. The government, under the premiership of Kåre Willoch, called for the establishment of such a fund in the Long-Term Programme presented in spring 1986, and the Act on the Government Petroleum Fund was passed in 1990.

The main rules are:

First: The totality of government petroleum revenues is transferred to the Fund.

Second: The Fund is integrated into central government budgets and accounts. The non-oil deficit is covered by an annual transfer from the Fund. The government cannot borrow to finance current expenditure as long as there is capital in the Fund.

Third: The capital in the Fund can only be used for domestic spending via general budget transfers, and not for earmarked transfers.

Fourth: The Fund's capital must be invested abroad.

When the Act was enforced, the Norwegian economy was in a deep downturn, with high unemployment and government budget deficits. Projections also indicated that offshore production would pass the peak in the early 1990s [5] . Those working on the bill at the Ministry of Finance at that time were probably in doubt as to whether any petroleum revenues would ever be saved, and perhaps they also questioned the utility of such a fund.

Initially, the fund structure was merely an exercise in accounting. Government petroleum revenues were deposited in the fund, but the entire amount was transferred back to the central government budget to cover some of the non-oil deficit. However, the Norwegian economy rebounded and transfers to the Fund started in 1996.

The Fund has since acted as a buffer between widely fluctuating oil revenues and public expenditure. The decision regarding annual petroleum revenue spending can be made independently of the size of the revenues. Thus, the fluctuations in government petroleum revenues do not have an automatic impact on the Norwegian economy. The Fund also has a stabilising effect on the krone exchange rate because capital outflows increase when Norway's petroleum revenues rise.

The fiscal rule for petroleum revenue spending, which was adopted in 2001, states that the government may spend – as an average over the business cycle – the expected normal real return on the capital in the Fund over the central government budget. This return is estimated at 4 per cent. The rule ensures that the capital in the Fund is not drawn on unless the real return on the Fund is lower than 4 per cent. In this way, future generations will also benefit from the oil wealth.

It is also important that the government's portfolio of financial investments is constructed without considering the financing needs of Norwegian enterprises. By the same token, Norwegian companies can choose their funding structure independently of the government's financial investments. The capital market serves as intermediary between the government as investor and firms' capital needs, and this ensures the separation of public and private choices. The Norwegian capital market is part of a Nordic market and increasingly part of a larger international market. Capital markets are a very efficient tool for channelling savings into investment.

Since capital started flowing into the Fund, the savings plan has remained intact. This indicates that both the Fund mechanism and the fiscal rule are well anchored. This is a prerequisite for escaping the resource curse.

On the other hand, only once in 2007 did the government budget bill call for spending below 4 per cent of the Fund. It later transpired that petroleum revenue spending was also lower than 4 per cent in 2006 and 2008.

The Fund is in the process of becoming a major financing source for public expenditure for the coming decades. The Fund has reached NOK 3 trillion, or 120 per cent of GDP, of which NOK 600 billion are returns in foreign currency. The government can now spend NOK 120 billion annually from the Fund without reducing its real value.

In ten years' time the Fund is projected to be twice as high as annual GDP [6] . Total public expenditure accounts for somewhat less than half of GDP. The Fund may then become about four times as large as total government expenditure. With Fund withdrawals in line with the fiscal rule of 4 per cent, the return will be able to finance 15-20 per cent of government expenditure in ten years. A large share of government spending will thereby be financed without the functioning of the economy being exposed to tax disturbances.

Chart: Time line

Construction of the Fund

The first capital transfers to the Fund were managed in the same way as Norges Bank's foreign exchange reserves, which are invested in government bonds issued by our main trading partners.

The purpose of the Fund, however, is entirely different from that of foreign exchange reserves and the operational management of the Fund must thus also be different. The main difference is the investment horizon. The Fund is meant to span a long period, preferably many decades.

Through 1996, about NOK 40 billion was transferred to the Fund and it became clear that the Fund would be sizeable. It would be accurate to say that there were divergent viewpoints within Norges Bank when it was discussed whether the Bank should take on the assignment of managing the Fund. Three challenges were considered in particular.

First: Norges Bank could risk impairing its reputation by accepting this assignment.

Second: Would it be possible for a central bank to assume the role of a professional investment manager?

Third: How could this activity be organised within the central bank?

Norges Bank's Executive Board, under the chair of former central bank governor Kjell Storvik, chose to take on this task. The Bank solved the two other challenges by delegating management to a separate unit for investment management – Norges Bank Investment Management or NBIM. A key aim was to establish NBIM as a business unit with clear financial objectives. Eventually, Chinese walls were erected between NBIM and the rest of the Bank. NBIM does not participate in monetary policy deliberations and does not have access to the Bank's work concerning other matters.

In winter 1997, Norges Bank wrote in a letter to the Ministry of Finance that the investment horizon implies that a substantial share of the Fund – no less than 30 per cent – should be invested in the international equity market. In the Revised National Budget for 1997, the Ministry considered this matter and set the allocation to equities at 40 per cent [7] .

In the correspondence between Norges Bank and the Ministry, there is also support for the fiscal rule's assumption of a real return of 4 per cent with an equity allocation of 40 per cent.

In 1998, the Fund started investing in listed equity in 21 countries, all of them featuring a fairly well developed financial market. Other countries were later incorporated into the benchmark portfolio. In 2007, small companies were included in the benchmark portfolio. Today, the Fund has equity holdings in 8,000 companies in almost 50 different countries. The bond portfolio was expanded from 10 to 18 countries in 1998. Since 2002, the Fund has gradually moved into the corporate bond market and mortgage-backed securities.

Chart: Fund returns

In 1998, analyses indicated that returns would be higher than achieved to date. It should be noted that the Fund is nevertheless considerably larger than expected 10-12 years ago. High oil and gas prices have resulted in substantial transfers to the Fund. Sizeable returns on oil in the ground have more than offset low returns on securities.

Since equity investment started in 1998, the annual average real return on the Fund has been a good 3 per cent after expenses [8] . This figure is partly a reflection of the financial crisis. The Fund's short history includes a lost decade in the stock market, with two periods of sharp decline.

During financial crises of the type we have recently experienced, the government as investor has no place to hide. Even though it is less visible, the return on government real investments in Norway is also lower during economic downturns.

The estimated size of Norway's offshore oil wealth naturally varies widely with oil and gas prices and frequent changes in petroleum reserve estimates. The Ministry of Finance now assesses the value of the government's share of the remaining petroleum wealth at NOK 3.6 trillion, which is about NOK 550 billion lower than the Ministry's estimate one year earlier.

Chart: Ownership interests

In summer 2007, the Ministry of Finance decided to increase the allocation to equity from 40 per cent to 60 per cent and reduce the allocation to bonds correspondingly. Surging oil and gas prices, high oil production and favourable economic conditions for the Norwegian economy led to high transfers to the Fund in the course of 2007 and 2008. Equity prices fell sharply through 2008.

It was against this background that the Fund purchased equities for more than NOK 1 trillion between summer 2007 and summer 2009. With a fall in value of 23 per cent or NOK 630 billion, it is understandable that the results in 2008 attracted considerable attention. The most important development for the Fund was perhaps a doubling of its global equity holdings. After earning high returns in the past year and a half, the Fund has also recovered the losses.

Chart: Nominal interest rate level and cost of equity capital

As I mentioned earlier, the Fund has become larger than we expected a decade or so ago as high oil prices have more than compensated for fairly low returns in international capital markets. Looking ahead, market prices suggest that interest rates are expected to remain low for many years. Real interest rates on long-term bonds have been depressed by central bank government bond purchases. Let us nonetheless assume an average nominal return on the Fund's fixed income instruments of 3 per cent ahead.

On the other hand, there are no signs that return requirements in equity markets are low. Dividend payments are high in relation to companies' market value. Simple valuation models [9] indicate that shareholders require a rate of return between 8 and 10 per cent, a fairly normal level.

This results in an overall nominal return of between 6 and 7 per cent. In addition, positive contributions to the return are expected from non-government bonds, active management and real estate. There is considerable uncertainty surrounding these estimates.

Nevertheless, Norges Bank's view is that it is still reasonable for the government to base its withdrawals from the Fund on an expected annual real rate of return of 4 per cent. The increase in the equity allocation from 40 per cent to 60 per cent does not provide a basis for higher withdrawals from the Fund, but reflects prospects for somewhat weaker returns in international markets today than was the case ten years ago.

Chart: Excess return, cumulative annual since inception and quarterly

The long-term return and the wide annual variations in the Fund's value are largely dependent on financial market developments. The most important questions therefore relate to the Fund's strategy. We have nevertheless continuously sought to exploit the scope for profitable active management. The contribution from active management to the overall annual return was set at 0.25 percentage point by the Executive Board in 2001, which may appear to be neither considerable nor demanding. According to the Ministry's calculations, the expected real return on the Fund rose by 0.4 percentage point when the equity

allocation was increased from 40 per cent to 60 per cent [10] . In this context, a contribution of 0.25 percentage point does not seem small.

It is also fairly demanding to achieve this. The degree of efficiency in financial markets is generally high. In a model, Nobel prize winner William Sharpe divides investors into two groups: passive and active investors. In this model, all passive investors will achieve a return in line with the general market. The return earned by active investors will on average be lower than the market return because of higher management costs [11] .

The idea that rational and profit-motivated participants should, on average, lose money is a paradox, as pointed out by Sanford Grossman and Joseph Stiglitz in 1980 [12] . For investors and managers to expend resources on gathering and analysing information, opportunities for profit in the markets must be sufficient to cover their costs. The Grossman-Stiglitz paradox prompted an adjustment of the efficient market hypothesis. In the modified version, financial markets reach near-efficiency most of the time, but active management is necessary to eliminate mispricing and increase market efficiency [13] .

When panic seized the markets in autumn 2008, prices simultaneously fell for many types of securities that had previously shown a low degree of correlation. It came as a surprise that there was a strong positive correlation between for example Japanese inflation-linked government bonds, bonds issued by international institutions such as the European Investment Bank, covered bonds issued by European banks and US mortgage-backed bonds.

An investor such as the Fund can survive a liquidity squeeze for a period. We were prepared to maintain positions in fixed-income securities to maturity and the vast majority of borrowers appear to be honouring their debt obligations. The crisis nevertheless revealed that the exposure to underlying systematic risk was greater than we perhaps realised at the outset.

In the hearing before the Storting (Norwegian parliament) in 2009, directly after the reporting of substantial losses in 2008, I indicated that unless the economic outlook went from bad to considerably worse, active management would deliver substantial excess returns in the coming years. Even though there was probably an underlying fear of a collapse in the financial system, it was fairly clear that the main factor behind the decline was limited market liquidity. Since the second quarter of last year, book values have increased even faster than we dared to hope. Returns have also been good as a result of a restructuring of the portfolio. The Fund continued to pursue active management through the crisis. It has proven important that active management could be pursued.

Active management has on the whole delivered good results, contributing an average 0.3 percentage point to the overall annual return. All in all, active management has increased the value of the Fund by several tens of billions of Norwegian kroner.

Chart: Key components of the design of the Fund's investment strategy

The Ministry of Finance sets out the investment strategy for the Fund, while Norges Bank as manager provides advice on a regular basis.

This past summer, we proposed several important changes to the Fund's investment strategy [14] . The proposal illustrates the relationship between the various components of the strategy. We have also pointed to possible improvements to the investment guidelines for the Fund.

The fixed income portfolio has a number of weaknesses. We have learned that we should not necessarily invest most in those companies and states that are the most eager borrowers. Large borrowers thus have a high weight in the portfolios.

Our assessment is that the fixed income portfolio should instead be weighted based on the income that is to service the debt. The GDP-weighted alternative is the most relevant alternative for government debt.

Both the equity and fixed income portfolios are constructed using regional weights. Today's distribution was partly determined using Norwegian import weights from the mid-1990s. It should be considered whether the regional weights should no longer be used so that the Fund's holdings across all companies and recognised markets are of equal size. If regional weighting is discontinued, the share of the Fund's European equity and bond holdings will be reduced. Investments in the Americas and Asia will then increase. With such a revision, the stability of economic and political systems must also be assessed.

When equity prices increase rapidly, the equity allocation will exceed the strategic weight of 60 per cent. Rebalancing rules are then applied to bring the equity allocation back to 60 per cent. These rules are more important than many perhaps believe. Many investors waited for a long time, probably too long, to rebalance their portfolios during and after the crisis, when equity allocations fell sharply. It should also be considered whether the rules should be designed to provide for a greater degree of automaticity, less judgement and probably also greater transparency.

It is important to take into account the Fund's particular features, that is to say a long-term, large investor without short-term liquidity needs, when evaluating which investment strategy is most appropriate.

In the spring 2010 Report to the Storting on the Fund, the Ministry of Finance suggested that the level of less liquid assets should be increased: "Further development (of the strategy) will seek to diversify the risk further and increase the weight of investments that benefit from the Fund's size, long-term perspective and ability to hold less liquid assets."

Today the Fund's assets are divided into two classes: equities and bonds. Going forward, a division into three asset classes may better enable the Fund to achieve its long-term objectives.

The first asset class is equities. This class features the highest risk exposure and the highest expected return. It accounts for 60 per cent of the Fund, which reflects the risk willingness of the Fund's owner. Today, the Fund can only invest in equities that are listed on a recognised stock exchange. Unlisted shares, so-called private equity, could be included in the investment universe. The Fund could invest in companies with plans for an imminent listing on the stock exchange. Successful private equity firms can provide an excess return, but I

doubt that the Fund will become a big investor in private equity firms in the near future. Selecting good companies is demanding and management fees are high. Many are highly leveraged and the sector's behaviour is procyclical.

The second class is nominal fixed income securities. Over time these securities are expected to provide a lower return than equities. They are also less exposed to risk and are often easier to sell at short notice.

The third – and new – class is real assets excluding equities. Real assets will provide a cash flow that is assumed to track inflation. Such investments thus deliver a long-term and fairly secure return in line with the Fund's objective. Real estate purchases, an example of assets in this class, will commence in the near future. The dividing line between real estate and infrastructure is not very clear, and looking further ahead, it may be natural to invest in assets that can be classified as infrastructure. In addition, the Fund's investments in inflation-linked bonds could be included in this class.

The two latter classes combined will make up 40 per cent of the Fund. Many real assets are fairly illiquid. A rapid build-up or sell-down of positions is therefore not profitable even if prices change. Over many years ahead, the amount of nominal fixed income investments will exceed the amount of real assets. In the long run, it is conceivable that investments in the two classes may be more equally distributed.

In the development of the investment strategy that I have presented, weight has been given to exploiting the Fund's long-term investment horizon and size. The strategy is based on objectives and expectations regarding the Fund's overall real return over time. Moving forward, Norges Bank's operational management of the Fund should probably shift towards absolute return and absolute risk.

Transparency and accountability

A clear division of responsibility between the Ministry of Finance as owner and Norges Bank as manager is an important component of the Norwegian model. Moreover, it is important that transparency and accountability are prominent features of the model. Management objectives have been clearly defined.

Norges Bank and the Fund's owner have always given weight to transparency with regard to the management of the Fund. The standard was set at an early stage when the Executive Board decided that an exhaustive list of the Fund's investments should be published at the turn of each year and the first complete list was published in the annual report for 1998. This decision has paved the way for all the subsequent discussions about various individual investments.

Norges Bank submits extensive reports to the Ministry and Storting on the results and activities of the Fund. Our annual report is submitted as an appendix to the Ministry of Finance's annual report to the Storting on the management of the Government Pension Fund. Norges Bank appears before the Standing Committee on Finance and Economic Affairs of the Storting at annual hearings. The Bank advises the Ministry on important issues related to the management of the Fund. Norges Bank's Supervisory Council submits its own report

to the Storting concerning its oversight activities. The Office of the Auditor General carries out – as our owner has expressed it – an important function through its responsibility for monitoring the Ministry's exercise of authority in relation to Norges Bank and auditing the item in the government accounts that refers to the Government Pension Fund Global.

The Fund's accounts and notes to the accounts contain a growing body of information. As from the 2011 accounting year, Norges Bank will shift to International Financial Reporting Standards (IFRS).

Transparency is important for the Fund's foreign investments. Some authorities are sceptical of other countries' sovereign wealth funds. This scepticism is reflected in an annual survey conducted by Edwin Truman, senior fellow at the highly renowned Peterson Institute for International Economics in Washington. His survey is by far the most thorough and systematic – the most authoritative – assessment. Truman's criteria were also included in the basis for the Santiago Principles which, facilitated by the IMF, were introduced in 2008 and implemented by a number of sovereign wealth funds.

To quote Truman:

"Sovereign wealth funds (SWFs), large pools of government-owned funds that are invested in whole or in part outside their home country, burst upon the policy consciousness only three years ago. Their explosive growth up until 2007 fanned widespread anxieties about shifts of global economic wealth and the roles of governments in managing that wealth. On the other hand, SWF investments helped some major Western financial institutions weather the recent financial crisis."

Chart: Truman's ranking

In Truman's most recent study on the transparency of sovereign wealth funds, the Government Pension Fund Global was ranked in first place. The Fund has also improved its score since the 2009 survey. We note with satisfaction that such a young fund has come out ahead of established US and European funds [15] .

As I mentioned by way of introduction, the economic literature points to two factors that can turn riches into rags.

One is the risk of inducing interest groups and economic agents to engage in rent-seeking behaviour. It can safely be said that the framework for the Fund has fended off this risk.

Chart: Relative wages in Norway

The second is the risk of Dutch disease. Strictly speaking, the jury is still deliberating. Productivity growth and labour force participation have been satisfactory over the past decade while relative labour costs and prices have reached yet higher levels. It remains to be seen whether the real krone exchange rate will gradually fall back when increases in petroleum revenue spending can no longer be sustained and the relative size of the oil supply industry decreases.

Thank you for your attention!

Footnotes

1. Jeffrey Sachs and Andrew Warner (1995): "Natural Resource Abundance and Economic Growth", NBER Working Paper 5398
2. Halvor Mehlum, Karl O. Moene and Ragnar Torvik (2006): "Institutions and the resource curse", The Economic Journal 116, pp. 1-20
3. See for example Report no. 25 (1973-74) to the Storting: "Petroleumsvirksomhetens plass i det norske samfunn" [The role of petroleum activity in Norwegian society]
4. NOU (Official Norwegian Report) 1983:27 "Petroleumsvirksomhetens framtid. Det framtidige omfanget av petroleumsvirksomheten på norsk sokkel" [The future of petroleum activity. The future scale of offshore petroleum activity in Norway]
5. Report No. 4 (1988-89) to the Storting: Long-Term Programme 1990-93
6. National Budget for 2011
7. See "Future management of the Government Petroleum Fund", Norges Bank's letter to the Ministry of Finance of 10 April 1997 and "An analysis of the Government Petroleum Fund's equity allocation", Norges Bank's letter to the Ministry of Finance of 15 March 2001
8. If 1997 is included, the figure is somewhat higher. The money-weighted average return is somewhat lower.
9. See for example the Bank of England's dividend discount model, where the risk premium is calculated as a residual, as used in Quarterly Bulletin Q3 2010
10. Report no 24 to the Storting (2006-2007): On the management of the Government Pension Fund in 2006. The Ministry's estimate is based on a risk premium of 2 per cent for equities.
11. William F. Sharpe (1991): "The arithmetic of active management", Financial Analysts Journal, 47, pp. 7-9.
12. Sanford Grossman and Joseph Stiglitz (1980): "On the Impossibility of Informationally Efficient Markets", American Economic Review, 70, pp. 393-408
13. See "Norges Banks aktive forvaltning av Statens pensjonsfond utland" [Norges bank's active management of the Government Pension Fund Global], letter to the Ministry of Finance of 23 December 2010.
14. "Utvikling av investeringsstrategien til Statens pensjonsfond utland" [Development of the investment strategy for the Government Pension Fund Global], Norges Bank's letter to the Ministry of Finance of 6 July 2010.
15. Edwin M. Truman (2010): "Sovereign Wealth Funds: Threat or Salvation?", Peterson Institute for International Economics