

# On managing wealth

Speech by Deputy Governor Jan F. Qvigstad\* at the Norwegian Academy of Science and Letters

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

## Introduction

From Norges Bank we can see the corner of the two streets Tollbugaten and Kirkegaten. This is where the Collett building was situated until 1939 when it was dismantled and moved to the Norwegian Museum of Cultural History at Bygdøy. By then, the Collett family had not occupied the building for years and their wealth was long gone.

Around the end of the 18th century, John Collett made a large fortune in the timber industry. He also ran the great Ullevål farm and by the time of his death in 1810 he was managing one of the country's largest wealth portfolios. Collett was also known to spend extravagant amounts on lavish parties. The Napoleonic Wars and the English blockade took a heavy toll on the family business. After his death, Collett's heirs insisted on maintaining an extravagant lifestyle as if the income was still intact. Their wealth rapidly withered away and in 1829 the coffers were empty. The farm was taken over by the state. [\[1\]](#)

The time it took Collett to make a fortune is about the same as it took Norway to build up its oil-based financial wealth. Nearly 40 years after Phillips Petroleum discovered commercially viable oil reserves in the Ekofisk field [\[2\]](#), we have an oil-based sovereign wealth fund worth more than NOK 3 trillion. Few other countries are sitting on such huge financial reserves. But our wealth primarily comes from other sources than the oil fund, now called the Government Pension Fund Global. The value of our current and future labour resources is more than ten times as great as the value of our oil and the oil fund combined. [\[3\]](#) The oil fund would be depleted in three years if government tax revenues were to disappear entirely.

Our economic future depends above all on our capacity to produce goods and services that others value. But the visible oil revenues may give the impression that we have a huge treasure trove at our disposal. Sound wealth management is therefore first and foremost a question of maintaining and developing the value of our productive resources, particularly our labour resources.

A nation that comes into a large fortune must make a number of choices and trade-offs. They can be considered from a legal, ethical or financial standpoint. In my speech today, I will discuss in particular what sound management entails from an economic viewpoint. I will also touch upon how we practice oil wealth management in Norges Bank.

## Intergenerational saving

The first question that must be answered is: Who owns the oil wealth? Does it belong to the present generation of Norwegians? Does it also belong to future generations? [\[4\]](#)

Even though I will be speaking from an economic vantage point, I will borrow a point made by the philosopher Henrik Syse. He asks whether we have the *right* in the course of a single generation to expend resources that it has taken nature millions of years to produce.

But there are also counter arguments. The next generations are likely to be wealthier than us in any case. Should we save for them?

Saving for the future can also be supported with vicarious arguments by those who are worried about their own upcoming pension payments. Today's pension obligations are under-funded but can be more easily met if oil revenues are saved. Is this the '68 generation' that first went on a spending spree and is now arguing in favour of saving to secure their own pensions? [\[5\]](#)

Moreover, all we have to do is read today's press to understand that it is not a matter of course that economic growth will maintain its current pace. It is not a given that our children will be that wealthy.

For those with roots in agriculture, it is second-nature to leave the farm in at least as good shape as when it was taken over. A policy of high and rising spending, which would crowd out internationally exposed industries and lead to unsustainable public expenditure levels, would be a heavy legacy to leave behind. The next generations would have to increase taxes substantially because of our consumption. If we, as a nation, set money aside instead, our wealth will grow and contribute to improving prosperity for our children.

Spending and saving are mutually exclusive actions. The definition of *saving* is quite simply to *abstain from spending*. But with Norway's huge oil revenues and the return on the portion saved we can increase spending while accumulating considerable savings. But spending must be adapted to the return on the portion saved.

Sound and long-term management of oil wealth also requires separating saving decisions from spending decisions. The fiscal rule sets an important *cap*. [\[6\]](#) The rule states that petroleum revenues are to be saved, while the government may spend the return on the oil fund. Once the cap has been set, expenditures across worthy public programmes must be made according to priorities – not by lifting the cap. If the ability to prioritise fails us and the cap is lifted, the long-term margin of manoeuvre will be reduced fairly quickly. Less will be left to our children.

As long as the North Sea generates revenues, the value of the fund will rise, laying the basis for a sustainable rise in petroleum revenue spending. [\[7\]](#)

## Institutional challenges

Oil converted into money entails institutional challenges. A crucial question that arose when we discovered oil was whether we had the discipline to refrain from spending all the money at once. In 1983, the Committee on the Future of Petroleum Activity was chaired by former central bank governor Hermod Skånland. He was of the view that it would not be possible to set aside a share of the oil revenues in a fund:

*“In the light of the prevailing attitudes among both politicians and the wider population, it is difficult to imagine that hundreds of billions will be invested in foreign assets while there are domestic needs that have not been met (...).”* [\[8\]](#)

For Skånland the solution was simple. If the political system did not manage to set aside the revenues, the oil taps had to be opened very slowly. Wealth management could be carried out by portioning exploration sites in the North Sea. Oil that had not been discovered would burn a hole in the pockets of politicians to a lesser extent than money flowing into the state coffers.

Skånland’s scepticism was well founded. Future oil revenues were used as an argument for allowing the central government to run a budget deficit. Moreover, it would transpire that the actual pace of oil extraction – and oil-revenue spending – increased much faster than the committee had recommended.

In the first 25 years, Skånland’s prediction was right on the mark. All the oil revenues were spent. But in the past 15 years, petroleum revenues have risen at such a fast pace that a portion has been set aside. If we look at the period of oil revenues in its entirety, close to half of the oil-based revenues have been spent. [\[9\]](#)

In 1994, the economists Bye, Cappelen, Eika, Gjelsvik and Øystein Olsen of Statistics Norway estimated that government petroleum revenue spending came to about 10 per cent of overall public expenditure at that time. Tax income from the petroleum sector and petroleum sales revenue – current petroleum revenues – were spent over the government budget. The economists at Statistics Norway expressed concern regarding Norway’s oil dependence. [\[10\]](#)

These economists can now rest assured knowing that around 10 per cent of public expenditure is still financed by oil money, but with one important difference from 1994: The source of these revenues is now the return earned on the oil fund – not current petroleum revenues. We have thus succeeded in replacing oil revenues with a permanent flow of income. We can draw on a perpetual source rather than from a well that is being depleted.

It may be that the oil fund has exceeded a critical value so that the ambition of a perpetual fund will be achieved. But history remains to be written. The story of John Collett might also have been written with a different pen when his wealth was at its peak.

Within a few years, as much as 15-20 per cent of the welfare state could be financed by the return on the oil fund. But if we squander the capital in the fund, we will either have to match the shortfall with tax increases or make substantial cuts in government welfare. The

gains – not only the costs – of building up an oil fund have thus been made visible. This also attracts its defenders.

Large fortunes nevertheless give rise to concerns. As a minimum requirement, the management of oil wealth must not impair the productivity of labour and real capital. This may seem to be a modest goal, but is not a trivial one.

People of my generation may remember the German Gunter Sachs, one of the heirs to the Opel fortune. He was known for saying that he had not worked a day in his life. [\[11\]](#) Sachs could live off his fortune and his spending was not confined to only useful things. For example, he lavished thousands of red roses on Brigitte Bardot, strewn over her home from a helicopter. There is no shortage of examples of individuals who have spent large portions of their wealth on an opulent lifestyle. But nations do not have the possibility of living off wealth alone. A nation thrives on each other's labour, as Finance Minister Erik Brofoss stated in his address on the state of economy to the Storting (Norwegian parliament).

The economists Jeffrey Sachs and Andrew Warner [\[12\]](#) have shown that countries with abundant natural resources have generally experienced weaker growth than otherwise comparable countries. Perhaps this is not so strange. Sudden wealth in one sector of the economy also results in higher wages and cost levels in other sectors. Such visible wealth can also weaken and crowd out internationally exposed business. Economists refer to this phenomenon as the "Dutch disease" after the Netherlands pursued an expansionary economic policy based on huge revenues from gas sales in the 1960s. When gas production declined, a period of harsh economic restructuring followed. The sheltered sector had to be reduced and the internationally exposed sector increased. There were too few left in the business sector to bear the welfare state.

The resource curse also increases rent-seeking at the expense of value creation, as the economist Trygve Haavelmo noted. Many countries that have experienced a windfall of wealth have been victims of this curse.

The state of Alaska has chosen its own institutional solution to avoid rent-seeking among special-interest groups. Once the real value of Alaska's oil fund, the Alaska Permanent Fund, is secured, dividends are distributed to the owners. Each resident receives an annual cheque that can be spent as desired [\[13\]](#), providing a strong incentive to protect the capital in the fund. [\[14\]](#)

The choice of building up a sovereign wealth fund must also be seen in connection with the state's substantial pension obligations under Norway's National Insurance Scheme. For the Norwegian state it would not have made sense to choose a solution like the Alaska fund without also addressing the issue of pension obligations.

So far our system has worked well, but the success of the system depends on broad-based support for government spending programmes and the framework for saving oil revenues – the cap.

If the system fails and our wealth is spent on welfare schemes to the detriment of future labour income, our petroleum wealth may quickly become a bane. For example, if we were

to slack off – intoxicated by the vast new oil fields Avaldsnes and Aldous Major in the North Sea – and reduce our work effort by extending our lunch break by five minutes every day, the sum of our future labour income will be reduced by as much as the value of our latest oil discovery.

## Investments in Norway

How should oil revenues be saved?

An apt comparison is a family that wins a million kroner in the lottery. The family has to decide how to manage the newly found wealth.

- One option is of course to give it away or share the wealth.
- The family must then decide how much to spend and how much to save.
- The money can be spent on a long holiday or purchases for the home.
- If the family instead chooses to save the money, it will be faced with new choices.
  - Should the money be invested in a family-owned business?
  - In a neighbour's business?
  - Or should it be deposited in a bank or lent through another channel?

Even before discovering oil, the state had long been a substantial direct owner of Norwegian companies. The value of state investment in Norwegian companies is more than NOK 600 billion. [\[15\]](#) The state owns more shares in Norway than in the US where the oil fund has its largest investments. [\[16\]](#)

But will substantial investment in one's own business – or one's own nation – guarantee growth and prosperity?

Many OPEC countries received enormous income after the oil price shocks in the 1970s. They later not only experienced low growth, but negative growth. [\[17\]](#) Professor Ragnar Torvik writes that one of the main reasons behind the decline was that such a large portion of the additional income was invested domestically. Politicians invested in projects that may have brought political gains – but resulted in economic loss. [\[18\]](#)

We can also draw on Norway's historical experience. In the post-war period, the Norwegian economy was to be reconstructed through a large-scale investment programme.

Over several decades, the investment share of GDP [\[19\]](#) was close to 30 per cent, markedly higher [\[20\]](#) than in other western economies. But the Norwegian economy still expanded at a slower pace than nearby countries. A more efficient use of capital could have boosted consumption without negatively affecting economic growth.

The high investment level entailed human costs in that consumption of important goods were rationed. A visible cost was limited imports of fruit. As I recall, the selection of fruit and vegetables at that time would have made the recommended "5 a day" serving of fruit and vegetables far more difficult to follow than today.

In recent years, 15-20 per cent of GDP has been invested in the mainland economy, or about the same percentage as our neighbouring countries. But we are always faced with demands for more investment, which is perhaps not that surprising. All of us have probably been stuck in a traffic jam and felt irritation over poor road conditions. It is easy to agree that investment in knowledge is sensible and of benefit for the future. But funding these investments by lifting the cap on petroleum revenue spending is a certain recipe for lean times. Many of us have perhaps driven along lightly trafficked roads of a strikingly high standard. Norway is already among the countries that invests most in education, without achieving particularly impressive results. [\[21\]](#) Norwegian companies that want to invest in profitable projects have access to a well functioning capital market, both at home and abroad.

An absolute precondition for ensuring the sound management of our oil wealth is that investments in areas such as roads, education, cultural centres, hospitals and sports centres are prioritised within the NOK 1 trillion allocated through the central government budget each year. [\[22\]](#)

In order to maximise the return on the substantial financial wealth owned by the government today, the oil fund must be invested abroad. But this gives rise to new trade-offs between risk, return and ethical considerations.

### **Moderate risk**

First, let me look at the trade-off between risk and return. How should we invest our wealth without taking on excessive risk? When the oil fund is invested in other countries that are not as commodity-dependent as Norway, our overall national wealth will become more robust to oil price fluctuations.

Diversifying wealth does not of course insulate us from upturns and downturns. In autumn 2008, stock markets plummeted worldwide. There was nowhere to hide and the value of the fund fell by close to 25 per cent. But the oil remaining under the North Sea lost even more of its value when oil prices fell from USD 150 to USD 40 in the course of a half year.

On the other hand, oil prices may show a more favourable tendency than equity prices. The slide in equity prices over the past quarter has not been accompanied by weaker oil prices.

Norges Bank has been delegated the responsibility for managing the Government Pension Fund Global and hence has an independent responsibility for limiting and managing risk. We have therefore reduced the fund's holdings of southern European government bonds in recent months. We have also reduced counterparty exposures to European banks.

### **Maximising returns**

As a long-term investor, Norges Bank seeks not only to minimise the risk of losing wealth, but to maximise the return on the fund's capital within the risk limits set by the fund's owner. But how can we manage our wealth to promote capital growth?

Many have probably wondered as does the poet Jan Erik Vold when he writes:

*“You put*

*as the advert says*

*20 000 kroner into a high-interest savings account*

*in one of our largest banks. After six years*

*you can go back to the bank and take out*

*35 532 kroner. The question is: From whom have they taken*

*15 532 Norwegian kroner?”* [\[23\]](#)

Vold has called this:

*“Capitalism’s fundamental mystique – how a krone, by lying idle for a period of time, gives birth to a 10-øre coin”.*

The poem is of course a few years old – both 10-øre coins and an interest rate of 10 per cent (the rate in the poem) belong to the past.

A krone that yields a return does not lie idle, however. It represents resources used to build production capacity. The 10 øre is value added generated when capital is put to work.

When our oil revenues are invested as financial assets abroad, we are buying a share of future global value added, which can subsequently be brought home and put to good use here.

As an investor, the oil fund in principle faces two alternatives: Should the fund be an owner by investing in equities, or provide loans to companies and governments by investing in bonds? The return in both cases essentially depends on developments in global trade and industry, on the world’s economic future. Even our loans to governments depend on the success or failure of businesses since governments rely on tax revenues.

When we provide loans – by buying bonds – the borrower is obliged to pay us interest at fixed intervals and repay the principal at maturity. If the payment obligations are met by the

borrower, the amount borrowed is recovered. In the event of a bankruptcy, bondholders are given higher priority than shareholders.

Holding shares therefore carries higher risk. Shareholders are last in line when a company's earnings are distributed. On the other hand, if the company thrives, potential gains are unlimited. This is why equity prices fluctuate relatively widely. We reduce the risk associated with equity exposures by spreading our ownership. We own equities in more than 8000 companies.

To compensate for the higher risk, shareholders demand a higher expected rate of return. Over the past 110 years, returns have been on average 4 percentage points higher for shareholders than for bondholders every year. [\[24\]](#)

If returns on equities are higher than on bonds, perhaps as much of the fund as possible should be invested in equities. [\[25\]](#) Bond prices tend to fluctuate less than equity prices and tend to rise when equity prices fall. A good mix of equities and bonds can improve the relationship between risk and return.

The Ministry of Finance has assessed the trade-off between risk and return and decided, with the approval of the Storting, that 60 per cent of the oil fund should be allocated to equities. The choice of equity allocation determines to a large extent the fund's return and risk, and is therefore one of the most important decisions concerning fund management. Almost 40 per cent is invested in bonds, including government and corporate bonds, and a small portion is invested in real estate. [\[26\]](#)

Government bonds in particular were long regarded as safe investments. This was also the thinking behind Statens Reservefond (Government Reserve Fund), established in 1904 to provide for investment in "first-class" foreign securities, primarily French, German and UK government bonds. High inflation in the wake of World War I reduced the real value of the fund by half, and the fund was discontinued in 1925. [\[27\]](#) Some would argue that investment in government bonds provides "risk-free returns". In the context of current developments in the euro area, it might be more accurate to refer to this form of investment as "return-free risk", to quote Yngve Slyngstad, the CEO of Norges Bank Investment Management.

A third form of investment is the oil fund's direct purchases of real estate, so far in London and Paris. We buy large stakes – usually between 25 and 75 per cent – in large real estate projects. [\[28\]](#) As a long-term investor, we hope to reap returns in this market as well.

### **A large investor with a long-term perspective**

When we buy interests in a company both ethical and economic considerations come into play. There are companies in which we do not invest. Companies that produce weapons in violation of fundamental humanitarian principles and companies that produce tobacco are excluded. Corruption or contributing to severe environmental damage may also lead to exclusion. About 50 companies are excluded. [\[29\]](#) There is often the dilemma of whether we should withdraw entirely from a company or enter into dialogue. If we withdraw, we lose a channel of influence.



We now own shares in more than 8 000 companies worldwide. As shareholders, we are entitled to vote when important decisions are made about companies in which we have an ownership stake. Should we actively seek to influence developments or should we remain passive observers? Many large funds choose the latter. It requires time and effort to consider the issues to be addressed at company AGMs, and not least: We may be confronted with uncomfortable questions.

The fund now owns around 1 per cent of the world's listed companies. This is both a lot and a little. For less than 0.1 per cent of the global population to own 1 per cent of global equities is *a lot*. But 1 per cent may seem *too little* to exert ownership influence.

Nonetheless, we have chosen to exercise our voting rights. In many companies, ownership is spread across many shareholders, in which case even a 1 per cent interest is a large stake. The fund also has larger holdings – up to 10 per cent – in a number of companies, which gives us the opportunity to steer companies in what we consider to be the right direction.

Voting is governed by a few main principles. [\[30\]](#) As a minority shareholder, equal treatment of shareholders and board accountability are two key elements of our long-term management.

In addition, as the fund is invested in a wide range of companies with a long investment horizon, our concerns must go beyond the purely business-related. A manufacturing enterprise that emits pollutants and harms neighbouring enterprises may not be of concern to the enterprise itself. But it is of concern to us because we own shares in the enterprises affected by the pollution. Water management and climate change are two of our strategic focus areas.

In addition to voting, we engage in dialogue with management teams in a number of companies. We must remember that when we point a finger at a company, we are also pointing a finger at the laws, regulations and practices of the countries where the company legally operates. We make demands, yet we are at the same time a guest in our neighbour's house.

Excessive activism in other countries may defeat its own purpose. Scepticism towards foreign investors, and in particular towards large sovereign funds, is not an unfamiliar phenomenon. We could risk being perceived as a political fund rather than a financial investor. We have therefore chosen ethical guidelines and corporate governance principles that are based on OECD and UN principles. [\[31\]](#)

Our experience is that the fund is perceived as a welcome financial investor – not as a political player. Former South African central bank governor Tito Mboweni told me he preferred investments by the oil fund to development assistance. “*Assistance means you feel sorry for us,*” he said to me, “*investment means you believe in us.*” [\[32\]](#)

## **Conclusion**

The larger the visible wealth is, the greater becomes the risk that sound management principles are relegated to the background. Both John Collett and Gunter Sachs had

considerable wealth, and spent it generously all their lives. At the same time, both were interested in developing more permanent values through research. Sachs established an institute where advanced mathematical methods were applied to study the relationship between the position of the stars and the fates of human beings. [33] Collett was more down-to-earth. He studied new methods of crop cultivation and was a keen supporter of the cultivation of potatoes here in South-Eastern Norway. [34] As a contributor to sustainable growth, we would have to say that Collett was closer to the mark than Sachs.

Norway's proximity to valuable natural resources has created substantial opportunities. New technology and new oil finds are still increasing the value of our oil wealth.

Two North Sea fields where oil and gas were recently discovered, Galtvort (Hogwarts) and Gygrid (Hagrid), have been given names from the Norwegian version of Harry Potter. One of the books features the lucky potion *Felix Felicis*. This magical potion is difficult to make. The consequences can be catastrophic if the ingredients are mixed incorrectly. But if mixed correctly, the drinker will succeed in all that he undertakes. The potion also has some highly detrimental side-effects. If taken in excess, it may cause giddiness, recklessness and dangerous overconfidence. [35]

The economic policy choices made by the authorities and Norges Bank as manager of the Government Pension Fund Global must have legitimacy and credibility. Without long-term thinking, the management of our wealth will not be a success story. So far, it would seem that we have managed to mix and drink an adequate dose of *Felix Felicis*, but we must not let down our guard.

Thank you for your attention.

## Footnotes

\* Contact information: Norges Bank, P.O. Box 1179 Sentrum, 0107 Oslo. E-mail: jan.qvigstad@norges-bank.no. I would like to thank Amund Holmsen, Marie Norum Lerbak and Øystein Sjølie for their valuable assistance in preparing the speech. Thanks also to Ola Peter Krohn Gjessing, Espen Henriksen and Pål Winje for useful comments. I would also like to thank Helle Snellingen for her contribution to the translation of the Norwegian text into English.

1. Alf Collet (1915): *Familien Collett og Christianialiv i gamle dage* (The Collett family and life in Christiania in olden days), Cappelen, Kristiania
2. See *Facts 2011 - The Norwegian petroleum sector*, Ministry of Petroleum and Energy: <http://www.npd.no/en/Publications/Facts/Facts-2011/>
3. Report to the Storting on Long-Term Perspectives for the Norwegian Economy, Section 4.5: <http://www.regjeringen.no/en/dep/fin/press-center/press-releases/2009/long-term-perspectives-for-the-norwegian.html?id=542381>
4. The intergenerational perspective was not mentioned in the first public document to contain a broad discussion of the role of oil in Norwegian society, Report no. 25 to the Storting of 1974. The focus was on how the government would spend the revenues from the oil sector to create a "qualitatively better society" – immediately.

- The oil deposits were not discussed as they are today as wealth to be invested. See Report no. 25 to the Storting (1973-74): "Petroleumsvirksomhetens plass i det norske samfunn" [The role of petroleum activity in Norwegian society], Ministry of Finance
5. In 1985, Professor Steinar Strøm wrote that it was an understandable human reaction to celebrate Norway's new oil wealth with a spending spree. At the same time, Strøm pointed out that as oil revenues became substantial, money could be set aside in a fund abroad. Steinar Strøm (1985): "Oljemilliardene – Pengegalopp til sorg eller glede?" [Norway's oil billions – curse or blessing?], *Sosialøkonomen*, 1, p. 246
  6. Report no. 29 to the Storting (2000 -2001): "Guidelines for economic policy", Ministry of Finance
  7. In 1977 the Canadian economist John Hartwick described the principles for the management of a natural resource in order to produce permanent income. See John M. Hartwick (1977): "Intergenerational Equity and the Investment of Rents from Exhaustible Resources", *American Economic Review*, 67, December, pp. 972-974.
  8. NOU (Official Norwegian Report) 1983:27 "Petroleumsvirksomhetens framtid" [The future of petroleum activity], p. 90
  9. See Ministry of Finance calculations (Norwegian only):  
[http://www.regjeringen.no/nb/dep/fin/tema/norsk\\_okonomi/bruk-av-oljepenger-/hvor-mye-oljepenger-har-vi-brukt-sa-lang.html?id=450461](http://www.regjeringen.no/nb/dep/fin/tema/norsk_okonomi/bruk-av-oljepenger-/hvor-mye-oljepenger-har-vi-brukt-sa-lang.html?id=450461)
  10. Torstein Bye, Ådne Cappelen, Torbjørn Eika, Eystein Gjelsvik and Øystein Olsen (1994): "Noen konsekvenser av petroleumsvirksomheten for norsk økonomi" [Some of the consequences of petroleum activity for the Norwegian economy], *Statistics Norway Rapport* 94/1, p.36 (Norwegian only)
  11. See for example the obituary "Gunter Sachs", in *The Telegraph*, 9 May 2011:  
<http://www.telegraph.co.uk/news/obituaries/8503379/Gunter-Sachs.html>
  12. Jeffrey Sachs and Andrew Warner (1995): "Natural Resource Abundance and Economic Growth", NBER Working Paper 5398
  13. See for example the Alaska Permanent Fund website:  
<http://www.apfc.org/home/Content/dividend/dividend.cfm>
  14. This would be comparable to using the return on the fund as tax relief
  15. Report no. 13 to the Storting (2010 -2011) Aktivt eierskap – norsk statlig eierskap i en global økonomi [Active ownership – Norwegian state ownership in a global economy], Ministry of Trade and Industry (in Norwegian only):  
<http://www.regjeringen.no/pages/16193771/PDFS/STM201020110013000DDDPDFS.pdf>) and the annual reports of the Government Pension Fund Norway and the Government Pension Fund Global
  16. For fund holdings, see the NBIM website:  
<http://www.nbim.no/en/Investments/holdings-/>
  17. National income in OPEC countries *decreased* on average by 1.3 per cent annually in the period between 1965 and 1998 while OPEC oil production increased
  18. See "Globalisering, olje og pensjonsfondet" [Globalisation, oil and the pension fund] by Ragnar Torvik, available on the Ministry of Foreign Affairs website (Norwegian only):  
<http://www.regjeringen.no/nb/dep/ud/kampanjer/refleks/innspill/oekonomi.html?id=491448>
  19. See national accounts data from Statistics Norway:  
<http://www.ssb.no/histstat/aarbok/ht-0901-355.html> and historical data on the

Norges Bank website <http://www.norges-bank.no/en/price-stability/historical-monetary-statistics/>

20. See, for example, World Bank data on [www.databank.worldbank.org](http://www.databank.worldbank.org)
21. For the results of the Pisa survey, see: <http://www.pisa.no/english/index.html>
22. <http://www.statsbudsjettet.no/Statsbudsjettet-2012/English/>
23. The poem “Kapitalismens grunnleggende mystikk” [Capitalism’s fundamental mystique] is from Jan Erik Vold (1989): *Elg*, Gyldendal Norsk Forlag
24. See Credit Suisse Global Investment Returns Yearbook 2011: [https://infocus.credit-suisse.com/app/\\_customtags/download\\_tracker.cfm?dom=infocus.credit-suisse.com&doc=/data/\\_product\\_documents/\\_shop/300847/credit\\_suisse\\_global\\_investment\\_yearbook\\_2011.pdf&ts=20110326172226](https://infocus.credit-suisse.com/app/_customtags/download_tracker.cfm?dom=infocus.credit-suisse.com&doc=/data/_product_documents/_shop/300847/credit_suisse_global_investment_yearbook_2011.pdf&ts=20110326172226)
25. Private investors, with shorter investment horizons, should have lower allocations to equities
26. For more about the Government Pension Fund Global’s investment strategy, see the NBIM website: <http://www.nbim.no/en/Investments/>
27. Aanund Hylland (2005): “Statens reservefond 1904-25. Et forsøk på å binde politisk handlefrihet? [The government reserve fund 1904-25. An attempt to bind the political room for manoeuvre?]”, *Norges Bank Penger og Kreditt*, no. 3, p. 182 (Norwegian only)
28. For more on the fund’s real estate investments, see the NBIM website: <http://www.nbim.no/en/Investments/asset-mix/Real-estate/>
29. The Ministry of Finance decides which companies to exclude. For more on exclusion from the Government Pension Fund Global, see website: <http://www.regjeringen.no/en/dep/fin/Selected-topics/the-government-pension-fund/responsible-investments/negative-screening-and-exclusion.html?id=447009>
30. For more on ownership strategies, see the NBIM website: <http://www.nbim.no/en/Investments/ownership-strategies/>
31. For more about the UN guidelines, see “Global Compact”: <http://www.unglobalcompact.org/>. For more on the OECD guidelines, see: [http://www.oecd.org/topic/0,3699,en\\_2649\\_37439\\_1\\_1\\_1\\_1\\_37439,00.html](http://www.oecd.org/topic/0,3699,en_2649_37439_1_1_1_1_37439,00.html)
32. South Africa received NOK 149.5 million in development assistance from Norway in 2010. See Norad website <http://www.norad.no/en/tools-and-publications/norwegian-aid-statistics>
33. See for example the obituary “Gunter Sachs”, in *The Telegraph*, 9 May 2011: <http://www.telegraph.co.uk/news/obituaries/8503379/Gunter-Sachs.html>
34. Sigurd Høst (1936): *Norges historie : med viktigere avsnitt av Danmarks og Sveriges historie. For middelskoler og ungdomsskole* [History of Norway], in Norwegian only, Gyldendal Norsk Forlag, Oslo
35. J. K. Rowling (2006): *Harry Potter and the half-blood prince*, London : Bloomsbury