

Equity investments and choice of external equity managers

In the first half of 1998, the equity portion of the Government Petroleum Fund was built up from 0 to 40 per cent. Equities for NOK 46 billion representing more than 2 000 enterprises were purchased. When new capital was later transferred to the Fund, further purchases were made, so that at the end of 1998 the market value of the equity portfolio was almost NOK 70 billion. This portfolio was managed mainly by four external management organisations, all index managers. This means that the managers' portfolios deviate very little from specified equity indices in terms of either composition or return.

In February 1998 Norges Bank initiated a process to choose external managers to engage in more active management. These managers will be given the opportunity to deviate by a wider margin from the specified equity indices with a view to achieving a higher return.

Five management organisations were selected in the autumn of 1998, and a few more will be selected in 1999.

Norges Bank's own management organisation has given priority to building up expertise with a view to cost-effective establishment and rebalancing of equity portfolios. In this connection routines have been established for trading equity futures contracts (see separate box). All equity investments have been made by external managers to date, but in 1999 Norges Bank aims to start its own management of a limited portion of the Petroleum Fund's equity portfolio. This article provides a brief review of the work on building up the equity portfolio in the first half of 1998. This is followed by a description of the routines for selecting external managers of equity portfolios and for monitoring the managers over time.

The first half of 1998:

Gradual entry into the equity market through index managers

The building up of the benchmark portfolio

In December 1997 the Ministry of Finance drew up a plan for building up the equity portion of the benchmark portfolio. At the end of January 1998, the equity portion was set at 8 per cent, and it was to increase by 8 percentage points each month until it reached 40 per cent of the Fund by the end of May 1998. The purpose of spreading equity purchases over time was to curb the costs associated with a rise in share prices as a result of a large concentration of equity purchases in a short period of time.

Use of index managers

In July 1997 Norges Bank announced mandates for the index management of large equity portfolios via the Internet and press releases. Four management organisations were selected in November 1997. It was natural for Norges Bank to choose index management in connection with the start-up of equity management. It is simpler to monitor index management than active management, and a large spread of equity investments is achieved right from the start. Index management will continue to hold a central place in Norges Bank's strategy, also in the long run. Index management involves low administration and transaction costs, and basing management of a large equity portfolio primarily on indexing permits better control of the risk associated with the portfolio. Such control is an important prerequisite for the effective use of active equity managers.

By using four of the world's largest index managers, Norges Bank sought to achieve the highest possible degree of "crossing" in the establishment of its equity portfolio. Crossing means that funds wishing to buy or sell equities find a counterparty interested in matching the transaction, preferably among the managers' customers. This means that neither fund pays a broker's commission, and costs in the form of influencing the market can also be reduced.

A network was established between the index managers in order to take full advantage of crossing possibilities.

Transactions

In the period January to June, 17 258 equity transactions were carried out in 21 countries, and in addition equity futures were purchased in 12 countries. The value of all the equity purchases was about NOK 46 billion. Of this amount, 82.6 per cent was purchased through the crossing network between the four managers. Crossing was used most in the UK, France and Spain, and least in Portugal and Canada. The remaining transactions were effected by brokers in the open market in the normal way.

Equity futures contracts were used to achieve market exposure pending the opportunity to cross portfolios. A total of 24.3 per cent of the overall amounts transferred to the equity market were first invested in futures contracts.

Costs

In five countries - Australia, Hong Kong, Ireland, Switzerland and the UK - government taxes and indirect taxes on equity transactions have accrued. A total of some NOK 43 million (0.094 per cent) in taxes was paid in connection with the Petroleum Fund's entry into the equity market. Of this amount, NOK 39 million was paid to the UK.

Brokerage averaged 0.019 per cent of the transaction amounts. Brokerage was lowest on the crossed transactions, at 0.01 per cent. The average brokerage on market transactions was 0.053 per cent. Total brokerage amounted to NOK 8 million.

Another cost associated with purchasing equities can be measured as the difference between the price achieved and a benchmark price, which may be a volume-weighted average price or closing price on the day in question. There was no price differential for the crossed transactions, whereas there was an average differential of 0.08 per cent to Norges Bank's disadvantage for the market transactions. This amounted to NOK 6 million.

Total observable costs in the form of taxes, brokerage and price differentials amounted to around NOK 50 million, equivalent to 0.11 per cent of the equity portfolio. This is substantially lower than what is normal in the market.

Second half of 1998:

Selection of managers for active equity mandates

Three key factors are taken into account when evaluating the quality of equity management. These are highest possible excess return, sound risk management and low management costs - not only direct costs, but also indirect ones in the form of transaction costs. When assessing index management, the last two factors are of particular importance. Index management constitutes an effort to take account of the last two in particular.

In 1998 Norges Bank completed the extensive process of selecting management organisations to actively manage parts of the Petroleum Fund's equity portfolio. The process of selecting and establishing portfolios consisted of four stages:

Announcement of mandates

Norges Bank announced eight different equity management mandates on 2 February 1998. Five of them concerned active equity management in North America, the UK, Europe excluding the UK, Japan, and Asia and Oceania excluding Japan. In addition, mandates were announced for active indexing in the first three countries/regions. This form of management entails a somewhat higher active risk than index management, and can be regarded as a cross between index management and active management. An extensive questionnaire was published on the Internet. In response, 260 applications were received from around 150 different management organisations. The form contained questions on client structure, investment strategy and portfolio construction, risk measurement and control, and contractual matters. Norges Bank used two consultancies to access databases and information about potential management organisations.

Selection of managers

After the first sorting of applications, Norges Bank retained 70 candidates, who received a further questionnaire in April 1998. The main emphasis this time was on documentation concerning the organisation's advantage in terms of information, excess return achieved and risk structure, based on actual portfolios. Candidates were also required to document their transaction costs for equity transactions and their procedures for ensuring equal treatment of different customers.

The responses to the two questionnaires were in several cases incomplete, and in some cases contained contradictory information. One or more visits were made to 48 managers. The purpose of these visits was to provide more in-depth knowledge of personnel and the investment process, and to evaluate how the management and control systems function in practice.

Norges Bank has developed a standardised programme for compiling and evaluating the information obtained from the answers to the two questionnaires, the rounds of visits, the consultants' reports, and from analyses of the companies' actual portfolios. The evaluation programme consists of four parts, which are in turn broken down into 52 criteria and 148 sub-criteria.

The first of the four parts of the evaluation programme deals with the applicants' organisations, historical return and risk, total assets and internal control routines. The aim is to find out whether the manager has the strategy, capacity and control systems necessary to manage part of the Petroleum Fund.

The second part aims to identify the applicants' information advantage. Such advantages can be achieved in three ways: by better access to relevant information, through better processing of available information, and by better generation of ideas and flow of internal information.

In the third part, the skill of the applicants in constructing portfolios resulting from their information advantage is evaluated. In addition to evaluating the portfolio manager and the management team, Norges Bank analysed how the various active positions in the portfolio are established. One important aspect in this respect is the total expected excess return viewed in relation to risk.

The fourth part consists of an evaluation and quantification of the organisation's routines and costs for transactions in equity markets. It is important that opportunities

for achieving an excess return are not cancelled as a result of transaction and market costs.

These analyses provided a ranking of potential candidates for every mandate. In addition, expectations regarding net excess return after fees, transaction costs and other external costs/revenues were specified, and regarding risk-taking relative to tracking error (see box in the feature article ‘Management of the risk associated with the Petroleum Fund’).

Combination of managers

The portfolios of the managers that are selected will constitute a total portfolio, with features that Norges Bank wishes to monitor. The portfolios of the individual managers must be regarded as parts of a whole. Risk management of the overall portfolio is Norges Bank’s responsibility, and no managers can be selected without an evaluation of how they will contribute to the whole.

In order to find the best possible combination of managers, three factors were emphasised: expected excess return on portfolios, expected tracking error and expected correlation between excess returns on the portfolios. The last parameter was estimated on the basis of three different sources of information: actual correlation based on historical monthly excess returns over the past five years, analyses of actual portfolios using a risk model, and estimates based on the observable differences in the managers’ investment processes.

The optimisation procedure provides answers both to the question of division between active and passive management in each region, and the question of allocations to the various active managers in the region. In general, the larger the differences in estimated excess returns, and the higher the correlation between the excess returns of the various managers, the fewer the managers that should be selected in each region. In consequence, Norges Bank has selected only one active manager for the UK mandates and for the mandate Asia and Oceania excluding Japan.

Monitoring selected managers

The monitoring of managers is based on the same general criteria that formed the basis for selecting the managers: that the managers abide by their management agreement and their investment mandate, and that they deliver the expected product in the form of risk-adjusted excess return. Moreover, monitoring must cover the valuation of individual equities, and analyses of the portfolios’ market, volatility and liquidity risk, and an assessment of the managers’ total costs for equity trading.

Each of the external managers is obliged to report extensively to Norges Bank. All transactions are to be reported daily to the Petroleum Fund’s global custodian, The Chase Manhattan Bank, which forwards the information electronically to Norges Bank’s central investment management data records. Data are drawn from here for the various analytical systems mentioned above. The reporting procedures are presented in more detail in the feature article on risk management.

Awarding mandates

To date, five management organisations have been selected for active equity management. Mercury Asset Management has been awarded the mandate for a UK equity portfolio. Capital International Limited, Gartmore Investment Management plc and Storebrand Kapitalforvaltning have been awarded mandates for equities in Europe excluding the UK. Fidelity Pensions Management is to manage a regional equity portfolio for Asia and Oceania excluding Japan. The process of selecting managers for North American and Japanese equities is nearing completion.

Futures contracts

- A futures contract is an agreement to deliver an asset or its cash value on a predetermined day at a predetermined price.
- Futures contracts are traded on stock exchanges in the same way as equities, and they are constructed so as to have the same return and risk as the underlying equities.
- The value of daily trading in futures contracts is higher than equities trading in several of the largest markets around the world, including the US, Japan, France and Germany.
- The main advantages that can be achieved by using futures contracts rather than equities relate to liquidity and low costs.
- In 1998 Norges Bank used futures contracts to gain exposure in equity markets, control the time and means of transferring assets to external managers, and to implement changes in the allocation of asset classes.
- The Government Petroleum Fund is unique in many respects because of the regular inflows of capital and frequent rebalancing of the various asset classes. These factors make the use of futures contracts particularly important.

Index management

- Index management means that managers buy equities in most of the enterprises defined in the equity index, in the proportions indicated by their weights in the index.
- This management strategy is often called 'passive management', since no attempt is made to outperform a selected benchmark index. Instead, one attempts to follow it as closely as possible (the goal is to achieve the lowest possible tracking error).
- Management methods differ from one manager to another, ranging from pure replication, where all equities in the benchmark index are purchased, to various simulations of this index using fewer equities.
- The fee for index management is substantially lower than for active management.
- Transaction costs are also far lower, because annual purchases and sales of equities normally amount to only 3-7 per cent of the portfolio. Moreover, index management makes it possible to cross the portfolios of various customers within the management organisations. This also reduces transaction costs, because transactions can be carried out without the usual brokerage expenses and market influence.

External managers selected to manage parts of the Petroleum Fund

Index managers (selected in November/December 1997:)	Mandate:
Barclays Global Investors	Global index portfolio
Gartmore Investment Management plc	Global index portfolio
Bankers Trust Company	Global index portfolio
State Street Global Advisors UK	Global index portfolio
Active equity managers (selected in October/November 1998):	Mandate:
Capital International Limited	Europe excluding the UK
Gartmore Investment Management plc	Europe excluding the UK
Storebrand Kapitalforvaltning	Europe excluding the UK
Mercury Asset Management	UK
Fidelity Pensions Management	Asia and Oceania excluding Japan

1999: The work ahead

In 1998 Norges Bank's equity managers devoted time to building up expertise in the area of effective establishment and rebalancing of equity portfolios, phasing in equities with the assistance of index managers, and selecting external active equity managers. In 1999 Norges Bank will focus more strongly on two further aspects of the Petroleum Fund's equity management, ie internal active index strategies, and internal management of global sector portfolios. With internal active index strategies, efforts will be made to compensate for the fact that the index managers selected do not utilise all opportunities for achieving an excess return associated with changes in equity indices. The internal management of global sector portfolios will be concentrated on a selection of sectors.