

Active management of the Government Pension Fund Global

The Government Pension Fund Global has a number of distinguishing characteristics that can be used to generate an excess return on investments. Active management of the fund has helped to increase returns over the past 12 years, and also supports the performance of NBIM's other tasks. At the same time, the fund's costs for active management are relatively small, and there has been little change in risk due to active management.

The active decisions that have the greatest impact on the fund's returns are decisions that need to be taken even with a passive mandate for the manager. Besides asset allocation, the most important decisions relate to rebalancing the portfolio, phasing new capital into the fund, and adjusting the fund to changes in the benchmark portfolio.

It is possible for active management to add value

Active management is where investors and managers make their own assessment of different investment opportunities. In doing so, investors actively seek to generate a higher return – an excess return – than can be achieved with passive investment in financial markets. Passive management normally entails investing capital in line with specific indices. This means that these investments are largely determined by the prices prevailing after active investors have made their investments.

Passive management requires fewer resources than active management for the analysis of investment options. Most markets in which NBIM operates are nearly efficient,¹ These are typically markets with many active investors and analysts, which reduce the potential

for excess returns. The expected return from performing additional analysis is therefore limited. Empirical studies may suggest that passive management, where the main aim is to invest relative to an index, is a sound alternative for most investors. This is due partly to the cost of active management, which is significant for investors of moderate size.

Recent research has, however, documented that market efficiency varies. Market frictions, the cost of gathering and analysing information, and restrictions relating to capital structure, are all important causes of inefficiency in financial markets. The degree of efficiency varies both between markets and over time. There are variations along multiple dimensions, and some markets will be less efficient than others for long periods.

Even a market that is normally efficient may, during periods of high volatility or reduced access to funding, present opportunities for an investor with risk-bearing capacity, solid funding and a long-term investment horizon. An active manager with a global universe will also be able to exploit persistent mispricings due to other investors categorising securities in different ways or

1. In an efficient market, all relevant information will be reflected in prices for securities. For a review of the research literature on market efficiency, see Norges Bank (2009): Norges Bank's assessment of the theoretical and empirical basis for active management and our strategy for the management of the Government Pension Fund Global, letter to the Ministry of Finance, 23 December 2009.

choosing to concentrate on specific markets. In addition, a long-term investor will be able to create value by exploiting the opportunities that arise when other investors are forced to adopt a short investment horizon due to special regulations or a short-term need to generate income for their owners.

This has led to a modified efficient market hypothesis. The modern version argues that financial markets are close to efficient most of the time, but that active investments help to eliminate mispricings and make markets more efficient. According to this hypothesis, active management can generate excess returns. An investor with high risk-bearing capacity who is present in numerous financial markets can exploit these departures from market efficiency.

Over the past 20 years, a number of characteristics, or risk factors, have been identified and documented which can help to explain the differences between the returns on securities. These factors include liquidity and volatility for fixed income instruments, and growth expectations and company size for equities. There is not a consensus on whether these risk factors, or anomalies, are an expression of mispricing in the market or an expression of systematic risk not captured by pricing models. Either way, a manager should take an active position on these factors and manage them actively and explicitly in order to improve the trade-off between expected return and risk.

Purely passive management is not possible

The opposite of active management is passive management, where the idea is to ensure that the fund is always virtually identical to the benchmark portfolio. A strategy of this kind assumes that there is some neutral reference to which we can relate passively or mechanically in the performance of our management assignment. This is

not the case. There are several reasons why the fund cannot be a passive investor in the theoretical sense.

First, it is not possible to achieve a cost-effective market portfolio through an entirely passive approach. A benchmark portfolio follows mechanical rules for how it is to be adjusted to index changes. This means, for example, that adjustments are made at predetermined times. For an investor of NBIM's size, mechanical adjustment of this kind will produce high transaction costs. As a result, the return on a passive strategy will be lower than the return on the benchmark portfolio.

In addition, a traditional benchmark portfolio will not fully reflect all known risk premiums. A risk premium is the compensation an investor receives for bearing various types of underlying or systematic risk, such as liquidity risk, the risk of extreme events, or equity market risk. Risk premiums can play out over long periods of time. How and when an investor is best rewarded for exposure to a given risk factor will also change over time. As investment opportunities vary over time, a long-term investor should have the flexibility to adapt to this through active decisions.

An active management strategy is predicated on investment opportunities in the market varying over time, and some securities being mispriced in relation to their fundamental value. For financial markets to function effectively there must be investors who choose to purchase mispriced securities based on a perception of their fundamental value. In so doing, these investors can help to gradually eliminate these mispricings. In a simple model like this, the choice between active and passive management will be a matter of whether we are to take informed investment decisions ourselves or compensate other managers for doing so. In other words, passive management has a hidden cost which will, to a greater or lesser

extent, correspond to the lower management costs from this strategy.

The fund's distinguishing characteristics

The relevant question is not whether the Government Pension Fund Global should be managed actively or passively, but how active NBIM is to be in its management. The answer is related to two of the fund's most important distinguishing characteristics, which set it apart from most other investors.

First, the fund is very large. A market value of more than NOK 2 600 billion at the end of 2009 makes it one of the largest funds in the world. For some, this might be an argument for passive management. Even if the fund's portfolio managers identify good investment opportunities, these will often be marginal in relation to the fund's overall size. On the other hand, there are economies of scale to be gained in fund management. Large investors have better access to information, have greater analytical capacity, and can operate with lower costs relative to assets under management. Economies of scale make it easier for a larger fund to achieve an excess return from active management. Large funds can also implement new investment strategies with a low marginal cost. NBIM can therefore establish special strategies in areas where smaller funds will find it uninteresting or impractical to deploy resources. Size also gives NBIM bargaining power when negotiating with service providers, making it possible to secure better terms.

The other distinguishing characteristic is the fund's investment horizon, which is in principle infinite. This means that we can ride out periods of extreme movements in capital markets. Unlike most other investors, the fund is not dependent on short-term funding, has no clearly defined obligations, and is not subject to special rules that can require costly adjustments at inopportune

times. This results in considerable risk-bearing capacity and makes it possible to establish and implement a long-term active investment strategy. We can make investments where it may take a long time before the underlying value is realised. We can be patient in the execution of investments and increase risk-taking when specific situations arise.

Active management is cost-effective

We currently have three main strategies for active management: management of the market portfolio, management of investments in individual companies, and management of systematic risk.

The management of the market portfolio ensures cost-effective exposure to asset classes and markets which is close to the owner's benchmark portfolio. The benchmark portfolios for the various asset classes follow mechanical rules and have a number of technical weaknesses. The benchmark portfolios do not always fully represent the asset class, especially in the case of fixed income investments. The definition of the benchmark portfolio can introduce bias, because it excludes bonds with short maturities, bonds downgraded below a certain level, and floating-rate bonds. Through active management, we can build a portfolio which represents the fixed income market in a broader and more cost-effective way, and buy securities at lower prices by participating in new issues and by avoiding the times for index changes.

We take an active approach to the management of the market portfolio. A passive investment strategy which aims to minimise active risk in the management of the fund would be cost-generating, because it would force us to implement significant adjustments at given points in time.

Active management brings insight and expertise

We also aim to improve the portfolio by analysing individual companies in which we are shareholders or creditors. This management of company-specific risk builds up expertise and insight into the fund's underlying assets and also forms the foundation for our active ownership. Our internal management is based on analysis of individual companies – known as fundamental strategies – with specialists in different industries. A high degree of specialisation, delegated decision-making authority and concentration of positions are intended to ensure that our managers are in a position to attain an informational advantage. In our external active management, there is increased emphasis on markets that we believe to be less efficient and where it is impractical or unrealistic to build up internal expertise. The fund's size also brings bargaining power and cost advantages relative to other investors.

Active management ensures risk management

We analyse the fund's overall risk characteristics and take account of systematic risk factors in a number of ways. A given benchmark portfolio will not at any time provide an optimal or risk-neutral expression of the owner's investment preferences or risk tolerance. Based on analysis of these systematic risk factors, we manage the fund's overall risk with a view to improving the trade-off between return and risk. The fund's benchmark portfolio evolves slowly, and we make investments in parts of the market which are not included in the benchmark portfolio when these opportunities are considered to be attractive. On the other hand, we can also withdraw the fund from investments which are included in the benchmark portfolio if the risk is too great. This can push up expected tracking error, as the difference between the benchmark portfolio and the fund's actual portfolio increases. Decisions of this kind can nevertheless improve the portfolio's long-term trade-off between return and

overall risk. Our long-term investment horizon means that we can be patient and increase exposure to systematic or aggregate risk as opportunities arise.

Active management ensures high levels of ambition, quality and oversight

Other than generating excess return through active management, NBIM's management assignment can be divided into four parts: we invest new capital in the markets at the lowest possible cost; the capital invested then needs to be managed in order to maintain the market portfolio in a cost-effective manner; we safeguard our long-term financial interests through active ownership; and we advise the Ministry of Finance on matters concerning the fund's long-term investment strategy. Active management and the expertise it brings to the organisation help to strengthen all of these other management tasks.

There is a particularly strong effect when it comes to the ownership role. We need to have a sound knowledge of the companies in which we invest when we engage in direct dialogue with their management in order to influence their operations and governance structure. The knowledge needed to establish and pursue effective dialogue is often generated through investment analysis. We believe that the potential to achieve the desired results from active ownership increases with the quality and competence of our active management. In given situations, active ownership can help to bring the governance of a company more into line with our intentions and so realise underlying value in the company from which the fund can profit through active management.

The overall goal for the management of the fund is to safeguard and build financial wealth for future generations through a skilled organisation. This requires a high level of ambition. When this goal is translated into ex-

pectations for managers, departments and individual employees, everyone will be required to help raise the quality of inputs into the fund management. Risk management and control functions are strengthened within such a framework. An active management mandate with high levels of ambition therefore helps to reduce operational risk in the management of the fund.

Higher returns, less risk

For a large, well-diversified fund such as the Government Pension Fund Global, the expected return will reflect the desired level of risk. Equities are expected to offer higher returns over time, but also carry more risk. The single most important decision in the design of the fund's current strategy has been the choice of a strategic allocation to equities of 60 percent. This decision is expected to dominate both the overall return and the risk in the fund over time.

NBIM aims to build a portfolio which gives the best possible trade-off between expected return and risk. Our active investment decisions increase the fund's overall risk to only a limited extent. Instead, they aim to increase the return for the level of risk chosen by the Ministry of Finance.

There are many theoretical and practical arguments in favour of NBIM exercising a degree of active management. These arguments are backed by experience and results over the past 12 years. NBIM's active decisions produced an average annual excess return of 0.25 percentage point from 1998 to 2009. With the current size of the fund, this is equivalent to NOK 6 billion. The additional costs from active management are limited. NBIM has added value to the fund since inception.

While active management has contributed to higher returns, risk has increased only slightly. On average, NBIM has used just 20 percent of the risk limit for active investment, as expressed by expected tracking error. It can be argued that this measure exaggerates the actual risk from active management. Active management forces managers to monitor investments more closely, which in itself probably leads to lower levels of risk in the fund.

Conclusion

For the average investor, the market portfolio is often the best option. The Government Pension Fund Global and NBIM as a manager differ from the average investor in a number of areas, primarily size and investment horizon. The active management strategy for the fund aims to turn these differences to the fund's advantage. This will be possible only if there is stability in the strategic framework.

We believe that a passive approach to operational decisions is an alternative without sound theoretical or practical justification. The operational management of the fund consists of a stream of many different decisions, each of which has substantial economic consequences. All decisions must be taken on an informed and analytical basis which seeks, within the given constraints, to achieve the highest possible return relative to the benchmark portfolio.

The cost of active management

Norges Bank's target for active management is an average annual net value added of 25 basis points. Net value added is the difference between the fund's actual results with active management and the results that could have been achieved with passive index management.

Norges Bank publishes regular data for gross excess return. This number is based on actual portfolio values and is a well-defined measure of return used widely in international funds' reporting. The reporting of gross excess return enables comparisons between funds and for a fund over time. Since its inception, the fund has produced an average annual gross excess return of 25 basis points.

While gross excess return is a number that emerges from the fund's accounting, the calculation of net value added is more of an approximation, as it compares actual results from active management with hypothetical results for a passively managed fund.

Passive index management is based on a benchmark, which is a theoretical index that follows set rules. Making actual investments identical to this index will result in a variety of costs. The most important of these costs are as follows:

1. *Transition and rebalancing costs* will be incurred with passive management. The fund has had substantial inflows of capital in recent years due to high petroleum revenues. Phasing in new capital is resource-intensive. Costs are also incurred when the strategic weights in the fund's benchmark portfolio are altered, for example due to new regional weights or a change in asset allocation. Liquidity costs, market impact and the costs associated with it sometimes not being possible to obtain some securities, mean that a passive strategy will generally produce a lower return than the benchmark index, which is not adjusted for these costs. The fund's transition and rebalancing costs have varied considerably, but have averaged around 10 basis points per year to date. Should inflows into the fund and changes in the benchmark index decrease in the years ahead, these costs may also fall.
2. *Ongoing indexing costs*. The composition of the benchmark portfolio is altered continuously by the market participants who own the market indices, in accordance with set rules. A passively managed fund will typically be adjusted mechanically to index changes, which entails costs for the fund. Norges Bank has previously estimated these costs at 4 basis points per year. This estimate is affected by the fund's investment universe and market conditions. For example, factors such as the inclusion of emerging markets and a lack of liquidity in fixed income markets will push up these costs.
3. *Management costs*. Management costs will be incurred whatever the strategy, and will be higher for active management. To date,

the fund's management costs have averaged 10 basis points per year, including performance-related fees to external managers. As a rough estimate, about half of these costs can be attributed to active management. In recent years, external management has consisted primarily of active mandates.

Unlike the theoretical index, a passive index fund will also be able to generate some income. The most important source of income is as follows:

4. *Income from securities lending*. This is currently included in the gross excess return generated through active management of the fund. Since 1998, the fund has had average annual income from securities lending of 5 basis points. It is debatable how much securities lending income is compatible with a passive investment mandate, but it will be less than with active management. This income is not risk-free. As with other strategies that aim to create value for the fund, this activity depends on the skill and systems of the manager. Securities lending requires a sound knowledge of counterparties and the market, good technological solutions and a solid legal framework.

A rough estimate of the cost of passive index management can be obtained by adding together the costs in 1-3 above and subtracting the income in 4. On this basis, a passively managed index portfolio will typically generate a negative net excess return, which can tentatively be estimated at 10-15 basis points, depending on the assumptions made for levels of securities lending income and future transaction costs.

As stated above, net value added is defined as the difference between the fund's actual results with active management and the results that could have been achieved with passive index management.

Since its inception, the fund has produced an average annual gross excess return of 25 basis points. With management costs of 10 basis points per year, this gives a net excess return after all costs of 15 basis points. However, this excess return from active management cannot be compared with a theoretical benchmark index, only with practically feasible passive index management. Passive management of this kind will typically be able to produce a negative excess return of at least 10 basis points. The net value added from active management compared with such an alternative will therefore be in the region of 25 basis points.

On this basis, the actual gross excess return of 25 basis points per year is of the same order as the estimated net value added from active management. Although these two numbers can vary over time, previous calculations performed by Norges Bank have also found little difference between them historically.