NORWAY'S *GOVERNMENT PENSION FUND GLOBAL*:

HOW SHOULD IT BE GOVERNED?

A Study prepared for the Norges Bank Governance Review Commission

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Goal and Structure of this Study

The goal of this study is to assist the Norges Bank Governance Review Commission in the execution of its mandate "to review the governance of Norges Bank including its responsibility for managing the Government Pension Fund Global (GPFG)". To that end, this Study addresses three questions:

1. Is there a conflict between Norges Bank's traditional role of fostering economic and financial stability in Norway, and its relatively newer role as GPFG's investment manager?
2. What are the pros and cons of managing GPFG's assets passively or actively?
3. What are the governance and organization design implications of these two approaches to asset management?

The study commences with a brief Study Summary and Conclusions page.

About the Author

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STUDY SUMMARY AND CONCLUSIONS

The Study's key points and conclusions can be summarized as follows:

- Norges Bank's dual goals of fostering Norwegian economic and financial stability and maximizing GPFG return are not incompatible as long as the GPFG goal is achieved through the passive implementation of its chosen investment policies.

- However, if a choice is made to reach out for the higher return potential of active management, simultaneously fostering economic and financial stability and pursuing active investment management strategies would become increasingly incompatible for reasons ranging from potential conflicts of interest, to cultural differences, to agency costs.

- Norway's historical mainly passive approach to managing the GPFG has been a defensible, successful strategy. However, both logic and empirical evidence suggest a carefully constructed and implemented active approach could plausibly increase GPFG's long-term return materially without taking additional long-term risk. This approach has come to be called the Canada Model.

- As an example of the Canada Model, Ontario Teachers' Pension Plan generated an additional net 1.60%/yr. return for an increase in mismatch risk of 0.60% over 1998-2014 period. Over the same time period, GPFG generated an additional net 0.16%/yr. return for an increase in mismatch risk of 0.74%. Thus OTPP had an incremental reward/risk ratio of 2.7 versus GPFG's 0.2.

- Based on this 16-year return difference experience, and assuming a GPFG value of 6,500B NOK ($780B), OTPP's additional excess return experience translates into a potential 95B NOK ($11B) of additional investment return per year for the GPFG. This amounts to almost 8% of Norway's 2015 Fiscal Budget.

- In addition to the extra wealth-creation potential, moving to the Canada Model would make Norway a more active participant in the global wealth-creation process. Also, the GPFG would increasingly become a magnet for global finance and investment talent with entrepreneurial mindsets. On the risk side, there is always implementation risk in moving from a largely passive investment model a more entrepreneurial one.

- A successful move to the Canada Model would be greatly aided by two factors: 1. A clear, widely-understood legal platform for a new arms-length investment management organization (e.g., Norway Investment Management Corporation or NIMC), and 2. A clear articulation of the role of NIMC's Board of Directors as well as its implications for the motivation and the requisite collective skill and experience set for Board members, and the protocol through which they are identified, appointed, compensated, and terminated.

SECTION I: ARE NORGES BANK'S DUAL GOALS OF FOSTERING ECONOMIC/FINANCIAL STABILITY AND MAXIMIZING INVESTMENT RETURNS COMPATIBLE?

Norges Bank's Dual Mandates

The traditional goals of a central bank focus on providing a country with economic and financial stability. Its tools include monetary policy, credit policy, the management of foreign currency reserves, and monitoring regulatory requirements in such areas as banking, insurance, and pensions. Importantly, the primary objective of the central bank in these dimensions is stability, not return maximization.

By virtue of a second mandate to also manage the Government Pension Fund Global (GPFG), Norges Bank is different from most other central banks in the sense that it also has a return maximization objective. This might not be material if the GPFG is a small asset pool. This is not the case, with its current size (some 6,500B NOK) about 15 times greater than Norway's foreign currency reserves (some 450B NOK). People-wise, out of Norges Bank's total 763 employees, 428 are involved with the management of the GPFG.[i]

Is this a Problem?

Are the dual mandates that have been assigned to Norges Bank a problem? In my view, it depends on how actively the GPFG is managed. If GPFG's assets are passively managed (i.e., are managed to match the performance and composition of a pre-defined indexing strategy such as the MSCI World Index), then there is no conflict between the stability and return maximization mandates. Why? Because no proprietary macro or micro financial/economic information and judgement is used to make investment decisions.

However, the more the investment style shifts from passive to active, the more important information and judgment become in making investment decisions.. On the information side, it becomes possible that some macro or micro aspects of the flow of global economic and financial information generated for Norges Bank to achieve its stability mandate, could be of value in achieving its return maximization mandate. This could lead to potential conflict of interest situations.[ii] On the judgement side, I will argue in the next section of this Study that successful active management requires a significant degree of business judgement and appetite for calculated risk-taking. This requirement can easily lead to culture and incentives clashes between the stability people and the return maximization people in Norges Bank.[iii]

The Organizational Implications of Active Management

It could be argued that these impediments to successful active management could be overcome by outsourcing active management mandates to third-party asset management firms. However, logic suggests and empirical evidence confirms that this would likely not be a successful solution, especially at the scale necessary to have a measurable impact on GPFG's investment returns. Logically, outsourcing introduces an additional level of agency costs, thus reducing the net returns of the outsourcer. This logic is supported by empirical evidence.[iv]

In my view, the combination of reasons related to potential information flow conflicts, business judgement/temperament conflicts, and rising agency costs argue in favor of moving the asset management mandate out of Norges Bank if Norway chooses to manage its GPFG in a more active style than is currently the case. Section II of this Study examines the merits of moving in this direction in greater detail.

SECTION II: THE PROS AND CONS OF ACTIVE MANAGEMENT

Yale or Canada?

The paper "The Norway Model," by David Chambers, Elroy Dimson, and Antii Ilmanen (October 2011) describes the current investment model of the GPFG in considerable detail, and uses the Yale University endowment model as a standard against which to evaluate its effectiveness. The authors conclude that the Norway model "has become an exemplar for investors around the world….and a coherent and compelling alternative to the Yale Model…".[v]

Here I offer a different and contrasting perspective. The Yale Model is of at best marginal value as a benchmark against which to assess the effectiveness of the Norway Model. A more relevant benchmark is the Canada Model in use by such globally admired organizations as the Canada Pension Plan Investment Board (CPPIB) and Ontario Teachers' Pension Plan (OTPP), as well as by other major Canadian pension funds and the investment arms of such Canadian provinces as Alberta, British Columbia, and Quebec.

Knowledgeable observers of the global institutional investment scene have become well aware of the Canada Model in recent years. It is also receiving increasing media attention.[vi] Is the Norway Model as coherent and compelling an alternative to the Canada Model as it is to the Yale Model? That is the question I address below.

Canada Model is the More Relevant Comparator

Why is the Canada Model a more relevant comparator? For two reasons:

1. **Scale:** collectively, the Canada Model is being applied to a similar size asset pool as the Norway Model ($1 trillion), in contrast, at $25 billion, the size of the Yale Endowment Fund is less than 3% of each of these two pools.

2. **Intellectual Foundation:** the Canada Model derives its intellectual foundation from an investment framework set out by John Maynard Keynes, and an organizational framework set out by Peter Drucker. These frameworks are set out in some detail below. Arguably, the Yale Model starts in the same intellectual place, but its small scale hampers its implementation options. Further, its dependency on Chief Investment Officer David Swensen hampers its replicability. In contrast, the Norway Model derives its intellectual foundation from the 'modern' asset pricing models initially set out in the 1960/70s by Markowitz, Sharpe, Lintner, Tobin, and more recently extended by Fama, French, and others. On the organization design side, it is driven by 'epistemic proceduralism' (i.e., the need by the organization to demonstrate transparent procedures in order to establish political legitimacy, despite the fact that the resulting oversight and decision-making structures may be sub-optimal).[vii]

The implications of the intellectual foundation differences between the Norway and Canada Models follow.

The Canada and Norway Investment Models

Chapter 12 of "The General Theory of Employment, Interest, and Money" (John Maynard Keynes, 1936) sets out the essential investment philosophy of the Canada Model. Keynes makes a key distinction between 'beauty contest' investing and real investing. In the 'beauty contest' model, investment professionals engage in a continuous zero-sum game (actually, a negative-sum game after transaction and management costs) of guessing which investments 'the market' will deem most beautiful a short time (e.g., six months) hence. In contrast, real investing is the physical process of turning savings into productive capital. This is the hard work of projecting uncertain cash-flows into near-term and distant futures, and judging whether or not they meet or surpass some pre-established hurdle rate of return.

If this is how a professional investment organization frames its reality, it has three 'style' choices: 1. It can join the 'beauty contest' game, 2. It can choose not to play and become a free-riding, low-cost passive investor, or 3. It can choose to acquire the requisite skills to become a 'turn savings into productive capital' investor. The Canada Model does see the world this way. It explicitly rejects Choice 1, embraces Choice 3, and uses Choice 2 only to the degree insufficient Choice 3 investment opportunities are judged to be available.

The 'modern' investment theory spawned in the 1960s/70s (and extended in later decades) is a special case in this general Keynesian investment framework. In this special case, all investors have the same information, use the same investment models, and hence have the same return expectations at any point in time. These expectations only change when new information enters the market place. Investments are priced based on their perceived 'beta' (or factor) risk contributions to the market portfolio. Special efforts should be taken to minimize portfolio exposure to non-market risks, as these exposures will not to be rewarded. Historically at least, the Norway Model has largely embraced this view of the investment world, although some wiggle room has been granted to the Fund to engage in a marginal amount of active management.

Organizational Implications

On the organizational structure side, the Canada Model is built on Peter Drucker's formula for building and sustaining high-performance pension investment organizations.[viii] There are five critical elements:

1. Mission Clarity and Organizational Autonomy
2. Good Governance
3. Sensible Investment Beliefs
4. Right-Scaled
5. Right-Peopled

Thus in the Canada Model, the mission of the organization is clearly spelled out, and the legal structure is built to strike a balance between organizational accountability and autonomy. An independent, high-trust nominating committee is struck to ensure the governing board has the requisite skill/experience set, as well as a strong sense of public duty. Care is taken to ensure the organization's investment beliefs are grounded in the messy real world, rather than in elegant 'modern' investment theory. Adequate scale is converted into strong in-sourcing strategies, especially in the expensive private markets spaces (e.g., real estate, infrastructure, private equity). Canada Model funds are increasingly populated by people with hands-on experience in turning savings into productive capital in these private markets spaces, and in the financing and governance of private and publicly-traded corporations.

The Norway Model does not follow this 5-point success formula. For example, while the GPFG has a clear mission, Norway continues to search for the right balance between political accountability, organizational autonomy, and good governance. It requires the Clark and Monk concept of 'epistemic proceduralism' to explain the current organization design/decision chain that runs from the Norwegian Parliament, to the Ministry of Finance, to Norges Bank, to NB Investment Management, and finally to a web of outside investment agents and advisors. To be clear, I accept that this procedural chain may well have been necessary at GPFG's inception for the Fund to be sustainable in a political sense. However, the chain should now be recognized as a potential material barrier to maximizing innovative wealth-creation.

The Fund's procedural governance construct also raises important questions about the investment beliefs, scale, and people elements of Peter Drucker's 5-point success formula for investment organizations. For example, to what degree are the Fund's investment beliefs shaped by its procedural constraints rather than seeing the world the way it really is? Is it using its large scale and projected positive cash-flow for years to come to maximum advantage? Is it hiring people with hands-on business experience in turning savings into productive capital? Each of these questions deserve a hard, close look at this time.

Which Model 'Wins'?

Deductive logic suggests that if one believes in the combined wisdom and insights of Keynes and Drucker, and believes these insights can be effectively implemented in the real world, then it follows that the Canada Model will produce higher net risk-adjusted returns over the long-term than the Norway Model. On the other hand, if one believes 'modern' investment theory captures the essential realities of institutional investing today, one should prefer the Norway Model. Is there any confirming evidence in support of one of the models vs. the other? Yes, there is.

Ontario Teachers' is a logical comparator to the GPFG. Before its rebirth as the first fund to adopt the Canada Model in 1990, it was a government agency that only invested in non-marketable Government of Ontario bonds. In the mid-1980s, the government commissioned a study on how Ontario Teachers' (and other provincial agencies) could become more effective, value-producing organizations. The study set out the Canada Model, and recommended its adoption by the Ontario Government and the Ontario Teachers' Federation.[ix] The recommendation was accepted by both partners, and OTPP was born. A high-quality board of directors was appointed. The board attracted a high-quality management team and gave it a broad mandate to produce measurable value for the Fund's stakeholders. The mandate and the model to implement it have now been in place for 25 years.

Table 1 displays the annualized investment returns of OTPP (8.76%) and the GPFG (5.81%) since the latter's inception in 1998. In calculating 'performance', the impacts of differing investment goals, risk tolerances, asset mixes, and currency regimes are removed. These policy differences are captured in the two Reference Portfolios, whose returns capture the passive implementation of the two respective investment policies. Note that the return of OTPP's Reference Portfolio (6.94%) exceeds that of GPFG's (5.56%) by 1.38%/yr., mainly reflecting OTPP's heavier policy weightings towards real assets such as real estate and infrastructure over the 1998-2014 period.

Next, the Excess Returns relative to these passively-implemented Reference Portfolios are calculated (1.82%/yr. vs. 0.25%/yr.). After that, the average management costs are deducted (0.22%/yr. vs. 0.09%/yr.), leading to the Net Excess Return calculations. These Net Excess Returns offer a fair basis to examine the ability of each of the two models to generate value for its stakeholders over and above what equivalent-risk passive market exposures provided over the 16-year measurement period (1.60%/yr. vs. 0.16%/yr.).[x]

What about the active risk side of the equation? Did OTPP undertake materially riskier active strategies to earn its additional 1.60%/yr.? A statistical way to address this question is to see how much additional return volatility its active investment program added to its balance sheet mismatch risk relative to the mismatch risk generated by the passive Reference Portfolio. Table 1 indicates an estimate of 0.60% of additional return volatility. This implies an active management Reward/Risk ratio of 2.7 for OTPP (i.e., 1.60%/0.60%). The GPFG does not have an explicit liability it is investing against. However, the Fund does measure how much 'tracking error' return volatility its active management program generates versus the return of the Reference Portfolio: 0.74% 'tracking error' volatility for the 1998-2014 period. This implies an active management Reward/Risk ratio of 0.2 for Norway (i.e., 0.16%/0.74%).[xi]

Table 1 Investment Results – OTPP vs. GPFG

Investment Results - OTPP vs. GPFG from 1998 to 2014			
		OTPP	**GPFG**
Return of Fund		8.76%	5.81%
Return of Reference Portfolio		6.94%	5.56%
EXCESS RETURN		**1.82%**	**0.25%**
Average Management Cost		0.22%	0.09%
NET EXCESS RETURN		**1.60%**	**0.16%**
Mismatch/Tracking Error Risk		0.60%	0.74%
Reward/Risk Ratio		**2.7**	**0.2**

Sources: OTPP and GPFG Annual Reports and KPA Advisory Services.

The results in Table 1 indicate that both funds have successfully achieved their objectives over the 1998-2014 period. However, due to the materially different investment and organization models employed, 'success' means different things to OTPP, to GPFG, and to their respective stakeholders. This led to the adoption of both different investment policy and implementation strategies. In the OTPP case these differing strategies led to generating a material amount of additional wealth over an extended period of time, while taking only a small amount of additional implementation volatility risk. In the GPFG case it meant both a lower Reference Portfolio return, and adding a small amount of additional wealth for taking on a small amount of additional volatility risk. Specifically, the respective Reward/Risk Ratios indicate Ontario Teachers' produced over 10-times more additional wealth per unit of additional volatility risk over the 1998-2014 period. On a GPFG value of 6,500B NOK ($780B), OTPP's Net Excess Return converts into an additional 94B NOK ($11B) per year. This is amounts to almost 8% of Norway's 2015 Fiscal Budget of $1.2T NOK ($144B).

The logic and empirical results set out in Section II lead to the question addressed in Section III: should Norway adopt the Canada Model?

SECTION III: SHOULD NORWAY ADOPT THE CANADA MODEL?

Recommendations from Prior Studies

Norway has had an ongoing process for examining the best way forward for the GPFG. It has employed a standing 4-person Strategy Council of experts (two of the authors of the cited "The Norway Model" paper are Council members). Special studies by outside experts are also commissioned to bolster the work of the Council. Real estate has already been approved as a new asset class, and an investment program has commenced. What other kinds of things are these bodies recommending? The cited paper offers a list, including the following five:

1. **Consider additional risk factors** (in addition to just asset class exposures) in building the Fund and monitoring and managing its risk exposures. However, questions about how these factors are priced continue to be debated. Possible exceptions are the quite persistent undervaluation of 'value' stocks and existence of illiquidity premiums.
2. **Become more active in top-down factor allocation** rather than being only active in bottom-up security selection.
3. **Simplify and concentrate the fixed-income portfolios** based on stronger macro-economic, emerging markets, and credit research and analysis.
4. **Exploit the Fund's advantages of size and horizon:** this suggests more contrarian investment approaches should be explored and acted on. Also, consider writing various forms of insurance (e.g., selling equity volatility and tail-risk insurance, buying positive carry).
5. **Keep up with the growing data, systems and IT needs** as the organization grows larger and more complex.

On the whole, these are sensible recommendations for Norway to consider. But it is important recognize they are largely extensions of an investment model based on the 'modern' investment theory that evolved out of the 1960s/70s and an organization model driven by 'epistemic proceduralism' rather than organizational effectiveness.

Should Norway Adopt the Canada Model?

Should Norway consider moving to the Canada Model? In my view, given its compelling logic and performance record, adopting the Canada Model warrants serious consideration at this time. 'Pro' arguments include the following four:

1. **The GPFG becomes an exemplar Keynsian investor**, turning non-renewable oil wealth into sustainable, wealth-producing capital. Adherence to the UN Principles of Responsibility ensures the conversion process takes place within explicit environmental, social, and good governance norms.
2. **Its multi-pronged investment implementation strategies** permit it to become a pro-active, innovative, value-adding 'first mover' investor, operating at the front of multiple wealth-creation chains, rather than at the rear. It is equally adept operating in public and private markets.
3. **The Fund becomes a magnet for global investment talent** that wants to build institutional capitalism into a measurable force of good rather than greed. While global labor markets dictate that some of these people will have to be highly-paid, actual experience suggests they would not expect the Fund to match what they might be able to earn in the commercial investment industry.

4. **At the same time, GPFG is adding to the wealth of current and future generations of Norwegians** at a significantly higher potential rate than the current Norway Model. Using the net excess return differential with OTPP calculated above generates a value-added potential of 94B NOK ($11B) per annum, or about 8% of Norway's Fiscal Budget.

Conversely, I can think of two 'con' arguments:

1. **'Going Canadian' implies moving NB Investment Management out of Norges Bank** and setting it up as an arms-length Crown Corporation with an entrepreneurial mindset (e.g., Norway Investment Management Corporation or NIMC for short). Many barriers stand in the way of making such a significant organizational change.[xii]
2. **NIMC might fail** for any one of a number of faulty implementation reasons. Saying is one thing, doing is quite another.

Adopting the Canada Model: Implications

I noted above that creating a new arms-length Norway Investment Management Corporation (NIMC) is easier said than done. Yet, it can be done, as demonstrated not only in Canada, but increasingly also in other countries such as Australia, New Zealand, and Singapore. Risk of failure would be minimized by taking the following two steps:

1. **Create a legal platform** for NIMC that articulates a clear mission for the organization, sets out its autonomy from the state in how the organization achieves that mission, but also includes a clear mechanism through which the Norwegian Government retains ultimate control. Such a mechanism would set out an independent review process (e.g., triennial) to assess NIMC's effectiveness in relation to achieving its mission, and a process through which the Norwegian Government could take over control of NIMC, if it deemed that to be in the best interest of the country and its current and future citizens.

2. **Articulate the role of NIMC's Board of Directors** as well as its implications for the motivation and the collective skill and experience set of Board members. Also, an explicit protocol should be set out for how Board members are identified, appointed, compensated, and terminated. Ideally, the first Board member to be identified and appointed is the Board Chair, as this appointment signals the Government's intent and expectations for the new NIMC. It also sets the tone for the successful recruitment of the rest of the Board. Interestingly, OTPP's inaugural Board Chair in 1990 was Gerald Bouey, the just-retired Governor of the Bank of Canada

I end this Study with a view expressed by Anglo-Irish playwright George Bernard Shaw over 100 years ago: *The reasonable man adapts himself to the world. The unreasonable one persists in trying to adapt the world to himself. Thus all progress depends on the unreasonable man…".*

I commend this thought to you as you contemplate the future governance structure of the GPFG.[xiii]

Endnotes

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[i] From the 2014 Government Pension Fund Global Annual Report.

[ii] For example, through its collaborative stability activities in concert with other central banks, Norges Bank could learn of decisions affecting interest rates and equity prices before they became public knowledge. Also, it could learn about specific problems in multi-national financial institutions before they became public knowledge.

[iii] This is not to imply that one group is 'better' than the other group; simply culturally different.

[iv] See for example, Ambachtsheer, "The Case for Long-Termism", Rotman International Journal of Pension Management, Fall 2014.

[v] Chambers, Dimson, Ilmanen (2011), "The Norway Model", SSRN.

[vi] For example, see "Maple Revolutionaries," The Economist, March 3, 2012.

[vii] I thank Gordon Clark and Ashby Monk for this insight. See their article "The Norwegian Government Pension Fund: Ethics Over Efficiency" in the Rotman International Journal for Pension Management, Spring 2010.

[viii] Peter Drucker (1909-2005) is generally recognized as the father of modern organizational management theory and practice. Out of his 39 books, one focused on pension design and management: "The Unseen Revolution" (1976).

[ix] The Report was produced by the Rowan Task Force, to which I was a principal advisor. The Report was titled "In Whose Interest?" and was released in 1987.

[x] A question not addressed in detail in the Report is why OTPP's Reference Portfolio return was materially higher that GPFG's (i.e., 6.94% vs. 5.56%) over the 1998-2014 period. I noted that likely, it relates to the differing investment policies of the two organizations. For example, while GPFG carried a 60-40 equities-bonds asset mix policy over the period, OTPP's gained broader diversification by also investing in real return and absolute return strategies. This likely contributed to OTPP's higher Reference Portfolio return experience over the measurement period. I should also note that the two organizations report their returns and management costs somewhat differently. In Norway's case, the "Return of Fund" is a gross return and the "Average Management Cost" includes both external fees and internal investment management expenses. In the case of Ontario Teachers', the "Return of Fund" is net of external fees, and the "Average Management Costs" only represent internal management expenses. However, this different treatment of returns and expenses has no impact on the two "Net Excess Return" calculations, which remain comparable.

[xi] There is a legitimate question about the usefulness of using total return volatility as a proxy for how risky an investment fund is, especially in long-horizon investment programs. For more on this problem and possible solutions to it, see my Ambachtsheer Letter titled "Investing for the Long-Term: How Should We Measure Performance?" (Sept. 2015).

[xii] As just one example, compensation structures would have to be carefully reconsidered. The CEO of NBIM earned base compensation of about US$750K in 2014 (there is no variable component). In contrast, the CEO of OTPP earned base compensation of about US$375K in 2014, and variable compensation of about US$2.5M.

[xiii] This study benefitted from the comments of a number of external reviewers. However, the views expressed here are solely my responsibility.