
Public Pension Fund Management:
Best Practice and International Experience

Andrew ROZANOV

This paper was prepared for the Twentieth Asian Economic Policy Review (AEPR) Conference “Social Security in Aging Asia,” October 18, 2014, Tokyo

October 2014

Asian Economic Policy Review
Japan Center for Economic Research
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Public Pension Fund Management:  
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Andrew Rozanov

Telephone: +44 75153 92910  
E-mail: andrew.rozanov@gmail.com
Introduction

This paper was inspired by the efforts of Japan’s Prime Minister Shinzo Abe and his administration to overhaul the Government Pension Investment Fund (GPIF) – the largest pension fund in the world. As policymakers and civil servants undertake the herculean task of redesigning and re-orienting the organisation entrusted with managing this massive pool of retirement savings, we believe it is timely to review and analyse the core principles and best practices of public pension fund management distilled from the experience of some of the largest and most advanced institutional investors.

The paper consists of two distinct parts. In the first section, which is primarily descriptive, we review the theory of optimal design and management of large institutional funds, based on seminal works by leading academics and investment practitioners from Australia, Canada, the Netherlands, and the United Kingdom. If one were to start with a blank canvas and build an ‘ideal’ pension fund from scratch, how would one go about it? In this section, we review the latest thinking (and what appears to be an emerging consensus) with respect to best practice in organisational design, governance, and investment philosophy of large institutional asset owners.

In the second section, which is more analytical, we look at some specific examples and individual case studies illustrating the practice of institutional fund management – namely, how the core principles and best practices discussed in the previous section are actually implemented in real life. No two institutional asset owners are exactly alike – they differ in terms of their historical, cultural and institutional legacies, as well as their current socio-economic, political and regulatory environments.

Experts often distinguish between different ‘models’ of institutional fund management: for example, the so-called Norway model, the Yale model, and the Canada model. We compare and contrast these different approaches, concluding with some recommendations on how they may be used in the Japanese context, to inform and guide Japan’s policymakers and civil servants in their quest to reform and redesign GPIF.

How to Build an ‘Ideal’ Pension Fund

Upon reviewing the academic literature and the existing body of practitioner knowledge about best practices in pension fund management, if one were asked, at the risk of gross oversimplification, to distil the key recommendations into one single imperative, it would be “to operate the pension plan as if it were a business.” While there are important and material differences between pension plans and publicly traded companies which must be taken into account, there are still many useful analogies and potentially helpful lessons that can be gleaned from the rich body of knowledge accumulated over the years in the areas of corporate governance, management strategy, and organisational economics.

It is not a coincidence that Keith Ambachtsheer, a prominent Canadian consultant and pension fund ‘guru’ who has been pounding the table for more than two decades calling for urgent reform of pension fund governance, found his inspiration and built his case on the seminal work of Peter Drucker, perhaps the most famous management consultant and the “creator and inventor of modern management.” Similarly, if we were to trace the origins of the governance and management model
developed in the early 1990s by the Ontario Teachers’ Pension Plan (OTPP), arguably one of the most successful and sophisticated pension funds in the world, we would find that “running the fund as a business” was the explicit maxim espoused by Claude Lamoureux and Bob Bertram, the fund’s CEO and CIO at the time, respectively.” And this is not just a Canadian phenomenon: in their research on UK pension fund governance, Clark and Urwin (2010) identified one specific response by British pension plans to a changing environment – namely, adopting the protocols and procedures taken from the UK model of corporate governance.

So what are the concepts that pension funds can adopt from the corporate world? Going back to first principles, Ambachtsheer (1997) suggests starting with the notion of ‘value’ – specifically, pension trustees need to think about what it means to create value in the pension fund context. If a generic publicly traded company might define value creation as “providing customers with quality services at a reasonable price,” then the pension world’s equivalent would be “providing pension plan stakeholders with the blend of pension and investment services they want at a reasonable cost.” This immediately leads to three logical follow-up questions:

- Who are the relevant stakeholders in a typical pension plan?
- What is the nature of the relationship among them?
- What is the optimal business model to service them in a cost-efficient and equitable way?

Careful deliberation on these matters is critical for at least two reasons. First, it will help lay the foundation for a sound organisational design and governance system that will support long-term value creation by the pension fund. Secondly, the nature and balance of stakeholder interests is one area where pension funds differ from corporations. In the corporate world, the focus is typically on maximising shareholder value, subject to addressing legitimate interests and concerns of other stakeholders (e.g., customers, employees, suppliers, regulators, local communities, etc.) With pension plans, the situation is more complex.

Pension funds are typically characterised by the competing interests and claims of at least three different groups of stakeholders: (1) current retirees drawing regular pensions; (2) active plan members making regular contributions; and (3) plan sponsors (i.e., shareholders of the sponsoring company in the case of a corporate defined benefit plan or taxpayers in the case of a public pension fund). An even broader interpretation of a pension fund ‘contract’ would also include future generations – i.e., future retirees and plan members who are yet to be born. One of the key aspects of ensuring long-term sustainability of any pension plan is an explicit agreement and clear communication in advance of how risks and windfalls will be shared among different stakeholder groups. For example, if there is a sudden shortfall due to an unexpected rise in inflation or due to a simultaneous decline in interest rates and risk assets, who should bear the costs? Should contributions be raised or should benefits be cut? Or should there be some equitable combination of the two? Conversely, if there is an unexpected windfall after several years of higher-than-expected returns on plan assets, should the current generation benefit through lower pension contributions? Or should at least some of this good fortune be shared with the future generations? And if the ultimate sponsor is on the line to step in and bail out the pension fund in case of insolvency, how should it be compensated for this contingent liability?
A pension fund will only be sustainable in the long run if it can address and manage these competing interests and claims in a balanced and equitable manner. And the only way it can hope to do so successfully is by attracting and retaining a core group of skilled and experienced individuals who would act as fiduciaries for the fund, and who would be prepared to commit time and effort to work collectively towards this goal. By articulating a clear mission for the pension fund and agreeing on how risks and costs will be shared among different stakeholders, this group of individuals can then proceed to (a) design an optimal organisational structure and governance system and (b) formulate a distinct investment philosophy. These two steps effectively represent a blueprint for designing and building an ‘ideal’ pension fund.

I. Organisational Design and Governance

A series of seminal papers by Clark and Urwin (2008a, 2008b and 2010) brought together several different strands of research and laid the foundation for the modern approach to organisational design and governance of large institutional investors. Their work, based on empirical research and inductive analytical logic, produced an internally consistent and comprehensive framework which can be used to evaluate how individual asset owners match up against an idealistic set of best practices. It consists of three distinct components:

- The concept of a ‘governance budget’
- Five specific governance challenges
- Twelve principles of best practice

A governance budget is defined as the capacity of an organisation to create value through effective decision-making and actions in the chain of institution-specific tasks and functions. It is a finite and measurable resource that consists of time (which is scarce), expertise (which is expensive), and collective commitment (which is difficult to mobilise). As such, a fund’s investment style and strategy must match its governance budget: all else being equal, institutions that can bring in trustees with higher levels of expertise, more time to spend on governance, and a stronger commitment to work collegiately to a common goal should be better positioned to run more sophisticated and more effective investment programmes.

Another way to think about a governance budget is to consider how it corresponds to a fund’s risk budget. Asset owners operate in global financial markets, where the management of risk and uncertainty is critical to creating long-term value. Risk is a scarce resource, which is why institutions must be smart about budgeting and allocating it to the most promising sources of expected returns. Institutional investors use the risk budget to determine their asset allocation and the governance budget to manage the investment process. Therefore, the two budgets need to be synchronised: the investment process must be supported by a commensurate institutional capacity.

Two factors in particular will influence the size and quality of an institution’s governance budget. First, the size of the fund matters: all else being equal, a much larger fund will typically have both the economies of scale and the reputational ‘pull’ necessary to attract and retain higher calibre trustees with the necessary expertise and commitment. Second, the quality of leadership will determine how well the decision-making resources are used in the governance process: while the expertise and time commitment of the chairperson is hugely important, what is equally crucial is his or her ability to bring
together, mobilise and manage the other trustees, ensuring that they work collegiately and effectively to a common goal.

A properly sized and well-conceived governance budget is indispensable for our ‘ideal’ pension fund to successfully address the five key governance challenges identified by Clark and Urwin (2008a) and summarised in Table 1.

**Table 1 – Five Governance Challenges for Asset Owners**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Description</th>
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<tbody>
<tr>
<td>Risk Management Focus</td>
<td>Funds need to be able to respond quickly to fast-changing markets, adapting effectively to regime shifts in pricing and risk. Managing in ‘extreme’ times requires a deeper and more intense level of involvement, as well as more flexibility from governance resources.</td>
</tr>
<tr>
<td>Time Horizon Focus</td>
<td>Funds need to be able to integrate short-term opportunism with long-term goals and investment horizon. The governance system must also be able to accommodate long-term views and positions that may be ‘wrong’ in the short term. In other words, the governance system must allow the fund to exploit immediate opportunities while penalising impulsiveness.</td>
</tr>
<tr>
<td>Innovative Capability</td>
<td>Funds need to be able to identify and exploit new market opportunities, capturing the ‘innovation premium’ from first mover advantage. The governance system should encourage openness to new ideas and reward internal efforts at experimentation.</td>
</tr>
<tr>
<td>Alignment with a Clear Mission</td>
<td>Funds need to be able to build alignment behind clearly stated, mission-critical goals, particularly when dealing with inherited structures, legacy constraints, complex dependencies, and multiple stakeholders.</td>
</tr>
<tr>
<td>Effective Management of External Agents</td>
<td>Funds need to have the requisite in-house skills and capability to effectively manage considerable principal-agent issues when evaluating, selecting and monitoring external managers and other service providers, making sure that they collectively support the organisation’s overall goals.</td>
</tr>
</tbody>
</table>

So now that we have established the concept of a well-designed and appropriately sized governance budget and considered some of the governance challenges facing our ‘ideal’ pension fund, what specific actions should we take? This brings us to the Twelve Principles of Best Practice, which Clark and Urwin (2008a) classify into three broad categories: institutional coherence, people, and process.
Institutional Coherence

1. **Mission clarity with full stakeholder commitment**

It is not enough to formulate an abstract golden rule along the lines of “maximising beneficiary welfare.” The objective of the pension fund must be clearly specified, contextualised and, if necessary, augmented with second-order mission statements, such as quantifying a target annual real rate of return, allowing for liabilities and subject to agreed risk parameters and constraints. There needs to be a full and explicit commitment by representatives of all stakeholders to the stated mission and objectives.

2. **A highly competent investment function with clear responsibilities and accountability**

This arrangement can include an explicit ‘map’ of institutional authority, distinguishing the responsibilities of the board of trustees, the executive team, and external service providers. It can even contain formal ‘charters’ providing each element in the governance chain with a clear mandate of their functions and responsibilities. One of the key considerations here is the need to clearly separate the roles of the board and the executive: the former must be responsible for the overall strategy and oversight, while the latter must be held accountable for strategy execution and day-to-day operations.

3. **Appropriate resourcing of each element in the investment process and governance chain**

Asset owners must develop and implement an appropriately sized and well-conceived governance budget. One of the common mistakes made by institutional investors is to treat resourcing as a cost. Instead, the board and management must view it as a long-term investment, which can reasonably be expected to result in better long-term risk-adjusted returns (we discuss the empirical evidence supporting the link between good governance and superior performance later in the paper).

**People**

4. **Strong and effective leadership at the board level (Chairman) and the executive (CEO)**

Leadership is extremely important in shaping effective governance and management of a pension fund. Ideally, both the chairperson of the board and the head of the executive should have relevant skills, expertise and experience; they should have demonstrable track records of successfully managing teams and organisations; and they must command respect amongst the pension fund stakeholders and industry peers. But the leadership styles required of these two individuals are different: while the chief executive is normally expected to execute strategy in a more ‘vertical’, top-down, command-and-control style, the board chairperson is required to exercise leadership in a more ‘horizontal’ style – i.e., bring together and mobilise fellow trustees, reconcile different decision-making styles, facilitate collective deliberation, and ultimately work towards a collegiate decision.

5. **Clear and meritocratic procedures for nominating, selecting and evaluating board members**

This principle is absolutely crucial to building a well-functioning pension fund. Often there is a tension between representation and competence: while it is understandable that different
stakeholders with potentially competing interests would want to see their interests represented on the board, it is equally self-evident that without relevant skills and competencies boards will not be effective in discharging their fiduciary duties. Even if trustees do not possess domain-specific expertise of financial professionals, they should at least have the following three desired qualities: demonstrable numeric skills, a capacity for logical thinking, and an ability to think about risk in probabilistic terms.

There are two possible ways for a board to resolve the above tension. First, as part of the formal nomination procedure, there can be a clearly stated minimum level of competence that a candidate must have to be eligible for consideration. Secondly, boards often utilise a system of sub-committees designed to facilitate discussion and resolution of time-sensitive issues that require domain-specific expertise. As part of this system, external specialists can be invited to join such sub-committees as ex-officio members. While the board has the obligation to review and decide on the outcome of such sub-committee deliberations, in order for this system to add value there needs to be an ex-ante presumption in favour of sub-committee recommendations.

Finally, it is important to strike the right balance between longevity of board membership and the ability to change and improve board composition. On the one hand, long-serving board members are valuable in that they represent ‘institutional memory’: they have addressed and resolved multiple issues in the past; they have intimate knowledge of the organisation, its issues and challenges; and they have developed relations of trust amongst themselves and with the executive team. On the other hand, they cannot be allowed to become complacent – there is a need to evaluate their contribution and performance on a regular basis, to keep them properly incentivised and motivated. One possible solution to this dilemma is to specify fixed term contracts (e.g., 3-year terms), which can be renewed without limit, but which are combined with a formal annual performance evaluation cycle. This process is best implemented through a dedicated governance and performance review sub-committee.

6. **Effective compensation practices**

The organisation must have a remuneration system which (a) aligns the decisions and actions of trustees and executives to the fund’s mission; (b) explicitly links rewards to performance; and (c) helps attract and retain the best possible talent. To be competitive, a pension fund must benchmark itself not only against its peers, but also against the broader financial industry. This is not to say that monetary remuneration must necessarily match dollar-for-dollar the pay packages in the private sector: professionals who choose to pursue a career in large and influential public funds often have additional motivation and incentives (e.g., prestige, lifestyle, relative job security, civic duty, etc.) However, their salaries and bonuses should not constitute just a small fraction of what they could earn in the private sector – and yet, this is precisely the state of play in the world of pensions today, even if one limits the discussion to the highest paid pension fund executives. vii
7. An investment philosophy rooted in strong beliefs and enjoying fund-wide support

The only way an institutional investor can achieve and sustain a competitive edge in financial markets is by developing its own unique and coherent set of investment beliefs, which together form a distinct investment philosophy. It would typically address several different but related areas – e.g. the nature of market pricing (i.e., whether markets are efficient or not), the comparative advantages of the asset owner itself, how the various investment beliefs can be integrated into coherent and sensible investment strategies, and what these strategies can produce in value-added and risk terms. We discuss these and related issues in more detail in the subsequent section.

8. A clear and shared understanding of the institution’s comparative advantages and limitations

It is widely acknowledged that there are very few, if any, investment organisations which are able to operate effectively across all investment domains (i.e., all geographies, asset classes, investment strategies and instruments). A pension fund’s board and executive team must have a good understanding of their capabilities and limitations, which will then result in more well-reasoned decisions (for example, with respect to the nature and degree of delegation of investment tasks to third parties).

9. A risk budget aligned to fund goals and incorporating an integrated view of ‘alpha’ and ‘beta’

Many institutions utilise an absolute return ethos, constrained by a risk budget which is rooted in the notion of ‘maximum acceptable loss’ over a given period (e.g. over a one-year horizon). Risk budget must be explicit about the desired relative contributions to overall fund performance of ‘alpha’ (i.e., excess returns from active management) and ‘beta’ (i.e., passive exposures to various systematic risk premia). An institution’s risk budget must be synchronised with its governance budget.

10. Utilising flexible decision-making systems that function in real time

Markets move on a timescale which is very different from the calendar-based decision-making cycles of a typical board. Therefore, time-sensitive decision-making must be devolved to expert sub-committees, as well as the executive team and/or external firms, subject to board oversight. It is important to emphasise that oversight does not mean micro-managing or constantly second-guessing the management team and external advisors.

11. Effective use of external managers via clear mandates, aligned goals and rigorous evaluation

Asset owners must consider, among other things, the following aspects of delegating investment management to outside firms: (a) diversity in the line-up of proposed external managers for risk mitigation; (b) transparency of investment process; (c) all-in costs; (d) alignment to the fund’s needs and objectives. The asset owner needs to have sufficient skills and resources to select, monitor and, if need be, de-select external managers in the programme.
12. Developing a learning culture focused on change and innovation

Past decisions must be regularly evaluated against actual outcomes to calibrate the decision-making process. Given the fast pace of financial markets and constant changes in investment technology, there is a premium on learning and innovation. Pension fund boards and executives must nurture an open culture that regularly probes and challenges existing practices, promotes and encourages experimentation, and allows for occasional mistakes to happen. As long as there is a system in place which quickly identifies and corrects such mistakes, and as long as the resulting knowledge is fully incorporated into the ‘institutional memory’ of the organisation, these mistakes must be viewed as a welcome by-product of innovation and experimentation.

II. A Distinct Investment Philosophy

In addition to the principles of good governance, the second pillar supporting the edifice of our ‘ideal’ pension fund is a distinct investment philosophy, based on a set of explicit, well-reasoned and coherent investment beliefs. A fund without an investment philosophy is like a rudderless ship: its course, destination and ultimate fate are entirely dependent on the elements of nature and dumb luck. Without solid investment beliefs trustees cannot properly grasp – let alone effectively deal with – the complexities of financial markets. Koedijk and Slager (2011) compare an asset owner’s system of investment beliefs to the organisation’s DNA, which determines the shape and form of its investment management process. And just like with DNA, there are multiple variations out there.

Investment management is not an exact science; there are no universal laws or incontrovertible truths – hence the use of terms like ‘philosophy’ and ‘beliefs’. Modern finance is a social science and, being roughly 60 years old, it is still a relatively young discipline. It deals with data which is extremely ‘noisy’, shaped by the decisions and actions of a heterogeneous group of thinking agents, who are not always rational and who exhibit all kinds of behavioural biases. This is not to say that the various econometric, statistical and mathematical models built by financial economists do not have their uses – they can certainly help develop and refine one’s understanding of how financial markets operate. But it is very important to be fully cognizant of the limitations of such models when it comes to investment management. There is no single objective truth in the financial markets, but there is an accumulation of learning through experience, which over time produces a distinct set of investment beliefs.

Below we present one possible analytical framework for building a coherent investment philosophy, broadly following the methodology and classifications developed in Koedijk and Slager (2011). We bring together the individual components into a 4x4 matrix, mapping various investment beliefs in two dimensions. The first dimension focuses on the four steps that must be followed to validate an investment belief: it needs to be (a) empirically observed; (b) theoretically sound; (c) realistically exploitable; and (d) practically implementable. A market phenomenon observed in practice but neither rooted in theory nor supported by logic is potentially dangerous: making an investment decision on this basis is akin to playing a lottery. Similarly, if it cannot be profitably exploited by means of an investment strategy, or if the costs of implementation are prohibitively high, the existence of such a phenomenon is of no practical use to the investor.
The second dimension corresponds to the four distinct clusters of investment beliefs which Koedijk and Slager (2011) differentiate according to type: (a) Financial Markets; (b) Investment Process; (c) Organisation; and (d) Governance / Sustainability. Table 2 below illustrates what we call the ‘Investment Philosophy Framework’: it is the 4x4 matrix which we populate with a few sample investment beliefs that are particularly relevant for large institutional investors like pension funds.

Table 2 – Investment Philosophy Framework

<table>
<thead>
<tr>
<th>Belief</th>
<th>Theory</th>
<th>Strategy</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Markets</strong></td>
<td>Risk diversification</td>
<td>MPT / CAPM / APT</td>
<td>Rebalancing, leverage</td>
</tr>
<tr>
<td>Risk premia</td>
<td>Systematic risk factors</td>
<td>‘Time diversification’</td>
<td>Active vs. passive</td>
</tr>
<tr>
<td>Investment horizon</td>
<td>‘Non-profit-maximisers’</td>
<td>60/40, risk parity</td>
<td>Stocks, PE, real estate</td>
</tr>
<tr>
<td>Market inefficiencies</td>
<td>‘Market inefficiencies’</td>
<td>Equity, illiquidity, etc.</td>
<td>Trading rules, stops</td>
</tr>
<tr>
<td><strong>Investment Process</strong></td>
<td>High impact decisions</td>
<td>Role of ALM and SAA</td>
<td>Board focus on SAA</td>
</tr>
<tr>
<td>Risk management</td>
<td>Asset vs. liability risks</td>
<td>Investing vs. hedging</td>
<td>Earning premia vs. LDI</td>
</tr>
<tr>
<td>Investment style</td>
<td>‘Value’ as a risk factor</td>
<td>Active contrarian</td>
<td>Valuation signals</td>
</tr>
<tr>
<td>Costs</td>
<td>High cost = low return</td>
<td>Passive / internal</td>
<td>Indexing, ‘home team’</td>
</tr>
<tr>
<td><strong>Organisation</strong></td>
<td>Internal team</td>
<td>Economies of scale</td>
<td>Benchmark incentives</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>Internal ‘skill gaps’</td>
<td>Find skilled managers</td>
<td>Knowledge transfer</td>
</tr>
<tr>
<td>Innovation</td>
<td>First mover advantage</td>
<td>Find ‘niche’ markets</td>
<td>Incubator portfolio</td>
</tr>
<tr>
<td><strong>Governance/ Sustainability</strong></td>
<td>Corporate governance</td>
<td>Impact on returns</td>
<td>‘Focus List’, alliances</td>
</tr>
<tr>
<td>Environmental &amp; social issues</td>
<td>‘Universal owner’</td>
<td>Engagement, dialogue</td>
<td>External mandates</td>
</tr>
</tbody>
</table>

An informed decision on asset allocation and investment strategy must start with a view on the structural relationships between risk, return, and asset pricing. For long-term investors, this means (a) evaluating the various systematic risk premia available to them in different markets and asset classes; (b) considering how they can combine such risk premia in their portfolios for better diversification; (c) determining how their investment horizon impacts their ability to sustain exposures to these risk premia over time; and (d) formulating a view on market efficiency and the ability in principle to add value through active management.

The notions of systematic risk premia and portfolio diversification are rooted in long-standing academic research, and as such enjoy solid theoretical foundations (e.g. Modern Portfolio Theory, Capital Asset Pricing Model, Arbitrage Pricing Theory, etc.) Somewhat more controversially, the belief with respect to the investment horizon historically tended to rely on the so-called ‘time diversification’ argument, which has been contested in academic literature on several occasions. While it is true that with longer horizons both the average variability of returns and the probability of loss decrease over time, the potential absolute losses in the left tail actually increase with time. However, in recent years asset owners have begun revisiting the case for long-term investing, exploring the impact of a long investment horizon from several different angles (e.g. the relative importance of returns
generated from long-term cash flows as opposed to short-term price changes; the enhanced ability to earn the illiquidity premium; the contribution of governance and sustainability factors to long-term financial returns).ix

The specific strategies and implementation options available to asset owners who want to embed in their portfolios the above beliefs and theories are varied and multiple. For example, an asset allocation designed with portfolio diversification and long-term risk premia in mind can take different forms: (a) a liquid 60/40 portfolio consisting of 60% equities and 40% bonds; (b) a more broadly diversified ‘policy portfolio’ which also includes fixed allocations to less liquid alternatives such as property, private equity and infrastructure assets; (c) a ‘risk parity’ portfolio, which allocates to different asset classes not on the basis of capital, but on the basis of equal risk contribution. If asset owners believe that markets are efficient, they may choose to manage their asset allocation passively, only trading to rebalance back to target weights whenever deviations occur. Alternatively, if they believe that there are market inefficiencies which can be profitably exploited, they may opt for a more active and dynamic approach.x

The second cluster of beliefs focuses on the investment management process. Given the constraints of a governance budget, the board of any pension fund must focus on those decisions which will have the highest impact. Typically, this means decisions with respect to asset-liability management (ALM) and strategic asset allocation (SAA). Ultimately, pension assets must be managed in a way that maximises the probability of meeting the fund’s liabilities. Based on a realistic ALM study and broader risk management considerations, the board must evaluate its current and projected funding status and determine the best approach to meeting its long-term liabilities. For example, does it make sense to immunise the portfolio by matching assets and liabilities with a strategy called “liability-driven investment” (LDI)? Or does it make more sense to overweight equity and other risk assets in expectation of harvesting higher long-run risk premia? It has been long established in the academic literature that the highest impact with respect to long-term returns of any investment portfolio comes from the SAA decision.xi

So what is the best approach to asset allocation? If a long-term investor chooses to be active and dynamic, often this implies a strong value bias in the portfolio: to consistently buy low and sell high, the investor must follow a disciplined and contrarian investment process based on well tested valuation signals. On the other hand, an investor may believe that markets are simply too efficient to allow consistent outperformance over the long term; but if there is one aspect of investing which is fully predictable and over which the investor has total control, it is costs. All else being equal, lower costs result in higher net returns. Therefore, for this particular investor, passive management is the most likely solution.

The next set of beliefs focuses on the organisation. What is the optimal role for the internal investment team? Should it be a small group of highly skilled and experienced professionals focusing on the core, high-impact decisions while outsourcing much of the rest to external managers? Or should it be the opposite: a large internal team covering as many asset classes and investment strategies as possible, while outsourcing only those tasks which they cannot do credibly and cost-efficiently on their own? While philosophically one could argue in favour of either approach, on the basis of cost considerations alone, it is clear that the size of the fund will be the decisive factor: for
very large asset owners, given the cost differential between internal and external management, the sheer economies of scale make the case for in-sourcing compelling.\textsuperscript{xii}

The last set of beliefs frames the pension fund’s approach to environmental, social and governance (ESG) issues. On corporate governance, there is a strong theoretical case and a vast body of empirical evidence supporting the link between good governance and superior long-term financial returns. Historically, the most successful strategy has been to engage corporate management in an ongoing dialogue based on so-called ‘focus lists’\textsuperscript{xxiii} and in alliance with other like-minded shareholders. Increasingly, large institutional investors are incorporating ESG factors into their internal financial analysis and decision-making, while also lobbying their external managers and advisors to do the same.

Koedijk and Slager (2011) also discuss some important general points:

1. Investment beliefs underpin the decisions and actions of all investors – including those who claim not to have an explicit set of beliefs. Based on how an investor organises the investment process and constructs and manages the portfolio it is possible to back-out or reverse-engineer most of their implicit investment beliefs. By explicitly articulating such beliefs, trustees can initiate an illuminating discussion that can help strengthen internal governance and investment frameworks.

2. There is no prescribed number of investment beliefs; the number will vary with the scale, reach and sophistication of the institution in question. There is also a direct correlation between more sophisticated governance systems and more elaborate investment philosophies. Just as risk budgets must be matched with governance budgets, the same applies to investment philosophies.

3. Some investment beliefs may appear to be mutually contradictory. For example, it may seem confusing that the same institution may simultaneously believe in trend following and mean reversion, which imply diametrically opposite investment strategies. However, typically these beliefs will be reconciled through applications in different markets (e.g. trend following in FX and mean reversion in equity value strategies) or over different time horizons (e.g. trend following for short-term trading and mean reversion for long-term investing strategies).

4. An investment philosophy should not be a reflection of consensus; an institution’s investment beliefs must be its own and should stand out against other beliefs. Only by debating such beliefs internally can an investment organisation develop the necessary level of conviction to follow through on these beliefs and to stick to them in challenging times. That being said, investment beliefs are not static and evolve over time, reflecting changing market conditions and the investor’s learning process.

5. Trustees must formulate their investment beliefs in plain language: it is crucial to select the most suitable level of sophistication, not the highest possible one. Investment beliefs should
be communicated clearly and regularly to fund stakeholders and the broader public, so that they are absolutely clear about what to expect from the pension fund.

III. **The Link to Superior Investment Performance**

It is entirely logical to hypothesise that there should be a direct link between good governance and good investment performance. Ambachtsheer (2007) proposes the following simple thought experiment: “Imagine two boards of pension fund governors... Board 1 has been carefully selected based on a template that sets out optimal board composition in terms of the relevant collective skill/experience set, positive behavioural characteristics, and an unconflicted passion for the well-being of the organisation and its participants. Board 2 was randomly selected out of the telephone book. Which of these two boards do you think will provide more effective oversight?”

To support this hypothesis with some hard numbers, Ambachtsheer (2007) then proceeds to explain the results of a survey which was carried out on two separate occasions – in 1997 and 2005. In both cases, the survey asked pension fund CEOs (or their equivalents) in Australia, New Zealand, Canada, Europe and the United States to rank 45 statements related to governance (16 statements), management (12 statements), and operational practices (17 statements) inside their own organisations on a scale of 1 to 6. A ranking of “6” indicated total agreement with the statement and implied “good” practice, while a ranking of “1” indicated total disagreement and implied “bad” practice. In 2005, 88 pension CEOs – collectively representing US$ 1.4 trillion in assets – each completed a form with 45 rankings. For purposes of subsequent quantitative analysis, the 45 scores submitted by each individual pension executive were averaged, thus producing one unique averaged score for each respondent. Effectively, each averaged score became a proxy ranking for the (self-assessed) quality of governance at each participating institution.

The study in question then collected data on the investment performance of the pension funds participating in the survey, using a metric called ‘net value added’ (NVA), which represents each fund’s excess return over its policy benchmark, net of all investment expenses. The study then used the pension CEO averaged scores and the NVAs for their respective funds to run a regression analysis, concluding that there was indeed a statistically significant positive relationship between pension fund governance and investment performance. Specifically, the study found that the governance gap between the top and the bottom CEO scores was “worth” as much as 1% to 2% of additional return per annum. After reviewing the results, Ambachtsheer (2007) suggests that these statistical findings most likely underestimate the actual value-added potential of the truly high-performing pension funds with state-of-the-art governance and cutting-edge investment management. From his experience, Ambachtsheer estimates the true premium associated with best-practice governance to be closer to 3% per annum.

**Comparing Different Institutional Models**

In the previous section, we laid out the core principles and best practices that are common to all top performing long-term institutional investors. Now we focus on some of the more significant and consequential differences between them. We do so by comparing and contrasting three distinct
models of institutional fund management: the *Norway Model*, the *Yale Model*, and the *Canada Model*. In the process, we refer to the actual experience of five exemplary investment organisations which figure prominently in any discussion of best practice and institutional excellence:

- Norway’s Government Pension Fund Global
- Yale University Endowment Fund
- Australia Future Fund
- Canada Pension Plan Investment Board
- Ontario Teachers’ Pension Plan

First, we briefly highlight the main differences between the influential Norway model and the widely followed Yale model. We then point out some similarities between investment philosophies of Yale’s Endowment Fund and the Australia Future Fund, linking this discussion to the fundamental philosophical difference between how Australia and Norway chose to structure their respective governance systems. Finally, we explore some of the unique features of the Canada model, elements of which are increasingly adopted by some of the most sophisticated asset owners around the world.

**Norway vs. Yale**

The debate about the relative strengths and weaknesses – and broader applicability – of these two approaches was ignited in late 2011 with the publication by D. Chambers, E. Dimson and A. Ilmanen of their seminal paper “The Norway Model.” The discussion was subsequently picked up not only by pension fund specialists, but also the broader financial media, as well as specialists in non-institutional fund management.

At first glance, these two funds have a lot in common. Both have excellent governance systems in place – their respective missions and objectives are clear, they have well-defined delineation of responsibilities and highly competent investment teams. Both have strong leadership, distinct and elaborate investment philosophies, and corporate cultures that put a premium on cutting-edge research. Both funds are effectively run as endowments: there is an annual spending rule but no defined future liabilities. Both strive to benefit from an intergenerational investment horizon through a strong equity bias, broad diversification, and disciplined rebalancing with a contrarian bent.

And yet, in some very important respects, these two funds could not be more different. As Chambers, Dimson and Ilmanen (2011) put it: “The Norway model is virtually the opposite of the [Yale] model.” Another commentator suggested that “it’s only a modest exaggeration to say that [Norway’s fund] is the ‘anti-Yale’ in its investment approach.” For these and other commentators, the main differences between the two models are rooted in their opposing beliefs regarding financial markets, investment process, and organisation. Table 3 below summarises the key points of difference.
### Table 3 – Norway vs. Yale: Different Beliefs

<table>
<thead>
<tr>
<th>Norway Model&lt;sup&gt;xxi&lt;/sup&gt;</th>
<th>Yale Model&lt;sup&gt;xxii&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary focus on public markets / liquid securities</td>
<td>Primary focus on private markets / illiquid securities</td>
</tr>
<tr>
<td>Policy portfolio linked to market capitalisation and based on a strong belief in market efficiency</td>
<td>Policy portfolio not linked to market capitalisation and based on a strong belief in market inefficiencies</td>
</tr>
<tr>
<td>Returns derived overwhelmingly from equity ‘beta’, with extremely limited ‘alpha’</td>
<td>Returns derived from a combination of equity and illiquidity ‘betas’ and significant ‘alpha’</td>
</tr>
<tr>
<td>Large internal team managing most of the portfolio, with a very small allocation to external managers</td>
<td>Small internal team managing a small allocation, with most of the portfolio managed externally</td>
</tr>
<tr>
<td>High ‘see-through’ transparency into the underlying portfolio and costs</td>
<td>Low ‘see-through’ transparency into the underlying portfolio and costs</td>
</tr>
</tbody>
</table>

The purpose of this comparison is not to determine which approach is better: clearly, each model fits the needs and requirements of its respective sponsor and stakeholders. But for countries looking to strengthen and improve their domestic institutions – GPIF in Japan being a case in point – these models represent two very different, yet theoretically legitimate options, both scoring very highly with respect to governance and investment philosophy.

**Norway vs. Australia**

We now extend our comparison between Norway and Yale by introducing the case of the Australia Future Fund (AFF).<sup>xxiii</sup> While it is not an exact replica of the Yale model, it does represent, in our view, the closest approximation in the world of pensions and sovereign wealth funds.<sup>xxiv</sup> Consider the following features of the Australian fund:

- Absolute return target, subject to acceptable downside risk
- Flexible and dynamic asset allocation
- Overweighting illiquid assets at the expense of fixed income and cash
- A small internal team focused on asset allocation and external manager selection
- Management of assets exclusively through external managers
We invoke the AFF case for two reasons. First, one of the main arguments typically used against the Yale model is the relatively small size of the endowment: while it may be possible for a US$ 20 billion fund to invest in various illiquid assets and niche markets, it may be difficult, if not impossible, to scale up this model to manage much larger funds. The case of the AFF, which at the time of writing managed assets almost five times the size of Yale, suggests that the model may be more flexible and scalable than the critics would have one believe. It is also encouraging for advocates of the Yale model to see it applied to a non-endowment entity, in the context of a pension fund with specific future liabilities.

The second reason is more conceptual. While comparisons between Norway and Yale typically revolve around differences in investment philosophies and portfolio management, the AFF case also allows us to tease out one crucial difference with respect to governance. Recognising the importance of intergenerational equity, some countries have introduced specific legal protections to shield their pension reserve and sovereign wealth funds from political interference and bureaucratic encroachment.xxv The Australian government which established the AFF in 2006 went further than most: the enabling legislation introduced the concept of a “Board of Guardians” (as opposed to the “Board of Trustees” normally found in the trust law), which envisaged a much higher degree of fiduciary responsibility vis-à-vis the future generations of Australians. Combined with well-designed board appointment procedures, eligibility criteria, and terms of service that extended beyond the short-term political cycle, the AFF was effectively taken out of the domestic political process and made as autonomous and independent as possible within the context of a transparent and accountable parliamentary democracy.xxvi

In contrast, the Norway model represents a diametrically opposite case. Instead of insulating the fund from domestic politics, the Norwegians made a deliberate choice to put it front and centre of the political process. The fund is managed by a dedicated department at the central bank, which is, in the first instance, responsible to the bank’s governor and board, and ultimately to the Minister of Finance. In the ministry, there is a team of civil servants with specialist knowledge and skills, but they also report to the Minister, who is a political appointee representing the ruling party (or coalition) in the Norwegian parliament. In effect, this governance system means that to maintain its legitimacy, the fund must continuously secure cross-partisan political support, which in turn has implications for how the fund operates. Extreme level of transparency and a clear commitment to ethical policies are some of the more obvious consequences. What may be less fully appreciated is that this governance system may have also inadvertently constrained the ability of the fund to invest in ways that would have resulted in more efficient financial outcomes. But as long as this ‘price’ is paid by the Norwegian society knowingly and willingly, there is nothing inherently wrong or problematic with this model.xxvii

**The Canada Model**

When Chambers, Dimson and Ilmanen (2011) proposed Norway as “an exemplar for investors around the world and a coherent and compelling alternative to the Yale model,” Ambachtsheer (2012) begged to differ. In one of his newsletters, he insisted that the Yale model was at best of “marginal value as a benchmark against which to assess the effectiveness of the Norway model.” He objected primarily on the grounds of limited scalability due to size, and limited replicability due to Yale’s alleged reliance on the unique individual skills and access to top managers of its ‘star’ chief
investment officer David Swensen. Instead, Ambachtsheer pointed to the Canada model as a much more relevant comparator to Norway, proceeding to extol what he clearly thought were its superior features. He supported his claim by looking at the risk-adjusted, net-of-cost excess returns generated by the Norwegian fund from 1998 to 2010, and comparing them to the risk-adjusted, net-of-cost excess returns during the same period for the Ontario Teachers’ Pension Plan (OTPP), which was the first fund to adopt the Canada model in 1990. On the basis of this ‘like-to-like’ comparison, OTPP clearly came out on top: it produced three times higher net excess return per unit of risk.xxviii

So what exactly is the Canada model and which funds are most representative? While OTPP is widely acknowledged as the pioneer, today the Canada model has come to represent the aggregate experiences and practices of the Top 10 Canadian public pension plans, which at the time of writing collectively managed more than C$ 1 trillion (c. US$ 900 billion) of assets.xxix According to a study conducted in 2013 by the Boston Consulting Group, these funds accounted for approximately 35% of all Canadian retirement assets and 80% of the country’s public pension plan assets.xxx Alongside OTPP, which at C$ 141 billion is the third-largest pension fund in Canada, the other entity which tends to be mentioned at least as often is the Canada Pension Plan Investment Board (CPPIB), which at C$ 226 billion is the largest fund in the country.

Below we summarise five key features of the Canada model, noting the similarities and differences with the Norwegian and the Australian models. The last three points represent, in our view, characteristics which are truly unique to the Canada model and which are increasingly recognised by other investors around the world as the emerging ‘gold standard’ of long-term institutional fund management.

(1) Operational autonomy and board independence

In contrast to Norway but similar to Australia, the Canada model is based on a governance structure which seeks to insulate the fund from the domestic political process by setting up an independent and professional board of trustees. This arrangement helps pension executives focus exclusively on maximising long-term financial returns, subject to pre-agreed risk parameters and constraints. This principle is especially important in the context of one of the features of the Canada model which we discuss below – direct investment by internal teams in private markets around the world.

(2) High degree of delegation and investment management flexibility

In contrast to Norway but similar to Australia, the Canada model envisages a very high degree of delegation and investment management flexibility. Once the fund’s objectives, risk parameters and overall constraints have been clearly articulated and agreed between the pension plan sponsor, the board and the executive team, the latter gets tremendous latitude with respect to risk allocation and portfolio management decisions. Conversely, in Norway the government provides the management team with a formal Investment Mandate or ‘rulebook’ governing the investment function. It contains detailed requirements, definitions, constraints, and limitations with respect to various aspects of the day-to-day management of the fund.xxxi
Direct investment by internal teams in less liquid, private market assets

In contrast to Norway but similar to Australia, the Canada model allocates a very large share of the portfolio to the less liquid alternative assets traded in private markets (e.g., real estate, venture capital, leveraged buyouts, infrastructure, oil and gas, timberland, etc.). However, in contrast to Australia but similar to Norway, it has a very strong preference for managing its investments internally. In fact, the Canada model has become virtually synonymous with the concept of ‘in-sourcing’. This combination of two investment beliefs – the ability to add value in less liquid alternative assets due to inefficiencies in private markets and the enormous cost savings that accrue to internal teams in very large institutions due to economies of scale – has produced a particular feature which is unique to the Canada model.

As the Top 10 funds have built up their internal capabilities to directly invest in private assets around the world, they have increasingly found themselves in the media spotlight. Articles in the Financial Times, the Economist and Reuters, among others, described how the Canadian funds expanded their reach into electricity transmission and distribution assets in the US, water utilities in Chile, airports and high-speed railways in the UK, and timberland in Australia. Some funds have consummated high-profile deals in private equity and private real estate, while others have openly collaborated with activist hedge funds to bring about change at some of the largest public companies in the US. Against this backdrop, the principle of operational autonomy and independence from politics becomes doubly important: it helps de-politicise Canadian investments in foreign jurisdictions, especially those where foreign government investors are sometimes viewed with suspicion.

The Opportunity Cost Model and Reference Portfolio

When one combines high degrees of operational autonomy and investment latitude with the propensity to invest in less liquid private markets, the question of an appropriate framework for performance measurement and evaluation invariably arises. In these circumstances, the traditional approach based on an asset allocation with fixed weights and separate benchmarks for each individual asset class often proves sub-optimal. First, it is very difficult, if not impossible, to find a representative and meaningful (let alone investable!) benchmark for some of the more exotic and heterogeneous asset classes in private markets. Secondly, what happens if a manager considers a particular asset class to be grossly overvalued and therefore wants to avoid it completely – yet is forced to maintain some allocation to it just because the policy portfolio and the underlying benchmarks are rigidly defined? In 2006, CPPIB came up with a novel and elegant solution to this problem: the Opportunity Cost Model (OCM) and Reference Portfolio (RP).

A pension fund must decide on the long-run systematic risk exposure which (a) suits its long-term return requirements and risk tolerance; (b) is readily available at a very low cost in the market; and (c) is highly scalable with respect to asset size and future inflows. Typically, this would be a market capitalisation weighted, passively managed portfolio of publicly traded securities (e.g., 60% stocks and 40% bonds, diversified across countries and sectors). In the OCM framework, this portfolio is designated as RP. Effectively, it now becomes the yardstick which is used to evaluate any active management opportunity, in any market and asset class, whether public or private. For
example, if a manager decides to allocate 5% of the fund to a real estate development project, then he needs to evaluate this investment opportunity not only in terms of its expected future return, but also against the opportunity cost of the allocated 5% of the portfolio effectively foregoing the long-term return from the original 60/40 systematic risk exposure.

Without going into technical details, suffice it to say that the investment framework proposed by CPPIB has proved so elegant and compelling that many of its most advanced peers in the institutional space – funds like Singapore’s GIC and New Zealand Superannuation Fund (NZSF) – have recently adopted it for their portfolios. And if imitation is indeed the sincerest form of flattery, then the biggest vote of confidence in the OCM and, by extension, the Canada model has just come from Norway: at the time of writing, the CEO of the Norwegian fund announced plans to gradually shift from the current strategic benchmark to a reference portfolio.

(5) Leadership in innovation

Canada’s pension plans have a particularly strong track record of leading innovation in financial markets. This does not mean just keeping on top of the latest developments in financial theory or implementing the latest inventions: for many years they have been on the cutting edge of actively shaping best practice and creating new precedents in institutional fund management. The case of CPPIB developing a unique and elegant solution in the form of OCM/RP is just one such example. Some additional illustrations of leadership in innovation are provided by OTPP on its website: for instance, in 1990, OTPP was the first investor in Canada to diversify into equities using swap derivatives; in 1994, it was the first pension fund to invest in a sports team; in 1997, it became the first pension fund to introduce a risk budgeting system for investments; and in 2000, it was the first Canadian pension plan to buy a real estate company.

It is symbolic that just as we started our review of best practices and international pension fund excellence with reference to OTPP, the originator and pioneer of the Canada model, so we should end by highlighting their remarkable long-term performance. From 1990 to 2013, OTPP’s investments earned an average annual return of 10.2%. This performance has been recognised as a world leader in a survey by CEM Benchmarking Inc., the same independent company that provided performance data for verifying the link between good governance and good performance as discussed in Ambachtsheer (2007). OTPP’s 10-year returns as at the end of 2010, 2011, and 2012 were the highest among global peers studied by CEM. In addition, OTPP also came out on top in terms of value-added during these periods. Clearly, the Canada model generally, and the case of OTPP in particular, deserve a very close look by anyone seeking to reform and improve their own pension systems.

Implications for GPIF reform

Having reviewed the current ‘state of the art’ with respect to best practices in organisational design, governance, and investment philosophy, and having compared and contrasted three distinct models of institutional fund management, we have three preliminary recommendations for policymakers and civil servants in Japan. First, we recommend applying the Twelve Principles of Best Practices and the Investment Philosophy Framework to evaluate the current state of affairs at GPIF. It would be fairly straightforward to rank GPIF’s current governance on the twelve criteria, and compare the outcome against, say, similar rankings for the top 20 public pension funds in the OECD. Also, to the extent that
GPIF’s current investment beliefs are not explicitly stated, one can reverse-engineer them using the current investment process and organisation. Once the current beliefs have been made explicit, they can be used to populate the 4x4 matrix, resulting in a holistic view of the current investment philosophy. This system of beliefs can then be evaluated to determine whether it is sufficiently coherent and sensible for the modern financial markets, or whether it needs to be modified in various ways. In any case, it will be a good starting point to have a meaningful and substantive discussion about how best to reform GPIF.

The second recommendation puts the spotlight on the long-term vision which Japan’s reformers bring to GPIF. What is their ultimate objective? Would they like to see GPIF over time become more like the Norwegian fund, the Australian fund, or one of the Canadian funds? Based on the analysis in this paper, we come out strongly in favour of the Canada model – for three reasons.

1. Compelling risk-adjusted, net of cost long-term returns on a large asset base

Compared to Norway, the risk-adjusted, net of cost performance of top Canadian pension funds suggests that they may be a more compelling alternative. There is also a good theoretical reason why this should be the case: the Canadians have found a cost-effective way of broadening their diversification to include less liquid asset classes in private markets and to lead innovation in financial markets. Also, the fact that the Norwegian fund is planning to adopt the Opportunity Cost Model / Reference Portfolio framework suggests that in 10 years’ time, the Norway model may well have converged on the Canada model, rather than the other way around. The fact that such sophisticated institutional investors as GIC and NZSF have already adopted the same framework is, in our view, further evidence of the superiority of the Canada model. As for the Yale model and/or the AFF model, the jury is still out whether the Canada model can beat them in the long run in terms of risk-adjusted, net of cost returns. However, for a fund with asset size well in excess of US$ 1 trillion, we are sceptical of the ability to scale up the Yale/AFF model efficiently.

2. Classic pension fund liability profiles

Whatever one might think of Norway or Yale, one fact is indisputable: both funds are endowments, not pension plans. And while the AFF was set up to meet certain long-term government pension-related liabilities, it is really more of a sovereign wealth fund than a pension plan. The origins and sources of its funding are not pension contributions, but general fiscal surpluses, and what effect this otherwise nebulous distinction might have, say, in a major fiscal crisis is anyone’s guess. In contrast, Canada’s Top 10 funds are classic pension plans, sourced from standard pension contributions and managed to meet typical pension liabilities. This makes their experience potentially more relevant to GPIF, not least with respect to ALM modelling.

3. Importance of investments in domestic markets

The Norway model explicitly prohibits domestic allocations, since the fund was originally set up for macroeconomic stabilisation purposes, not intergenerational savings. As it outgrew its original objectives, the focus has shifted to saving for future generations, but the macroeconomic imperatives that prevented it from investing domestically remain firmly in place. The AFF does invest in Australian assets, but there are a number of restrictions and constraints which had been
built into its mandate to avoid conflicts of interest, competition with the private sector, or any undue influence of a large government investor in domestic markets. In contrast, Canada’s public pension funds are unapologetically active in domestic markets. Their allocations are typically larger than those implied by market capitalisation weights; they are active in engaging local companies on long-term governance and other issues; and they pride themselves on providing patient long-term capital for both existing and new industries in Canada. In our view, these funds provide a much more relevant role model for GPIF, especially if Japan’s reformers want the fund to eventually evolve into a corporate governance leader and an innovator in the domestic institutional market.

Our third and final recommendation focuses on execution. While it may be desirable to steer GPIF towards the Canada model, it would be too ambitious – even irresponsible – to suggest that such a transformation can be achieved in the short to medium term. Therefore, we propose to view the three models of institutional management not as alternatives, but as a continuum of potential solutions for GPIF during different stages of reform.

For example, the Norway model happens to be closest to how GPIF currently operates: both funds have the benefits and constraints that come with being the largest funds in the world; both are located right in the centre of their respective domestic political systems, with direct accountability to politically appointed ministers; both invest almost exclusively in liquid public markets, using passive or near-passive strategies. Therefore, it would be much more realistic, in our view, for GPIF reformers to use Norway as the temporary role model during Stage 1 of reform. This will provide GPIF with the rationale and the opportunity to shift towards a more equity-centric portfolio, while also buying it time to initiate longer term reforms, especially with respect to governance.

In Stage 2, a few years down the line, GPIF can start incorporating elements of the Yale / AFF model on a limited scale, making external allocations to less liquid private markets not so much because they would move the proverbial needle in terms of performance – with GPIF’s scale, they most likely will not – but because they will provide the immediate channel for GPIF to start absorbing specialist knowledge and skills, acquire the necessary network of contacts to secure access to proprietary deal flows, and to build a professional and dedicated internal team.

Once the necessary people, systems, and infrastructure have been put in place, then and only then would GPIF be ready for Stage 3 – transitioning to the Canada model. At this point, one particularly promising aspect of reaching out to their institutional peers – not only in Canada, but all over the world – would be that GPIF will effectively represent a very attractive potential local partner who could help source and execute co-investment deals in asset-rich Japanese markets, thus acting as a catalyst to attract high-quality, long-term capital from the world’s savviest institutional investors into Japan. To us, this is the ultimate promise of GPIF reform in the context of Abenomics.
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ENDNOTES

i At the end of fiscal Q1 2014, GPIF reported the total asset size at JPY 127,262 billion (c. US$ 1.25 trillion). http://www.gpif.go.jp/en/fund/pdf/2014_q1.pdf

ii Peter Drucker’s book which influenced K. Ambachtsheer was “The Unseen Revolution,” published in 1976.


iv For a first-hand account of the origins of OTPP, see the presentation by C. Lamoureux and B. Bertram at http://docs.otpp.com/Lamoureux_Bertram_Ivey_Business_Leader_Award.pdf

v Clark and Urwin based much of their governance framework on the results of interviews they conducted with the CEOs or CIOs of 10 institutional investors: 5 located in North America, 3 in Europe and 2 in Asia-Pacific. The funds ranged in size from US$ 5 billion to US$ 100 billion and included different institutional types (i.e., corporate defined benefit plans, multi-employer industry funds, endowments, and national pension reserve funds).

vi On his popular blog, Ashby Monk, a renowned expert in public pension and sovereign wealth fund governance, recounted an interesting episode. When asked what he would consider the single most important factor that could make or break a fund over the long term, his unequivocal answer was: “Board nomination procedures.” For a more detailed discussion, see: http://www.institutionalinvestor.com/blogarticle/3040018/blog/a-secret-sauce-to-institutional-investment-revealed.html#.VBlpwCx0yN0

vii Comparing the pay packages of some of the best paid CEOs at the most advanced Canadian pension funds to the total compensation earned by top hedge fund managers, Ashby Monk noted on his blog that the difference was on the order of magnitude of 1,000 times. He then proceeded to ask a pointed question: why do asset owners seem to prefer paying billions of dollars to external managers rather than pay millions to their own staff? For a more detailed discussion, see: http://www.institutionalinvestor.com/gmtl/3344053/Investors-Pensions/The-Key-to-Unlocking-Hedge-Fund-Wealth.html

viii For an excellent review of the arguments for and against ‘time diversification’, see Kritzman (2003)

ix For an excellent discussion of long-term investing, see Warren (2014)

x One interesting example of a very liquid and otherwise highly efficient market which paradoxically still offers profitable trading opportunities is foreign exchange (FX). The ability to consistently exploit FX risk factors (e.g. momentum, carry, relative value) requires a high level of expertise and a rigorous investment and risk
management process. But first, it requires a well-reasoned investment belief, which must be rooted in a plausible theoretical explanation as to why such inefficiencies should persist. The most common explanation focuses on the non-profit-maximising nature of many currency market participants – central banks, export-import traders, international tourists, and relatively price-insensitive hedgers.

xi See Brinson, Hood and Beebower (1986); Brinson, Singer and Beebower (1991); and Ibbotson and Kaplan (2000)

xii Keith Ambachtsheer estimates that, on average, running assets internally costs just one-tenth of what it would if they were outsourced. Mark Wiseman, at the time executive vice-president in charge of investments at the Canada Pension Plan Investment Board (CPPIB), noted in an interview that the costs of managing in-house were only 10 to 15 percent of what it would cost to outsource any given investment to third-party fund managers. For more information, see The Economist (2012) and Jordan, P., A. Hopkins and S. Kim (2012). We return to the question of in-sourcing versus outsourcing in the next section, when we discuss the so-called ‘Canada Model’ of institutional fund management.

xiii The concept of a ‘Focus List’ was pioneered in 1987 by the California Public Employees Retirement System (CalPERS), one of the world’s largest pension funds and an innovator in the area of corporate governance. The original idea was to produce a public “name-and-shame” list of those companies in the CalPERS portfolio which raised concerns about stock and financial underperformance, and corporate governance practices. While the results of the programme were positive, CalPERS also realised that the biggest improvements and the best subsequent financial performance came from those companies with whom the fund had engaged privately and confidentially. As a result, in November 2010 CalPERS adopted a new policy, effectively taking the ‘Focus List’ out of the public domain.

xiv The same survey conducted in 1997 yielded responses from 80 CEOs, collectively representing US$ 700 billion.

xv The NVAs were annualised based on a 4-year rolling window.

xvi See Ambachtsheer (2012) for an in-depth discussion from a pension specialist point of view.


xviii Curtis (2012)

xix For more information on the background, history, organisational structure, governance, investment philosophy, performance and other matters relating to Norway’s fund, visit: http://www.nbim.no/en/ Similar information for Yale University’s Investments Office can be found on: http://investments.yale.edu/ and in Swensen (2009).

xx Curtis (2012)

xxi At the time of writing, the total assets of Norway’s fund stood at c. US$ 822 billion. Since inception, the fund has been invested exclusively in highly liquid public market securities outside of Norway. In 2008, the decision was made to allocate 5% to real estate; however, at the time of writing, only 1.2% of the fund was invested in the new asset class. The strategic benchmark is still market capitalisation weighted, with 60% invested in equities, 35% in bonds, and 5% targeted for real estate. Active risk is capped at an extremely tight 1% tracking error limit, which means that while active management is practiced, its impact is very limited. While the fund allocates money to external managers, at the end of 2013 this accounted for less than 4% of total assets.

xxii For fiscal 2013, the Yale Investments Office reported the total assets of the Endowment Fund at c. US$ 20.8 billion. 78% of the fund was invested in less liquid alternative assets traded in private markets (i.e., private equity at 32.0%; real estate at 20.2%; absolute return at 17.8%; and natural resources at 7.9%). Almost 95% of the fund (i.e., all non-cash and non-bond strategies) are actively managed by external managers.
For more information on the background, history, organisational structure, governance, investment philosophy, performance and other matters relating to the Australia Future Fund, visit: http://www.futurefund.gov.au. As of 30 June 2014, the fund reported total assets of c. A$ 101 billion (c. US$ 95 billion). The aggregate share of less liquid alternative assets is set at 47.5% (i.e., 25% in real estate, infrastructure, utilities, timber and agricultural assets; 15% in hedge funds and similar skill-based assets; and 7.5% in private equity). By law, the internal management team is not allowed to invest directly, which means that all investments must be managed externally.

The similarities between the AFF’s and Yale’s approach to investing are not a coincidence. When David Neal, the inaugural CIO of AFF, was designing the fund’s strategy as it was being established in 2006, apparently he looked for inspiration to multi-strategy hedge funds, foundations, and endowments, including specifically the Yale University Investments Office (for a more detailed account, see Adamson (2013)). Also, Charles Ellis, who had chaired Yale’s investment committee for 9 years alongside the CIO David Swensen, served as an adviser to the AFF.

For an excellent discussion of policies and practices used to safeguard national pension reserve funds, see Clark and Monk (2011); their analysis is based on four specific case studies, including the AFF.

For a more detailed discussion of this point, see Chapter 4 in Clark, Dixon and Monk (2013).

For a more detailed discussion of this point, see Chapter 5 in Clark, Dixon and Monk (2013).

Ambachtsheer (2012) also provided risk-adjusted, net-of-cost excess returns for OTPP from 1990 to 2010, which were even more impressive.

The Top 10 funds, ranked by asset size, include: The Canada Pension Plan Investment Board (CPPIB), The Caisse de depot et placement du Quebec (Caisse), The Ontario Teachers’ Pension Plan Board (OTPP), The British Columbia Investment Management Corporation (bcIMC), The Public Sector Pension Investment Board (PSP Investments), The Ontario Municipal Employees Retirement System (OMERS), The Healthcare of Ontario Pension Plan (HOOPP), The Alberta Investment Management Corp. (AIMCo), The Ontario Pension Board (OPB), and The OPSEU Pension Trust (OPTrust).


According to the BCG study, the Top 10 funds have about 35% of their assets invested in alternatives.

According to the BCG study, the Top 10 funds typically manage about 80% of their assets internally, resulting in the average cost (i.e., expense/asset ratio) of about 0.30%. In addition to the cost advantages, direct investment may be more beneficial due to a better match with the pension plan’s long-term investment horizon: while private equity funds typically operate with 5-7 year horizons, a long-term pension fund can invest with a 15-20 year or even longer horizon. For example, after OTPP acquired the majority interest in the local sports team Toronto Maple Leafs in 1994, it held on to the stake for 18 years until a profitable exit in 2012.


CPPIB describes this methodology on their website as the “Total Portfolio Approach” (TPA). For more information, see http://www.cppib.com/en/how-we-invest/compare-overview/total-portfolio.html. Ang, Brandt and Denison (2014) also explain the OCM/RP framework in some detail.

Williams (2014)

For OTPP’s list of innovations, see: http://www.otpp.com/corporate/about-teachers/history-of-innovation

Ibid.