Netspar

Network for Studies on Pensions, Aging and Retirement

OCCASIONAL PAPERS

Netspar

Keith Ambachtsheer

Taking the Dutch Pension System to the Next Level

A View from the Outside

Eerder gepubliceerd als KVS Preadvies 2014

Taking the Dutch pension system to the next level: a view from the outside

Keith Ambachtsheer[1]

This chapter provides 'a view from the outside' on redesigning Dutch second pillar pension plans so that they offer plan participants clear choices, clear property rights, as well a clearer understanding of what their post-work financial situation will be. It visits Australia, the United Kingdom, the United States, Denmark, and Canada for examples of how different countries are working on resolving these challenges. The final part of the chapter applies the resulting lessons to the current Netherlands situation. The result is a set of recommendations to transition today's 'Collective DC' plans to a new, better understood, more sustainable pension plan structure.

Part I: The Search for a 'Better Way'

Twenty-first Century pension realities include aging populations, rising longevity, slower economic growth, and lower investment returns. This requires moving beyond the out-dated 'DB vs. DC' pensions debate, and taking a fresh look at the 'affordability vs. safety' conundrum inherent in any pension arrangement. The new term 'Defined Ambition' (DA) reflects a willingness to put aside the traditional DB and DC formulas, and to discover a 'better way' to do pensions. This 'better way' quest is not just about pension design, but also about the design of the institutions that manage and deliver these pensions.

Parts II and III of this chapter offer examples of this 'better way' quest, reflecting initiatives in Australia, Canada, Denmark, the Netherlands, the United Kingdom, and the United States. A common thread to the resulting 'stories' is the need for integrative thinking if we are going to build 21st Century DA plans that effectively address the affordability-safety conundrum. Peter Drucker pointed to this as early as 1976 in his pensions book 'The Unseen Revolution'. It has taken the global pension 'industry' a long time to start acting on his insights. Roger Martin addressed a related barrier

1 I received helpful comments on earlier drafts of this chapter from Rob Bauer, Peter Borgdorff, Lans Bovenberg, Dirk Broeders, Jaap van Dam, Chresten Dengsoe, Theo Kocken, Rene Maatman, Jeroen de Munnik, Theo Nijman, Eduard Ponds, Benne van Popta, Onno Steenbeek, and Jan Tamerus. However, the views expressed in this final version of the paper are mine alone, as are any errors or omissions.

to innovation in his 2007 book 'The Opposable Mind', where he asserts that instead approaching conundrums such as 'affordability vs. safety' with 'either-or' mindsets, the challenge is to reach an 'and-and' synthesis that combines both.

Rethinking Pension Design, Investing, and Governance

A new paper by Van Galen, Kocken, and Lundbergh (2014) argues that effective pension designs meet the triple test of adaptability, stability, and fairness. This in turn leads to a set of design principles reflecting human behavior, plan sustainability, and how risks are best borne:

- **Behavioral:** Simplicity, a default plan design with choices, under-promise and over-deliver.
- **Sustainability:** Ensure plan adaptability, clarify ownership rights, use market-based valuations.
- **Risk-bearing:** Avoid winner/loser outcomes, pool diversifiable risks, do not attempt to pool risks that cannot be diversified or hedged in financial markets.

These principles lead to life-cycle-based plan designs that first emphasize affordability and eventually safety, as people move through the working- and post-work phases of their lives. They pass the tests of adaptability, stability, and fairness. Part IV applies these principles to redesign recommendations for second pillar pension plans in the Netherlands.

In Part III, we follow Tinbergen in recognizing that meeting the twin goals of affordability and safety in pension design will require two separate instruments: 1. a long-term return-seeking instrument and 2. a shorter-term liability-constrained safety instrument. In structuring long-term, return-seeking investment instruments, we follow Keynes in distinguishing between short-term, zero-sum, trading-based 'beauty contest' strategies, and long-term strategies that convert retirement savings into wealth-producing capital. This in turn requires that Boards of pension organizations not only have the best interests of plan members in mind, but also have the capability to think and act strategically.

A 21st Century Pension Model for the Netherlands

Based on 'best practice' international experience and the principles for pension design, investing, and governance set out in the chapter, Part IV recommends that Dutch second pillar pension plans explicitly adopt three design features in a new Tinbergen Pension Model:

- **A Long Horizon Return-Seeking Investment Instrument:** It seeks, acquires, and nurtures a collection of sustainable, growing long-horizon cash-flows in the form of dividends, rents, tolls from a diversified portfolio of public and private investment vehicles. Active investors, in the

spirit of the Heisenberg Uncertainty Principle[2], positively impact investment outcomes through their individual and collective engagement strategies with investee organizations (e.g., public or private corporations, real estate investment trusts, infrastructure collaborations). Plan members own units representing ownership in the fund. It pays out investment income distributions calculated to maintain the long-term real value of the fund units. Participants have an automatic income re-investment option and a post-retirement redemption option.

- **A Liability-Driven Payment-Safety Instrument:** It supplies additional lifelong payment safety through deferred life annuities (i.e., additional to the first pillar AOW pension). Plan participants gradually purchase these life annuities at a 'fair-value' price (i.e., reflecting the actual structure of interest rates at the time of purchase and conservative longevity expectations) over the course of the second half of their working life. The balance sheet of the entity issuing these promises is managed and regulated to ensure that payment promises made are payment promises kept.
- **A Life-Cycle Transition Protocol:** It starts from the reality that people journey through three life phases: pre-work, work, and post-work. An explicit post-work standard of living target (e.g., 70% of average gross pre-retirement earnings) starting on a target retirement date is financed in part by the AOW pension, and in part by a calculated worker savings (i.e., contribution) rate and the investment return there on. Plan members receive regular updates of progress towards achieving the target pension on the target date. A default rule determines members' allocations between the return-seeking and safety investment instruments over the course of the work and post-work phases of their life-cycle. Participants can override the default allocation if they so choose.

Reaching agreement to move to this kind of Tinbergen Pension Model would only be the start. A well-thought-out, well-understood, well-executed transition plan to get from here to there is also required. Such a plan would have three steps:

- **Create a conversion protocol:** The pension rights under the current plan must be converted into rights under the new plan. This will be challenging work.
- **Re-write pension laws:** This will require legal expertise, common sense, and a common 'greater good' purpose.
- **Engage pension plan participants in the process:** The old-to-new transition will not happen without broad public support. Gaining this support

2 In quantum mechanics, the Heisenberg Uncertainty Principle relates to the tendency of human observation to influence the velocity and position of the particle being observed.

will require that the leaders of all key social partner groups in Dutch society pull together, as well as a new public communication strategy.

In 2002, Dirk Witteveen was one of the first officials anywhere in the world to sound the alarm that the global pension environment had changed, and that pension arrangements would have to adapt to it. Since then, adaptation processes everywhere have been slowly and often painfully unfolding. The Dutch have strong comparative advantages to be among the first countries in the world to successfully adapt their pension system to 21st Century realities. Part IV of this paper shows a possible way in which this can be done through the Tinbergen Pension Model. A new leadership must now follow in the steps of Dirk Witteveen, and guide its successful implementation.

Part II: Pension System Design: Current issues around the world

While the specifics of pension reform differ around the world, there is a common quest. It is to resolve the tension between the opposable goals of pension affordability on one hand, and payment safety on the other. Part II of this chapter visits Australia, the United Kingdom, the United States, and Denmark for examples of how different countries are working on resolving this tension, as well as the related challenges of organization design and investing.

Beyond 'DB vs. DC'

There is a growing recognition around the world that constructive conversations about pension design must move beyond the 'DB vs. DC' debate if we are going to design and implement pension arrangements suitable to 21st Century realities. On the DC side, serious adequacy and safety questions have come to the fore. For example, is the savings rate while working high enough to ultimately generate an adequate pension? Who invests the pension pot? How do people make their accumulated pension pot last their entire post-work life? On the DB side, employers are increasingly raising pension affordability questions, and withdrawing from their traditional role as pension risk underwriters.

Thus the stage is set for a fresh look at the adequacy-affordability-safety conundrum inherent in any pension arrangement. If 21st Century realities require that explicit trade-offs between these three desirable pension plan features must be made (i.e., 'you can't have it all!'), who is in the best position to describe what those trade-offs really are? To actually choose among alternative trade-off possibilities? To implement the choices made? And what should be the role of 21st Century pension organizations in addressing these questions?

Posing these fundamental questions about employment-related (i.e., second pillar) pension arrangements points to another fundamental pension design question: what are (and should be) the key features of a country's

public/universal (i.e., first) pension pillar? Stating the obvious, adequacy-affordability-safety tradeoffs should be considered in the joint context of the first and second pillars of a country's pension arrangements. For example, if a country's first pension pillar provides its citizens with 35% lifetime inflation-indexed income replacement up to the median wage, that is an important consideration in the design of any functional second pillar pension arrangement in that country.

A Pension Tour around the World

A recent international forum of pension academics and practitioners went beyond the 'DB vs. DC' debate to address these questions.[3] Two starting viewpoints emerged out of the day-long conversation:

1. **Affordability** considerations should dominate the design of second pillar pension plans. This means an emphasis on the long-horizon return compounding of retirement savings. It is fair to say that the Anglo-Saxon participants leaned in this direction.
2. **Safety** considerations should dominate the design of second pillar pension plans. This means an emphasis on the efficient pooling of risks related to investments, inflation, and longevity. These considerations were foremost on the minds of the Europeans.

As the day progressed, the starting viewpoints began to soften. The 'affordability' people began to think more about risk management considerations, while the 'safety' people began to think more about the affordability implications of buying safety in a low interest rate world. A related design question that surfaced more than once is the appropriate degree of individual choice in pension plan design. While complete individualization may be ineffective and impractical, a 'one size fits all' approach may be equally dysfunctional. Something in-between those extremes will likely be best. The QSuper story told by CEO Rosemary Vilgan illuminated all these points.[4]

The Australian QSuper Story

QSuper looks after the post-work income needs of 540 thousand public sector workers and retirees in the Australian state of Queensland. It defines its fiduciary obligation to these people as overseeing 'the accumulation of retirement assets and their transition to retirement income across the

3 The Dutch pensions think tank *NETSPAR* initiated the event in its role of providing thought-leadership in reforming the second pillar of the Dutch pension system. *NETSPAR* invited a multi-country delegation of supporters of the *International Centre for Pension Management (ICPM)* based at the University of Toronto's Rotman School of Management to participate in the workshop in order to broaden the range of perspectives on what 21st Century pension plans could/should look like.

4 PPT can be accessed via NETSPAR website.

lifecycle'. Its current asset base amounts to A$70 billion. Historically, like other Australian super funds, QSuper managed its DC plan assets with a standard equity-bond asset mix, into which 90% of plan participants defaulted. Super funds compete with each other via regularly-published performance 'league tables' which show the relative investment performance of the major funds.

Some years ago, QSuper came to the view that their actions and services fell short of a 21st Century interpretation of their fiduciary obligation to members. A multi-year transition plan was developed with the following five key elements:

- **Move away from the traditional 'one size fits all' delivery model** to one which recognizes differences in member needs based on such factors as age. This recognition has led to customizing cohort default investment strategies based on age. As members age, the proportion of their pension pot in safety assets automatically increases while the duration of these assets decreases; 90% of members have opted for the default decision model.[5]
- **Move towards providing members with pension targets and regular progress reports** on where they stand in the accumulation phase of their journey towards their post-work pension target. Offer members tools and advice that guides them towards achieving their target. These tools and advice should include the role and size of Australia's means-tested first pillar Age Pension.
- **Upgrade the choices in the decumulation phase** of the lifecycle journey by including a longevity protection purchase option.
- **Dynamically adjust the pension design default settings** based on the organization's best professional assessment of investment asset pricing conditions and other relevant socio-economic considerations over time.
- **Reset the asset management program** to focus on long-horizon wealth-creation in both public and private markets. Signal this intent by dropping out of participation in the short-horizon performance 'league tables' competition set up in super fund space.

Taken together, these five initiatives move QSuper resolutely towards managing a state-of-the-art 21st Century second pillar pension plan in an Australian setting. In the process, the organization will have inverted its business model from one where organization needs dictate the design of member services, to one where member needs dictate the design of the organization.

5 QSuper is building databases that capture individual member information that is in part factual (e.g., age, marital status, employment and wage records, retirement date, personal assets/liabilities, insurance coverage), and in part behavioral and attitudinal (e.g., risk tolerance, choice preferences, post-retirement income needs and expenditure plans).

The UK NEST Story

Unlike Australia, the UK, the USA, and Canada have thus far not chosen mandatory participation in second pillar pension plans, nor require annuitization of accumulated retirement savings. Thus the majority of private sector workers in these countries do not participate in workplace-based pension plans. Projections indicate that many of these workers could suffer significant declines in living standards after they stop working.[6] This reality has become the subject of public policy debates in all three countries. Of the three, the UK is furthest along in actually addressing this private sector pension coverage problem. Tim Jones, CEO of the National Employment Savings Trust (NEST) provided an update:[7]

- **A New Pension Provision:** The UK Pensions Commission chaired by Lord Turner produced successive reports in 2004 and 2005. The Commission's four key findings were that 9 million UK workers were under-saving for retirement, the UK pension system was overly complex, UK longevity was rising while its birthrate was falling, and UK institutional arrangements for managing pensions were inadequate. A key recommendation was a new earnings-related pension provision which relied on the automatic enrolment of employees, but with the right to opt-out, and with a requirement for employers to make matching contributions.
- **A New Pension Provider:** The recommendation was accepted by the UK Government, and in 2007, an arms-length Personal Accounts Delivery Authority (PADA) was created to 'provide expert advice to the Government to develop the practical implementation of the new pension policy'. PADA was transformed into the operating entity NEST in 2010. UK legislation in 2011 required employers to enrol their employees in a pension plan with certain minimum features. NEST began enrolling workers with a small group of employers on a test basis and had workers from 100 different employers participating in the plan by the end of March 2012.
- **Auto-Enrolment:** By December 2013, NEST had auto-enrolled 700 thousand UK workers without a pension plan. Under the same legislation, an additional 1.5 million workers were auto-enrolled in other qualifying plans offered by commercial providers chosen by the employers of these workers. Around 8% of all enrolled workers exercised their option to dis-enroll themselves. Perhaps not surprisingly, most were higher-income workers close to retirement.
- **Low Cost:** On the financial side, the creation of PADA and then NEST was made possible by a loan provided by the UK Government. At the

6 See, for example, Munnell and Bleckman (2014).

7 PPT can be accessed on NETSPAR website.

end of March 2013 the Government loan to NEST was £239 million. On the revenue side, NEST is charging its participants a 0.3% per annum management fee on assets under management, as well as a 1.8% one-off charge on contributions to recover the start-up costs. Together, the two charges are, for the average member, equivalent to about 0.5% of assets per annum.

Despite the good start, Jones warned that multiple challenges still lie ahead, including enrolling millions more workers, raising contribution rates to ensure income replacement adequacy, and eventually, an effective and understandable decumulation protocol for the post-work phase of the life-cycle of NEST participants.[8] Jones echoed Vilgan's comment about being careful to design the pension organization to meet member needs rather than allowing organizational needs dictate the design of member services.

The State of Washington Story

Second pillar public sector pension plans in the USA are unique in the sense that (a) most of these arrangements continue to be traditional DB plans with hard guarantees, and (b) they are not subject to any particular set of regulatory standards. While these plans seemed to be financially sound in the 80s and the 90s, the Dot.Com Bubble and Global Financial Crisis (GFC) experiences in the first decade of the 21st Century showed this was not necessarily the case. For example, a common feature in these arrangements is the use of aggressive liability discount rates matched by aggressive investment policies expected to deliver returns equal to those liability discount rates.[9] Academic studies using 'mark-to-market' balance sheet valuation techniques have exposed the material wealth transfers from future taxpayers to current plan participants embedded in these financial practices on a 'going-concern' basis.[10] Another consequence of these practices is an increasing incidence of actual financial stress in state and local finances.[11]

8 Earlier this year, the Canadian province of Ontario announced its intention to create a NEST-type of arrangement for its workers without a second pillar pension plan called the Ontario Retirement Pension Plan (ORPP). There is potential for the ORPP to become multi-provincial, or even national. Similar initiatives are being contemplated in the USA at the state-level.

9 See, for example, Andonov, Bauer, and Cremers (2013).

10 See Lekniute, Beetsma, and Ponds (2014). They use the value-based ALM method to underscore the weak finances of many of these US state and local pension arrangements, and the wealth transfer implications of moving them to financial sustainability.

11 See, for example, the article 'Chicago: Rahmbo's toughest mission' in the June 14, 2014 issue of The Economist.

Theresa Whitmarsh and Marcie Frost shared their views and their on-the-ground experiences working in the US public sector pensions space. Theresa is Executive Director, Washington State Investment Board. Marcie is Director, Washington State Department of Retirement Systems. They acknowledged the wide range of governance practices in US public sector pension plans (i.e., from bad to good). Fortunately, the governance of their plans is at the good end of the range. They summarized the Washington story this way:[12]

- **Modest benefits:** Relatively high retirement age (65) combined with a modest average payout per retiree of under $25K/yr, conditional indexation, 50/50 cost shares, move to hybrid DB/DC formulas.
- **Relatively high funded ratios:** among 'top 4' in the USA at 95%; would be higher still if not for political decisions to reduce contributions over the 2001-2011 period, and to grant material pension benefit increases in 2000 and 2007.
- **Strong investment returns:** A 'top decile' 8.9%/yr asset return over the 1992-2014 period. This was due to being an early adopter of long time-horizons, an international perspective, strategic use of private markets, and dynamically adapting allocation strategies in line with perceived pricing of risk assets. This strong history is the basis for using a still-high liability discount rate of 7.7%.
- **Cost-effective organizational structures:** The State's decision to create one investment and one pension administration organization to manage all state assets and liabilities has been a sound one. Both organizations score well in global benchmarking surveys. For example, Washington achieved an above-median score on service quality, and a below-median score on annual delivery cost per member in the most recent pension administration survey.

In addition to the generic lesson that making taxpayers the sole risk bearers in pension plans can be problematical, the Washington story offers three lessons: 1. Organizational competence and scale matter, 2. Investing for the long-term matters, and 3. Stronger mechanisms are needed to counter the political impulses to convert balance sheet surpluses into benefit improvements and contribution reductions.

Denmark's ATP Story

A 12 August 2014 press release announced a material design change in Denmark's Labor Market Supplementary Pension Plan ATP.[13] A subse-

12 PPT can be accessed via NETSPAR website.

13 ATP Press Release 'ATP to adjust pension product'.

quent conversation with ATPs Chief Actuarial Officer Chresten Dengsoe provided additional information. ATP covers all Danish workers, and is designed to deliver a target pension equal to 1/3rd of the universal Danish Old Age Pension. The ATP pension is prefunded with a flat contribution rate (currently DKK3,240/yr). Contributions are split 80-20, with 80% going into a hedge-portfolio backing nominal deferred life annuities commencing at age 65. These annuities are priced based market bond yields and conservative longevity assumptions.[14] The remaining 20% goes into a long-horizon, return-seeking investment fund. The goal of the investment fund is to generate sufficient surplus to provide inflation protection and offset the risk of actual longevity experience exceeding expected experience. Benefit improvement decisions are at the discretion of ATPs Board of Directors, but can only be granted if ATPs funded ratio exceeds 120%. All plan participants are treated equally, and once benefit improvements are granted, they cannot be withdrawn.[15]

The 12 August press release announced that, starting in 2015, ATPs nominal deferred life annuity promises would be updated at 15-year intervals. The 80% of the contribution to be annuitized each year would be granted a 15-year return guarantee based on market bond yields at that time. So, for example, a 20 year-old worker would effectively receive a return guarantee to age 35 on 80% of his/her contribution in that year. Following that contribution originally made at age 20, at age 35, a new return guarantee to age 50 would be provided. Only at age 50 would the actual amount of the deferred annuity to be paid starting at age 65 be calculated, using the term structure of interest rates and best-estimate longevity projections at that time.

ATP offered three reasons for changing its pension calculation: 1. Resetting the guaranteed interest rate every 15 years provides a degree of inflation protection, 2. 15-year return guarantees can actually be hedged in financial markets, while much longer-duration return guarantees cannot (at least not at the scale required), and 3. Longevity projections will reflect most-recently available experience.

The ATP pension structure, and the recent initiative to change one element of it, suggests a keen recognition of the importance of simplicity, fairness, and clear property rights in pension design. It also offers a good example of the willingness and ability to change the pension structure when 'a better way' has been found.[16]

14 See Jarner and Kryger (2008) for a description of ATPs sophisticated longevity projection model. The model is updated annually thus materially reducing macro longevity risk on the ATP balance sheet.

15 See Rohde and Dengsoe (2010) for a more detailed description of the ATP plan.

16 Interestingly, ATP chose to stay with the 80-20 safety-growth allocation of the contributions for all participants, rather than move to dynamic allocation based on participant age.

Looking Ahead: Three 21st Century Challenges

The QSuper, NEST, Washington, and ATP stories all offer examples of innovative mindsets working to meet pension design and management challenges in four specific national contexts. Generalizing from these specifics, we offer the following conclusions:

- T**he Pension Design Challenge:** The opposable needs for affordability and safety must be reconciled, while at the same time heeding Einstein's admonition 'to keep things as simple as possible, but no simpler'. This logic leads to designing life-cycle-based transition paths for participants that first emphasize affordability and eventually safety, as people move through the working- and post-work phases of their lives.[17] The resulting designs should be understandable and fair, with risks well-defined and allocated. They should reflect the combined contributions of the first and second pension pillars, as well as the findings of behavioral economics research.
- **The Pension Investment Challenge:** Reconciling the opposable needs for plan member affordability and safety is best achieved through separate investment programs, one focusing on the affordability goal, and the other on the safety goal. The focus of the former is long-horizon wealth-creation by acquiring and nurturing long horizon cash-flows (e.g., dividend, rents, tolls) in public and private markets through individual member pension accounts with no guarantees. The focus of the latter is the matching of payment promises with safe assets of similar duration, with any remaining mismatch risk covered by an adequate risk buffer.[18]
- **The Pension Governance Challenge**: Reconciling the need for Board 'legitimacy' through representativeness, with the need for Boards to be able to think strategically, backed by a requisite collective skill/experience set. Historically, the selection of Board members has favored represent-

17 The main asset on the balance sheet of younger workers is bond-like human capital (i.e., the present value of their future earnings). They have little financial capital, implying significant capacity to take on high-expected return, 'risky' investments. In contrast, the main assets of older workers and retirees are financial and real estate.

18 The '2 goals → 2 instruments' design feature is consistent with the Tinbergen Principle that the achievement of two economic goals requires at least two instruments. Jan Tinbergen won the first Nobel Prize in Economics in 1969. We return to this idea in Part IV. See Tobin (1990) for more on the Tinbergen Principle. There are, of course, further hierarchies of goals within both instruments. For example, controlling specific investment risks through diversification is an important goal in the long-term return generation instrument. Ensuring that non-diversifiable risks are covered by an adequate risk buffer is an important goal in the safety-provision instrument. There is an ongoing debate how to best do this. For example, according to the IPE news service (28/08/14), a new 848-page Swedish review has led to a specific set of recommendations on this risk buffer question.

ativeness over skill/experience. This needs to change by mutual agreement among the appointing stakeholder groups.

These three challenges raise the question how to best organize for ongoing innovation in the global pensions sector. Management philosopher Peter Drucker wrote his only book on pensions in 1976. Like the 38 other books he wrote between 1939 and 2004, 'The Unseen Revolution' was full of classic Drucker wisdom and strategic insights. One of them was that there were no obvious answers to the profound questions that would surely arise as pension design and management issues eventually took a very visible center stage around the globe. Innovative mindsets would be needed to address these profound questions over time, and Part II of this chapter has shown innovation is indeed present in the global pensions sector. Another Drucker insight was the importance of integrative thinking, which implies acknowledging the interdependence of pension design, investing, and governance. Part III explores the nature of that interdependence.

Part III: Rethinking the investment of pension assets and building effective pension institutions

Good pension design cannot exist in a vacuum. It has to be effectively implemented to be of value to plan participants. This requires pension organizations that see financial markets as they really are. This in turn requires that such organizations are overseen by competent supervisory boards who in turn hire and incentivise an effective executive function. The cases of Ontario Teachers' Pension Plan and of PFZW/PGGM illustrate the importance of these requirements.

Fama, Shiller, and Investment Beliefs

Professors Eugene Fama and Robert Shiller were both awarded 2013 Nobel prizes in economics for what appear to be opposing theories of market efficiency. Fama offers logic and evidence in favor of efficient pricing in financial markets, implying it is impossible to outperform the market. Shiller offers logic and evidence in favor of market inefficiency, implying it is possible to outperform the market. Can they both be right? The short answer is 'yes they can'. It is a matter of definitions and assumptions about three things: 1. How economic processes vary over time, 2. How investment beliefs are structured, and 3. How 'rationality' plays out in different investment beliefs structures.

This framing of the issues gets us to the heart of the market efficiency matter.[19] It depends on which set of assumptions most closely reflects reality.

19 See Brock's March 2014 SED Profile for more on this framing of market rationality and efficiency. He in turn draws on the work of Kurz (1994) 'On Rational Belief Equilibria'.

Taking this framing one step further, it also depends on the time horizon. For short horizons (i.e., days, weeks, months) the Fama view of market efficiency is persuasive. Credible, actionable, net excess return-generating forecasts are hard to come by. However, for longer horizons (i.e., years, decades) the more actionable Schiller view of market inefficiency becomes credible, and surely, it is this longer perspective that should matter most in a pensions context.

Keynes on Investment Beliefs

This framing of investment beliefs was foreshadowed by Keynes in Chapter 12 of his 1936 magnum opus 'The General Theory of Employment, Interest, and Money'. The chapter has little to do with addressing the challenges of The Great Depression. Instead, Keynes shares his investment beliefs with the reader. Time horizon differentiates short-term 'beauty contest' investors who try to out-trade each other, and long-term investors who strive to transform savings into wealth-producing capital. The former group is playing a zero-sum game less the cost of playing (paid for by their clients). The latter group is engaged in a positive-sum activity that produces goods, services, employment, and ultimately, wealth. Note that this investment belief structure fits nicely with the respective theories of Fama and Shiller.

A study by Chambers and Dimson (2013) confirms that Keynes actually invested in line with his investment beliefs. Over the 25 years (1921-1946) he managed King's College Endowment at Cambridge University, Keynes earned an average annual return of 16.0% on the Endowment Fund versus 10.4% and 7.1% for the UK stock and bond markets respectively. Commenting on his success as an investor, he wrote in 1934: *'As time goes on, I get more and more convinced that the right method in investment is to put fairly large sums into investments one thinks one knows something about, and in the management of which one thoroughly believes.'*[20] In contrast, commenting on the prospects for success in short-term trading, he said in a 1938 speech: *'Markets are governed by doubt rather than conviction, by fear more than forecast, by memories of last time rather than foreknowledge of next time. The level of stock prices does not mean investors know; it means they do not know. Faced with the perplexities and uncertainties of the modern world, market values will fluctuate more widely than will seem reasonable in the light of after-events.'*[21]

Addressing the Principal-Agent Problem

Investor extraordinaire Warren Buffet achieved equally extraordinary investment results as Keynes over an even longer period of time, about which he

20 See Chambers and Dimson (2013) for reference.

21 See Chambers and Dimson (2013) for reference.

observed that 'it is not necessary to do extraordinary things to achieve extraordinary investment results'.[22] Why then does it seem to be such a rare thing in the institutional investment world? The answer lies in understanding the principal-agent problem that modern times have thrust upon us. Keynes was personally motivated by making Cambridge University a financially sound academic institution. Buffett's personal fortune was riding on the success of Berkshire Hathaway's investment program. So in addition to having a sound grip on what kind of strategies it takes to produce extraordinary investment results over a very long time, Keynes and Buffett also had the personal motivation to implement them.

Today's investment agents who stand between people and their wealth accumulations (directly, or through mutual, endowment, or pension funds) are in a very different place. To appreciate that place requires understanding the asymmetric information problem Nobel Prize winner George Akerlof demonstrated so graphically in his 1970 article 'The Market for Lemons'. Applied to the market for investment management services rather than used cars, the article's message was that if the sellers know more about the services they are selling than the buyers know what they are buying, the buyers will pay too much for too little. If, aided and abetted by today's 24/7 media, it is easier to convince investors that the best chance to grow their wealth is through picking winners in the short-term game of 'beauty contest' investing, that is what financial agents will sell.

Fortunately, a clear understanding of the problem is also the beginning of finding a solution. It is to build and foster investment institutions that are not only skilled, but are also motivated to represent the real interests of the people whose wealth they are managing. If that is done, the balance will shift from playing wealth-reducing short-term trading games to implementing wealth-producing long-term investment programs. Doing so will prove Fama and Shiller both right. But can this be done in practice? The answer is 'yes', and we offer the Ontario Teachers' Pension Plan story as an example.

The Ontario Teachers' Story

The recently-released 2013 Annual Report of the Ontario Teachers' Pension Plan (OTPP) reported that it continues to hold its #1 position as having the highest 10-year net investment return in the CEM database of some 300 funds, as well as its #1 position as having the highest net excess return relative to its composite benchmark portfolio. Going back to its 1991 inception, the Plan has generated an average annual net return of 10.2% versus 8.0% for its composite benchmark. Digging deeper, the liability mismatch risk

22 See Frazzini, Kabiller, and Pederson (2012). Keynes and Buffett had similar long-horizon high-conviction investment strategies. See Ambachtsheer (2014) for more on this.

of the benchmark portfolio averaged 8.6% versus 9.2% for the actual fund. Thus OTPP generated an additional 2.2% of investment return per year by taking an additional 60 basis points (0.6%) of balance sheet mismatch risk, a ratio of almost 4:1. This outperformance has added C$29 billion to OTPPs balance sheet since 1991. Current assets stand at C$139 billion.

How to explain these extraordinary results? A starting clue is OTPPs stated investment beliefs:[23]

- **Our responsibilities are intergenerational:** So we must be long-horizon investors.
- **We take a holistic perspective:** Long-horizon investors must look beyond pure financial considerations, and examine the environmental, social, and governance aspects of investing as well.
- **We operate within a clear, integrated risk budget:** It includes liability mismatch risk, liquidity risk, and we use derivatives to manage risk where appropriate.
- **Our primary asset is human capital:** We empower our people, urge them to collaborate, and give them space to make mistakes.
- **Investment markets are not fully efficient:** They offer exploitable opportunities to generate excess returns in both public and private markets.
- **Global networks:** Strong global people networks facilitate the identification and exploitation of investment opportunities.
- **Investing is a business:** Returns matter, but so do costs.

An important consequence of the 'cost matter' belief is that 80% of OTPPs assets are managed internally. Its strong in-sourcing strategies are especially effective in long-horizon private markets investing (e.g., real estate, infrastructure, private equity), where the '2-and-20' rule of thumb for fees can easily lead to total annual investment management costs in the 4-5% of assets area.[24]

OTPP was designed based the organizational principles of Peter Drucker in the late 1980s. Claude Lamoureux was appointed as OTPPs first CEO in 1990, retiring 17 years later in 2007. In 2008 he would write his version of OTPPs unconventional inception and evolution in the article 'Effective Pension Governance: The Ontario Teachers' Story'.[25] Drucker's organizational principles have been transforming pension organizations not just

23 From the OTPP 2013 Annual Report.

24 The '2-and-20' rule means a base fee of 2% if assets, and an additional fee equal to 20% of the investment's return over some pre-established hurdle rate. For more on the cost of private markets investing, see Phalippou (2009) 'Beware of Venturing into Private Equity', and Dyck and Pomorski (2011) 'Is Bigger Better? Size and Performance in Pension Plans'

25 Lamoureux (2008).

in Canada, but also in the USA, Europe, and around the Pacific Rim. His principles are reflected in the QSuper, NEST, Washington, and ATP stories recounted earlier in this paper. We now add the story of the Dutch PFZW/PGGM pension organizations to these four.[26]

The PFZW/PGGM Story

The Global Financial Crisis (GFC) and its aftermath led PFZWs Supervisory Board to ask four important questions:

1. Is the 'Efficient Markets' paradigm relevant to our pension plan?
2. What are the long-term return prospects for our plan assets?
3. How do we redesign our pension contract to regain societal trust?
4. How do we support the concept of 'sustainability' rather than just talk about it?

The quest to answer these questions led to an in-depth, multi-year R&D project that is already yielding tangible benefits. For example, there is now a 12-page PFZW Investment Framework that sets out Beliefs and Principles Regarding Investment Policy, Policy Implementation, and Governance and Control.

Salient elements of these beliefs and principles include the following three:

1. **Sustainability:** PFZW assumes a responsibility for contributing tangibly to a sustainable world and that, at the same time, a sustainable world is a necessary condition for generating adequate returns over long investment horizons.
2. **Parsimoniousness, Flexibility, and Uncertainty:** The number of return generation sources is limited; many 'investment categories' are differently packaged forms of the same underlying ingredients. There are limited opportunities to detect valuation dislocations and other major risks, which may lead us to adjust our investment policy.
3. **Investment Management:** We recognize the principal-agent problem and resulting return leakages. We will focus on building long-term relationships and long-term return generation rather than beating short-term benchmarks. This will allow us to plan a more active role in capital markets, acting as business owners rather than owners of share certificates.

26 Pensioenfonds voor Zorg en Welzijn (PFZW) is the second largest pension plan in the Netherlands. PGGM is PFZWs pension service organization.

All this is leading to a 2014-2020 Strategic Investment Plan and a roadmap for getting there.[27] These initiatives by the PFZW Board and PGGM management are very much in line with Drucker's vision of organizational effectiveness.[28]

Part IV of the chapter combines the Part II findings on pension design with the Part III pension investment and governance findings to address current pension design, investment, and governance issues in the Netherlands.

Part IV: Addressing current pension issues in the Netherlands

Here we apply the pension design and organization design lessons learned in prior parts of this paper to the current Netherlands situation. How to create greater clarity, flexibility, and confidence in Dutch second pillar pension plans? An important step is to assign the affordability and safety goals embedded in these plans to separate instruments to better meet participant preferences and trust. Participants automatically shift from the return-seeking instrument to the safety instrument of the plan on an age-related basis, while maintaining clear property rights throughout. Participants can override the 'default' rule to suit their own preferences if they wish. Strong leadership will be required to transition the current 'Collective DC' plans to this new, more sustainable pension plan form.

Current Pension Issues in the Netherlands

The Dutch have been thought-leaders in the design and management of collective pension systems for a long time. The origins of the Dutch 'collectivity' mindset reach way back to the 'polder model', which reflects a special sort of solidarity forged by working together for centuries to keep the sea at bay. After the Dot.Com bubble more than a decade ago, pension regulator Dirk Witteveen declared in 2002 that, without major reforms, the Dutch pension system could end up under water too. Despite strong protests at the time, stronger funding rules were instituted, and it seemed that the system was healthy once again... until the GFC struck in 2008/9.

The GFC raised even more fundamental questions about the 21st Century sustainability of the Dutch pension system (and for that matter, of every other pension system on earth). As a result of these questions in the Netherlands, the search for more sturdy models that could meet the '21st Century Sustainability' test was on. In taking on this challenge, the Dutch have strong comparative advantages to be a global leader in pension innovation: high public interest level, strong pension expertise, strong pension institutions, and that centuries-old collective approach to problem solving.

27 For more detail, see Van Dam (2014).

28 I was one of the outside advisors invited to comment on the project.

These redesign efforts have produced a number of new pension models. Some continue to emphasize collectivity, uniformity, and payment safety in nominal terms. Others focus on delivering a target pension in real terms, and on providing at least some participant choice in such dimensions as retirement date and investment risk exposure.[29] Both directions have their champions and detractors. We believe the best chance to resolve this directional debate is to start with a few broad principles, and follow through to their logical design implications. This requires taking apparently opposite ideas (e.g., enforcing solidarity vs. accommodating individual preferences) to reach 'a synthesis that contains elements of both but improves on each'. The referenced pension design developments in Australia, Denmark, and the UK provide additional context.

Principles for Designing Effective Pension Systems

The synthesis quote comes from Roger Martin's 2007 book 'The Opposable Mind'. He asserts people tend to address most challenging problems with 'either-or' mindsets... when in fact 'and-and' solutions are often superior to forcing a decision between Choice A and B. So it is with the apparent 'individualization vs. solidarity' conflict in pension system design: the ideal pension design encompasses *both* elements. The challenge is to think through which elements of the system should accommodate individual preferences, and which elements are better addressed collectively.

The already-cited paper by Van Galen, Kocken, and Lundbergh (GKL 2014) offers a powerful framework for addressing this design challenge. They assert that at a high level, any effective pension design must meet the triple tests of adaptability, stability, and fairness. This in turn leads to a series of design principles reflecting human behavior, plan sustainability, and how risks are best borne:

Three Behavioural Principles:

1. **Keep it simple:** Don't make the pension solution any more complex than is necessary.
2. **Provide sensible choices:** Employees should be given a standard default package, on top of which a limited set of well-considered alternatives are offered.
3. **Under-promise, over-deliver:** Research has shown that people experience a loss as being twice as painful as a gain of equal size is pleasant. People value certainty, but too much of it will make the target pension unaffordable.

29 See Kortleve (2013) and Bovenberg *et al.* (2014) for more detailed expositions of these models.

Three Sustainability Principles:

1. **Ensure adaptability:** Constantly changing external conditions require an adaptable pension system. Explicit individual ownership rights ensure system flexibility so it can adjust over time, and also make pensions portable to other systems.
2. **Keep it objective:** The measure of the health of a pension system should be based on objective market valuations. If the valuations are calculated differently from market practice, participants may feel they are better off outside the system.
3. **Prepare for extreme weather:** A pension system should be robust under extreme circumstances. Don't build the system based on predictions, but on consequences of possible outcomes.

Three Risk-Bearing Principles:

1. **Avoid winner/loser outcomes:** To avoid losing support, pension system design should prevent any one group of participants benefitting at the cost of another group.
2. **Solidarity in bearing diversifiable risk:** A system founded on solidarity in bearing diversifiable risk creates value for all by reducing the individual risk. For example, it makes sense for individuals to pool their individual longevity risk with a large group.
3. **Individuals must bear some risks:** Risks that cannot be diversified or hedged in the market should be borne by the individual. Pooling non-diversifiable risks inevitably leads to transfers between groups in the collective pool and eventually erodes trust in the system.

It is noteworthy that DNB President Klaas Knot emphasized the pension design principles of clear ownership rights, age-based investment policy differentiation, participant choice, and intergenerational fairness in a recent speech.[30] They resonate nicely with the GKL principles set out above.

So what does an implementable 21st Century pension model which score high on these pension design principles look like? That is the question to be addressed next.

Foundations for 21st Century Pension Models

In implementing GKLs design principles, ideas espoused by Albert Einstein (relativity theory), John Nash (game theory), Jan Tinbergen (public policy theory), John Maynard Keynes (public policy theory), and Peter Drucker (governance theory) offer important additional insights:

1. **Albert Einstein** admonished people to make things as simple as possible, but no simpler. In our view, most Dutch pension 'contracts' today cannot

30 Opening remarks at a DNB Seminar for pension fund trustees held on September 11, 2014.

pass the Einstein test. Many are incomplete, and too complicated for non-experts to understand. Worse, some of the current reform proposals create the risk these contracts will become even more complicated.[31] This will reduce the already-declining public confidence and trust in the Dutch pension system even further.

2. **John Nash** warned of bargaining arrangements that have potential 'win-lose' outcomes embedded in them ... they will eventually become adversarial. Most Dutch pension arrangements today do not have clear property rights (e.g., the size and certainty of future balance sheet claims of younger and older plan members at any point in time are typically not fully defined). Nash's game theory model predicts that when adverse economic conditions such as 2008/9 GFC arise, competing positions about the ownership of balance sheet assets and liabilities will surface. This has in fact come to pass. Some of the current reform proposals perpetuate this 'win-lose' problem by using a discount rate curve based on subjective, changing parameters to determine how money is divided between younger and older plan beneficiaries.
3. **Jan Tinbergen** showed that the number of economic goals to be attained must be matched by the number of instruments capable of achieving them. Two primary economic goals of pension systems are 1. Affordability, and 2. Payment-Safety. Applying the Tinbergen Principle, achieving these two goals will require two financial instruments (i.e., a longer-term, wealth-creating instrument for affordability, and a shorter-term liability-hedging instrument for payment safety). Pension models that meet this duality test might be called '2 goals → 2 instruments' models.[32]
4. **John Maynard Keynes** observed that institutional investors seemed more interested in winning adversarial trading games ('beauty contests') amongst themselves than in creating long term wealth for their clients. We noted in Section III that many pension organizations continue to engage in zero-sum, adversarial, 'beauty contest' investment games, but that a small, but growing number are engaged in longer term wealth-creation strategies. The '2 goals → 2 instruments' pension model offers a clear, unambiguous rationale for adopting explicit longer term wealth-creating investment programs. While such programs may be 'risky' in a short horizon context, they are much less so for multi-decade holding

31 For example, the recent FTK legislation introduced new complex rules related to target and minimum funded ratios, rolling 10-year recovery plans, indexation, and the use of a theoretical construct called 'the ultimate forward rate' in setting liability discount rates.

32 We have already noted that there are further more specific operational goals within the primary return-seeking and safety-provision instruments.

periods.[33] At the same time, the payment-safety instrument must give older workers and pensioners comfort that the deferred annuity contracts they have purchased will pay at least some minimum contracted amount. The ATP case offers a practical example of applying this principle.

5. **Peter Drucker** wrote that pension organizations need effective governance disciplines just as much as any other organization. A growing body of research is confirming this reality.[34] We noted in Part III that only pension organizations with effective boards and managements can serve plan participants as well as they have a right to expect, and offered the QSuper, NEST, Washington, ATP, Ontario Teachers', and PFZW/PGGM cases as live examples.

Are there any major pension institutions currently operating with a '2 goals → 2 instruments' model? We have already examined the Denmark's ATP structure with its separate annuity and high-return-seeking instruments in some detail.[35] USA-based TIAA-CREF has offered its participants separate affordability (i.e., CREF) and safety (i.e., TIAA) instruments since 1952. CREF permits participants to build a retirement savings pool over long investment compounding periods. TIAA permits participants to buy payment safety through deferred annuities. A 2009 study showed that in the sample of 77,000 active plan participants, all age-cohorts were on track to replace at least 70% of their preretirement income (including the Social Security pension).[36] Peter Drucker, a TIAA-CREF participant for many years,

33 For example, $100 invested in a risk-free 20-year 2% bond produces a certain $149 in 20 years, or an expected return of $49 (i.e., $149-$100); $100 invested in a 'risky' portfolio yielding 4% today has an expected value of $397 in 20 years with 2% expected inflation and a 1% expected real growth rate in investment income. So its expected return is $297 (i.e., $397-$100). While the price volatility of the 'risky' portfolio will be higher in the short term, the chances that (assuming its investment income sources are high-quality and well-diversified) its actual 20-year return will be less than the risk-free $49 (i.e., $149-$100) is very small (i.e., would require an extended, multi-decade GFC). This arithmetic supports the notion that with the primary concern of long-term affordability rather than short-term payment safety, younger workers should be building up their retirement nest eggs in the long-term wealth-creation instrument.

34 See Ambachtsheer (2014) for more on this.

35 Though I question ATPs choice to maintain a fixed 80%safety/20%growth allocation rule for contributions into the plan, regardless of participant age, and not assigning individual ownership rights to the return-seeking growth pool.

36 See Hammond and Richardson (2009).

wrote approvingly about its '2 goals → 2 instruments' model in his 1976 book 'The Unseen Revolution'.[37]

However, TIAA-CREF is not without its critics. For example, some argue that the organization lacks valuation transparency, has opaque risk-sharing rules, makes discretionary surplus allocation decisions, and offers too many investment and annuitization options today. In contrast, Denmark's ATP model is far simpler and more transparent. However, it does not offer its participants any choice in allocating contributions between its safety and return-seeking instruments.

Key Features a 21st Century Pension Model for the Netherlands

We now adapt the principles-driven '2 goals → 2 instruments' pension model to a Netherlands context. In honour of Dutch Nobel Prize recipient Jan Tinbergen, we might call it the Tinbergen Pension Model. It has three key features:

1. **A Long Horizon Return-Seeking Investment Instrument:** In the spirit of Keynes' investment vision, such funds seek, acquire, and nurture sustainable, growing long horizon cash-flows in the form of dividends, rents, tolls from a diversified portfolio of public and private investment vehicles. The fact that 'the market' will value these cash-flows differently from day to day should not be a primary concern. In Footnote 33 we showed that, eventually (e.g., for a 20-year holding period in the example), as long as the aggregate investment income-related cash-flow of the fund performs in line with expectations (e.g., grows in excess of the rate of inflation), 'the market' eventually values such cash-flows on their economic merits. These long-horizon, return-seeking funds are managed by engaged investors (e.g., like the ones we met earlier in this chapter) who positively impact investment outcomes through their individual and collective engagement strategies with investee organizations (e.g., public or private corporations, real estate investment trusts, infrastructure collaborations). Plan participants individually own units in these funds, which are valued regularly (e.g., quarterly). The units pay out investment income with the payout rate calculated so as to maintain their long-term

37 The Teachers' Insurance and Annuity Association (TIAA) part of TIAA-CREF was founded in 1918 to provide aging university professors in the USA with modest annuity-based pensions. The College Retirement Equity Fund (CREF) part was added on in 1952. This initiative recognized that at a time when dividend yields on equities exceeded interest yields on bonds, at least a part of retirement savings should be invested in equities. Today, TIAA-CREF continues to be an independent financial institution serving America's higher-education community including about 15,000 institutions and close to 5 million people. Total assets of $570B are split about 50-50 between TIAA and CREF. The TIAA balance sheet has an AAA rating from the major rating agencies.

real value, with participants having the option to automatically re-invest their investment income in the fund (i.e., purchase additional units).[38] These features ensure clear property rights, 'ex ante' intergenerational fairness, and a clear, unambiguous connection between retirement savings and the ongoing wealth-creation process required for future pension system sustainability.[39]

2. **A Liability-Driven Payment-Safety Instrument:** It supplies additional life-long payment safety in the form of nominal deferred life annuities (i.e., additional to the first pillar AOW pension). Plan participants purchase these life annuities at a 'fair-value' price (i.e., as in the case of ATP, reflecting the actual structure of nominal interest rates at the time of purchase and conservative longevity expectations for the plan participant population). The balance sheet of this mutual insurance entity is managed and regulated to ensure that payment promises made will be payment promises kept.[40] To keep things as simple as possible, there is only one market-hedgeable form of annuity on offer. Participants begin to purchase these annuities later in their working career (e.g., starting at age 47) on a deferred basis and accumulate them gradually over the period to retirement (e.g., age 67). There is nothing new here, as many current pension contracts already do this (e.g., the ATP example). What would be new is that younger members no longer overpay, and older members no longer underpay for their deferred annuity purchases, as is the case with the typical Collective DC arrangement in the Netherlands today.[41]
3. **A Life-Cycle Transition Protocol:** It starts from the reality that people journey through three life phases: pre-work, work, and post-work. An explicit post-work standard of living target (e.g., 70% of average gross

38 See Ambachtsheer (2012) for a case study on how this kind of investment program can work in practice.

39 Note the consistency between the 'rules' we set out for the design and management of these long-horizon return-seeking investment funds and the QSuper, ATP, Ontario Teachers', and PFZW/PGGM investment principles set out in Parts II and III.

40 The form of the payment promise could be a minimum nominal payment guarantee, with the possibility of additional payments depending on actual investment and mortality experience versus conservatively-set expectations. As is standard practice in insurance arrangements, liability-driven payment-safety arrangements need a risk buffer consistent with the residual amount of non-hedgeable balance sheet mismatch risk remaining. Again ATP offers an example of how this could work in practice. We noted in footnote 18 that Sweden has published a new paper on the risk buffer question.

41 GKL (2014) use the current 'doorsneepremie' funding method as an example of a 'winners-losers' plan design feature that should be avoided in second pillar pension plans.

pre-retirement earnings) starting on a target retirement date (e.g., age 67) is financed in part by the AOW pension, and in part by a calculated worker savings rate and the investment return on those accumulating savings. Participants receive regular updates of progress towards achieving the target pension on the target date. A default rule determines members' allocations between the two investment instruments over the course of the work and post-work phases of their life-cycle. For example, the default rule might be that in addition to the AOW pension, 80% of the accumulating second pillar retirement savings are also gradually annuitized between the ages of 47 and 67.[42] Plan members would have an over-ride option to change the 80% annuitization target for the second pillar pension up or down. Note that with the 80% annuitization default rule, retirees would receive lifetime income from three sources: the AOW pension, the annuitized portion of the second pillar pension, and an annual investment income payout from their ongoing participation in the long-horizon, return-seeking fund. Retirees can generate additional retirement income by 'cashing in' some of their remaining units in the long-horizon, return-seeking fund. This option introduces another element of choice into Dutch second pillar pension plans. A well-thought-out redemption protocol would control the timing, size, and cost of these optional additional redemptions out of the return-seeking pool. Plan participants receive regular, understandable updates of the progress they are making towards a target pension on a target retirement date.

Of course, reaching agreement to adopt this Tinbergen Pension Model as the 21st Century second pillar pension structure for the Netherlands would only be a first step. A well-thought out, well-understood, well-executed transition plan to get the current Collective DC plans from here to there is also required.

Getting from Here to There

Three steps will be required to transition the current CDC pension arrangements to ones consistent with the design features of the proposed Tinbergen Pension Model:

42 This implies a modest annual 4% shift from the return-seeking pool into the safety pool over a 20-year period, thus minimizing the risk a major shift taking place at the wrong time in the financial markets. A study by Beshears *et al.* (2012) titled 'What Makes Annuitization More Appealing?' offers important insights into the features of annuitization plan participants like, and do not like.

1. **Create a protocol to convert current accrued collective pension rights of plan participants into Tinbergen Model pension rights:** This protocol needs to pass the triple tests of understandability, legality, and both actual and perceived fairness to all participants. Devising such a protocol will be exacting work. For example, the conversion process could start by dividing up plan assets on a given date into individual plan member ownership rights.[43] Once these 'divvying-up' calculations are agreed to, the plan's age-based default allocation rule is used to allocate each plan participant's asset rights between the 'return-seeking' and 'safety' components of the new plan.[44] These notional default allocations are communicated to plan participants with a clear explanation of the different goals of the two components. Participants have an option to adjust the default splits in line with their own preferences if they differ from the default calculation. The current legal plan entity becomes the 'safety' component in the new Tinbergen Model. A new return-seeking component is created in which plan participants are allocated ownership units in line with their ownership rights and their default (or chosen) allocation.
2. **Re-write pension laws to ensure the Tinbergen Pension Model and the conversion protocol to adopt it are legal:** This will require legal expertise, common sense, and a 'greater good' solidarity philosophy. For example, current Dutch pension law requires full annuitization at retirement, and does not permit changes in the make-up of plan benefits unless they meet a broad 'for the greater good/fairness' test.
3. **Engage pension plan participants in the process:** The transition to the Tinbergen Pension Model (and an agreed-on conversion protocol to get there) will not happen without broad 'average citizen' support. This

43 This 'divvying-up' process of a fund's assets could be guided by calculating the present values of the accrued participant benefits in the current pension plan on the conversion date, as well as the accumulated values of member contributions plus an earned rate of interest on them. Because of the 'doorsneepremie' feature in many plans, the contributions (plus interest) of active workers will exceed the present value of their accrued benefits. An average of these two calculations might offer a reasonable basis for establishing 'fair' participant ownership right proportions to the fund's assets. Likely, a good dose of 'solidarity' will be needed in many plans to reach agreement on the fairest way to 'divvy up' pension plan assets on a specific date.

44 So, following the default allocation rule set out earlier, 100% of the asset ownership rights of members aged 47 or younger would go into the return-seeking pool, while only 20% of the rights of members aged 67 or older would go into the return-seeking pool, with the other 80% allocated to the annuity pool. The proportions of the 47-67 age-group are proportionally in-between these two weighting schemes. As noted earlier, plan members would have the option to override these initial default allocations.

in turn will require strong 'social partner' support[45], as well as a well-conceived communication strategy rethink. The Dutch media reporting of the pension reform debate thus far has been unhelpfully convoluted. As importantly, some of the pension experts involved in the reform debate may have favored technical virtuosity over using plain language understandable by the public at large, thus breaking the 'keep it simple' rule.[46]

In closing, the detailed recommendations and related discussions set out in this chapter might be summarized this way:

1. **Agree on a clear set of principles to guide pension system reform in the Netherlands.** These principles should address system fairness, adaptability, and stability along the lines set out by GKL (2014) and the DNB as articulated in Klaas Knots's speech cited in Footnote 30.
2. **Adopt a new second pillar pension model with the following features:** Clear property rights, separate return-seeking and payment-safety instruments, a life-cycle-based default protocol that steers participants towards a target pension starting on a target date, and a mechanism allowing participants to override the default path if they so choose. This new model might be called the Tinbergen Pension Model.
3. **Agree on a fair, explainable transition protocol** to move participants from the current Collective DC model to the new Tinbergen Pension Model.

An addendum to these three recommendations is the ongoing need to continue to raise the governance quality of Dutch pension organizations at the same time, as we noted in Part III. Moving to the Tinbergen Pension Model does not impact organizational scale in any way. It does, however, help clarify the skill sets needed at the governance, management, and operational levels for organizational success.

Why Should the Dutch Lead?

Through his 2002 declaration, Dutch pension regulator Dirk Witteveen[47] was among the first public officials anywhere in the world to sound the alarm

45 In the context of this chapter, 'social partners' include any group in Dutch society with a legitimate stake in the pension design question. This would include not just the representatives of employer and employee groups, but also groups representing pensioners, young people, and even future generations.

46 The guiding principles for an effective public communication strategy follow directly from the pension design principles set out in this paper: simplicity, offering clear ownership rights and sensible participant choice options, and emphasizing solidarity combined with honesty about which risks can be fairly pooled, and which ones cannot.

47 Dirk Witteveen died of cancer in 2007.

that the global pension environment had changed, and that pension arrangements would have to adapt to it. Since then, these adaptation processes everywhere have been slowly and often painfully unfolding. Through their culture and their expertise, the Dutch have strong comparative advantages to be among the first countries in the world to successfully adapt their pension system to the 21st Century realities of aging populations, rising longevity, slower economic growth, and lower investment returns.

This chapter has shown that a new second pillar pension design which fits the GKL (2014) design principles and current Dutch pension realities is at hand. Now a new leadership must follow in the steps of Dirk Witteveen, and guide its successful implementation.

References

Akerlof, G. (1970): *The Market for Lemons: Quality, Uncertainty, and the Market Mechanism*, Quarterly Journal of Economics 83 (3).

Ambachtsheer, K. (2012): *On Defining and Achieving Investment Goals: Why We Need to Get Back to Basics*, The Ambachtsheer Letter, November.

Ambachtsheer, K. (2014): *The Case for Long-Termism*, Rotman International Journal of Pension Management, Fall.

Andonov, A., R. Bauer and M. Cremers (2013): *Pension Fund Asset Allocation and Liability Discount Rates: Camouflage and Reckless Risk-Taking by U.S. Pension Plans*, Rotman ICPM Working Paper.

ATP Press Release (2014): *ATP to adjust pension product*, 12 August.

Beshears, J., J. Choi, D. Laibson, B. Madrian and S. Zelders (2012): *What Makes Annuitization More Appealing?*, NBER Working Paper.

Bovenberg, L., R. Mehlkopf and T. Nijman (2014): *The promise of defined-ambition pension plans: Lessons for the United States*, NETSPAR Occasional Papers.

Brock, W. (2014): *Resolving the Market Efficiency Paradox*, SED Profile, March.

Chambers, D. and E. Dimson (2013): *John Maynard Keynes: Investment Innovator*, Journal of Economic Perspectives 27 (3).

Drucker, P. (1976): *The Unseen Revolution: How Pension Fund Socialism Came to America*, New Brunswick, NJ, Transaction.

Dyck, A. and L. Pomorski (2011): *Is Bigger Better? Size and Performance in Pension Plan Management*, Rotman School of Management Working Paper.

Frazzini, A., D. Kabiller and L. Pederson (2013): *Buffet's Alpha*, NBER Working Paper.

Hammond, B. and D. Richardson (2009): *Staying on the Path to a Secure Retirement*, TIAA-CREF Research Institute Dialogue #95.

Jarner, S. and E. Kryger (2008): *The SAINT mortality model: Theory and application*, ATP Working Paper.

Keynes, J. (1936): *The General Theory of Employment, Interest, and Money*, Palgrave Macmillan, London.

Kortleve, N. (2013): *The 'Defined Ambition' Pension Plan: A Dutch Interpretation*, Rotman International Journal of Pension Management, Spring.

Kurz, M. (1994): *On Rational Belief Equilibria*, Economic Theory 4 (1).

Lamoureux, C. (2008): *Effective Pension Governance: The Ontario Teachers' Story*, Rotman International Journal of Pension Management, Fall.

Lekniute, Z., R. Beetsma and E. Ponds (2014): *A Value-Based Approach to the Redesign of US State Pension Plans*, Rotman ICPM Working Paper.

Martin, R. (2007): *The Opposable Mind*, Cambridge, MA, Harvard Business Review Press.

Munnell, A. and D. Bleckman (2014): *Is Pension Coverage a Problem in the Private Sector?*, Issues in Brief, Center for Retirement, Boston College MA.

Ontario Teachers' Pension Plan [OTPP] (2014): *Annual Report – 2013*, www.OTPP.com.

Phalippou, L. (2009): *Beware of Venturing into Private Equity*, Journal of Economic Perspectives, 23 (1).

Rohde, L. and C. Dengsoe (2010): *Higher Pensions and Less Risk: Innovation in Denmark's ATP Pension Plan*, Rotman International Journal of Pension Management, Fall.

The Economist (2014): Chicago: *Rahmbo's toughest mission*, June 14.

Tobin, J. (1990): *Essays in Economics*, Volume 4, Chapter 14, MIT Press, Cambridge MA.

Van Dam, J. (2014): *Rethinking Investing from the Ground Up*, Rotman International Journal of Pension Management, Spring.

Van Galen, T., T. Kocken and S. Lundbergh (2014): *Demystifying Pension Design: Clearer Principles Foster Better Practices*, Rotman International Journal of Pension Management, Fall.