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PENSION PLAN DESIGN AND MANAGEMENT IN THE 21ST CENTURY:

WHY AND HOW WE NEED TO CHANGE THE CONVERSATION ABOUT PENSION REFORM

“Perfect is the enemy of good.”

Voltaire, 1770

“Everything should be made as simple as it can be...but not simpler.”

Albert Einstein, 1933

“Tinbergen classified some economic factors as ‘targets’ and others as ‘instruments’. He emphasized that achieving a certain number of ‘targets’ requires an equal number of ‘instruments’.

*This became known as the **Tinbergen Rule**.”*

Reference to Nobel Laureate Jan Tinbergen, 1969
From Wikipedia

“The new institutions we must create to administer and invest pension monies must have adequate management and be rendered ‘legitimate’. They must be autonomous institutions and free from any conflicts of interest.

Peter Drucker
From his book “The Unseen Revolution”, 1976

“John Nash was best known for his contributions to non-cooperative game theory.”

Reference to Nobel Laureate John Nash, 1994
From Wikipedia

“The new pension design we propose is neither DB or DC. It addresses both the ‘human foibles’ challenges associated with individual choice and decision-making, as well as the ‘agency’ challenges associated with collective risk-sharing arrangements and with the asymmetric information problem between the recipients of pension management services and the providers of these services.”

Keith Ambachtsheer
From his book “Pension Revolution”, 2007

‘The Between Times’

In their just-released book “Power and Prediction” (Harvard Business Review Press) on the disruptive economics of Artificial Intelligence (AI), authors Agrawal, Gans, and Goldfarb write about ‘The Between Times’ between an important new discovery, and the time it takes for that discovery to go mainstream. For example, in 1879 Thomas Edison demonstrated the potential of the electric light bulb to change the world. Yet, 20 years later, only 3% of US households had electricity. It would take yet another 20 years for that number to reach 50% of the population. So for electricity, ‘The Between Times’ were 40 years. This reality prompts them to wonder how long ‘The Between Times’ will be for AI.

We might well ask the same question about the design and implementation of modern retirement income systems. Many attribute its invention to German Chancellor Otto von Bismarck in 1881. Remarkably, it took 54 years before Franklin D. Roosevelt followed with the Social Security Act of 1935. It took another 59 years after that before the World Bank published its 1994 paper “Averting the Old-Age Crisis”, which took a systems approach to the design of retirement income generation structures. This systems perspective allowed us to have sensible conversations about the relative merits, integration, and management of three retirement income system components: Pillar 1 (universal, pay-go), Pillar 2 (employment-based, pre-funded), and Pillar 3 (individual, pre-funded).

The quality of these conversations was further enhanced by the launch of the *Mercer-Melbourne Global Pension Index* in 2009 (now the *Mercer CFA Institute GPI*). The Index measures the quality of national retirement income systems (for 44 countries) through the assessment of the ability each system to generate adequate retirement income today, of their potential sustainability to continue to do that in the future, and of the quality/integrity of their pension management/administration infrastructure.

The Contributions of Tinbergen, Nash, Drucker, Voltaire, and Einstein

If we start measuring ‘The Between Times’ for the widespread implementation of modern retirement income systems from Bismarck’s 1881 initiative, we are now in our 141st year. Fortunately, the pace has been picking up.

While not immediately obvious, Jan Tinbergen made an important contribution to the design of Pillar 2 pension plans with his 1969 *Tinbergen Rule* requiring that the number of policy targets must be matched by the number of instruments designed to achieve the targets. In retirement income generation space, the two ‘targets’ are adequate lifetime income and affordability, and the two matching instruments are a lifetime income ‘pot’, and a return generation ‘pot’. In a ‘life-cycle’ context, the lifetime income ‘pot’ is for older people. The return-generation ‘pot’ is for younger people, with their assets shifting to the lifetime income pot as they age. Also, John Nash’s work on non-cooperative games points to the ‘win-lose’ opportunities embedded in 1-pot DB pension arrangements. They can easily be structured so that the old win at the expense of the young, or that current generations win at the expense of future generations. Two examples are the use of aggressive funding discount rates that understate the cost of future pensions, and equal contribution rates between younger and older workers even though older workers will benefit from that equal contribution rate sooner than younger workers. Both the Tinbergen and Nash design contributions argue for 2-pot Pillar 2 pension plans.

Peter Drucker’s contribution focused on the critical characteristics of the infrastructure required to make Pillar 2 of a country’s retirement income system work. Pension management institutions must be both efficient and productive in how they manage both the return generation and lifetime income pots under their care. Further, as with the passage of time these institutions will become important owners of the means of production, they must also have the will and the requisite skills to become effective owners of productive capital. Finally, they must be skilled communicators to their stakeholders, and to the larger world. The contributions of Voltaire and Einstein are generic rather than pension-specific: practical, workable, understandable solutions to any problem generate trust and sustainability. Impractical, complex, theoretically perfect solutions do not.

Ambachtsheer’s 2007 Contribution

By the mid-2000s, enough of the pieces of the Pillar 2 pension puzzle had been identified, described, researched, and tested to put them together in a practical, workable, understandable way. That was the goal of my 2007 book “Pension Revolution” (Wiley). Key design components were to use the *Tinbergen Rule* and the *Nash Non-Cooperative Game* caution to construct a 2-pot accumulation/decumulation pension design, and to use the Drucker rules of ‘legitimacy’ and organizational effectiveness to create the best possible organization to manage it.

Paraphrasing the quote from the book on Page 1, the resulting pension design is a hybrid, combining the best of traditional DB and DC designs, while avoiding the agency problems of the traditional implementation structures.

Exiting ‘The Between Times’ in the UK, the USA, Canada, and Australia

There have been promising pension reform developments in these countries since the publication of “Pension Revolution” in 2007:

- The 2008 UK Pensions Act legislated compulsory auto-enrolment of all workers without a Pillar 2 plan into a qualifying retirement savings arrangement. Employees would have an opt-out option. After four years of preparation, auto-enrolment was phased in over the course of 2012-2018. Today, over 10M workers and 1.6M employers are participating in the program, collectively contributing a minimum of 8% of pay. Importantly, 90% of enrolled workers have chosen to stay in the plan that they were enrolled into.
- The USA has seen similar auto-enrolment initiatives taking place at the state- and city-level. Out of 16 initiatives thus far, the three largest are *CalSavers*, *Illinois Secure Choice*, and *Oregon Savers*, with combined assets of \$350M from 385K members and 37K employers. Many more state and city initiatives are in the planning stages.
- Canada has legislated benefit increases in the *Canada and Quebec Pension Plans*. These plans are somewhat of a hybrid, falling between Pillars 1 and 2. They are Pillar 1 plans in the sense that they are universal (*QPP* for all Quebec workers, *CPP* for all workers in the rest of Canada). They are Pillar 2 plans in the sense that they are workplace-based, with employers and employees splitting the contributions 50-50. Plan funding has evolved from pay-go, to partially pre-funded, to the just-legislated benefit increase to be fully prefunded. The contribution rate will rise from 9.9% to 11.9% of pay to finance increasing the target *CPP/QPP* benefit from 25% to eventually 33% of average earnings. There are also interesting initiatives underway to create new 2-pot pension plan offerings for private sector workers without Pillar 2 coverage.
- Australia has started to move to the 2-pot Pension Model: *QSuper* (now part of the *Australian Retirement Trust*) launched the ‘Lifetime Pension’ along side its traditional accumulation ‘pot’ in March 2021. It is being well-received by plan members. Other Australian super funds are now scrambling to catch up.

Exiting ‘The Between Times’ in The Netherlands

The rest of this *Letter* is going to focus on the arduous pension reform journey in the Netherlands, as it offers important ‘do’ and ‘don’t’ lessons for other countries contemplating the reform of their retirement income systems. A 2014 invitation by the *Dutch Royal Economics Society (KVS)* provided an opportunity to update my thinking on how to best solve the pension puzzle: “*We would like to invite you to share your thoughts on where pension reform should go from here in the Netherlands by writing a paper which might be titled “A view from the outside”. The paper should discuss the strengths and weaknesses of the Dutch pension system as compared with best practices in the world, and take into account the international trends in pension systems.*” This led to the publication of a 23-page paper “[Taking the Dutch Pension System to the Next Level: A View from the Outside](#)” on September 30, 2014.

The paper concluded with detailed descriptions of a “Return-Seeking Investment Instrument” in which individual members own units, a “Lifetime Payment Instrument” in which members collectively pool longevity risk, and a ‘Life-Cycle Transition Protocol’ which steadily shifts assets from the return-seeking ‘pot’ to the lifetime income ‘pot’ between the ages of 47 to 67. By age 67, 80% of a member’s return-seeking assets have shifted to the lifetime income pool. Members have the option to override this ‘default’ protocol if they wish.

While the reform ideas set out in my 2014 *KVS* paper were favorably received, they were not immediately transformed into legislation. Instead, years of ongoing reform discussion and debate followed. At the same time, the stringent solvency-focused regulatory regime for Pillar 2 pensions that was adopted post-GFC, combined with a decade-long decline in liability discount rates, led to an ongoing series of missed inflation indexation updates and even actual pension cuts, with threats of further ones to come. A sense of generational unfairness combined with short-term pension payment volatility due to the stringent solvency requirements continued to weaken Dutch plan member confidence in their pension plans.

In response, after much discussion and debate, a new pension law was drafted in 2020 to end the solvency-focused regulatory regime, and to move the Pillar 2 system to an individual retirement savings account basis, while at the same time also retaining a number of collective risk-pooling options. Unfortunately, the result has been further discussion and debate on this draft, which has led to further falls in plan member confidence in their pension plans. Why did this happen? Because over the course of this long, painful pension reform journey, the cautions of Voltaire and Einstein were ignored. Things were not kept as simple as possible, and perfection was not seen as the enemy of the good.

So what should the Dutch do now? Here are four suggestions:

1. Start by accepting the sensible advice of Voltaire and Einstein: keep the required reforms simple and 'good enough' rather than perfect.
2. Go back to the four design principles *DNB* President Klaas Knot set out in a 2014 speech to pension fund Board members: clear ownership rights, an age-based investment policy, member choice, and intergenerational fairness.
3. Adopt the plan design set out in my 2014 *KVS* paper, which is 100% consistent with Klaas Knot's four 2014 pension reform principles. In fact, one of the multiple plan design options in the draft 2020 pension legislation is very close to the 2-pot design I proposed in my 2014 *KVS* paper.
4. Move to the 'new' plan design steadily and surely, rather than hastily. This means closing the 'old' pension plans when the 'new' plans are ready to take new contributions. 'Path-dependency' (and common sense) suggest it would be foolish to shift all of the 'old' to the 'new' on a given moment. Much simpler and fairer to let the 'old' die a slow, controlled death, while the 'new' grows into a good (but not perfect) 21st Century replacement.

These four steps would vault the Netherlands back on top of the pensions world, where it was not so many years ago. At the same time, the Dutch pension reform struggles offer an important lesson to the rest of the world: be clear about what your pension reform goals are, and implement them in ways that are as simple as can be....but not simpler.

Keith Ambachtsheer

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