

# 2015 Global Retirement Savings Conference

The Role of Private and Public Pension Provision

24 JUNE 2015 • PARIS

- The OECD's observations about the role of public and private pensions
- A holistic view of retirement systems in Chile, Denmark, and the United States
- Private pensions in Hong Kong, Latin America, the Netherlands, and the United States

Cohosted by the Organisation for Economic Co-operation and Development and the International Organisation of Pension Supervisors

### INSIGHTS FROM THE

# 2015 Global Retirement Savings Conference

The Role of Private and Public Pension Provision



# This report is the fourth in a series of publications about ICI Global's retirement savings events. Previous reports include:

Insights from the 2015 Global Retirement Savings Summit

Japanese and International Experiences

Tokyo

23 April 2015

Insights from the 2014 Global Retirement Savings Conference
Common Principles for a Diverse World
Geneva

17-18 June 2014

Insights from the 2013 Global Retirement Savings Conference
The Role of Investment Funds
Hong Kong
26–27 June 2013

These reports are available at www.iciglobal.org/retirementpublications.

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#### ABOUT ICI GLOBAL

The international arm of the Investment Company Institute, ICI Global serves a fund membership that includes regulated funds publicly offered to investors in jurisdictions worldwide, with combined assets of US\$19.1 trillion. ICI Global seeks to advance the common interests and promote public understanding of regulated investment funds, their managers, and investors. Its policy agenda focuses on issues of significance to funds in the areas of financial stability, cross-border regulation, market structure, and pension provision. ICI Global has offices in London, Hong Kong, and Washington, DC.

#### ABOUT THE INVESTMENT COMPANY INSTITUTE

The Investment Company Institute (ICI) is a leading global association of regulated funds, including mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. ICI's US fund members manage total assets of US\$17.6 trillion and serve more than 90 million US shareholders. Members of ICI Global, the international arm of ICI, manage total assets of US\$1.5 trillion.

ICI has a deep interest in the retirement system and retirement policy. In the United States, mutual funds manage roughly half of the nearly US\$14 trillion in assets in defined contribution (DC) plans and individual retirement accounts (IRAs). The Institute has a large and active research programme on retirement trends, economics, and policy issues, and is the primary source for statistical data and research on retirement plans and the role of mutual funds in helping investors save for retirement.

#### TO LEARN MORE

Visit www.iciglobal.org/grsc to access all of the materials from the 2015 Global Retirement Savings Conference, including panellists' slides, speaker biographies, and video testimonials.

Contact Anna Driggs, associate chief counsel, retirement policy, at anna.driggs@iciglobal.org with questions about this report or about global long-term savings and retirement.

Visit www.ici.org/retirement to read more about ICI's retirement research.

## Letter from Dan Waters Managing Director, ICI Global

Helping citizens build adequate retirement resources is one of the greatest challenges facing countries worldwide. Many pension systems comprise public and private components that are designed to work together and are tailored to each country's unique cultural, political, and economic needs.

In some countries, public pensions account for a greater percentage of retirement income than private pensions, while in other jurisdictions the opposite is true. In the face of increasing demographic and economic pressures, however, more countries are reassessing the proportional roles that their private and public components play in providing retirement resources. This is leading many jurisdictions to revaluate and redesign these components, and to reassess their interaction.

These issues and others took centre stage at the 2015 Global Retirement Savings Conference on 24 June in Paris. Cohosted by ICI Global, the Organisation for Economic Co-operation and Development (OECD), and the International Organisation of Pension Supervisors, the event brought together 140 delegates from 47 countries, including nearly 100 national regulators, pension supervisors, and other government officials. The conference continued a discussion we have pursued through similar events in Hong Kong (2013), Geneva (2014), and Tokyo (2015).

Juan Yermo, deputy chief of staff to the secretary-general for the OECD, set the stage for the conference by discussing the three themes that have emerged from the work of the OECD's Working Party on Private Pensions:

1. private pension systems should complement public pension systems to a different degree in different countries;

- 2. private pension systems usually play a growing role over time; and
- 3. public pensions are being scaled back.

During the first session, panellists from Chile, Denmark, and the United States discussed each country's pension system and the interaction between each country's pension pillars. Though the three jurisdictions have very different systems, they share three similarities: the public and private systems complement each other; high-income people rely more on the private component in each system; and the public system offers different levels of protection and risk-sharing to different people. Panellists also spoke about the importance of system design, noting that design affects incentives to save.

The second session focused on how Hong Kong, the Netherlands, the United States, and several Latin American countries have designed their private pension systems, the particular challenges facing each system, and how each jurisdiction is solving them. Some of those challenges include increasing coverage, improving adequacy, and creating effective default investment vehicles and payout solutions.

The insights and key takeaways from these discussions are documented in this report, which I encourage you to read and share with others. Ensuring that citizens around the world have adequate retirement resources is a critical issue that we all must work together to address. ICI Global is committed to advancing the dialogue about how to improve retirement security worldwide, and I hope the information in this publication will help us take the next steps towards meeting that challenge.

#### OPENING REMARKS

## Observations About the Role of Private and Public Pension Systems

#### JUAN YERMO

Deputy Chief of Staff to the Secretary-General **OECD** Paris

Analysing trends in pension systems, formulating policy recommendations, and promoting international dialogue is a key part of the OECD's work on pensions. As part of this work, the OECD established the Working Party on Private Pensions (WPPP), a group of pension regulators from OECD member countries who meet regularly to develop best practices and to discuss their respective countries' challenges and innovations in developing private pensions. Juan Yermo, deputy chief of staff to the secretary-general for the OECD and the former head of its Private Pensions Unit, discussed three key themes that have emerged from the WPPP's work: private pension systems should complement public pension systems to a different degree in different countries, private pension systems usually play a growing role over time, and public pensions are being scaled back.

The following is an edited transcript of his remarks.

Juan Yermo: Good morning. I would like to offer some brief remarks on the role of private and public pension systems. I'm going to take you back to 1998, and discuss some of the core messages that the OECD has been repeating for some time. They're not new, but we have been repeating them loudly, clearly, and consistently over the years.

In 1998, we published 'Maintaining Prosperity in an Ageing Society,' which was a flagship publication of the OECD. It clearly stated that private pensions should be developed as a complement to public pension systems. This is a message that has appeared in many documents that we've published since then, and it is the first core message that I would like to talk about today. What is new is the work that we've

been doing on private pensions since and, in particular, the recent work that evaluates how private pensions contribute to retirement income adequacy. What we find is that despite the OECD's or other organisations' theoretical attempts at calculating any kind of optimal split between public and private pensions, each country has the right to figure out what split works best for it. This is very much a decision driven by social and political concerns and, most importantly, by some reluctance towards reforms. This idea-that ultimately countries decide what split works best for themis actually corroborated by data that we have. There are countries where private pensions account for less than 10 percent of retirement income, and then there are countries, such as Chile and the Netherlands, where private pensions account for

more than 40 and nearly 50 percent of total retirement income. These are the data, these are the facts, and this is what we've been highlighting in the latest OECD Pensions Outlook that we published last year.

Now we also find, and this is the second core message, that private pensions tend to play a growing role over time. This is partly a result of reforms, but most importantly a result of household incomes increasing. This is a fact that you can extend to practically any country in the world, and certainly in OECD countries. The higher a household's income, the greater the role that private pensions play, which is natural. This is a commonsense finding, but also something that could be a principle or recommendation. The reason for this is that the lower a household's income, the greater the risk of exposure to poverty and, therefore, the greater the role of the state because the state is the only institution that can protect the individual against poverty. That is why wherever we look—and again, going back to Chile and the Netherlandswe find that private pensions account for a small part of total income for lowerincome households, around 30 percent. As you go up the income scale, you get to the higher-income groups where private pensions account for 60 or 70 percent of total retirement income.

Our third core message has to do with our findings in terms of reforms. We find that public pensions are being scaled back. You Despite the OECD's or other organisations' theoretical attempts at calculating the optimal split between public and private pensions, each country has the right to figure out what split works best for it. For example, there are countries where private pensions account for less than 10 percent of retirement income, and there are countries, such as Chile and the Netherlands, where private pensions account for more than 40 or nearly 50 percent of total retirement income.

-Juan Yermo

have to look only at European political affairs to see this. For example, look at the Greek crisis, look at the negotiations. What is the sticking point of the negotiations? It's the reform of the pension system. Sustainable public pension promises were scaled back in the past, and the system still needs further reforms to make it sustainable in the long-term future.

What we find today is that, despite reforms to public pensions, private pension provision has not caught up with its responsibility. Let me go back to the OECD Pensions Outlook. While we reviewed many countries in that publication, we analysed data on retirement income adequacy for only six countries: Chile, France, the Netherlands, Norway, the United Kingdom, and the United States. We made this decision based on the data available. If you look at the calculations that were made, you find that 29 to 42 percent of households will have retirement income that is lower than

#### About the speaker

**Juan Yermo** is the deputy chief of staff to the secretary-general of the OECD. Before his current role, Yermo was senior advisor for the secretary-general's Better Policies Series. He joined the OECD in July 1999 and was initially in charge of the Private Pensions Unit. Yermo oversaw the Working Party on Private Pensions, and he also led the launch of the OECD Pensions Outlook, among other publications. Before joining the OECD, Yermo was a consultant in the Latin America and Caribbean department of the World Bank and a risk analyst for Bankers Trust.

the amount of retirement income that current retirees receive, as measured in terms of replacement rates.

So this is a major concern. You can set the benchmark of retirement income adequacy at whatever you want, but if 40 percent of current workers can expect a total replacement rate from public and private pensions that is below the retirement income of current retirees, then we have a serious policy issue that governments need to address. This is why the work of the WPPP and IOPS [International Organisation of Pension Supervisors] is so important, in particular their work on the role of defined contribution [DC] systems, on the design of DC systems, and on the growing role of DC systems. Contribution rates and the contribution period, retirement ages and drawdown strategies—all those regulatory aspects are critical to the success of private pensions in achieving adequate retirement income.

Now, let me say that our work on private pensions, public pensions, and pensions in general cannot be assessed in a vacuum. We have to look at the interaction between the private pension system and all the financial institutions, as well as the interaction between pension policy and other

policies, such as health policies. And we need to look at these issues in a cross-disciplinary manner. This is something that the OECD has been doing for many years. This is the great value-add of the OECDthe fact that we have working groups covering different areas. What's important about the OECD's work is that it not only brings forward specific expertise on issues such as pensions, but also creates synergy with other experts.

In that regard, we're very proud of a new publication that the Directorate for Financial and Enterprise Affairs [DAF] is launching this afternoon. This new publication, the OECD Business and Finance Outlook 2015, covers not only pension funds but also insurance, banks, shadow banking systems, competition, corporate governance, and foreign investment. The report looks at all these different sectors to offer a holistic assessment of both the risks and opportunities that the different players in the financial system face.

I would now like to conclude my remarks by discussing two big risks that pension systems are exposed to: demographic risks and interest rate risks. They affect both our public and private systems. They affect the public systems most clearly. Demographics is the obvious one, with lower fertility rates, higher longevity rates, and concerns about sustainability being the main issues. But interest rates are also a risk to the extent that they reflect lower growth prospects for countries. They affect the sustainability of pension promises, and ultimately the ability of public pensions to meet their objectives. The same is true with private pensions. They're not immune to demographic risks in terms of the effect of longevity and the implications of demographic ageing. They're also not immune to interest

rate risks in terms of the implications on asset returns and on the solvency of funded defined benefit [DB] plans.

I will now turn it over to our first panel, as I look forward to the discussion this morning. And most importantly, I look forward to following the excellent work that the WPPP has been doing under the leadership of Ambrogio Rinaldi, that IOPS has been doing under the leadership of Edward Odundo, and now also engaging with our colleagues from ICI.

#### PANEL 1

### The Interaction Between Public and Private Retirement Provision—A Holistic View

#### **PANELLISTS**

Pablo Antolín-Nicolás, Moderator Principal Economist Head of the Private Pension Unit Financial Affairs Division OECD

#### PETER J. BRADY

Senior Economist **Investment Company Institute** United States

#### **OLGA FUENTES**

Deputy Chairman of Regulation Superintendence of Pensions Chile

#### **OLE BEIER SØRENSEN**

Chief Pension Researcher ATP Denmark

To understand a pension system and assess its adequacy, both the private and public components must be considered holistically. During this session, panellists from the United States, Denmark, and Chile discussed their country's pension system and how its pension pillars interact. Though the three countries have very different systems, they share three similarities: the public and private systems complement each other, high-income people rely more on the private component in each system, and the public system offers different levels of protection and risk sharing. Panellists also noted the importance of system design, given that the design affects incentives to save. For example, the interaction among Denmark's pillars offers high levels of risk sharing and helps foster more predictable pension outcomes, but the interaction also leads to high implicit tax rates, which violate savings incentives.

The following is an edited transcript of the discussion.

Pablo Antolín-Nicolás: This panel will focus on how pay-as-you-go [PAYGO] public pensions and funded private pensions complement each other in different countries. We'll start with a presentation by Peter Brady, who will discuss the US retirement system and whether it could generate adequate outcomes.

Peter Brady: I'm going to begin my presentation by asking a question. Suppose there were six US workers whose annual earnings ranged from the low end of the wage distribution to the high end, and by the time these workers retired, they had accumulated enough assets in their 401(k) plans to replace 9 to 39 percent of their earnings. Also suppose that the retirement resources accumulated by these six hypothetical workers in their employer-sponsored retirement plans, or employer plans, were roughly consistent with results that you would see from actual workers. My question is, based on this information, what can we conclude about the adequacy of the voluntary employer plan system in the United States? Now, many researchers

have looked at data on the actual amount of assets that workers have accumulated in retirement plans. Those data are roughly consistent with the accumulations of my six hypothetical workers, and the researchers have concluded that the voluntary employer plan system in the United States is inadequate—that workers are 'falling short' when it comes to retirement preparedness. They've further concluded that the employer plan system is particularly failing workers with lower earnings.

What I hope to demonstrate today is that the replacement rate provided by a worker's retirement plan does not, by itself, provide enough information to judge the adequacy of the US voluntary employer plan system. The reason I say this is that employersponsored retirement plans-both DB plans and DC plans for both private-sector and government employees-are only one component of the US retirement system [See callout box]. The largest component is the Social Security system. Employer plans provide resources to supplement Social Security benefits in retirement. The

#### About the panellists

Pablo Antolín-Nicolás is principal economist and head of the private pension unit of the financial affairs division at the OECD. He manages the research and policy programme of the Working Party on Private Pensions, and his work covers issues related to the operation and regulation of funded retirement income systems.

Peter J. Brady is a senior economist for retirement and investor research at the Investment Company Institute (ICI). Brady's work focuses on pensions, retirement savings, and the taxation of capital income. Before joining ICI, Brady was a financial economist in the office of tax analysis at the US Department of the Treasury and a staff economist in the division of research and statistics at the Federal Reserve Board.

**Olga Fuentes** is deputy chairman of regulation at the Superintendence of Pensions, Chile. She was the head of the research division at the same institution between 2009 and 2014. Fuentes also has worked as an economist at the Central Bank of Chile, as a research analyst at a major Chilean stock broker company, and as a consultant for the Inter-American Development Bank in pension matters.

Ole Beier Sørensen is chief pension researcher at ATP and a key driver behind ATP's research activities on pension policy and other areas of public policy. His research covers a broad range of issues related to pension systems, pension reform, and pension management. In recent years, he has focused particularly on the interplay of public and private pensions and on pension reform. Before joining ATP, he held research positions at the University of Copenhagen.

#### **US Retirement Resources Form a Pyramid**

ICI illustrates the US retirement system as a pyramid, with Social Security providing a wide, sturdy base. Homeownership, employer-sponsored retirement plans, individual retirement accounts (IRAs), and other assets make up the rest of the pyramid. It's important to take all five components into account when assessing the adequacy of the US retirement system.



Source: Investment Company Institute, The Success of the U.S. Retirement System

adequacy of employer plans cannot be evaluated without knowing the amount of resources provided by the combination of Social Security and employer plans. If you take away only one message from my talk today, it should be that the US retirement system cannot be understood without appreciating the importance of the US Social Security system.

Let's begin by discussing how to define retirement resource adequacy. There are two primary ways to assess whether individuals are adequately prepared for retirement. One is to ask whether retirees can maintain spending above some minimal threshold, such as the poverty line. This approach produces an absolute standard of adequacy that would be the same for every worker. Another is to ask whether retirees can maintain the standard of living that

they enjoyed while they were working. This approach produces a relative standard of adequacy that would be different for each worker.

When workers fail to meet either an absolute standard or a relative standard, that can raise legitimate public policy concerns. However, the policies you would design to meet an absolute standard would look quite different from the policies you would design to meet a relative standard.

In the United States, there are two sets of government programmes for the elderly designed to meet these goals. One set is designed to ensure that all the elderly have a minimum level of resources, and the other set is designed to help workers accumulate enough resources to maintain their standard of living in retirement.

To ensure that retirees have some minimum level of resources, the United States has a safety net, which I define as 'government programmes with broad eligibility criteria, such as residency or age, that are means tested and are meant for people with few other resources.' These programmes restrict eligibility to individuals with few assets, pay a fixed amount of benefits that phases out with income to all eligible individuals, and are funded with general tax revenue. Notably, the US Social Security system does not meet this definition of a 'safety net' programme.

The primary safety net programme for the elderly in the United States is Supplemental Security Income [SSI], which pays a flat, means-tested benefit to anyone aged 65 or older. It phases out 50 cents on the dollar with earnings, and dollar for dollar with any other income, including Social Security benefits. In addition to SSI, there are various in-kind, means-tested programmes for food, shelter, and medical care. Although these programmes are not designed specifically for the elderly, those eligible for SSI would be eligible for these programmes as well.

The safety net for the elderly provides a minimum level of resources for all, and is intended to be used by individuals who reach age 65 with few other resourcesincluding little or no Social Security benefits. This group of the elderly comprises primarily individuals without a history of steady work.

The government has another set of programmes that assists workers in accumulating enough resources to maintain their standard of living in retirement. These programmes are not designed so that individuals who live in poverty for their entire life are suddenly lifted out of poverty when they reach retirement age. These programmes are designed for workers who reach retirement age after having fairly steady employment. The primary

employment-based retirement resource is Social Security. In addition, the government encourages employers to voluntarily sponsor retirement plans for their workers. There are also individual retirement accounts, or IRAs, but I'm going to talk about the voluntary employer plan system and IRAs together, because many of the assets in IRAs are actually rolled over from employer-sponsored retirement plans.

I will explain these programmes in more detail, starting with Social Security. Some have proposed that the United States should implement a mandatory retirement system for all workers. The good news for those who have such an opinion is that the United States already has a mandatory retirement plan. It's called the Social Security system.

- » It is a PAYGO system that is funded by dedicated payroll taxes, not by general tax revenue.
- It covers 94 percent of the workforce, and most of those not covered by the system are exempt because they are government workers covered by alternative government employee pensions.
- It is a contributory system, with the 'contributions' in the form of payroll taxes equal to 12.4 percent of pay that is shared equally between the employer and the employee.
- It is not a universal system available to all. To qualify for Social Security, you must have paid Social Security payroll taxes for the equivalent of 10 years.
- » Its benefits are not a fixed amount for all retirees, and the benefits are not means tested.

Social Security benefits are based upon a worker's lifetime earnings. The more you earn over your lifetime, the greater your benefits. However, benefits do not increase proportionately with earnings. The benefits formula is progressive: benefits replace a higher percentage of average earnings for workers with lower lifetime earnings.

To give you an idea of the generosity of the Social Security system, I'm going to show you how the average projected Social Security replacement rate—that is, benefits as a percentage of an individual's average inflation-indexed earnings—varies by lifetime earnings [Figure 1]. These estimates are for workers born in the 1960s and provided by the Congressional Budget Office [CBO], although I have adjusted the estimates to reflect individuals claiming benefits at age 67-the full benefit retirement age for individuals born in 1960 or later.

Among all workers born in the 1960s, the average Social Security replacement rate is projected to be 67 percent. The percentage of earnings replaced, however, is not the same for all workers. For workers in the

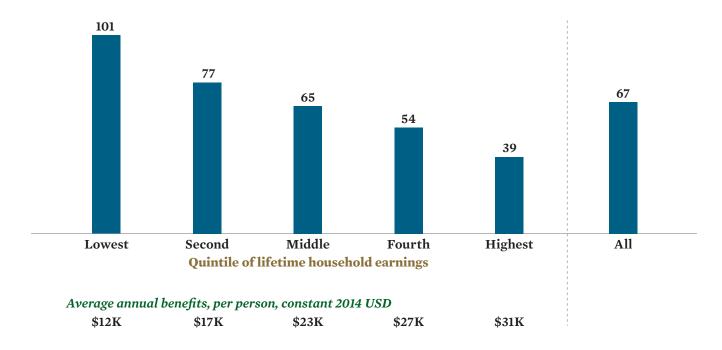
lowest 20 percent of households ranked by lifetime earnings, Social Security benefits would replace more than 100 percent of their average lifetime earnings. For workers in the highest 20 percent of households, benefits would replace 39 percent of average lifetime earnings. The amount in benefits actually increases with earnings, from \$12,000-in constant 2014 dollars-for workers in the lowest quintile of lifetime household earnings, to \$31,000 for workers in the highest quintile. Benefits increase more slowly than earnings, however, so benefits replace a smaller percentage of pay for higher earners.

In addition to Social Security, most nearretiree households have resources generated by the voluntary employer plan system [Figure 2]. In the United States, employers

FIGURE 1

#### The Social Security Benefit Formula Is Highly Progressive

Average projected Social Security replacement rate (benefits as a percentage of average inflation-indexed earnings for workers in 1960s birth cohort claiming at full benefit retirement age (age 67)

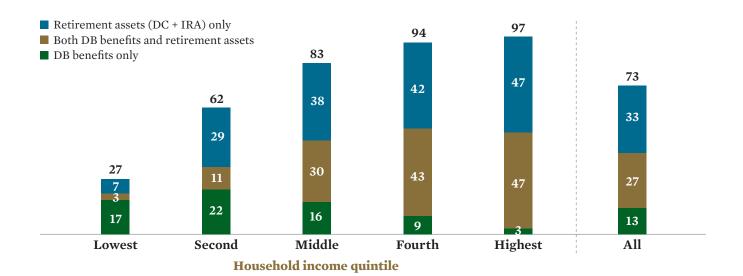


Sources: Congressional Budget Office and Investment Company Institute Prepared and presented by Peter Brady at the 2015 Global Retirement Savings Conference (Paris) are not required to offer a plan. If they do offer a plan, they can choose to offer DB plans, DC plans, or both. IRAs typically serve as a depositary for rollovers from both DB plans and DC plans when individuals change jobs. Tabulations of data from the Federal Reserve Board's 2013 Survey of Consumer Finances show that 73 percent of households with a head aged 55 to 64 had accumulated retirement assets in a DC plan or IRA, had earned retirement benefits through a DB plan, or both. This share varies by household income. Among the highest 60 percent of households ranked by 2013 annual income, more than 90 percent of households have resources from the voluntary employer plan system. That share falls to 62 percent for households in the second income quintile, and to 27 percent for lowest income quintile.

Many of these households, including twothirds of households in the lowest income quintile, were not working in 2013. Looking only at working households aged 55 to 64, the share with resources from employersponsored plans or IRAs increases to 81 percent.

Let me pause here to provide a quick summary of the material covered so far. US retirees rely on a combination of resources in retirement. Evaluating the individual components of the retirement system in isolation provides an incomplete picture of the US retirement system. Social Security is the largest component of the system, and it is designed to replace a higher percentage of pay for workers with lower lifetime earnings. In addition to Social Security, approximately three out of every four US

FIGURE 2 Most Near-Retiree Households Have Resources from the Voluntary Employer Plan System Percentage of households with head aged 55 to 64, by quintile of household annual income, 2013



Note: Components may not add to the total because of rounding.

Source: Investment Company Institute tabulations of the Survey of Consumer Finances

Prepared and presented by Peter Brady at the 2015 Global Retirement Savings Conference (Paris)

households have resources from the voluntary employer plan system by the time they reach retirement. Reflecting the design of the Social Security system, higherincome households are more likely to have resources from employer plans.

Now I would like to return to the six workers with whom I started the talk, and illustrate what adequate retirement resources for these workers would look like [Figure 3]. In particular, I am going to use simulations to illustrate how the Social Security system and the voluntary employer plan system work together to generate retirement income.

For purposes of the simulation, I'm going to assume that the only resource these workers have at the start of their career is their human capital. While they're working, they can spend whatever is left over from their wages after they contribute to their retirement plans, pay their income taxes, and pay their payroll taxes. When they're retired, the only resources they'll have are those that they generated while working, which would be Social Security benefits and distributions from their retirement

plans. They can spend whatever is left after paying income taxes. Each worker's retirement plan contributions are calibrated so that all the workers, to the extent allowed by law, replace the same percentage of their pre-retirement income. The replacement rate target is expressed as a percentage of net income-meaning what is left over after making retirement plan contributions and paying taxes—rather than gross income.

Although the assumptions I use in the simulation affect the results, none of them affects the qualitative result about the relative importance of Social Security and employer plans based on earnings.

The six representative workers are all born in 1966, work from age 32 through age 66, and retire at their full benefit retirement age of 67. I will affectionately refer to them by their average earnings during their working career, which ranges from \$21,000 per year [Earn21K worker] to \$234,000 per year [Earn234K worker]. At age 40, their annual earnings range from the 18th percentile to the 98th percentile of earnings among all workers aged 35 to 44.

#### FIGURE 3

#### Importance of Resources from Voluntary Employer Plans Differs Based on Earnings

Individuals born in 1966 and who retire in 2033 at age 67; constant 2014 USD

#### Representative workers

	Earn 21K	Earn 43K	Earn 69K	Earn 92K	Earn 122K	Earn 234K
Wage income rank at age 40 among all workers aged 35 to 44	18th	46th	73rd	85th	92nd	98th
401(k) plan contribution behaviour						
Age at which 401(k) contributions begin	55	45	39	35	32	32
Total contribution rate (employee plus employer)	9.0%	9.0%	9.0%	10.2%	10.8%	11.5%
Account balance at age 66 (thousands)	\$28.3	\$112.0	\$241.3	\$422.2	\$663.6	\$1,317.9

Source: Investment Company Institute simulations

Prepared and presented by Peter Brady at the 2015 Global Retirement Savings Conference (Paris)

Although the workers have the same target replacement rate, they do not contribute the same amount to their retirement plans. Because of the Social Security benefits formula, they're going to need different amounts of money from the employer plan system to supplement their Social Security benefits and hit the target replacement rate. In my calculations, I'm assuming that each worker gets a 3 percent employer match plus whatever they put in.

Higher-wage workers [Earn122K and Earn234K] start contributing to their retirement plans early-when they first start working—and they contribute a higher percentage of pay than other workers. The worker with earnings closer to the middle of the earnings distribution [Earn43K] does not contribute until age 45, at which point the worker contributes 6 percent of pay and gets a 3 percent employer match. The lowest earning worker [Earn21K] begins contributing at age 55. The amount of assets accumulated by these workers, in constant 2014 dollars, ranges from \$28,300 to \$1,317,900.

We can now return to the question of whether the retirement assets these workers have accumulated are adequate [Figure 4]. As a percentage of gross income, the retirement plan assets could generate annual income that would replace anywhere from 9 percent of gross earnings for the Earn21K worker to 39 percent for the Earn234K worker. As stated earlier, however, this is not enough information to assess the adequacy of the voluntary employer plan system in the United States.

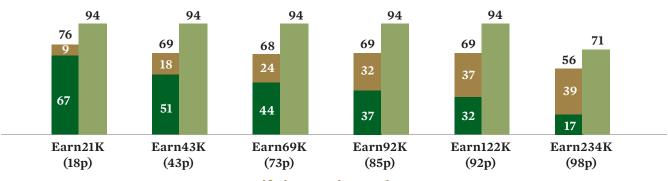
If you combine the income generated by retirement plan assets with Social Security benefits, the gross replacement rates go up to 76 percent for the Earn21K worker and 56 percent for the Earn234K worker. Importantly, we're talking about the replacement of gross income for these workers, but what I really want to know is the replacement rate after accounting for retirement plan contributions and taxes. And in retirement, you don't have to make retirement plan contributions or pay payroll taxes, so the actual replacement of net income is much higher. All but one of

#### FIGURE 4

#### Combination of Social Security and Employer Plans Provides Retirement Resource Adequacy

Inflation-adjusted retirement income as a percentage of inflation-adjusted average gross and net earnings

- Net retirement income as a percentage of pre-retirement net earnings
- 401(k) plan gross replacement rate
- Social Security gross replacement rate



Lifetime earnings paths (Percentile of annual earnings distribution)

Source: Investment Company Institute simulations

Prepared and presented by Peter Brady at the 2015 Global Retirement Savings Conference (Paris)

the representative workers are able to hit the target replacement rate of 94 percent of pre-retirement net earnings. The lone exception is the Earn234K worker, who could not contribute enough pay to hit the replacement rate target because of annual limits on retirement plan contributions.

These simulations do not prove that the US voluntary employer plan system provides adequate resources in retirement. Instead, they illustrate that the adequacy of resources accumulated in employersponsored retirement plans cannot be assessed in isolation. It is the combination of Social Security and employer plans that workers rely on in retirement.

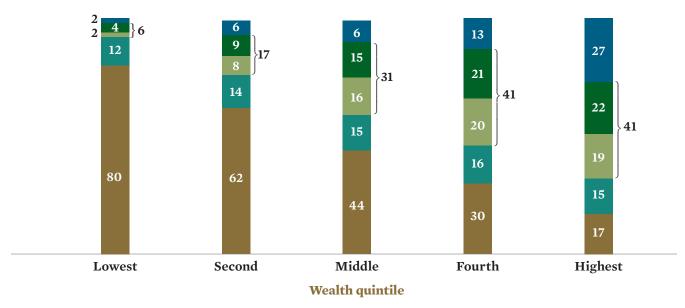
If we look at the data on actual asset accumulation, however, you'll see that the data are roughly consistent with the simulation results [Figure 5]. These statistics are taken from a study that uses detailed household survey data linked to administrative data on lifetime earnings. The authors calculate a comprehensive measure of household wealth, including the present value of future Social Security benefits and the present value of future DB plan benefits. The study then ranks households by their comprehensive measure of wealth and illustrates how the composition of wealth varies across households.

#### FIGURE 5

#### The Composition of Actual Retirement Resources Is Roughly Consistent with Simulation Results

Percentage of wealth by wealth quintile, households with at least one member aged 57 to 62, excluding top and bottom 1 percent, 2010

- Other ■ DC pension + IRA ■ DB pension Net housing
- Social Security



Source: ICI tabulation derived from an updated Table 3 of Gustman, Steinmeier, and Tabatabai (2009). Prepared and presented by Peter Brady at the 2015 Global Retirement Savings Conference (Paris)

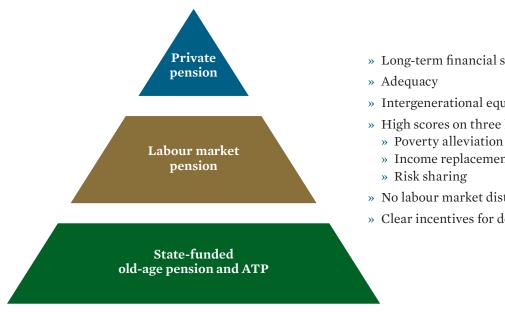
The share of wealth in the form of future Social Security benefits declines as household wealth decreases, falling from 80 percent for the 20 percent of households with the lowest wealth to 17 percent for the 20 percent of households with the highest wealth. In contrast, the voluntary employer plan system-both DB and DC plans and IRAs-plays a greater role as you go up the wealth distribution. For households in the middle quintile of wealth, the resources from employer plans are nearly as important as Social Security benefits. For the wealthiest 40 percent of households, you can see they actually get more from employer plans than they get from Social Security.

In conclusion, the US retirement system should be evaluated holistically, taking into account resources accumulated through employer plans and Social Security benefits. It's important to remember that Social Security is going to be much more important for lower-wage workers,

while employer plans are going to be much more important for higher-wage workers. These differences by lifetime earnings are not evidence that the US retirement system is flawed, but rather a reflection of the system's design.

Ole Beier Sørensen: Good morning, everyone. I come from Denmark, and what I'm going to talk about may sound to some of you like a strange message from a cold fairy-tale country up north. We're a pretty boring place. Everyone goes to work, gets up at 7:00 a.m., meets on time, pays their taxes, et cetera. We have very high-powered public administration systems in place. We actually trust our government and authorities. We pay 50 percent in taxes, 50 percent in pension contribution, and we basically live from the rest [audience laughs]. It's a very strange place, I can tell you. Nevertheless, we're one of the happiest populations on the planet. Actually, I think we're the happiest. So the inference you can make from this small

FIGURE 6 The Danish Pension System



» Long-term financial sustainability

» Intergenerational equity

» High scores on three key objectives:

» Income replacement

» No labour market distortions

» Clear incentives for deferred retirement

Prepared and presented by Ole Beier Sørensen at the 2015 Global Retirement Savings Conference (Paris)

fairy tale is that taxes make you happyand higher taxes make you even happier.

My starting point is very much in line with Peter's point. If you want to understand a pension system, you should probably look at the whole picture, with the understanding that there is more than one pillar and that all the pillars together actually decide the pension outcome. When we describe the Danish pension system to our citizens, we tell them to think about it as a pyramid [Figure 6]. At the bottom, you have the state-funded, old-age pension, which takes care of basic income needs in retirement. Then you have a second pillar system in the middle-labour market pensions-which could be occupational. Then the top layer of the pyramid is private pensions. For example, you can have a savings contract that you signed with your bank with terms that you were able to negotiate. This is how we describe our system, and many other countries would probably describe theirs more or less the same.

There is a basic takeaway from this pyramid analogy. Talk to any Egyptian child, and he or she will tell you that if you want to build a pyramid that will stand for a long time, you have to start with a solid base. We have been lucky enough to know that from the start. We started out creating our basic system, which is the bottom of the pyramid, before we added the other elements. You can also say we were happy and lucky, because we got rich before we got old. If you turn that equation around, it's a little bit different. Olga Fuentes, who we will speak about the Chilean experience next, will tell you more or less the sameif you want to build a pyramid, you need a very stable base. But Chile is in a very different position. Chile created the middle layer before creating the basic level, so

it is trying to insert something underneath to support the entire population—not just those with stable careers.

Denmark allegedly has one of the strongest and most well-functioning pension systems in the world. But to draw that conclusion, one has to evaluate a system's sustainability, adequacy, and intergenerational equity. We're doing fine on those elements. We have very high scores on poverty alleviation, income replacement, and risk sharing. We don't have labour market distortions, we don't have intergenerational conflicts, and we have clear incentives for deferred retirement. So we're almost there-not quite—but we'll get to that in a second.

Now, if you have a multi-pillar system, the political economy of your pension system will basically depend upon two different issues. The first issue is the distribution responsibilities among your first, second, and third pillars. The second issue is the way you make the first and second pillars interact. We have chosen a different approach from the United States, simply because our basic system has a tax-financed flat benefit and is partly income tested. The second pillar comprises insurance-based DC collective systems. They're not free of choice. You cannot shop around. You're basically assigned to a specific pension fund.

Now, let's look at a graph [Figure 7]. The horizontal axis is private pension income. The vertical axis is the aggregate pension, the sum of what you get from private pension funds and all the rest. When you turn 65 and you want your pension, you go to the municipality to ask for it. A nice case handler will say, 'We're handing you the basic amount of the public system.' Then she'll ask you, 'How much do you have as private income?' That is the blue section. Depending on that, she will award you a greater or smaller income-tested supplementary amount. That is the light green bit on the top.

Now, if you income test, you need a taper rate, which is a rate that reduces your public pension in line with increases in private income. In our case, that tapered rate is 30.9 percent for singles. That's why we pay quite a lot of taxes. But if you have these tapered rates—if you have income testing the problem is that they lead to very high implicit tax rates, ranging from, for example, a 38 to 55 percent payroll tax. This is an embarrassment to savings incentives, and it's a cause of some worry. But the point of income testing is basically to shift

some of the risk sharing that should be in a pension system onto the public system.

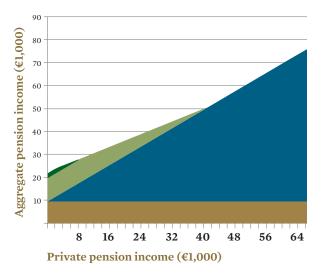
Now I would like to discuss how the linkage between our public and private pensions work [Figure 8]. For example, a full-time worker has a pension that is basically split 50/50 between public and private benefits. If that worker didn't save for retirement, the amount of his or her net pension would go down 33 percent, but the public pension would go up and make up most of the pension. So, that worker would probably want to save on his or her own to increase the net pension benefits. Let's move to another example. If a worker has 10 weeks of unemployment annually or two maternities followed by 10 years working part time, her net pension would be slightly

#### FIGURE 7

#### The Danish Pension System Targets Public Benefit by Way of Income Testing

*Income testing the basic pension (singles, 2015)* 

- Basic amount
- Private pension
- Supplementary amount
- Special supplement



- The full basic pension is higher for singles than for spouses/cohabitants
- » The basic pension is income tested
- A higher private pension will mean a somewhat lower public pension
- Taper rates above a certain private income threshold:
  - » 30.9 percent for singles
  - » 15.0 percent for couples at household level
- A particular Danish point:
  - » Policy-driven solidarities rely entirely on the public pension and on pillar interaction

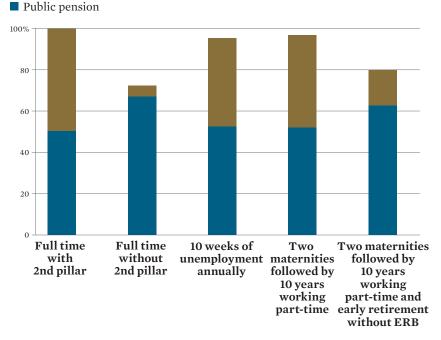
Prepared and presented by Ole Beier Sørensen at the 2015 Global Retirement Savings Conference (Paris)

#### FIGURE 8

#### The Danish Pension System Facilitates Extensive Risk Sharing

Net pension result and work life course (single APW)

### ■ Private pension and ATP



- » Second pillar coverage is generally important
- Spells of unemployment or other adversities have net pension effects
- » However, the consequences of standard life choices and life events are reduced as the interaction of pillars picks up some of this income risk and shifts it from the individual onto society

Note: Modelled 25-year-old APW entering the labour market in 2014

Source: ATP 2014

Prepared and presented by Ole Beier Sørensen at the 2015 Global Retirement Savings Conference (Paris)

less than in the first example, but her public pension would be slightly higher. The point here is that the income test operates so that the public pension will increase because the private pension has decreased. By having this interaction between the public and private systems supported by the income test, we actually shift some of the risks that cannot be insured on a standard private insurance market. We shift some of those risks onto the public sector and the public system.

The interaction between public and private components also is important during business cycles. For example, let's take a 25-year-old nurse. We'll call her Anna. She just learned from the other calculations that if she saves as she should throughout her lifetime, she'll have a replacement rate

of around 75 percent, with a public pension portion of around 50 percent. But Anna is not stupid. She knows that inflation rates, interest rates, and return rates are not stable all the time. So she asks, how certain can I be about those results? At which point she asks her pensions consultant to supply a different picture that answers the question, what is the likelihood of this outcome?

Now we tried to expose her to 500 variable scenarios, which is known as a Monte Carlo simulation, and then we assessed her pension outcome again. Now it looks less certain for her. Suddenly, what she can really look forward to is a replacement rate of between 60 and 80 percent and a public pension fraction that is somewhere between 30 and 70 percent, depending on

how the economy develops in the meantime. The point is that the interaction between public and private pensions actually gives a certain level of robustness to the pension results. A 60 percent replacement rate may be low, but you don't die from it. Eighty percent may be nice, but there is no guarantee that is what you're going to get.

Now, consider three different situations. One is the situation Anna is in right now. With the present pension system, she can look forward to a replacement rate somewhere between 60 and 80 percent. Now, there is a debate going on in Denmark, spurred by the incentive issues related to income testing. Should we go on having this income-related or income-tested element in our pension system? How should we do things in the future?

Consider Anna's situation if we left out the income-tested benefits. Suddenly, two things happen. First, her replacement rate decreases substantially to 40 to 70 percent, because half of her public pension has simply vanished. Second, the potential variation in her replacement rate increases from 20 percent to 30 percent, because if you increase the relative importance of private pensions, you also increase the relative importance of the risks that are associated with private pensions. Anna doesn't want such a low replacement rate. Therefore, she asks, 'What if I increased my private pension savings to make up for the loss that I just suffered from the removal of the income-tested supplements?'

The following is what happens. She has to increase her occupational pension contribution from 12 to 18 percent, which results

in potential replacement rates between 45 and 90 percent, with even higher uncertainty about the result of her efforts. Thus, Anna will be facing greater uncertainty when it comes to old-age income. She needs to address this issue, but how should she do that? By asking for guarantees from the pension provider? They may not offer them. By going back to her employers? It's a DC environment, so she can't do that. So how should she do it? Probably by asking for something resembling what we already do.

Let me sum up this small story. In Denmark, interaction among the pension pillars provides a high level of robustness. Life is uncertain, and pillar interaction reduces the risks associated with having a small private pension, an adverse labour career, unfavorable investment results, post-retirement private income loss, business cycles, et cetera. All these different types of risks are uninsurable via traditional private insurance terms or savings terms. The only thing you can do is shift these risks onto the public system and through how you structure the interaction between the pension pillars.

The takeaway is that a pension system has to meet very different and sometimes contrasting objectives for different individuals. To meet those different objectives, you need to apply a multi-pillar approach, more or less similar to what Peter just explained. I would also suggest that you need to be very clear about the way in which you distribute responsibilities between public and private systems. One of the favourable elements of our system is that we have created our labour market pension system-the second pillar-in such a way that everyone knows exactly how much money they pay

in and how much they can expect in return. Everyone knows there is a straightforward relationship between what they pay, what they have paid historically, and what they get. Everyone also knows that the relationship is the same for me, Peter, and Olga as it is for everyone else.

This has great policy and political implications for the governance of pension funds. For instance, compare Denmark's situation to the Netherlands'. We don't have retirees on the board of our pension funds. Why would we? The retirees are protected by the way the system is constructed. There is no way that boards can make discretionary decisions about who should sponsor whom. Basically, we ask every generation to fund itself. We do not allow intergenerational transfers. Therefore, we would say that legitimacy and transparency go together, and we would probably view individual property rights as a prerequisite to make that pension equation succeed. And we share this conclusion-that collectivity pays—with the Dutch, the Swedes, the Canadians, and quite a number of others. If we know anything about the private pension business, it is that size matters. To do this rationally, you need to balance incentives against social concerns and you need quite a number of participants. That's basically what pillar interaction is all about.

And just to leave you with this one last takeaway. The Danish system is adequate, sustainable, and equitable. But Danish-style pillar interactions lead to very high implicit tax rates, which probably violate incentives. The flip side of the coin is that the system also supplies very high levels of risk sharing, solidarity, and system robustness. We have formed a commission to review these questions, and it will probably come to the same conclusion that I do. There are no easy fixes for striking a balance between incentive concerns and social concerns. If there were, we would have probably introduced them already.

Olga Fuentes: I'm going to discuss the interaction between public and private retirement provision in Chile. First, what are the elements that we should take into consideration when trying to create a good interaction between private and public provision [Figure 9]? In a DC scheme, the individuals or members of the scheme are the ones who bear most of the risks. The main risks are investment, human capital, and longevity. So, when defining and designing the interaction between public and private provision, you need to be very careful about how these risks are going to be transferred.

The second element is how risk sharing affects incentives to save. The public provision can have a very large effect on members' decisions about whether or not to contribute, how much to contribute, and the timing of the contributions. The idea is to have the 'right' interaction among pillars, so that it reduces the negative effects on incentives, with the goal of a higher total pension for the member. For Chile, one of the main challenges has been increasing adequacy and coverage in the pension system. We have responded by introducing a safety net for individuals who are either not able to contribute at all or able to contribute only infrequently. At the same time, we have incorporated risk-sharing mechanisms, but have minimised the negative effect on incentives.

With this in mind, I am going to compare the Chilean pension system before and after the 2008 reform. Before the 2008 pension reform, there were two types of guarantees in terms of absolute pension levels. We had a minimum pension guarantee [MPG], and also welfare pensions. The goals of both guarantees were to provide a consumption floor for those who didn't save for retirement or did so insufficiently.

For MPGs, the main requirement for women was that they had to be 60 or older, and for men, 65 or older. Another requirement was that they needed a minimum number of 240 contributions and a selffinanced pension that didn't exceed the minimum pension. What risks did the MPG cover? It partially covered human capital risk for those with more than 240 monthly contributions. The coverage was partial in that the MPG was fixed, so it wasn't related to the member's total savings. The MPG also partially covered investment risk. I say partially because the MPG was not related to the value of the self-financed pension once the threshold was satisfied. The MPG also covered longevity and inflation risks because its value was indexed to inflation.

What were the effects on incentives? Well, it depended on gender, the timing of the contributions, the level of labour income, and retirement age. There were strong incentives to contribute to satisfy the minimum requirement of 240 contributions. These incentives were mostly for women with low labour income who retired at 60,

and there were some incentives for married men and women who retired at 65. But single men who retired at age 65 were indifferent to these requirements because they were not likely to satisfy both conditionsthe contributions requirement and the low threshold for the self-financed pension requirement. They satisfied the first condition but not the second one.

The problem was the intrinsic inconsistency between the two MPG requirements. Those who met one condition-the minimum amount of contributions-failed the other condition, because they probably saved more than the threshold permitted. Similarly, those without enough savings could not meet the 240 contributions requirement. So basically the design of these two guarantees did not provide a safety net for the people we wanted to protect: low-income workers with low contribution densities due to unstable jobs. In other words, those who were unable to

#### FIGURE 9

#### The Interaction Between Public and Private Retirement Provision

#### Which elements need to be taken into consideration to have a good interaction between private and public provision?

- » Risk sharing
  - » In a DC scheme, the individuals bear all the risks (investment, human capital, annuitisation, longevity)
- » Impact on incentives
  - » Public provision can have effects on different types of decisions:
    - » To contribute or not contribute
    - » On the amount of the contribution
    - » On the timing of the contributions
- Goal: Smooth consumption and alleviate poverty
  - » Increase coverage of the pension system and a safety net for individuals who are not able to contribute or who contribute infrequently

Prepared and presented by Olga Fuentes at the 2015 Global Retirement Savings Conference (Paris)

self-finance a large pension because of these factors. Instead, the guarantee protected people with a stable contribution path against the risk of lower investment returns, later participation in the system, and longevity risk. Also, there was a strong incentive to stop contributing once a person reached 240 contributions, implying that the minimum pension guarantee was weakly integrated into the second pillar.

So the 2008 reform introduced a new solidarity pillar. It was wider and completely integrated with the second and third pillars. Now we have two types of benefits. The first one is the basic solidarity pension [PBS] for individuals who don't participate in the pension system. The second one, the solidarity complement [APS], is a complement for individuals who can only self-finance small pensions. The goal of the new solidarity pillar is to provide both a safety

net, by alleviating poverty through the PBS, and to keep the savings incentives to the pension system. It also works as a subsidy to increase total pensions.

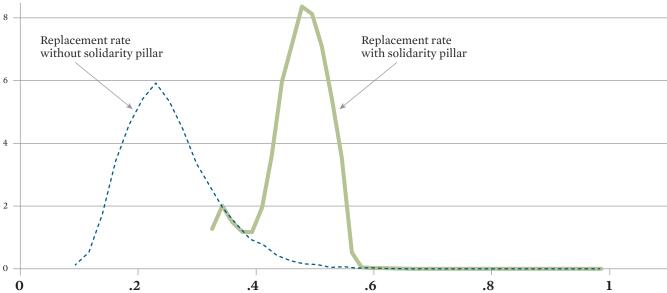
The solidarity pillar is a means-tested, public-funded benefit. Only the least affluent 60 percent of the population qualify. For the PBS, or the basic solidarity pension, the actual benefit is close to \$140 per month. There are almost 600,000 pensioners receiving this basic pension, and almost 70 percent of them are women. Nearly 700,000 people get the solidarity complement, or APS. Again, a large percentage of them are women, about 58 percent. Considering only old-age pensioners, 45 percent of them receive the APS, and for those that receive it, the APS represents 80 percent of their total pension. So the effect of the solidarity pillar on total pensions is meaningful.

#### FIGURE 10

#### Solidarity Pillar: A Subsidy to Increase Pensions

The solidarity pillar's impact on pension risk

#### Density



Prepared and presented by Olga Fuentes at the 2015 Global Retirement Savings Conference (Paris)

The solidarity pillar has a significant buffering effect in terms of pension risk. Let's look at a simulation exercise [Figure 10]. The data show that the introduction of the solidarity pillar improved replacement rates overall, increasing the average replacement rate and reducing its dispersion-even more for women with low contribution densities and a low educational level. In terms of risks, the solidarity pillar insures against longevity and inflation risk. It also insures against human capital and investment risk since the APS depends on the value of the self-financed pension. The new solidarity pillar has no minimum contribution requirements.

To conclude, we had a system where the safety net wasn't well integrated with the rest of the system. With the 2008 reform, we moved to a fully integrated multi-pillar system. The 2008 reform also introduced measures to improve the second pillar of mandatory contributions and additional incentives to improve the third pillar of voluntary savings.

As a summary, successful interaction between public and private provision requires a careful design of instruments and a balance of the risks without affecting too much the incentives to save to the pension system. The solidarity pillar today is a much better instrument in terms of providing benefits to affiliates. By design, the solidarity complement increases the total pension. To conclude, we are still facing a main challenge, which is how to continue improving pension adequacy while maintaining a financially sustainable system.

Antolin-Nicolás: We have had a presentation of, in theory, three very different systems. My first take is that despite the differences, the three systems show that the public and private components complement each other, and that high-income

people rely more on the private component. But the public system provides different levels of protection and risk sharing to different segments of the population. Obviously, it's important how the systems are designed, because the design has an impact on incentives, and it can be very costly as in the case of Denmark.

*Audience member 1:* I have a question for Peter Brady. I've been working as a pension actuary for two years in the United States, and I've been a bit worried about the US system. And looking at your presentation, I'm more worried than before. When I look at the system's sustainability, it suggests that you will have to spend roughly 20 percent of your salary for Social Security in the future and probably 10 or 15 percent for private pensions. So will the United States become a high-tax country or will it have to lower the benefits, meaning that the replacement rates may significantly decrease from your 70 percent for middle-income earners to about 40 percent?

Brady: So, yes, we currently have a challenge with the Social Security system. We don't have enough taxes to cover the benefits currently promised. In some ways, the situation is perhaps better than you might think. We do have actual stable demographics, so the imbalance that we have in our Social Security system is not going to continually grow. It's essentially about 2 percent of GDP. If we don't do anything now, and we wait until the trust fund runs out, we either have to raise payroll taxes by one-third or cut benefits by 25 percent. However, the bright point is once we do that, it doesn't continue to become unstable. There's a slight drift due to longevity, but the demographic situation that led to this imbalance basically becomes stable. So if we can somehow come to an agreement on how to bridge the gap, then there's a stable system.

But you're absolutely right, we have to either raise taxes by one-third, cut benefits by about one-quarter, or implement some combination of the two. In any case, it's going to put more pressure on the private or the employer-based system. Either people will have less to save, because their taxes will be going up and they'll be in a tighter situation, which will make it more difficult for them to fund the system, or they'll have lower Social Security benefits, so they're going to need to save more to hit the level.

I do think, though, that there are ways we can adjust the system. I don't think it's a problem with the technocrats. It's not a problem with the math. We can figure out lots of ways to do it, but it's a huge political issue. We could cut benefits more at the top than at the bottom or implement other ways to get there. But yes, the sustainability of the system is a huge problem. Yet I don't think it's actually as big a problem as other countries because our demographics aren't quite as dire.

Audience member 2: I'd like to talk about the private pillar. Looking at the three systems, we see that each one has a third private pillar. We also see that going into the private pillar, you increase the uncertainty around the outcome. Peter, I was interested to see that in your simulation, you were taking into account a CPI [consumer price index] plus 2 percent as a potential rate of return for the assets. My question is: how can we reduce the uncertainty around the outcome for the private pillar, and do you, across the three pillars of the system we've talked about, set a default option for your private pillar?

**Brady:** I've written several papers about replacement rates and uncertainty with Monte Carlo simulations. We'll talk about it more in the next panel, but in the United States, each employer gets to pick its default. It's not a national default. You can pick what your default investment is. But I think the 2 percent is an estimate of the risk-free rate. Right now, it's 1 percent in the United States. Two percent is what it was between about 2002 and 2008. Before that, we used to think the risk-free rate was higher. That wasn't important for this particular simulation. It was just to show the relative nature of it. But I do have papers that look at the variants of it. One thing to note is if you look just at the variants of the DC system, you'll get a different picture than if you look at the variants of retirement income, because of the important role Social Security plays. So in my paper, I do bounds. You can look at the uncertainty that you can get out of it, but I think because of the importance of Social Security, it's actually much less variance than you might think.

Sørensen: The Danish approach would be probably a little bit different. We organise our second pillar based on collective agreements. If you have that, you have somewhat of a stable collective base.

Then inside these schemes, there is a lot of competition between the schemes. The parties to the collective agreement can actually shift your pension plan from one fund to another if the fund you're with consistently performs badly. So it's not free of competition. There's a lot of competition, but it's not consumer driven. And I think the sort of absence of consumer-driven competition is a wise choice, because many surveys show that people don't really care.

So the most important choice you have in second pillar and third pillar pension design, particularly regarding second pillar pension design, is the design of the default option. The default option should be the logical choice for 90 percent-if not moreof your membership. It should be qualified, high-powered, and address the needs that you may have in old age. And if you're successful in that bit, then you also have a very strong collective basis for creating an efficient investment business and an efficient approach to risk management. At least, that would be the Danish approach, and it would probably be the Swedish, Canadian, and Dutch approach as well.

Fuentes: In Chile, we have different ways to protect affiliates against risks. Sixty percent of contributors are in the default investment strategy. The default investment strategy follows a lifecycle path, so when you are approaching retirement age, your savings are moved to more conservative funds. Also, we have restrictions in terms of your ability to move to risky funds. For example, when you have less than 10 years before retirement, your savings cannot be invested in Fund A, which is the riskiest one. Also, to increase competition in the market, we introduced a bidding process for new affiliates where the winning provider, the one offering the lowest administration fee, gets allocated all new entrants into the system for a period of two years. In other words, it's the default provider for new participants. We have several pension products for the decumulation phase with the goal of protecting affiliates against risks. Affiliates can choose among a programmed withdrawal, an immediate annuity, a combination of both, or a temporary income plus deferred annuities. Nowadays we are more concerned about how to improve these pension options and how to better insure against longevity risk. In addition, as I mentioned in my presentation, the solidarity pillar offers protection against the main risks in the system—the investment, longevity, annuitisation, and human capital risk.

**Brady:** I'm probably in the minority in my belief in human beings doing things, but when you look at the actual data in the United States, we have a completely voluntary system that for the top 40 percent provides more than a mandatory system that takes 12.4 percent of pay. If you look at what people do, asset allocation is reasonable, and many US firms want to provide solutions for people. So the firms are now providing all sorts of investment tools and default investments to help people allocate assets so they're not doing it on their own. And when you look at the aggregate data on what people are doing with their retirement money-how they withdraw their money from IRAs, how they distribute their money-on average, people seem to be making reasonable decisions. So I have a lot more faith in the ability of people to decide how to do these things, particularly with the support of institutions like mutual fund companies and other financial institutions, because they're going to try to provide savers with solutions. There's an incentive for them to provide solutions.

Sørensen: I just wanted to remind you of one thing, and that is the volatility of investments or the uncertainty of investment returns that people may be thinking about when they save for retirement. But probably an even more important uncertainty relates to the level of the interest rate at the time of retirement, because that interest rate level more or less decides the price of the commodity, a pension. A pension is not about capital. It's about an income stream. And when buying that income stream, the price of that commodity is decided by the long-term interest rate. The price of that commodity has gone up more than 300 percent over the past 15 years, which is something to think about. It's also something to think about when you consider the distribution of responsibilities and risk between the public and the private

#### PANEL 2

## Designing a Successful Private Pension System That Complements the Public System-From Accumulation to Spend-Down

#### **PANELLISTS**

**Stephen P. Utkus**, Moderator Principal Vanguard Center for Retirement Research **United States** 

#### **Dirk Broeders**

Senior Strategy Advisor Central Bank of Netherlands

#### **Darren McShane**

Executive Director (Regulation and Policy) Mandatory Provident Fund Schemes Authority Hong Kong

#### **Roberto Walker**

President Principal Financial Group for Latin America Chile

Countries have unique cultures, economies, and needs, all of which influence the design of their pension systems. During this session, panellists from the United States, Hong Kong, Chile, and the Netherlands discussed how their countries and regions designed their private pension systems, the particular challenges facing each system, and how each country is solving them. Some of those challenges include increasing coverage, improving adequacy, and creating effective default investment vehicles and payout solutions.

The following is an edited transcript of the discussion.

Stephen Utkus: This panel will examine emerging developments in funded retirement systems around the world. We'll have four presentations, and their sequence reflects the evolution of private funded systems. I'll begin with some of the contemporary issues facing the US private DC system. Then Darren McShane will focus on Hong Kong and its mandatory DC system. Next we'll turn to Latin America, in which Robert will have the opportunity to summarise retirement systems in five

countries, and then we'll conclude with Dirk and the outlook for the Netherlands' pension system.

Pete [Peter Brady] described many of the features of the US retirement system, but just to remind you, there is a PAYGO pillar one system in the United States [Figure 11], which is compulsory and has high rates of coverage. It is financed with payroll tax, and has an inflation-indexed annuity as its principal payment. I'm going to

#### FIGURE 11

#### **US Retirement System Today (Private Workers)**

#### **Social Security**

- » PAYGO system: compulsory, 90 percent + coverage
- » Financing: 12.4 percent payroll tax (split employer/employee)
- » Benefits: inflation-adjusted annuity, progressive

#### 401(k) (DC) plans

- » Funded occupational system: voluntary, about 50 percent covered
- Contributions: employee (primary) and employer (secondary)
- Lump-sum distributions (including to IRAs)
- \$4.6 trillion
- 80 million accounts

### Individual retirement accounts (IRAs)

- » Tax-advantaged household savings
- » Funded mostly by 'rollovers' from 401(k)s and DB plans
- » \$7.4 trillion

Source: Investment Company Institute, The U.S. Retirement Market, Fourth Quarter 2014 (March 2015) Prepared and presented by Stephen Utkus at the 2015 Global Retirement Savings Conference (Paris)

focus on contemporary issues facing private-sector pension systems, which are increasingly DC systems. Although as Peter noted, there's a lot of residual DB income in the system. Our DC system is an occupational voluntary system with about half of the private workers covered. We'll come

back to that issue. Contributions are mostly employee based with employer supplemental contributions. Payments come in the form of either lump-sum distributions or structured drawdowns, and there's about 4.6 trillion dollars and more than 80 million accounts in this programme.

#### About the panellists

Dirk Broeders is a senior strategy advisor for the supervisory policy division within De Nederlandsche Bank and specialises in pension fund regulation. He is also a special professor of pension finance and regulation at the School of Business and Economics of Maastricht University. In addition, Broeders is an executive member of the International Organisation of Pension Supervisors (IOPS).

**Darren McShane** is the chief regulation and policy officer and executive director of the Hong Kong Mandatory Provident Fund Schemes Authority (MPFA). He heads the regulation and policy division, which is responsible for investment regulation, policy development, research, and legal services. McShane also is the chairman of the technical committee of IOPS.

Stephen P. Utkus is principal and director of the Vanguard Center for Retirement Research, which conducts and sponsors research on retirement savings, with an emphasis on private defined contribution retirement plans, for both US and global audiences. He is also a member of the senior leadership team of Vanguard's institutional retirement and investment business in the United States.

Roberto Walker is president of Principal International in Latin America. Most recently he was chief operating officer, where he was responsible for the development and execution of the business strategy in Latin America and development for the asset management and mutual fund businesses. Walker also served as chief investment officer and chief financial officer, Chile.

Now there is a third pillar called the IRA [individual retirement account], but I like to call the US system a two-and-a-half pillar system, because Congress over the years has made it very easy to move money between pillars. For example, if you work for Apple in California and contribute to Apple's 401(k) plan, and then go work for Google, you're likely to either take that money out of the Apple 401(k) plan and put it in your personal pension—your IRA—or move it to Google's 401(k) plan. So there's a lot of money flowing back and forth between the 401(k) and IRA pillars, hence the two-and-a-half pillar system. In fact, economists think of the United States as having a tier of tax-advantaged retirement accounts, whether workplace or individually focused.

Perhaps the largest structural issue facing the US system is the debate over coverage—a debate that has occurred in a number of jurisdictions over the past several decades. In a voluntary employerbased system, coverage rates tend to be lower-particularly amongst smaller firms. Let's look at the latest data, which are from

tax records, so they're very precise. If you look at larger firms, where about half of Americans work, seven out of 10 workers will actually be offered and will contribute to a plan, be it a DB or DC plan. Among smaller firms, that number falls to about four in 10. And I think we're all familiar with the various reasons for this. Obviously, there are workers who do not contribute. There's the issue of part-time and contingent workers and how they're covered in the system or not. There's also the fact that small firms do not tend to sponsor retirement plans because of unstable revenues or employee preferences.

Now, in employer-based systems-and you see this in a number of jurisdictions—the problem with small- and medium-sized enterprises is a common one, and it relates to coverage, fees, and economies of scale or lack thereof. For example, small company 401(k) plans tend to have higher costs in the United States, which is sort of a separate issue.

So there have been a number of proposals to remedy coverage issues, many of which

FIGURE 12 The Shift to Automatic Enrolment

# Automatic enrolment and plan participation rates ■ Voluntary Automatic 78% 68% 34% 29% Age < 25 **Income** ≤ \$30,000

#### Automatic plan design

- » One-third of all plans are now using auto-enrolment.
- » Larger plans are more likely to have auto-enrolment than smaller plans.
- » Nearly 60 percent of all new hires are automatically enrolled.
- » Automatic enrolment dramatically improves participation rates. This is particularly true for low-saving groups, including young and low-wage workers and ethnic minorities.
- » Typical design is initial 3 percent employee contribution plus 1 percent auto-escalation, and plus employer contributions.

Source: Vanguard, How America Saves 2014

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are similar to proposals in a number of OECD jurisdictions. One idea is to allow small employers to band together and to get employers out of the business of offering plans. Another idea is to implement a national scheme for automatically enrolling people into IRAs-which is sort of inspired by UK developments. A third idea is to let all 50 states run their own programmes. The United States is a very large, heterogeneous democracy, so there are 50 state governments that believe they should offer a pension system to small firms. Then in addition to these ideas, there have been 30 years' worth of proposals for a new system of universal pensions.

But the most important tool—which you're probably familiar with-is the growing use of automatic enrolment, so expanding the edges of the existing system. Let's look at some Vanguard recordkeeping data [Figure 12]. What you see is that in firms

automatically enrolling new hires only, participation rates among younger workers and lower-wage workers are substantially higher than voluntary choice. Today, we estimateusing Vanguard data as a proxy for the market-that about six in 10 of all new workers are automatically enroled in their employer plans across the system. Again, in keeping with the US voluntary supplemental nature of the programme, this is incentive based rather than mandated across all plans, and it's been gradually growing over time.

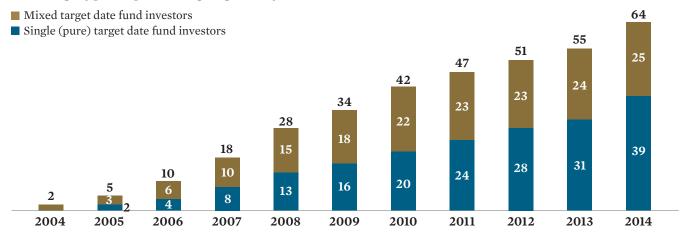
I just thought about a secondary issue, which I won't spend a lot of time on, but it has to do with defaults. The US system, like the rest of the world, is shifting to a world in which investment choice is playing an increasingly less prominent role. In fact, I call it the end of the age of investor autonomy. But today, about four in 10 US workers already have 100 percent of their money invested in a target date fund,

#### FIGURE 13

## The Rise of Target Date Funds

» Participant use of TDFs is the result of both plan default (automatic enrolment) and own choice (voluntary enrolment)

## Percentage of participants using target date funds, 2004–2014



Note: Investments in target date funds are subject to the risks of their underlying funds. The year in the fund name refers to the approximate year (the target date) when an investor in the fund would retire and leave the workforce. The fund will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in a target date fund is not guaranteed at any time, including on or after the target date.

Source: Target Date Fund Adoption in 2014, Young 2015

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and a substantially larger group have their money invested principally in a target date fund [Figure 13]. And we anticipate that within five years the majority of US workers will no longer be making active investment choices. That's one consequence of automatic enrolment. It's also the consequence of just making target date funds available. So the shift to default lifecycle investing is also quite pronounced in the United States.

There are two other issues that I'll discuss that are related to the United States. One is that we use the term 'leakage' to describe pre-retirement access or liquidity features. Historically, the United States has offered a loan feature. There's a lot of attention paid to the ability to borrow from retirement accounts, but 90 percent of those loans are typically repaid. In its wisdom, Congress has decided that buying a house or financing college is a hardship. So in some ways, the US system has become a two-purpose system: one that's retirement-income oriented, but also one that's related to short-term consumption or households' investment goals.

But the thing that's most unique about the United States is the ability for a Google or Apple worker to change jobs and take all of their money with them and, if they choose to, access it without a tax penalty. Now most don't, but in fact, that is the largest source of leakage. People can use their pension money at any point.

The final issue is that there is a move to reframe DC plans in the United States, and elsewhere around the world, in terms of income rather than asset accumulation. There's a pretty substantial programme to encourage some form of annuitisation, but it has been hobbled by a variety of issues. What is happening, both as a result of regulation and private market practice, is that the entire system is being reframed in terms of income outputs to the member as opposed to just wealth accumulation. For example, Vanguard offers a simple service, which other providers also offer, that help

people who are at retirement age set up a recommended monthly systematic withdrawal programme-so this is non-guaranteed income drawdown. This is all part of a broader trend in the system to report not only on both asset values and estimated income levels, but also on actual estimated drawdown amounts in retirement in lieu of any resolution about the issues surrounding annuitisation. So that's the United States, and now I'll hand it over to Darren who will discuss Hong Kong.

Darren McShane: The focus of my presentation is to give an overview of a relatively simple small system—simple in the sense that our system was designed very much in accordance with the World Bank's earlier recommendations as to what a second pillar should look like. So we're a fairly pure adoption of the model as it was espoused in the mid-1990s.

So I'll talk a little bit about some of the design features and some of the design stressors, not only in terms of it as a pure second pillar, but also in terms of the interaction with the other pillars, which is a little bit problematic in our context. And I'll focus on one particular design element, which is our approach to defaults and how we're looking at that. Our system is relatively new. The mandatory second pillar has been in place since the year 2000. In terms of size, it has 77 billion US dollars. That's not all that big, but I take some comfort from the fact that if I look at the OECD's annual data, this would make us a mid-ranking OECD country. Of the 54 OECD and non-OECD countries that are surveyed in the OECD data, we'd be the 18th largest system. So while it's not big, that's not bad for just an average size Chinese city.

Hong Kong's labour force is quite formalised, so our system is mandatory for all employed people. Self-employed people are also covered. The law requires people who are self-employed to be covered by the system, to make contributions, and to be subject to criminal penalties if they don't

pay. So our coverage does extend to that level, and that's the way our system has been very successful. Before the mandatory second pillar, we had a voluntary second pillar, under which only 30 percent of workers were covered. Today, 90 percent of workers are covered, and about 98 percent of eligible workers are covered by our mandatory system. So on a coverage level, it's been very successful.

Next I'd like to discuss enrolment. The enrolment rates are extremely good for employers, but there are some problems with the data set. The data say that 101 percent of employers who should be enrolled are enrolled, and that about 101 percent of employees who should be enrolled are enrolled. Those are fantastic figures, but they do suggest that we might have some problems with the data sets. For the self-employed, the enrolment rates are a little bit lower than they should be.

We also have a co-contribution system, so the employers and employees share the 10 percent contribution [5 percent each], which is fully vested, and is all classic World Bank stuff. In addition, like it is in the United States, the assets are portable between employments. Although you can't withdraw the mandatory bits between employments. The money is locked in the system until you satisfy one of the withdrawal grounds. So most of the pension assets are portable between providers, which provides some competition. It's far from perfect competition, but it does provide somewhat of a competitive environment between providers, which goes to one of the testing issues that I'll come to.

In terms of investment, like most classic second pillar systems, the employee gets a choice of investment, but the employer, because it has to give the money to someone, gets to choose the provider. So it is a little bit like the US 401(k) in that the employer is responsible for designating or selecting the investment provider, but the employee gets the investment choice at the end.

So what does that mean? We've been through several investment cycles, of course. Our annualised return since inception is about 6.4 percent, so about 5 percent after inflation, which is not bad over that period. We do have a high concentration in equities, about 67 percent, and this is a member choice. This exposure to equity is very near the top of the OECD's annual benchmark for investment in equities. So that's what we look like, and it's a classic second-pillar system in the sense that it ticks all the boxes that were put in the books about what a mandatory second pillar should look like. But of course there are some stress points that flow out of those design features. As I said, coverage is good, but the mandatory nature of it is not popular. It's still politically unacceptable. I now look back at the political bravery of those who came before me in terms of putting this in place, because it was extraordinary in the context of what we now see. It would not happen anymore. The politics in Hong Kong are different than what they were 20 years ago, and if it hadn't happened then, it couldn't have happened at any other point in time.

Adequacy remains an issue-whether our contribution rates are high enough to generate the adequate retirement income. The 10 percent contribution rate, of course, when we look at other countries, is not abnormally high or low. Going back to some of the observations made earlier, perhaps what we didn't do well is that we didn't build the base of the pyramid before we built a shiny second pillar. There are very deep concerns about the social welfare pillar, and this does tend to get confused. We currently have a political debate in which many in the political class are suggesting that we need the government to take more responsibility here. And people, therefore, ask the question, 'Would you rather the government give you money, or would you rather be forced to put money in a fund that fund managers are going to steal from you? Pick the alternative. Which one would you prefer?' Well, people faced

with that dilemma tend to choose the government provision. So we have this debate about whether the government should be providing the entire pension or whether the responsibility should be on individuals to save for their own retirement. So that goes a little bit to the mandatory thing. People don't like being forced to do this, because in our context, most people don't pay tax. They're not required to pay tax, because only the top 30 percent of income earners pay any tax. So, suddenly, the mandatory second pillar looks very much like a taxation. I'm having money taken out of my salary, which I've never had before, and someone is giving it to these greedy fund managers to steal high fees.

We also have some leakage problems due to a unique law related to severance payments. However, we don't allow people to take money out of their retirement accounts for housing, unemployment, college, or the like. There are demands for this all the time, because now Singapore allows people to make withdrawals for housing. So there's always great pressure for us to do something similar.

But I think there is ultimately one political problem that many of us face. We often talk about one or both of these elements: it's very high fees, and it's very low returnsand perception may not be reality. I'd argue that it is more perception than reality. The returns are okay, and the fees could be lower. We'd like to see them lower, but they're probably within the range of expectation if one looks at this sensibly and in terms of what you should expect as an outcome. But we do need to work on making the system more efficient so it can deliver higher returns for lower fees.

The other issue we face, is that like many of these systems, this was all very new stuff just dumped on people. Suddenly, they had to make investment decisions, and many people didn't even know what a fund was. In addition, they had to choose funds, so

which should they choose? Initially, participants invested in many funds, maybe six or seven that each provider offered. Now it's more like 10 or 12 and there's some pre-mixed ones, some straight equity ones, and some money market ones. People don't understand funds and the issues surrounding investment choices, so that was too much to dump on people all at once. So there has been some pushback in relation to many of those issues.

Some of that is a convenient segue into the one design issue I want to talk a little bit about, which is about our approach to those who don't make investment decisions or don't want to make investment decisions. Initially, we didn't have any rules on this. Unlike many of the Latin American and eastern European systems, where you actually had good rules from the start, we basically left it to individual providers to deal with people who don't or didn't want to make investment decisions. So we had different approaches from scheme to scheme, which of course produced dramatically different outcomes. Given that we have a small system with fairly homogenous schemes that are all master trusts that are all open to everyone, all the schemes are sort of similar. So there is a fairly simple solution from a regulatory perspective, but it isn't applicable everywhere, given that other countries' systems aren't as small and homogenous likes ours. Our solution is that we are proposing to force a standardised solution on each scheme as to how it should provide a default investment option for those who either don't, or don't want to, make investment decisions. As I said, this is peculiar to our circumstances, but we do think it is an appropriate response given that we are a small economy with homogenised schemes.

So we are proposing to retrofit a standardised default investment fund into each of the 38 provided schemes, so that all schemes will have the same default

investment approach. There are issues about how prescriptive we will be about this, but we're calling it a default investment strategy. And of course we've taken certain advice in relation to this, including advice from the OECD and Pablo [Antolin-Nicolás] about how this should look. We're also looking at what's happening in the rest of world, too. There are lots of examples of some sort of lifecycle approach, so we're taking those into account. And we do thank ICI for responding to our consultation about how the default investment should be structured. I'll come back to the investment part in a minute.

The sting in the tail on this is that this was all too much an opportunity for the politicians to come in and do something about fees. This was not intrinsically part of the design, but when faced with a new shiny thing that was designed for people who weren't actively involved, the political opportunity was too good to resist. So for this new default product, our government has decided that there will be fee controls on it. And the magic figure just happens to be the same magic figure that the United Kingdom adopted for its defaults, which is 75 basis points.

We also have some issues surrounding how far we standardise the default product. The regulator is not an asset allocation specialist, so while we'll try to control

the structure and the investment approach, we'll leave much of the asset allocation work to industry benchmarking. But we'll require the industry to work collaboratively to work out an agreed upon portfolio against which it will report.

So based on our views of what's happening around the world and the work that Pablo and OECD has done for us, the investment approach looks a bit like the following [Figure 14]. It will be a balanced lifecycle approach which will offer the participant over his or her life somewhere between 50 and 60 percent average equity exposure overall. We'll start at 60 percent and reduce that to 20 percent over time. In terms of risk reduction, we start that a little bit later. I know many of the US target date fund approaches start reducing risk very early, from age 30 or even earlier. In the United Kingdom, specifically in the National Employment Savings Trust [NEST], the glide path is a bit different. The NEST glide path increases risk after the initial phase of five years and then falls away. But looking around and looking at the modeling, we see little value in reducing risk too early, so we're adopting a fairly simple approach on this. We'll only start reducing risk towards the end, because the policy objective here is to reduce exposure to equity shocks at the end. So the policy response is to take risk off the table towards the end, so we'll reduce risk only

#### FIGURE 14

## **Design Issues: Investment Approach for Default Investments**

- » Balanced approach: 50–60 percent average equity exposure preferred
- » Start at 60 percent equity exposure
- » Risk reduction over time to manage equity 'shocks'
- » Risk reduction from age 50 to 65
- » Terminal equity exposure 20 percent
- Lifecycle rather than target date approach

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from age 50 to 65, and we'll do this in a way that doesn't actually adopt the traditional US target date approach. We're looking perhaps a little bit more to the Chilean model of just moving people between a series of funds [Figure 15].

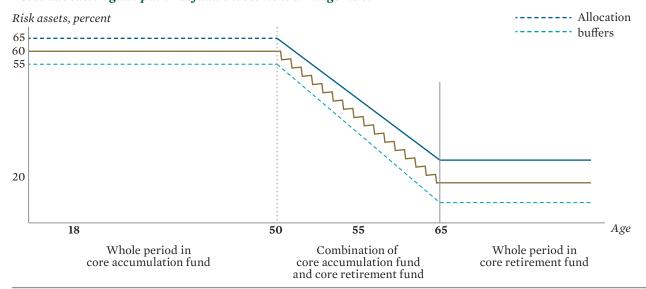
In terms of a glide path, people will be at 60 percent equity allocation up until age 50. They'll then be adjusted down on an annual basis, and they'll end up with 20 percent. So if you're in the system from age 65 onward, your equity exposure is 20 percent.

The actual way we will do that is rather than have a series of target date funds, we will just have two balanced funds: a 60/40 balanced fund and a 20/80 balanced fund. So for that period up to age 50, each

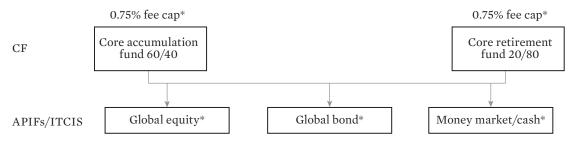
scheme will provide a 60/40 balanced fund. Then in the de-risking phase, we'll reallocate some of those assets to the other fund each year. And by the time the participant reaches age 65, 100 percent of his or her assets are in the 20/80 fund rather than the 60/40 fund. For various reasons, we thought that this would be more preferable and efficient in our particular environment than using a series of target date funds. We end up with far fewer funds and far fewer establishment costs here. It seems pretty simple, but it does require some investment by our providers in providing operating infrastructure that can allocate assets for every individual member based on his or her age. So there are some tweaks in that.

FIGURE 15 **Design Issues: Asset Allocation Glide Path for Default Investments** 

# Asset allocation glide path—default investment arrangement



## MPF fund structure to deliver glide path



<sup>\*</sup>Fee cap applies in total across layers.

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This is all well advanced. We are seeking legislative approval for our approach, with a target of implementing the changes by the end of 2016. It takes some time to establish this, and some of the machines have to be built to do the asset allocation. That's a little detail just on that particular design aspect, which is one that does trouble us. This proposed default investment fund ticks off a number of the other boxes, such as the design stress points I referred to about member complexity, member choice, and fees. A lot of these get addressed either directly or indirectly through this proposal.

Roberto Walker: I will cover Latin America, and we are facing very similar challenges to the rest of the world, and in particular, to Europe. Despite our relatively younger population, ageing is an issue. The population is ageing very fast. The fertility

rate is going down very rapidly, and life expectancy is growing very fast. Just to give you one idea, between 2040 and 2050, we'll have a similar dependency ratio as the one in the developed world. We will see a situation in which we will have two people working for every one person retiring. So that's a big challenge. One important takeaway that I hope I'm able to transmit in this presentation is that there is a huge need for urgent action. And we have to make changes to have the right solution to face this challenge.

Let me start by providing a brief summary about how the pension systems work in Latin America [Figure 16]. There are a lot of similarities between the systems in Chile, Mexico, Peru, and Colombia. Brazil is slightly different. It never implemented a mandatory system like the other countries. It has been focusing much more on

FIGURE 16 Latin America: Multi-Pillar Pension System

	Zero pillar State financed	<b>First pillar</b> Mandatory defined benefit	Second pillar Mandatory defined contribution	Third pillar Voluntary
Brazil	<b>✓</b>	$\bigcirc$		<b>✓</b>
Chile	<b>✓</b>		$\bigcirc$	<b>✓</b>
Mexico	<b>✓</b>		$\bigcirc$	<b>✓</b>
Peru	<b>✓</b>		$\bigcirc$	<b>✓</b>
Colombia	<b>✓</b>		Ø	<b>✓</b>

Sources: OECD Pensions at a Glance 2013; Design Contribution Rates 3Q2014, Microsoft Excel, 23 June 2014, World Bank, www.worldbank.org/en/topic/socialprotectionlabor/brief/pensions-data; The World Bank Pension Conceptual Framework (The fourth pillar is also present in the Framework, but it intentionally wasn't included here.)

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developing a voluntary pillar. So I would like to focus my presentation on adequacy, and in particular, adequacy in terms of the mandatory pillars. Before I discuss that though, I would like to talk about sustainability. In particular, I would like to talk about Brazil and some about Mexico.

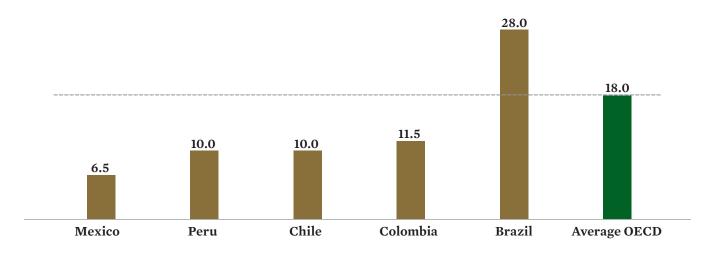
In the case of most Latin American systems, I would say that sustainability is not the big issue. But in the case of Brazil, we do have a big challenge, because the type of benefit that the system is offering in the PAYGO system is not sustainable. Just to give you a brief and simplified example, people may retire close to 50 or 55 years old with very high replacement ratios. So there is no way that is going to be sustainable, and the urgency for changes in Brazil is very important.

Another comment regarding Brazil and sort of about Mexico, is that there is a transitional generation of people moving from the old PAYGO system to the mandatory system, and the transition may create some challenges in terms of future pension payments and the sustainability of the system. So the takeaway here is that Brazil, and potentially Mexico, are the ones that may face issues regarding sustainability.

What about adequacy [Figure 17]? OECD countries are contributing between 18 and 22 percent of the salaries. Yet in the case of Mexico, Chile, and Peru, the salaries are very low and the contributions are very low: 6.5 percent in Mexico, 10 percent in Peru and Chile, and 11.5 percent in Colombia. We have done some actuarial exercises of a typical Latin American case for a married couple who are about the same age. To have a reasonable 70 or 75 percent replacement ratio, the contribution rate needs to be between 17 and 19 percent. So it's pretty consistent with the OECD's rate of around 20 percent, but Latin American countries are way below.

An important conclusion here is that these mandatory pension systems simply will not deliver what people are expecting from them because the contributions are too low. And unfortunately, despite a lot of debate about this, there hasn't been any action taken in the last 30 or 40 years to adjust

FIGURE 17 **Latin America: Contribution Rates** Percentage of taxable wage



Sources: OECD Pensions at a Glance: Latin America and the Caribbean (2014); Design Contribution Rates 3Q2014, Microsoft Excel, 23 June 2014, World Bank, http://www.worldbank.org/en/topic/socialprotectionlabor/brief/pensions-data; internal

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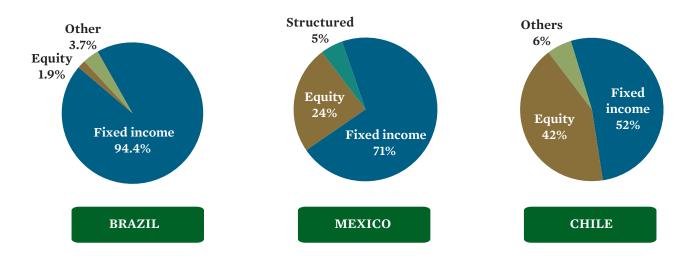
contribution rates to people's life expectancy or to the changing demographics in all these countries.

Another relevant point has to do with the asset allocation of pension assets [Figure 18]. In the case of Mexico and Chile, I'm referring to the mandatory pension pillar. In the case of Brazil, it's primarily the voluntary pillar. Chile, Mexico, Peru, and Colombia have multi-fund solutions. Out of those Latin American countries. Chile has the most diversified portfolio [on the aggregated basis] in terms of asset classes. Chile also is the most advanced in terms of international diversification. These two elements are very important to build efficient portfolios from a risk-return adjusted perspective. Brazil has the least diversified portfolio, with most of the assets invested in fixed-income securities. One hundred percent of the assets are invested domestically, but more than that, probably 95 or 98

percent of the assets are invested in shortterm securities. Mexico is in-between this spectrum, and Colombia and Peru are probably between Mexico and Chile in terms of diversification. It is very important to decide what the guiding principle should be for developing a pension fund portfolio. Should it be just about reducing volatility? Or should we maximise how many pension units we could buy in the future so we can secure a better pension for the people who are making contributions?

I also have a few thoughts about the payout phase. One has to do with the retirement age. And as I said, the retirement ages have not been modified in the last 30 or 40 years, or even more, despite the significant change in life expectancy. Let me give a typical Latin America case, but I'm specifically going to focus on women, who are the ones who have really been affected. In Chile, the retirement age for women

FIGURE 18 Latin America: Pension Asset Allocation



Percentage of pension assets invested abroad



Note: Multimarket funds can have 20 percent non-domestic exposure.

Sources: The Cerulli Report: Latin America Distribution Dynamics (2014); Cerulli Global Markets (2014) Prepared and presented by Roberto Walker at the 2015 Global Retirement Savings Conference (Paris)

is 60 years old and 65 years old for men. In the case of women, if you look at the relationship between the number of years actively working relative to the number of years in retirement, it has moved from 3.2 times of working years to retirement years to 1.3 times. So there is no way that the number of years a woman spends actively contributing will be sufficient to finance her retirement if she retires at 60 years old. This is something that the European countries in particular are grappling with and are starting to correct. This is very difficult though. No matter how much we try to increase contributions, it's going to be very difficult to provide adequate pensions if we don't do anything about the retirement age.

The other observation that I would like to make regarding Latin America has to do with the PAYGO system. With the exception of Brazil, we don't generally have lump sum alternatives, so the money must stay inside the account. I think this is a smart solution. Basically, you can either choose to buy an annuity from a third party—and in that case, you are transferring the market and longevity risk to the insurance company provider—or you can stay in what we call 'a programmed withdrawal.' In that case, you cannot redeem the money, but a pension is calculated on a yearly basis, and it's adjusted every year according to the market return and life expectancy factor.

I'd like to mention several things that I believe have not been moving fast enough to capture how the market and families have been evolving. First is the incorporation of women into the labour market. When we calculate pensions for males, and we have beneficiaries like spouses, we are not capturing that concept properly. Also, the flexibility to combine programmed withdrawals with annuities is very limited in most of the Latin American countries I have mentioned, so I think we have a great opportunity to improve this.

So a couple of takeaways. First, in terms of contribution rates, people are not saving enough, and that's an issue that we have to address and find ways to help people contribute more. Second, in terms of Latin American regulators there are many cases with a few exceptions, of course-in which regulators are pointing in the wrong direction. What I mean is that regulators have talked a lot about commissions, and they have talked a lot about cost. I think that is very relevant, but when you think about how we can improve pensions for people, and you look at the relevance of fees compared to other variables, the importance of fees is very small.

For example, in Chile, commissions on average are close to 60 basis points over the assets under management, and these 60 basis points cover management, administration, and custody. If you bring these commissions to zero, pensions probably would increase by about 7 percent, assuming that the reduction in commissions is going to be truly safe, which is debatable. So if we go to a zero commission environment, pensions will increase by 7 percent in the case of Chile. In the case of Mexico, it is probably going to be close to 10 percent. But when you think about how we can increase contributions by 100 basis points or how we can improve portfolio returns on a risk-adjusted basis, 100 percent will have an impact on pensions, which is going to probably be double the impact of reducing the commissions to zero. So we have to pay a lot of attention to how we build more efficient portfolios. We also have to make managing pension funds to maximise pensions a priority, rather than letting the management of pension funds be driven by other objectives that may be associated with the government in charge.

Another very relevant topic is basic financial education. This is probably something that as a pension provider we have been

failing miserably at, in terms of helping people understand how important both long-term savings is and the value of having the retirement accounts.

So what we are talking about in terms of a multi-pillar solution? We are talking about two big groups of people. For those people who can save, we think that funded systems can provide advantages, such as having clarity about the ownership of pension accounts and transparency, which is a very important factor. When we look at society and people's behaviour, people are paying a lot of attention to transparency. We talk a lot about equality in Latin America. I think that the funded pension system for those who can save provides a high degree of equality. Long-term savings is also an important long-term financing mechanism to foster growth in the countries I have spoken about. We have a lot of research that has been done over the last decades about how pension funds have contributed to the growth in Latin American countries. So that's for those who can save.

What about for those who cannot save? Obviously, those are the people who need to, and I think that Olga made a very good case about the solidarity pillar and how Chile is helping people who cannot save. Yet when we continue strengthening this solidarity pillar, we have to be very careful about avoiding inequality in the PAYGO system. Many people in Latin America talk about equality, and they talk about PAYGO as a source of equality. I think that is exactly the opposite. In many of these PAYGO systems, there are people who have been contributing, but who don't fulfill all the requirements to get the benefits. So they are losing their savings. In many of these cases, the people who are losing these savings are lower-income people who are financing the middle class or higher-income people. So we can hardly talk about equality when we talk about the PAYGO systems in Latin America.

In addition, if we go to a PAYGO-type solution, and that is increasingly important, it's hard to think about equality in terms of leaving the problem to the future generation. I cannot think about something more unequal than leaving that problem to the future generation. Another important factor is that we need to find the right balance between adequacy and sustainability as we continue to develop the solidarity pillars in the region.

So where are we? I think we are in the era of personal responsibility. It's very hard to imagine a world and a pension system in which people will not be responsible for their futures. We cannot let the future generation take care of this problem. Every generation must fund itself. That has a lot to do with personal responsibility, and we have to educate people and provide them with the basic tools.

That is a common task that workers, employers, and governments must share. I think that governments must create the best conditions to foster saving for those who can save. I also think that governments must create the best conditions to promote financial literacy or basic financial education. We have seen many public policy initiatives that have changed the behaviour of people in many other areas, so governments could do something about saving as well. In the case of Latin America, I think employers could also do more. We can think about how we can incorporate the role of employers in the voluntary solutions. For example, like what the United States does in the case of 401(k) plans. Of course, it also is very important that the middle class and higher-income people also make adequate contributions to sustain a healthy and adequate system for the future.

Dirk Broeders: During my presentation I am not going to explain how the current Dutch pension system works. Instead I will

talk about what the pension system could look like going forward, which is what we are working on right now. On a national level, we have a dialogue about how we should design our pension system going forward, and I will discuss the occupational pension system, or the second pillar.

Let me start by giving you the key messages. One of my key points is that our system today is a DB system. And we know that our system-and in a broader sense other DB systems—face important funding and sustainability challenges. The first step is to recognise that, which we did in the Netherlands. We now are in this process where the key stakeholders-the government, employers, employees, academics, and regulators—are discussing on a national level how to go forward with these funding and sustainability issues. The way I look at this-and many people in the Netherlands look to this solution—is that we should step away from the discussion of DB versus DC systems. I believe the best way to go forward is to combine the best features of DB and DC plans. That's like wearing a business suit but not wearing a tie. It might look a little bit off, but I think that's the way we should proceed.

Okay, so let's talk a little bit about our funding and sustainability issues. Our DB system is well developed, so savings in the second pillar are a multiple of our national GDP, which is very good news. But it's also bad news in the sense that it creates procyclical effects on the economy. And there's definitely a relationship between the volatility of our Dutch economy and things happening in occupational pensions. What we specifically see is that corporations that have pension plans are retracting from their DB plans. They are no longer willing to cover any shortfalls that might happen within their pension funds. So they are looking for ways to offer a good pension to their employees, but they want to get rid of the balance sheet risk. This is amplified

by low interest rates, changing demographics, and increasing longevity. These factors have a huge impact on the funding of pension plans.

There is another issue, maybe even a bigger issue that relates to sustainability. If you look at a typical Dutch DB pension plan, it's what I would call a 'one-size-fits-all' solution. Every participant, either young or old, pays the same contribution rate, accrues the same benefits, is exposed to exactly the same asset allocation, and gets the same indexation. This might have worked well when we designed our system 50 years ago, but we need to reconsider if this is still optimal going forward.

One of the issues with this one-size-fitsall policy is that, more and more, we see that it creates all sorts of redistributions. If you analyse our system, you can see that it creates, for instance, a redistribution from younger participants to older participants because the investment horizon is not taking into account setting the contribution rate.

Another big issue is the labour market, which is changing very rapidly. More and more people are changing jobs, more and more people are becoming self-employed, and we expect these changes to continue going forward.

A final issue that I would like to mention is that, more and more, pensions are a political issue. The parliament is discussing pensions all the time. It's discussing discount rates, other regulatory issues, as well as first and second pillar issues. Of course that's good, but it is also a risk because politicians don't tend to look that far into the future, and pensions, by definition, cover many decades.

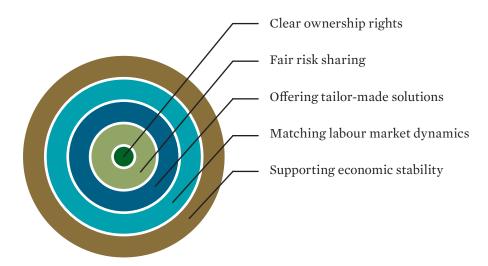
I would like to stress that there's a national dialogue, which has been organised by our government. Every stakeholder can contribute to this dialogue. The Dutch Central

Bank, which is the supervisor of pension funds in the Netherlands, has also contributed to this dialogue. And we promoted five key points in the dialogue, which we consider to be the core elements of a sustainable occupational pension system [Figure 19]. The first and most important element, which Ole, Roberto, and others highlighted, is clear ownership rights. Currently, people do not see how much they contribute to the pension system. They rarely see what they have accrued [or what they would receive] in the payout phase because it's a DB plan. It's unpredictable. There's also uncertainty, because you do not know how much indexation you will get. Also, a reduction in benefits might be possible in the Netherlands. So we want to have clear ownership rights.

The second element is fair risk sharing. I'm a true believer in sharing risks, but it should be in a way that is fair to all participants. And ex ante, there should not be any redistributions from young to old or from active members to retirees. The third element is offering tailor-made solutions. I think going forward, when we look at a society where people are more self-reliant and where the labour market is much more dynamic, we should be able to offer tailor-made solutions. One of the things we're looking at is how to have more of a lifecycle concept in the pension system. The fourth element is labour market dynamics, which should make it easier to transfer benefits or your accrued pension wealth between different pension funds when you change jobs. Finally, our fifth element, which is something I would also like to stress from the Central Bank's perspective, is that the pension system should also support economic stability instead of amplifying the volatility of the Dutch economy.

Now how to reach this point is very difficult. Typically, when we are discussing pensions, we are discussing DB, DC, and hybrid pension plans. What I've noticed is that when you're talking about these extremes, it is also a discussion about beliefs. Some people truly believe in the virtues of a DB system, others truly believe

FIGURE 19 A Sustainable Occupational Pension System Is Characterised By:



Prepared and presented by Dirk Broeders at the 2015 Global Retirement Savings Conference (Paris)

in the virtues of a DC system, and it's very difficult to cross these differences in beliefs. I don't think it will ever be possible.

So I'm actually promoting a different view in thinking about pensions. It's not thinking about DB, DC, defined ambition, or hybrid pension plans, but taking more of a functional approach. If you think of a pension, it actually offers at least four different functions [Figure 20]. The first function is saving, which involves how much to contribute to your pension plan. This requires that you have an idea about what target you would like to hit when you retire, and of course it needs to include the pension you will get from the first pillar.

The second function is investing, which is very different from the saving function. Investing is about investing to get a stream of income after retirement. And the way to look at this, which I think is a good feature of DB plans, is that you want to manage your shortfall risk of not achieving your income stream after retirement while trying to minimise the costs in reaching your target. So saving and investing for the accumulation phase.

After retirement, we enter a new phase, where dissaving, which is the third

function, becomes the key element. This is all about finding an optimal drawdown strategy in which you have to make assumptions about how long you will live, your future investment returns, inflation, et cetera. Our final function-which I think is key in any pension system in order to do this optimal drawdown strategy-is risk pooling, specifically, pooling of individual mortality risk. For me, that's an absolute no-brainer. In any system that you would like to design, it's optimal to pool individual mortality risk. It improves welfare and reduces cost.

Now of course, we can discuss other forms of risk sharing. You might want to share investment risk or inflation risk, but the key is to, at a minimum, pool microlongevity risk. I think the best way to do that is to think about this functional approach and try to combine the best elements of DB and DC contracts [Figure 21]. If you look at DB plans, I think the key is that you have an explicit retirement income pool or replacement rate, and that you are managing your assets in such a way that you are managing the shortfall risk of not having an income stream after retirement.

Another key feature of DB plans-at least in the Netherlands-is that we have fairly

FIGURE 20

## **Take a Functional Approach Towards Pensions**

1	2	3	4
Saving	Investing	Dissaving	Risk pooling
Setting retirement income goal and wealth accumulation	Managing shortfall risk of not achieving retirement income goal and minimise costs	Optimal drawdown strategy based on best estimates for longevity, returns, and inflation	Pooling of mortality risk to lower costs and improve welfare

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large collective pools. We have about 350 pension funds in the Netherlands, but let's say the top 10 pension funds have most of the participants and also most of the assets under management. This is necessary to be able to profit from economies of scale. I think the way to organise large collective pools is by mandatory participation. The Dutch pension system is currently based on mandatory participation. I think that is something we should consider continuing in the future and actually maybe even broaden to the self-employed, who currently are not subject to mandatory participation.

We also have to look at DC plans. What's absolutely key and nice about DC plans is that you actually see what you own, so you have clear ownership rights. You see how much money is going in, and you see the investment returns. DC plans, by definition and by the fact that you have clear ownership rights, allow for a life-cycle customisation. DC plans are also much more transparent and flexible.

This is where we stand right now in the Netherlands. We currently just finished improving regulation for DB plans, and we

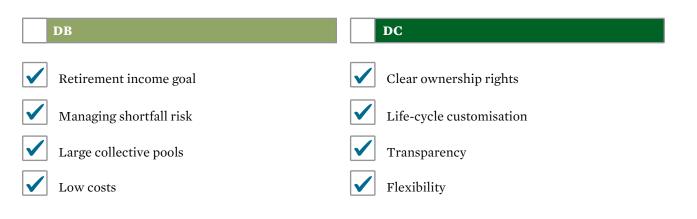
are in the process of drawing up new regulations for DC plans. Looking out five years from now, I'm hoping to have another pension act that covers many of the things I just discussed.

Audience member 1: A number of the presentations talked about life cycling and target date investing, which are obviously very important for dealing with sequencing risk. I think it's said that 60 percent of the money that people spend in their retirement is actually earned after they finished working when they enter retirement. So are we creating some other risks here by moving people into these lower-risk portfolios too early? Will that mean that they will have a lot less money through their retirement? Are we doing projections about what sort of impact this move to target date and life cycling might be having? There may be some other solutions to deal with sequencing, but it seems to me that we might actually be fixing one problem and creating another one.

Broeders: If you look at current DC contracts in the Netherlands, you have to provide a lifecycle investment strategy over your life cycle. Yet at retirement, you have

FIGURE 21

#### Combine the Best of Both Worlds



Prepared and presented by Dirk Broeders at the 2015 Global Retirement Savings Conference (Paris)

to fully converge your accrued capital into a nominal annuity. Actually, currently after retirement, you have a normal bond portfolio, which is very secure, but you're not exposed to equity risk, and you won't get any indexation. So the purchasing power of your pension income will decline over time. I just mentioned that we are improving regulation on that, which allows providers of DC contracts to actually have equity exposure after retirement. Of course it's a risk-return trade-off, but you are better exposed to investment risk, which enables you to earn a risk premium and provides some indexation to your pension income.

McShane: As Dirk just said, the solution to this issue has to be dealt with in the context of how your payout phase is structured. So for those who are structuring it into an annuitisation at a point in time, then you can take risk off the table comfortably. For those who have a whole range of possibilities, then, yes, you need to take the risk-return of equities into account. In our particular case, our modeling tries to look through the access date. It's not really a retirement date in our context, but at age 65, what equity exposure should one have? Now we know that in the United States there was a lot of criticism a decade ago about the results that target date funds were getting in the context of a down equity market, with some of the target date funds having 30 or 40 percent equity exposure at the end. In our particular case, we've gone for 20 percent. There's no magic solution to this. It is a classic risk-return trade-off. So we've come up with a figure of around 20 percent. That's not necessarily right or wrong.

Utkus: I would add that in modeling, we do jurisdiction by jurisdiction, and it gets to a point that I think Peter and Juan emphasised at the opening: you have to model the system completely. For example, in the United States, because of the existence of Social Security inflation-indexed annuity benefits, you're going to end up with a

different result in a system that has a much lower replacement rate from the public sector system. So you have to do that modeling, which is what we do, both at retirement and through retirement, including for very long life expectancies in different countries. I would say a good case study of this is the United Kingdom. The lifecycle design for the UK system with compulsory annuitisation that is echoing what Darren just said would look very different on various modeling assumptions than the current rules, which liberalise mandatory annuitisation.

Audience member 2: Hi, I represent Russia, and I have a question about the relationship between the public pension and the DC component. Russia has had many discussions about this, which began when we introduced a DC component to our pension system in 2002. In this context, I was very interested in the presentations on Chile's pension system [Olga Fuentes] and on Latin America's pension systems [Roberto Walker]. The way I understood the presentations is that most of the women and lower-income population did not contribute to the DC system before 2008. As a result, Chile implemented the 2008 reform, which added the solidarity pillar to target these specific segments of the population.

I am interested in your predictions for the future of Latin American systems, which are designed to be primarily DC-based systems. What do your actuaries predict for the growth of the solidarity pillar? How will the solidarity pillar grow compared to the DC pillar? Which one will dominate? Do you expect DC savings to dominate because the number of lower-income people may decrease? Yet, women are not likely to go away. So what do you expect in 20 to 30 years?

Walker: Your question covered different aspects. The first thing that I would like to say is that in the case of Latin America, and in particular Chile, one important challenge for women has to do with

two factors. One is the labour behaviour of women, because they tend to participate actively but not as consistently as men. So the contributions during a woman's working life are interrupted because of different reasons.

The other relevant factor is that the retirement age for women in Chile is 60 years old. So we have two problems here. Not only is life expectancy for women longer and the period and way they are contributing is shorter, but also their retirement period is longer than it is for men. This is a very important distortion, and it's hard to understand why you have to keep different retirement ages in Chile's system.

Looking at the future, I think the multipillar solution will continue and is the right approach, and this is something that we have discussed with different actuaries in the sector. As I said, we have people who don't have the capacity to save, and we need to find good ways to help those people. But again, in the case of Chile, around 70 percent of the population is middle class. That group is not saving enough, and we need to find ways to provide good savings vehicles for them. In that direction, I think that we will continue to strengthen the solidarity pillar for those who can't save. Yet for those who can save, we will probably go in two directions: figuring out how we can improve the contribution rate for the mandatory system, and also how we can create the best voluntary systems for saving.

Voluntary savings in Latin America and Chile are concentrated in the high-income class. So the middle class is not well covered. To serve them better, the middle classes in Chile and Latin America need group solutions, like the 401(k) in the United States. In addition, what we have found in Chile is that participation is very high. In a group of middle-class or lowerincome workers, close to 65 to 70 percent of the people decide to participate when you offer a group solution to them. Olga, would you like to weigh in?

Fuentes: The solidarity pillar actually has had a significant effect on the level of pensions and on the replacement rates for those people who qualify. As I said, for those with a solidarity complement, the complement provides 80 percent of the total pension, which is significant. Of course, we still have some issues related to adequacy that are due not only to the fact that some medium-income workers do not qualify for the solidarity pillar, but also to the fact that they have unstable labour conditions that explain why they are not saving enough. The 2008 reform also introduced a collective savings scheme, but so far, the coverage and participation in that type of scheme has been very low. We are looking at ways to increase participation for these types of schemes to increase savings for middle-income workers.

Also, to put all this in context, in 2014, the government formed a presidential commission. It's doing an evaluation, and we're expecting proposed reforms to the system by the end of August 2015. So far, the discussion has been much broader than just adjusting some parametrical values, such as the contribution rate or the retirement age. It includes discussions to reinforce the solidarity pillar and how to better promote voluntary savings. Financial education is also a key element. Yet the providers and pension fund managers should also do more in terms of giving more information to affiliates and offering more education to enable them to make active decisions. I think the solution to improve adequacy involves a combination of all these factors. We are waiting for the commission's proposal to see their views on how to move forward to increase adequacy.

# Programme

## 24 JUNE 2015

# **Opening Remarks**

## Juan Yermo

Deputy Chief of Staff of the Secretary-General OECD

#### PANEL 1

The Interaction Between Public and Private Retirement Provision-**A Holistic View** 

Pablo Antolín-Nicolás, Moderator

Principal Economist Head of the Private Pension Unit Financial Affairs Division **OECD** 

#### Peter J. Brady

Senior Economist **Investment Company Institute United States** 

## **Olga Fuentes**

Deputy Chairman of Regulation Superintendence of Pensions Chile

#### Ole Beier Sørensen

Chief Pension Researcher ATP Denmark

## TEA/COFFEE BREAK

#### PANEL 2

**Designing a Successful Private Pension System That Complements** the Public System-From **Accumulation to Spend-Down** 

Stephen P. Utkus, Moderator

Principal

Vanguard Center for Retirement Research **United States** 

#### **Dirk Broeders**

Senior Strategy Advisor Central Bank of Netherlands

#### **Darren McShane**

Executive Director (Regulation and Policy) Mandatory Provident Fund Schemes Authority Hong Kong

## **Roberto Walker**

President Principal Financial Group for Latin America Chile

## **Closing Remarks**

## **Dan Waters**

**Managing Director** ICI Global United Kingdom



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