ANNUAL SURVEY OF LARGE PENSION FUNDS AND PUBLIC PENSION RESERVE FUNDS

Report on pension funds' long-term investments

October 2013

This document contains a Survey of Large Pension Funds and Public Pension Reserve Funds investments. The data herein is designed to illuminate the role that large institutional investors can play in providing a source of stable long-term capital, consistent with the objectives and directions as set down in the February 2013 communiqué from G20 Finance Ministers and Central Bank Governors.

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Published for the first time in 2012, this survey is based on a qualitative and quantitative questionnaire sent directly to Large Pension Funds and Public Pension Reserve Funds. The survey is part of the OECD project on Institutional Investors and Long Term Investment. The data herein is designed to illuminate the role that large institutional investors can play in providing a source of stable long-term capital, consistent with the objectives and directions as set for in the February 2013 communiqué from the G20 Finance Ministers and Central Bank Governors. This data will help to provide insights and detailed investment information which complement the administrative data gathered by the OECD at a national level through the Global Pension Statistics project.

Institutional Investors and Long-Term Investment www.oecd.org/fin/lti

Global Pension Statistics www.oecd.org/daf/pensions/gps

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ABOUT THE SURVEY[1]

G20 Background

At the G20 Finance Ministers and Central Bank Governors meeting held on 15-16 February 2013[2] in Moscow, the G20 leaders welcomed the diagnostic report provided by international organizations assessing factors affecting long-term financing[3]. The report finds that there is scope for some sources of long-term financing, including local currency bond markets, domestic capital markets, and institutional investors to play a larger role for investment. Recognizing also the need for further research and analysis the ministers and governors agreed to establish a Study Group on Financing for Investment to work closely with international organizations (IOs), and to analyse obstacles and limitations delaying long-term financing. The work plan of the Study Group was endorsed by G20 leaders at St. Petersburg Summit on 5-6 September 2013.

At the same meeting, some IOs have been mandated to provide specific deliverables. This includes for the OECD a report on the High Level Principles of Long-Term Investment Financing by Institutional Investors (delivered at the Leaders` Summit in St Petersburg in September 2013) but also together with other relevant IOs, to provide analysis of different government and market-based instruments and incentives used for stimulating the financing of long-term investment, as well as a survey report on pension funds' long-term investments here presented in this publication.

The information in this survey report on pension funds' long-term investments is designed to illuminate the role that large institutional investors can play in providing a source of stable long-term capital, consistent with the objectives and directions as set forth in February 2013. Initial findings and relevant policy conclusions here presented will be further expanded – including further analysis from other OECD reports and inputs from the IMF and WB – in the next report "Trends in Global Asset Allocation of Institutional Investors" which is part of the work programme of the G20 Study Group in March 2014.

The Survey

Traditionally, institutional investors have been seen as sources of long-term capital with investment portfolios built around the two main asset classes (bonds and equities) and an investment horizon tied to the often long-term nature of their liabilities. In recent years diversification benefits and higher expectations of investment returns are increasingly driving investors to alternative investments, such as private equity, real estate, infrastructure and commodities[4]. However, despite this recent growth, official

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[1] Editors: Raffaele Della Croce, Joel Paula and Juan Yermo. Contributor: Romain Despalins. The survey and this report have benefited from useful comments by Stéphanie Payet and Jean-Marc Salou. This report was made possible by the contributions of pension funds and public pension reserve funds. The OECD gratefully acknowledges the efforts of the participants in providing extensive data, and is thankful to Chandrachud Basavaraj, Yukiko Kamegawa and Fatima Navarro-Rubio for their valuable help in the collection of the questionnaires.

[2] See Communiqué Meeting of Finance Ministers and Central Bank Governors – Moscow, 15-16 February 2013 http://www.g20.org/news/20130216/781212902.html

[3] See OECD contribution on the Role of Banks, Equity Markets and Institutional Investors in Long-Term Financing for Growth and Development)

[4] As noted in the IOPS 'Good Practices in the Risk Management of Alternative Investments by Pension Funds' (IOPS Good Practices), there is no precise definition of alternative investments. The nature of alternative investments is dynamic and ever-evolving, and closely linked to the development of financial markets. While there is no official definition of alternative assets, the term is usually applied to instruments other than listed equities, bonds, and cash. For the purposes of this survey, "alternative" investments comprise the following types of investments: hedge funds, private equity, real estate, infrastructure, commodities and "other" (other includes: timber and currency/interest rate overlays).

data on pension fund investment in alternatives – and in particular infrastructure – is scarce. National statistical agencies do not currently collect separate data on these investments, and the different methods of categorizing infrastructure, along with its many forms of investing, often lead to information that is buried under different headings[5].

In order to identify the flows and to better capture the underlying trends in asset allocation and investment strategies of institutional investors, the OECD launched surveys in 2010 and 2011 of individual pension funds both within and outside of the OECD that are amongst the largest in their respective country. 2013 now marks the third year of the survey and following the G20 mandate, the scope of this report will cover OECD countries, some non-OECD countries, and member countries of the G20.

This year's survey includes 56 retirement schemes, consisting of a mix of defined benefit (DB) and defined contribution (DC) pension plans (mainly public sector funds, but also corporate funds) that together total USD 3.1 trillion. Data for 49 schemes were provided by the large pension funds directly, the other 7 coming from publicly available sources. This information is presented in combination with the OECD Public Pension Reserves Funds ("PPRFs") survey carried out at the same time (20 PPRFs completed the survey, 10 were added by using publicly available sources). Altogether, data was compiled for 86 institutional investors[6] from more than 35 countries around the world including some non-OECD countries such as Brazil, Peru, Nigeria, and South Africa, accounting for over USD 9.7 trillion of assets under management[7].

This survey is part of the OECD project on Institutional Investors and Long Term Investment[8] the scope of which continues to broaden as the project deepens. Going forward, the survey will be extended to other institutional investors (e.g. Insurers and Sovereign Wealth Funds), providing insights and detailed investment information which complement the administrative data gathered at the national level[9].

The purpose of this exercise is to monitor and compare the investment behaviours and performance of the largest institutional investors in each region or country, analysing in greater depth the general trends observed at a national level. Results will highlight the depth and breadth of institutional investors, elucidating the importance of long-term capital and the role that professionally managed investment programs can play in an economy. While the quantitative and qualitative evidence collected through the survey will be of prime value to the ultimate investors, it will also be used to inform regulators and other policymakers in order to help them better understand the operation of institutional investors in different countries.

Based on a qualitative and quantitative questionnaire, the survey is divided into two different parts, a general overview of the largest institutional investors taken into consideration (Part A – General Overview) further divided into two sets of investors, the Large Pension Funds and Public Pension Reserve Funds and a more specific focus on infrastructure investment (Part B – Infrastructure Investment).

Part A – General Overview focuses on institutional investors' size and growth, asset allocation, international exposure and investment performance. *Part B – Infrastructure Investment* focuses on capital flows in infrastructure, investment structures, sector and geographies. For this part of the report – the

[5] For example infrastructure investment is rarely part of a separate allocation usually being considered often part of the private equity or real estate allocation. Pension fund investment in listed infrastructure vehicles is reported by national statistics agencies as national or foreign equities and lending to infrastructure vehicles is reported as fixed income, while direct investment or participation in private equity vehicles is often reported within the category "other".

[6] 49 large pension schemes and 20 public pension reserve funds returned completed surveys. The supplemental data of large pension funds and public pension reserve funds, included in some tables and figures, are gathered from publicly available sources.

[7] PPRFs are reserves/buffers to support otherwise PAYG financed public pension system as opposed to pension funds which support funded pension plans in both public and private sectors. See Annex for definitions of the types of sovereign and public pension reserve funds. In the survey were included some SWFs such as Norway's Government Pension Fund – Global and Russia's National Wealth Fund that have at least a partial pension objective.

[8] See www.oecd.org/finance/lti.

[9] See *OECD Pensions Outlook 2012* at www.oecd.org/daf/fin/private-pensions.

infrastructure investment survey – we included data from 33 funds out of the total 69 funds that returned completed questionnaires[10].

Table 1. Large Pension Funds surveyed

Country	Name of the fund or institution	Assets 2012 in USD bn. (1)
Netherlands	Stichting Pensioenfonds ABP (ABP)	412.4
United States	California Public Employees' Retirement System (CalPERS)	248.8
Singapore	Central Provident Fund (2)	190.2
Netherlands	Pensioenfonds Zorg en Welzijn (PFZW)	171.0
United States	California State Teachers' Retirement System (CalSTRS) (2,3)	151.3
South Africa	Government Employees Pension Fund (GEPF)	143.7
Denmark	Arbejdsmarkedets Tillægspension (ATP) (2)	140.2
Japan	Pension Fund Association (4)	130.8
United States	New York City Combined Retirement System	130.0
Canada	Ontario Teachers' Pension Plan Board (OTPP)	127.9
United States	Florida Retirement System Pension Plan (2,3)	122.7
Sweden	Alecta	83.9
Brazil	Previ	81.4
United States	Ohio Public Employees Retirement System (OPERS)	80.4
Netherlands	Pensioenfonds Metaal en Techniek (PMT)	62.0
Canada	Ontario Municipal Employees Retirement System (OMERS)	61.8
United Kingdom	BT Pension Scheme	58.6
United Kingdom	Universities Superannuation Scheme (USS)	55.5
Australia	AustralianSuper	54.6
United States	Massachusetts PRIM Board	51.8
Denmark	PFA Pension	51.7
Finland	Keva (2)	46.3
Chile	AFP Provida	45.8
United Nations	United Nations Joint Staff Pension Fund	44.7
Finland	Ilmarinen	38.9
Chile	AFP Cuprum	33.3
Brazil	Petros (2)	32.6
Australia	UniSuper (2,3)	31.1
Brazil	Fundação dos Economiários Federais (FUNCEF)	24.5
Australia	Sunsuper	22.5
France	Établissement de Retraite Additionnelle de la Fonction Publique (ERAFP)	19.5
Mexico	Afore XXI Banorte	18.9
Germany	BASF Pensionskasse	15.4
Israel	Menora-Mivtachim	12.4
Italy	COMETA	9.7
Peru	AFP Horizonte Peru	9.0
Turkey	Ordu Yardımlaşma Kurumu (OYAK)	8.8
Italy	FONCHIM	5.0
Russia	Lukoil - Garant	4.5
Spain	Fonditel	4.5
Brazil	Fundação de Assistência e Previdência Social do BNDES (FAPES)	4.3
Nigeria	RSA Fund (5)	4.2
Portugal	CGD Pensões	2.1
Spain	Previsión Social, Empleados del Grupo Endesa, f.p. (Endesa)	1.8
Nigeria	CPF Fund (5)	1.6
Spain	Fondo de Pensiones de Empleados de Bankia (Bankia)	1.3
Portugal	Banco BPI Pension Fund	1.2
Russia	VTB	1.2
Nigeria	AES Fund (5)	0.7
Portugal	Fundo de Pensões Petrogal (Petrogal)	0.4
Spain	Santander Empleados Pensiones, FP (Santander)	0.1
Portugal	Fundo de Pensões Pessoal da Império-Bonança (Império-Bonança)	0.1
Portugal	Fundo de Pensões Fidelidade (Fidelidade)	0.1
Portugal	Fundo de Pensões do Pessoal da Mundial Confiança (Mundial Confiança)	0.0
Portugal	Fundo de Pensões Galp Energia (Galp Energia)	0.0
Spain	Comisiones Obreras (CCOO)	0.0
Total		**3,057.3**

(1) Data correspond to all forms of investment with a value associated to a pension fund/plan. (2) Data have been gathered from publicly available reports. (3) Data refer to the end of June. (4) Data refer to the end of March. (5) In Nigeria, there are three types of pension schemes, namely, the Retirement Savings Account (RSA) Fund, which is contributory; the Closed Pension Funds; and the Approved Existing Schemes (AES). The largest pension fund from each of these three schemes has been selected.

Source: OECD.

[10] For further analysis based on this data, please see *Trends in Large Pension Fund Investment in Infrastructure* (OECD, 2012).

Table 2. Public Pension Reserve Funds surveyed

Country	Name of the fund or institution	Assets 2012 in USD bn. (1)
United States	Social Security Trust Fund	2,732.3
Japan	Government Pension Investment Fund	1,298.1
Norway	Government Pension Fund - Global (2)	694.4
Saudi Arabia	General Organisation for Social Insurance (3,4)	448.0
Korea	National Pension Service (3,5)	302.9
China	National Social Security Fund (5)	175.9
Canada	Canada Pension Plan Investment Board (CPPIB)	173.6
Sweden	National Pension Funds (AP1-AP4 and AP6)	147.0
India	Employees' Provident Fund Organisation (5,6)	106.7
Russian Federation	National Wealth Fund (5,7)	88.6
Australia	Future Fund	85.7
Spain	Social Security Reserve Fund	83.1
France	AGIRC - ARRCO (3,5)	65.7
Argentina	Sustainability Guarantee Fund	50.0
France	Pension Reserve Fund (5)	47.9
Canada	Quebec Pension Plan	39.3
Norway	Government Pension Fund - Norway	27.8
Belgium	Zilverfonds	25.3
Ireland	National Pensions Reserve Fund (5)	19.4
New Zealand	New Zealand Superannuation Fund	17.2
Portugal	Social Security Financial Stabilisation Fund	14.4
Indonesia	Jamsostek (8)	14.1
Chile	Pension Reserve Fund	5.9
Poland	Demographic Reserve Fund	5.3
Mexico	IMSS Reserve	1.6
Bosnia and Herzegovina	The Pension Reserve Fund Of Republic of Srpska	0.2
Total		**6,670.2**

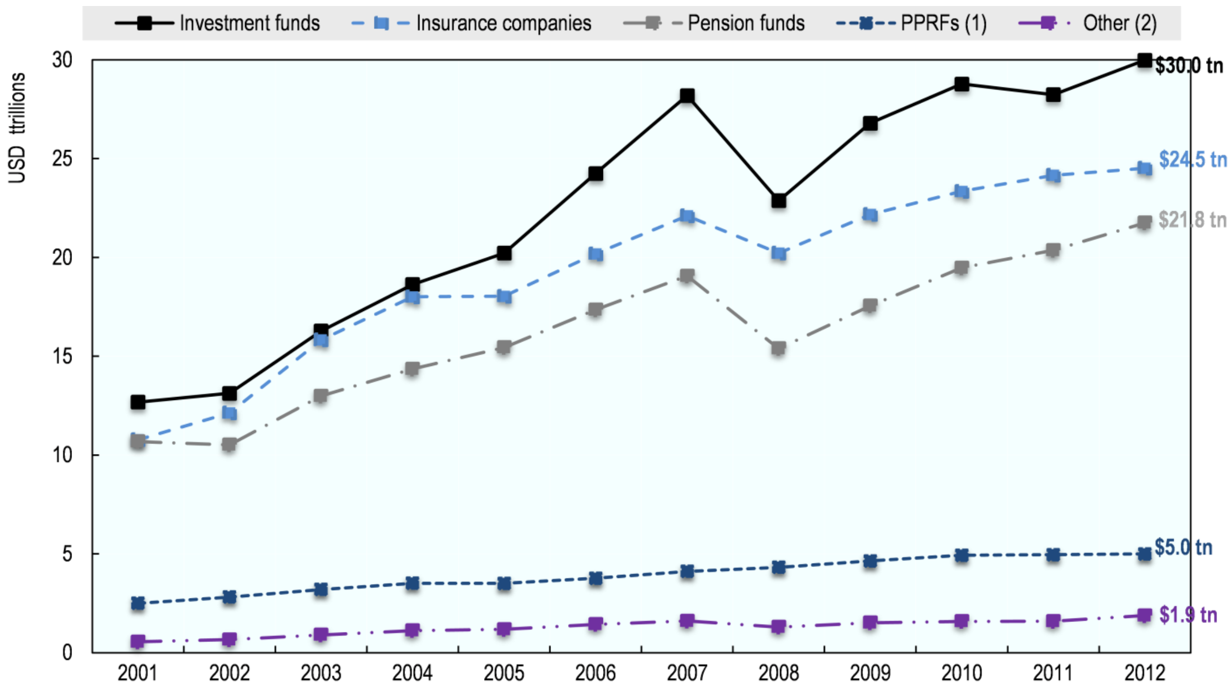
(1) Data correspond to all forms of investment with a value associated to a pension fund/plan. (2) Norway's Government pension Fund - Global is a Sovereign Wealth Fund and not a Public Pension Reserve Fund, its mandate goes beyond financing pension expenditures. (3) Data refer to 2011. (4) Source: Asset international's Chief Investment Officer (aiCIO). (5) Data have been gathered from publicly available reports. (6) Data refer to March 2012, and include the Employees Provident Fund, the Employees Pension Fund and the Employees Deposit Linked Insurance Fund. (7) Russia's National Wealth Fund is a Sovereign Wealth Fund, and not a Public Pension Reserve Fund, because its mandate goes beyond financing pension expenditures. (8) The number is available on Jamsostek's webpage and refers to November 2012.

Source: OECD and various national sources.

INTRODUCTION

In 2012, the primary institutional investors in the OECD – pension funds, public pension reserve funds (PPRFs), mutual funds, and insurance companies – held USD 83.2 trillion in assets (Figure 1). In that same year, the combined GDP of the OECD countries was USD 46.1 trillion. As economic actors, institutional investors play a key role in channelling savings into productive long-term investments, and clearly, the amount of capital deployed in the OECD is substantial. This function has become increasingly important during a time period in which the role of traditional financial intermediaries such as banks and their capacity to provide long-term financing is changing in the post credit crisis period. The scope of this survey will cover OECD countries, some non-OECD countries, and member countries of the G20.

Figure 1. Total assets by type of institutional investor in the OECD, 2001-2012
in USD trillions



PPRFs = Public Pension Reserve Funds.

Note: Book reserves are not included in this chart. Pension funds and insurance companies' assets include assets invested in mutual funds, which may be also counted in investment funds. (1) Data include Australia's Future Fund, Belgium's Zilverfonds (2008-2012), Canada Pension Plan Investment Board, Chile's Pension Reserve Fund (2010-2012), France's Pension Reserve Fund (2003-2012), Ireland 's National Pensions Reserve Fund, Japan's Government Pension Investment Fund, Korea's National Pension Service (OECD estimate for 2012), New Zealand Superannuation Fund, Government Pension Fund - Norway, Poland's Demographic Reserve Fund, Portugal's Social Security Financial Stabilisation Fund, Spain's Social Security Reserve Fund, Sweden's AP1-AP4 and AP6, Unites States' Social Security Trust Fund. (2) Other forms of institutional savings include foundations and endowment funds, non-pension fund money managed by banks, private investment partnership and other forms of institutional investors.

Source: OECD Global Pension Statistics, Global Insurance Statistics and Institutional Investors databases, and OECD estimates.

Although assets for all institutional investor categories have recovered since the economic downturn in 2008 (Figure 1), the past few years have posed challenges for institutional investors. Muted investment returns in traditional asset categories such as public equities and fixed income have put pressure on investment portfolios to seek returns elsewhere. Economic uncertainty in developed markets is high, and the outlook for emerging markets, long viewed as the driver of future global growth, is increasingly influencing investment policies for institutional investors.

Pension funds' asset allocation decisions are affected by other factors beyond investment opportunities. Pension funds differ in the type of retirement plan they support (defined benefit, defined contribution or hybrids) and hence on the nature of their liabilities. In addition to the challenges facing pension funds on the asset side of the balance sheet, falling interest rates and narrowing credit and liquidity spreads in the OECD have increased pension liabilities, putting additional strains on the financial health of defined benefit retirement systems. Investment, solvency and other prudential regulations also vary across countries, affecting asset allocations.

As a result of these different pressures, pension funds are increasingly turning to alternative investments such as hedge funds, private equity, real estate, infrastructure, and commodities to diversify portfolios and to provide higher returns. This is not a new investment trend; however, the current investment environment is particularly challenging, which has intensified the search for returns and diversification away from traditional asset categories. Alternative investments generally have lower liquidity, use unconventional strategies (hedge funds), sell in less efficient markets, have the ability to use financial leverage, and require a longer investment horizon than public bonds and equities.

Of particular interest in this report are infrastructure assets, which are often categorized as alternative investments. Data on infrastructure investments in the context of institutional portfolios is relatively scarce, yet institutional investors comprise a large and active segment of infrastructure capital markets in some countries and regions. National statistical agencies do not currently collect separate data on infrastructure. Furthermore, differences in asset allocation categories and practices may bury infrastructure allocations under different headings[11].

Pension funds have traditionally invested in infrastructure through listed companies and fixed income instruments. This still remains the main exposure of institutional investors to the sector. Over the last two decades, investors have started to recognize infrastructure as a distinct asset class. Since listed infrastructure tends to move in line with broader market trends, it is a commonly held view that investing in unlisted infrastructure although illiquid can be beneficial to ensure proper diversification. In principle the long-term investment horizon of pension funds and other institutional investors should make them natural investors in less liquid, long-term assets such as infrastructure, which is often categorized as alternative investments in the the portfolio.

Compared to pension funds, some PPRFs have a relative certainty of and timing of future cash flows and are not required to make disbursements for many years. Such PPRFs are not forced, in theory, to seek the short-term returns that many other market participants must achieve due to their investment objectives, yield requirements or business models, nor are they driven by short-horizon market dynamics. On the other hand, some PPRFs may be subject to political pressure, directly influencing their asset allocation decisions.

[11] For example infrastructure investment is rarely part of a separate allocation usually being considered part of the private equity or real estate allocation. Pension fund investment in listed infrastructure vehicles is reported by national statistics agencies as national or foreign equities and lending to infrastructure vehicles is reported as fixed income, while direct investment or participation in private equity vehicles is often reported within the category "other".

LONG-TERM INVESTMENT BY PENSION FUNDS AND PUBLIC PENSION RESERVE FUNDS: KEY FINDINGS AND RECOMMENDATIONS

The survey reviewed trends in assets and asset allocation by 86 large pension funds and Public Pension Reserve Funds (PPRFs), which in total managed nearly USD 10 trillion in assets, more than one third of the total worldwide assets held by this class of institutional investors. Information was provided through the survey for 69 out of the 86 investors. Data for the 17 remaining funds came from publicly available sources.

The pension funds covered include both defined benefit and defined contribution arrangements. The total amount of assets under management for the LPFs covered was over USD 3.0 trillion by the end of 2012. Within the OECD countries for which we received data, the Netherlands has two of the largest funds, ABP at USD 412.4 billion and PFZW at USD 171.0 billion. Also amongst the largest funds are the US-based CalPERS with USD 248.8 billion, CalSTRS with USD 151.3 billion and the New York City Combined Retirement System with USD 130.0 billion. Pension fund assets in G20 countries South Africa and Brazil, amounted to USD 143.7 billion for GEPF and USD 81.4 billion for Previ, making them the largest funds in their respective continent.

Total amounts of PPRF assets were equivalent to USD 6.7 trillion by the end of 2012 for the countries in which we received data. The largest reserve is held by the US Social Security Trust Fund at USD 2.7 trillion, followed by Japan's Government Pension Investment Fund at USD 1.3 trillion. Canada, Korea and Sweden also accumulated large reserves, while Saudi Arabia also maintained a well-established reserve fund. The survey also shows PPRFs in five major non-OECD countries that are G20 members: Argentina, China, India, Indonesia and Russia.

Pension funds' 2012 Asset Allocation

The simple average portfolio for the pension funds surveyed shows that as of December 2012, 55.6% of total assets were invested in fixed income and cash, 28.1% in equity, and 16.3% in alternative investments (see Figure 2). Bonds and cash represented the majority of assets for funds based in Italy, Spain and Russia. Pension funds based in Australia, South Africa, the United Kingdom and the United States had the largest allocations to listed equities, comprising the largest portion of portfolios.

Some of the LPFs surveyed had substantial allocations to alternatives. Alternative investments accounted for respectively 51% and 44% for Turkey's OYAK and Portugal's CGD PENSÕES. Canada's OMERS invested 40% of total assets in alternatives. A total of ten funds invested over 30% of total assets in alternative investments.

The funds with the highest allocation to real estate were CGD PENSÕES with 39.9%, Banco BPI Pension Fund with 36.0%, and Fidelidade at 24.1%. OYAK invested the highest amount in private equity at 31.9%, followed by Massachusetts PRIM Board at 21.4% and USS at 15.7%. As part of the alternative asset allocation, some funds also invested in infrastructure (see below).

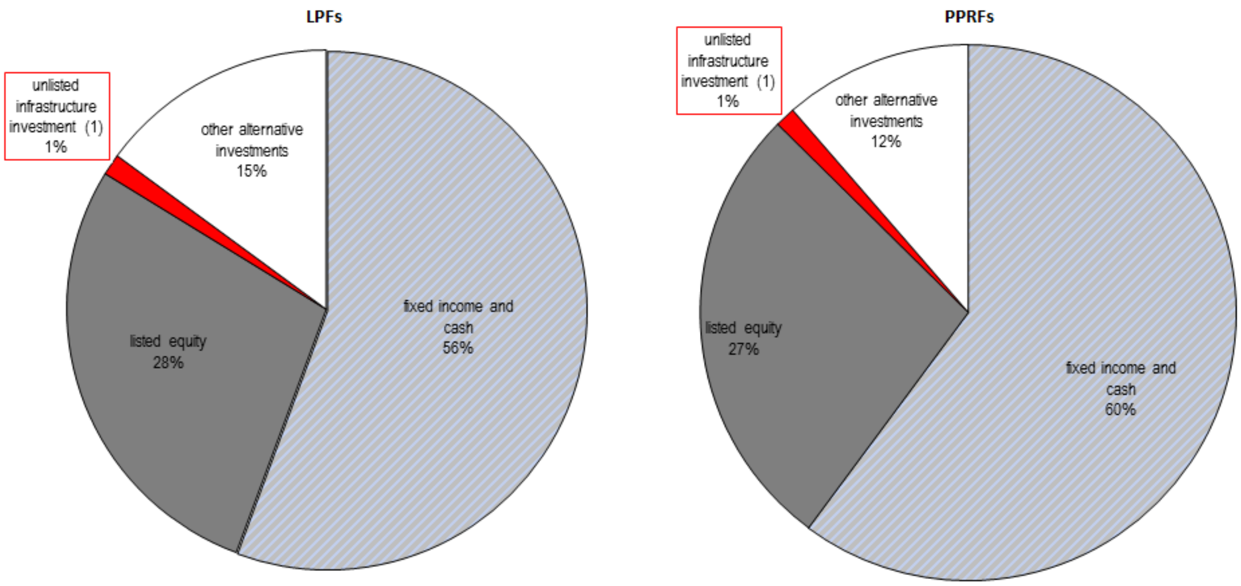
The average fund included in this publication invested 39.5% of total assets in foreign markets. Funds based in Europe (with the exception of some Portuguese and Spanish funds) and Canada generally had high amounts invested overseas, while funds in South America, with the exception of Chile, invested mostly in domestic markets. Foreign diversification is mostly the result of investment policy, although funds based in countries with small domestic markets may be more inclined to invest abroad to diversify and increase the opportunity set.

PPRFs' 2012 Asset Allocation

The simple average portfolio for the PPRFs in selected countries shows that 60.2% of assets were invested in fixed income and cash, 27.3% in listed equities and 12.5% in alternative investments (see Figure 2). This figure contains a diverse set of funds and allocations. In Belgium and the United States, 100% of the portfolio is invested in domestic fixed income, while for the Canadian and Australian funds, the fixed income and cash allocation is below 35%. The Australian PPRF also has the largest allocation to alternatives at 36% of total assets. Some funds also invest in infrastructure assets, mainly through listed and unlisted equity.

With some major exceptions such as reserve funds in Argentina, Belgium, Poland, Spain and the United States, most PPRFs have large exposures to foreign markets. Chile invests 100% of its portfolio abroad. Canada's CPPIB invests over 60% in foreign markets. Funds have mostly invested across borders by diversifying equity and fixed income portfolios, but some also invest in foreign alternatives such as real estate, private equity and infrastructure. Emerging markets investments are part of the foreign allocations of both equity and bond portfolios of several major PPRFs.

Figure 2. Average asset allocation of Large Pension Funds (LPFs) and Public Pension Reserve Funds (PPRFs), 2012



Note: (1) The value is a simple average of the share invested in unlisted infrastructure investments for all LPFs (respectively PPRFs) for which actual asset allocation was available in 2012, independently of their size in terms of assets.

Source: OECD.

Trends in Pension Funds and PPRFs Asset Allocation

Both LPFs and PPRFs exhibited similar asset allocation trends: decreasing equities, increasing fixed income and increasing alternatives/other over the last two years[12].

[12] Changes in fixed income and cash, equity, and alternative investments are related to shifts in market values over time, and to active decisions by funds such as changes in targets and portfolio allocation. Generally, institutional investors utilize target

Based on a group of 46 LPFs that reported asset allocation data for both 2010 and 2012 periods in the survey, there is evidence that allocations to alternative asset classes, such as infrastructure and private equity, are slowly increasing. The average allocation to alternatives increased from 14.4% to 15.6% of the total portfolio between 2010 and 2012. Exposure to fixed income and cash increased from 53.4% to 56.1% of the total portfolio, while equities decreased from 32.2% to 28.3%. In terms of foreign investment allocations, 17 LPFs responded to both of the 2010 and 2012 surveys. Over the last two years, this group of funds increased total investment abroad.

Several funds based in Portugal, Italy and Spain, after facing economic challenges due to the region's fiscal problems, increased fixed income allocations and decreased equities, which partially explains the trend in the past few years in the sample. Looking more broadly at the full 2012 sample population, 55.6% of total assets were invested in fixed income and cash, 28.1% in equity, and 16.3% in alternative/other investments. In 2012, the average fund invested 39.5% of total assets in foreign markets.

Comparing 2012 results to 2010, 17 PPRFs populated data in both time periods. From this sample, fixed income and cash decreased from 63.5% to 63.1%, listed equities decreased from 26.6% to 25.2%, and alternatives/other increased from 9.9% to 11.7% of total plan assets. Notably, Portugal's fund de-risked during the period, substantially increasing holdings in fixed income and cash. In 2012, the average fund invested 27.5% of assets in foreign markets. Some PPRFs increased their existing allocations to alternatives. For instance, Sweden's AP2, AP3, And AP4 funds all increased allocations to alternatives in 2012, with AP4 launching a new allocation to hedge funds.

Different Approaches to Infrastructure Investment

The survey focused on one specific long-term asset, infrastructure, which is showing increasing appeal to pension funds. Although the majority of funds surveyed stated they are actively investing in infrastructure, these total allocations are not comparable, as they relate to different forms of investing and often imply different understanding and perspectives of the investment proposition in infrastructure.

Also of importance is the observation that institutional investors are taking different approaches to infrastructure investing. Behind the separate investment allocation to infrastructure lies the investor decision to consider infrastructure as an asset class in its own right. Pension funds with a dedicated allocation have a target allocation to the asset class as part of the total portfolio and access the investment largely through unlisted equity instruments (infrastructure funds or direct investment). For funds without a separate allocation to infrastructure, investment in such assets may be included in real estate or private markets categories, or in the event that the fund invests in listed instruments, infrastructure investments may be categorized in listed equities or fixed income.[13]

Similar to real estate, infrastructure can have equity-like or bond-like characteristics and institutional investors have positioned infrastructure in the holistic asset allocation with different objectives, keeping in mind the unique risk/return characteristics. The following are some examples of asset allocation and portfolio investments in unlisted infrastructure:

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allocations to the various asset classes, along with bands around such targets that allow for such shifts in market value. An increase in alternative investments may be indicative of high returns in this category over the past few years, or by actual changes in fund policy. But either way, the results indicate increased exposure to alternative investments through either increases in market values of investments, or through active decisions to increase allocations.

[13] Several funds indicated that they would consider moving infrastructure investments to a dedicated allocation as investments mature, or as they see opportunities arise.

- The AustralianSuper Fund, a defined contribution savings plan, includes infrastructure investments in several of its pre-mixed options. Global infrastructure investments include water, energy and communication utilities; transport assets such as airports, toll roads and ports, and social infrastructure such as hospitals and schools. The fund invests directly in infrastructure assets, and also maintains the allocation through external investment managers.

- The Investment Committee of USS, based in the UK, approved an increase in the plan's infrastructure asset target in the most recent time period. The fund plans to slowly increase its allocation to unlisted infrastructure, funding commitments from a reduction in developed markets quoted equities.

- CalPERS, the largest pension fund in the United States, increased its target allocation to infrastructure and forestland from 2% to 3% of total plan assets, effective in the third quarter of 2012. The allocation will be partly funded by a reduction in the target allocation of global fixed income from 18% to 16%.

Institutional investment in infrastructure although growing rapidly is still limited. Clearly, different countries are at different stages in the evolution of pension fund investment in infrastructure.

The investors' infrastructure investment approach (i.e. separate allocation to infrastructure) relates to different factors such as maturity of infrastructure market, pension funds system (i.e. size of the funds), regulation and experience in the sector.

Some of the surveyed pension funds – mostly larger – are able to invest and treat infrastructure as an asset class. However recent developments in regulation, the trend in alternative investment driven by the need to diversify the portfolio and new interest in "green" investment have increased investor's attention to infrastructure as a new asset class.

Active investors who have made several investments are more likely to have separate allocations, showing that most place infrastructure in separate allocations as programmes mature. Further along the learning curve are the Canadian and Australian pension systems, with the first funds that started investing in infrastructure more than ten years ago having built up since then a significant allocation to the sector (from 4 to 16% of total portfolio). European investors have started building up their allocation to infrastructure, treating it as a separate allocation (or as a subsector of real estate or private equity), only in the last five years with allocations ranging from 1 to 3% of the total portfolio.

Box 1. Pension fund investment in infrastructure: Australia vs Canada[14]

Australia and Canada have been the two leading countries in infrastructure investment. Australian pension funds have been pioneers in the field since the early 1990s, and their financial industry invented the label of 'infrastructure as an asset class'. Canadian pension funds, the 'maple revolutionaries' (Economist 2012), are often held up as some of the world's leading infrastructure investors, especially for their 'Canadian model' of *direct* investing.

Important lessons can be learnt not only by investors but also policy makers. Political and regulatory stability are paramount for long term investment strategies. A recent OECD paper compares and contrasts the experience of pension funds in investing in infrastructure projects in Canada and Australia, looking at factors such as infrastructure policies, the pension system, investment strategies, asset allocation and governance of pension funds. In fact, the two countries have the highest asset allocation to infrastructure by pension funds (of roughly 5%) across the globe.

[14] See *Inderst G., Della Croce, R., (2013), "Pension Fund Investment in Infrastructure: A Comparison between Australia and Canada", OECD Working Papers on Finance, Insurance and Private Pensions, No.32, OECD Publishing* http://www.oecd-ilibrary.org/content/workingpaper/5k43f5dv3mhf-en

There are a number of similarities between the two countries, in particular a trust-based pension system, the absence of restrictive investment and solvency regulation, a mature PPP market and a relatively stable political environment. In line with international asset allocation trends, both countries have built up sizeable 'alternative asset' portfolios in recent years at the expense of public equities.

There are also some marked differences. Canada is largely abstaining from privatizations while Australia is considering further 'asset recycling' of public assets to finance new infrastructure projects. Canada has a well-functioning project bond market while Australia has not. The benefit systems are at the opposite ends of the spectrum with defined benefit (DB) in Canada and defined contribution (DC) in Australia. Canada's pension plans are widely underfunded while Australia's are growing fast.

Both countries have a highly fragmented pension scene but also a number of very large pension funds of global scale. A striking feature in both countries is the importance of the size of the pension schemes for investment in illiquid assets. The public attention is primarily on the behaviour of large funds but underneath there is little to no infrastructure investment activity by smaller funds.

Major 'export articles' from Australia are:

- strong appetite for privatized assets by pensions funds and other institutional investors;
- perhaps paradoxically, substantial infrastructure investing is possible in a DC pension system;
- outsourced investing with open-ended infrastructure funds, or 'aligned asset managers', at comparatively low cost (the 'new Australian model');
- an experienced investment industry that has seen a few market cycles.

Other countries can take away from Canada:

- investment in illiquid assets by institutional investors is possible, even by underfunded pension plans;
- the 'Canadian model' of direct infrastructure investing by pension funds (aiming at better control and lower cost of investment);
- a well-working PPP market;
- a robust project bond market.

Among the lessons learnt the hard way, and other issues encountered (in both countries):

- overly optimistic demand projections and overvaluation of assets;
- risk allocation (e.g. demand and patronage risk) and risk management (e.g. liquidity and leverage risk);
- volatility of listed infrastructure funds (the 'old Australian model');
- governance and fee issues of infrastructure funds;
- direct investing can be tricky, and requires adequate resources.

For the majority of these funds the infrastructure strategy is to invest, on a global basis, primarily in unlisted equities and mature infrastructure projects. In general, pension funds prefer to invest in large, mature operating assets that already generate cash flow although they will evaluate and participate in greenfield projects on an opportunistic basis. Funds with large allocations also apply a portfolio construction approach to their infrastructure investments making a distinction among different risk/return opportunities[15].

Pension funds surveyed with the largest allocations to infrastructure are investing directly in infrastructure, often co-investing along infrastructure funds but also taking leading roles in consortia, competing with other funds and financial sponsors when bidding for projects. These large pension funds over the years have been able to acquire the knowledge, expertise and resources to invest directly in infrastructure. If the

[15] Based on risk/return profiles the infrastructure portfolio of the largest pension funds is often divided in different segments: i.e. Core where cash yield is the dominant part of the return and Value Added/Opportunistic where capital appreciation forms the dominant part of the return.

pension fund is not large enough it would normally invest through infrastructure funds (as in Australia for example through closed-ended funds or through open-ended vehicles)

On the other hand, smaller and less experienced pension funds do not have a specific investment policy for infrastructure with a target allocation. General infrastructure investment policy is to invest either equity or debt into companies or special purpose vehicles for the development of infrastructure projects. For many funds it is a choice of the fund manager in order to replicate the general benchmark in the case of listed investments.

Another trend in the industry is an increasing interest in green investments including clean technology and renewable energy such as wind and solar projects. However, none of the funds surveyed has a target allocation, nor specifically address “green” investment in its investment policy. Environmental aspects of "green" projects will be evaluated in the due diligence process but ultimately the investment decision will be based on the investments’ own merit and risk/return profiles.

Regulation has a major influence on the asset allocations of pension funds. For Latin American pension funds there are quantitative investment limits on unlisted equity, by credit rating and limitations on bonds issued by new companies and projects. Hence the widespread use of monolines in Chile or listed instruments in Mexico for example, to allow investment in infrastructure (CKDs in Mexico, structured instruments traded on the Mexican stock exchange).

Trends in Infrastructure Investment

This year’s survey yet again reveals a low level of investment in infrastructure on average among the surveyed funds, despite evidence of a growing interest by pension fund managers. This seems to confirm the importance of barriers and disincentives which limit such investments and the relevance and need for policymakers to address them. If we consider total assets under management for the complete survey (i.e. 69 funds), infrastructure investment in the form of unlisted equity and debt was USD 72.1 billion in 2012, representing 0.9% of the total assets under management of the surveyed funds.

33 funds reported an allocation to unlisted infrastructure equity. Total investment in unlisted infrastructure equity at the end of 2012 was USD 64.0 billion, which represented 3% of total assets of these funds. In 2011, this amount was USD 55 billion which corresponds to a nominal increase of 16.5 % but a status quo when reported to total assets[16]. However, some funds have ramped up their direct infrastructure exposures.[17] Notably, Australia’s Future Fund increased its total portfolio allocations to unlisted equity by 0.8 percentage points. Among pension funds, FUNCEF increased the infrastructure allocation by 2.3 percentage points. Still, the room for manoeuvre for most pension funds is very large and there are clear opportunities for further increases in pension funds’ investment in infrastructure.

Of the total USD 64.0 billion allocation to unlisted infrastructure, a subset of funds broke down their allocation into direct investments and infrastructure funds. In this sample, unlisted infrastructure funds accounted for 38% of the total, direct investments and co-investment in unlisted infrastructure companies 61%, and other unlisted investments were 1% of the total reported. This high percentage of funds investing directly is driven notably by a few large funds as for example the Canadian ones in the sample (i.e. the CPPIB investing USD 9.9 billion and OMERS investing USD 9.1 billion in direct unlisted infrastructure

[16] Figures may be understated given that for fixed income the majority of the funds do not report such details on their allocation and infrastructure unlisted equity is often included in other asset classes. Some funds also report their allocation to infrastructure through listed equity (i.e. infrastructure corporates), that for this survey, we have considered as indirect exposure.

[17] Changes in portfolio allocation to infrastructure may be the result of market movements, and not changes in target allocations or new capital deployed in infrastructure investments. For example, the change in market values of infrastructure related to the changes in market values in other portfolio investments such as fixed income and equity will shift allocations to infrastructure over time. In addition, the illiquid nature of some investments in infrastructure may pose challenges in analyzing portfolio allocations.

companies). Well over half of unlisted infrastructure investments amongst large funds is through direct or co-investment.

Listed equities and debt may be the result of passive investments in public securities, or part of active portfolios. Depending on the composition of industries in local bond and equity markets, infrastructure related issues may be a large component of overall market capitalization, as is the case in some developing markets.

Debt exposure to infrastructure for the same funds was USD 8.1 billion or 0.4% of total assets in 2012. The debt category may contain either publicly traded debt instruments or direct project loans and bonds. Of the funds surveyed, nine reported exposure to direct loans and bonds. Spain's Endesa reported that over 7% of the total portfolio was invested in private markets infrastructure debt. Brazil's FAPES reported over 5%, and Chile's AFP Provida invested 1.2% of the total portfolio in direct loans and bonds. Notably, Germany's BASF opened a target allocation to infrastructure loans and bonds at 4% of the total portfolio. Argentina's Sustainability Guarantee Fund, the only PPRF to report exposure to direct infrastructure fixed income, reported 13% allocated to loans and bonds. The fund is required by statute to invest at least 5%, and up to 20%, of the total portfolio in infrastructure projects.

Policy Considerations

The survey showed that data on long-term investment – and in particular infrastructure investment – by pension funds is readily available from the funds themselves. However, the methodologies and definitions used to classify such investments can differ widely, rendering comparisons and aggregation difficult. There is clearly a need to standardise definitions and classifications to facilitate international monitoring of long-term investment.

Definitions of alternative assets which ensure that the data collected and reported is comparable across pension funds is required in order to monitor the flows into different types of alternative assets and their respective cost and performance – which is vital not only for investors but also for regulators and other policymakers in order to help them better understand the exposure of pension funds in different countries and develop appropriate regulation.

Such standards could be applied initially in national data collection exercises. Whilst some countries collect data which matches the needs of the relevant authorities, there is no international, official, accurate data on the asset allocation of pension funds in alternative asset classes, which include, inter alia, hedge funds, private equity, real estate, infrastructure, and commodities.

An additional issue for pension funds is the lack of objective, high-quality data on infrastructure investments. This makes it difficult to assess the risks of these investments and to understand correlations with the investment returns of other assets. Without such information, pension funds are reluctant to make such allocations. The survey represents a first attempt to collect basic information on allocations, but it should be complemented with more detailed data – including information on performance - that would be of great value to pension funds. Any such data gathering needs to respect the confidentiality of information and should lead to the development of suitable benchmarks for the industry.

Infrastructure investing is different from other asset classes as the nature and risks of these investments, such as high up-front costs and the scale of the projects, require dedicated resources to understand – resources that many smaller pension funds lack and which take years to build up (as has been the case at the Canadian public pension funds, for example, which are some of the most experienced infrastructure investors in the world).

Only the largest funds have the capability to invest directly in infrastructure projects as smaller-sized institutional investors require pooled investment vehicles to access investment in infrastructure. Interesting vehicles to assist pension funds to invest in infrastructure sector have been developed in some Latin

American countries (such as Chile via infrastructure bonds with insurance guarantees, in Mexico via structured products and in Peru via a collective trust structure or in Brazil via a joint-owed infrastructure company).

Some policy initiatives address these issues. The UK government has a stated policy to attract GBP 20 billion of institutional investment into UK infrastructure and has been active through HM Treasury in leading the discussions with investors. The EU "Project Bonds Initiative" approved in May 2012 aims to finance infrastructure projects in Europe through capital market solutions (i.e. structuring financial instruments such as project bonds). The experience of Mexico and Chile suggests that institutional investors and in particular pension fund assets have been instrumental to the growth of the corporate bond market and in turn, to the provision of development finance.

Recent G20 meetings (i.e. St Petersburg – September 2013 and Los Cabos – June 2012) recognized the urgent need to deepen and broaden capital markets for developing countries to put their own financial resources to productive use and to attract foreign capital flows.

The data indicate clearly that while there is evidence of strong interest of pension funds managers for long term investment, the level of such investment is still low and on average stable. This seems to confirm the existence of serious barriers that need to be urgently addressed at policy level. The G20/OECD High level Principles for long term investment financing by institutional investors, endorsed by the G20 Leaders in St Petersburg provide several directions to facilitate such investment and further work will identify effective approaches to do so.

As part of the OECD report on "Government and market based instruments and incentives for stimulating the financing of long term investment", requested by the G20 Finance ministers and central Bank Governors, analysis is also underway on the wide range of options available to institutional investors for accessing the infrastructure asset class and how the historic models of infrastructure funds need to be adapted to accommodate the interests of investors more favourably.

In February 2012 the OECD also launched a new international project on "Institutional Investors and Long Term Investment". The ultimate goal of the project is to facilitate long-term investment (LTI) by institutional investors such as pension funds, insurance companies, and sovereign wealth funds, addressing both potential regulatory obstacles and market failures. This project will focus on how to engage the private sector in financing infrastructure, making the asset class financially attractive to institutional investors.

PART A1 – GENERAL OVERVIEW OF LARGE PENSION FUNDS

Large Pension Funds Size

The total amount of assets under management for the Large Pension Funds (LPFs) covered in the survey was over USD 3.0 trillion at the end of 2012 (Table 3). Within the OECD countries for which we received data, the Netherlands has two of the largest funds, ABP at USD 412.4 billion and PFZW at USD 171.0 billion. Amongst the largest are three funds based in the US: CalPERS at USD 248.8 billion, CalSTRS at USD 151.3 billion, and the New York City Combined Retirement System at USD 130.0 billion. South Africa's GEPF at USD 143.7 billion and Canada's OTPP at USD 127.9 billion also ranked high in the list. This year's survey includes responses from 49 funds representing approximately 25 countries in the OECD and outside the OECD, complemented by additional information collected in publicly available reports for seven additional funds.

Table 3 also shows large selected pension funds in three major non-OECD countries: Brazil, Peru and South Africa. Pension funds' assets in G20 countries South Africa and Brazil amounted to USD 143.7 billion for GEPF and USD 81.4 billion for Previ, making them the largest funds in their respective continent.

The assets put aside by the largest pension funds for which we received data increased by 12.0% on average between 2011 and 2012. The largest increase was observed for Mexico's Afore XXI Banorte with 127.2% (which is attributed to the merger of two plans), and Russia's VTB with 126.1% (driven by a large surge in participation). France's ERAFP also grew at a fast 31.9%. Funds in Spain and Portugal, where government bond yields increased in 2011, experienced positive asset growth in 2012 as yields declined. The three funds reporting from the Netherlands and both funds reporting from Italy all grew at double-digit levels in 2012, buoyed by strong investment returns.

In terms of total assets relative to the national economy, Singapore's Central Provident Fund had the highest ratio at 67.4%, followed by ABP at 52.2% of GDP (which with PFZW represents over 73% of the Dutch GDP), Denmark's ATP at 43.5%, GEPF with 38.7% of GDP, Keva with 18.2% of GDP in Finland, and AFP Provida with 17.0% of GDP. The weighted average of LPF assets accounted for 19.0% of the national GDP in the countries covered in this publication.

Table 3. Total assets of selected LPFs in 2012

Country	Name of the fund or institution	Assets (1)		
		USD bn.	% of GDP	% increase (compared to the previous year)
Netherlands	Stichting Pensioenfonds ABP (ABP)	412.4	52.2	17.7
United States	California Public Employees' Retirement System (CalPERS)	248.8	1.6	10.6
Singapore	Central Provident Fund (2)	190.2	67.4	10.8
Netherlands	Pensioenfonds Zorg en Welzijn (PFZW)	171.0	21.6	17.1
United States	California State Teachers' Retirement System (CalSTRS) (2,3)	151.3	1.0	-2.6
South Africa	Government Employees Pension Fund (GEPF)	143.7	38.7	22.9
Denmark	Arbejdsmarkedets Tillægspension (ATP) (2)	140.2	43.5	1.9
Japan	Pension Fund Association (4)	130.8	2.3	10.2
United States	New York City Combined Retirement System	130.0	0.8	13.2
Canada	Ontario Teachers' Pension Plan Board (OTPP)	127.9	7.2	9.5
United States	Florida Retirement System Pension Plan (2,3)	122.7	0.8	-4.5
Sweden	Alecta	83.9	15.3	12.1
Brazil	Previ	81.4	3.8	6.8
United States	Ohio Public Employees Retirement System (OPERS)	80.4	0.5	9.8
Netherlands	Pensioenfonds Metaal en Techniek (PMT)	62.0	7.8	15.0
Canada	Ontario Municipal Employees Retirement System (OMERS)	61.8	3.5	10.3
United Kingdom	BT Pension Scheme	58.6	2.4	-5.0
United Kingdom	Universities Superannuation Scheme (USS)	55.5	0.2	9.9
Australia	AustralianSuper	54.6	3.4	23.7
United States	Massachusetts PRIM Board	51.8	0.3	10.2
Denmark	PFA Pension	51.7	16.0	9.8
Finland	Keva (2)	46.3	18.2	15.6
Chile	AFP Provida	45.8	17.0	7.7
United Nations	United Nations Joint Staff Pension Fund (5)	44.7	0.3	12.4
Finland	Ilmarinen	38.9	15.3	7.4
Chile	AFP Cuprum	33.3	12.3	10.4
Brazil	Petros (2)	32.6	1.5	15.0
Australia	UniSuper (2,3)	31.1	2.0	5.1
Brazil	Fundação dos Economiários Federais (FUNCEF)	24.5	1.1	7.0
Australia	Sunsuper	22.5	1.4	21.1
France	Établissement de Retraite Additionnelle de la Fonction Publique (ERAFP)	19.5	0.7	31.9
Mexico	Afore XXI Banorte (6)	18.9	1.6	127.2
Germany	BASF Pensionskasse	15.4	0.4	10.0
Israel	Menora-Mivtachim	12.4	5.0	24.0
Italy	COMETA	9.7	0.5	16.2
Peru	AFP Horizonte Peru	9.0	4.4	18.7
Turkey	Ordu Yardımlaşma Kurumu (OYAK)	8.8	1.1	10.4
Italy	FONCHIM	5.0	0.2	17.3
Russia	Lukoil - Garant	4.5	0.2	45.1
Spain	Fonditel	4.5	0.3	-1.0
Brazil	Fundação de Assistência e Previdência Social do BNDES (FAPES)	4.3	0.2	19.7
Nigeria	RSA Fund (7)	4.2	1.6	54.3
Portugal	CGD Pensões	2.1	0.9	8.3
Spain	Previsión Social, Empleados del Grupo Endesa, f.p. (Endesa)	1.8	0.1	7.5
Nigeria	CPF Fund (7)	1.6	0.6	20.2
Spain	Fondo de Pensiones de Empleados de Bankia (Bankia)	1.3	0.1	5.3
Portugal	Banco BPI Pension Fund	1.2	0.6	24.3
Russia	VTB (8)	1.2	0.1	126.1
Nigeria	AES Fund (7)	0.7	0.3	62.4
Portugal	Fundo de Pensões Petrogal (Petrogal)	0.4	0.2	11.3
Spain	Santander Empleados Pensiones, FP (Santander)	0.1	0.0	24.1
Portugal	Fundo de Pensões Pessoal da Império-Bonança (Império-Bonança)	0.1	0.0	4.9
Portugal	Fundo de Pensões Fidelidade	0.1	0.0	-8.0
Portugal	Fundo de Pensões do Pessoal da Mundial Confiança (Mundial Confiança)	0.0	0.0	-26.2
Portugal	Fundo de Pensões Galp Energia (Galp Energia)	0.0	0.0	-32.3
Spain	Comisiones Obreras (CCOO)	0.0	0.0	1.3
Total selected pension funds (9)		**3,057.3**	**19.0**	**12.0**

(1) Data correspond to all forms of investment with a value associated to a pension fund/plan. (2) Data have been gathered from publicly available reports. (3) Data refer to the end of June. (4) Data refer to the end of March. (5) GDP used to express the assets as a percentage of GDP is the one from the United States in 2012. (6) The increase in total assets between 2011 and 2012 is due to a merger between Afore XXI and Afore Banorte in January 2012. (7) In Nigeria, there are three types of pension schemes, namely, the Retirement Savings Account (RSA) Fund, which is contributory; the Closed Pension Funds; and the Approved Existing Schemes (AES). The largest pension fund from each of these three schemes has been selected. (8) The increase in total assets is due to the rise in the number of members. (9) Weighted average for assets as a % of GDP and % increase.

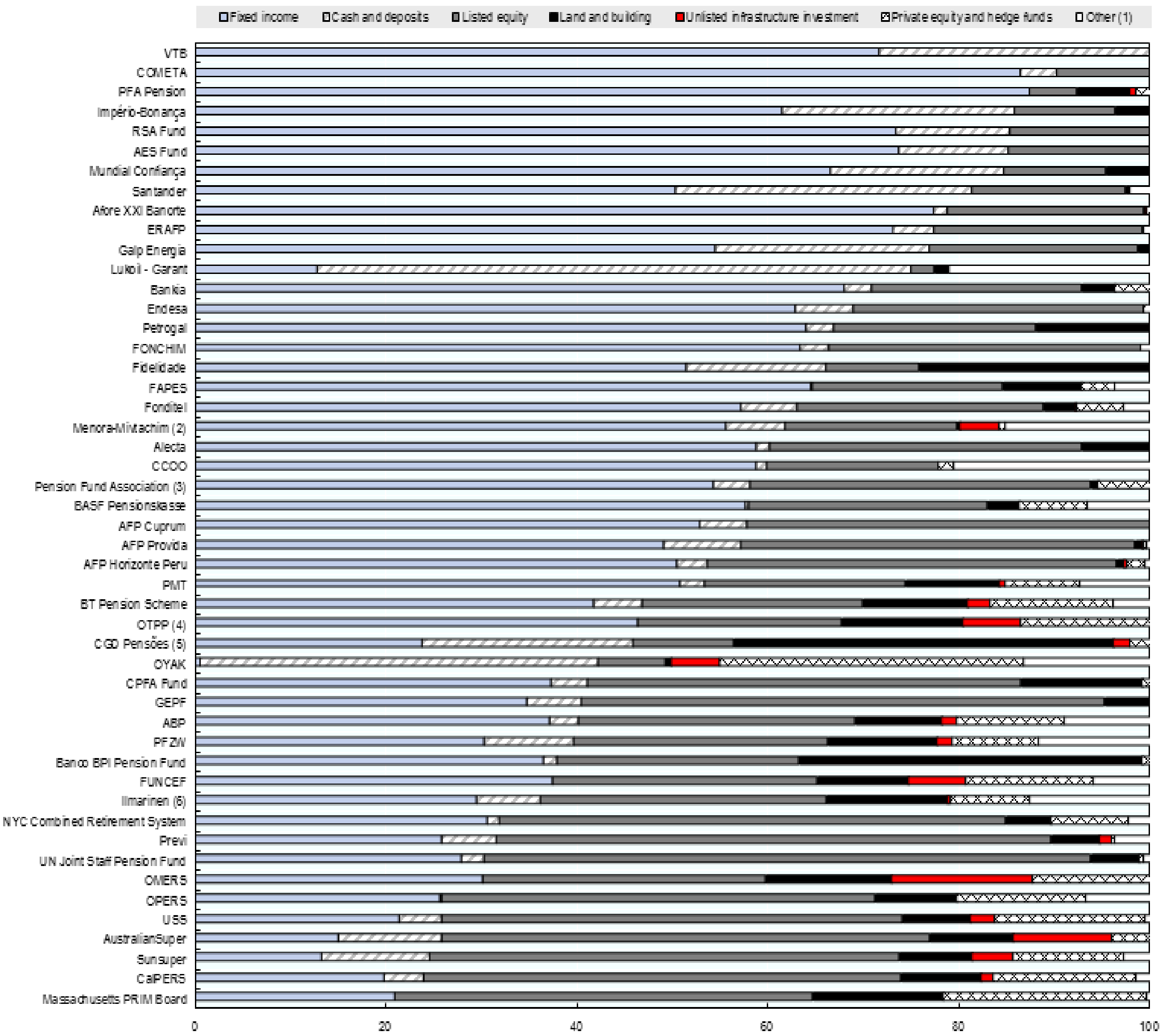
Source: OECD.

LPFs Asset Allocation

LPF survey results present data from defined benefit (DB) and defined contribution (DC) plans, which have different investor profiles. DB asset allocation decisions are made by Trustees and other fiduciaries, while DC allocations are participant-driven. Other factors that can influence asset allocation are the liability profile of the investor (DB plans), capital markets expectations, behavioural considerations (DC plans), risk appetite, governance structure, and regulators. Fund asset allocations may differ significantly across countries and regions due to country specific regulations, sponsor strength and funded status for DB plans (e.g. open versus closed plans), and default investment allocations or daily liquidity provisions in DC plans.

Figure 3. Asset allocation of LPFs - actual 2012

as a percentage of total investment



(1) The "Other" category includes loans, commodities and other investments. (2) Investments in loans, included in "Other", represent 7% of total investments. (3) Data refer to the end of March 2012. (4) Investments in cash and deposits and other investments have been excluded because they were negative in 2012. (5) Infrastructure investments reported under "unlisted infrastructure investment" are listed. (6) Investments in commodities have been excluded from the chart because of negative values in 2012.

Source: OECD.

The simple average portfolio for the LPFs shows that 55.6% of total assets were invested in fixed income and cash, 28.1% in equity, and 16.3% in alternative investments.

Fund's surveyed ranged from conservative, fixed-income oriented portfolios to return-seeking portfolios with significant allocations to equities and alternatives. Russia's VTB fund was 100% invested in fixed income and cash. Italy's Cometa fund invested 90.5% of assets in fixed income and cash, while other conservative portfolios PFA Pension (Denmark) and ERAFP (France) invested 87.6% and 77.5%, respectively, in fixed income and cash. The funds with the highest allocation to listed equities were The United Nations Joint Staff Pension Fund at 63.6%, followed by Brazil's Previ at 58.1%, South Africa's GEPF at 54.8% and the US's New York City Combined Retirement System at 53.0%.

Traditional asset categories such as stocks and bonds comprised the majority of assets in funds domiciled in Latin America, Russia, Spain and Italy. For example, Chile's AFP Provida invested 98.5% in traditional assets, while Italy's two funds invested nearly 100%.

Alternatives

Some of the LPFs surveyed had substantial allocations to alternative investments. Three funds had over 40% of total assets allocated to alternatives: Turkey's OYAK at 50.7%, Portugal's CGD Pensões at 43.5% and Canada's OMERS at 40.1%. OMERS' target for alternative investments is 47% of total assets. A significant amount of other funds, seven in total, had over 30% allocated to alternatives. They include: ABP, Banco BPI Pension Fund, FUNCEF, Ilmarinen, Massachusetts PRIM Board, OTPP and PFZW.

Both of Portugal's funds had high allocations to real estate, Banco BPI at 36% and CGD Pensões at 39.9%. US Funds Massachusetts PRIM Board and OPERS allocated 21.4% and 13.5% to private equity. Turkey's OYAK also had a large allocation to private equity at 31.9%. CCOO added commodities in the most recent period. As part of the alternative asset allocation, some funds also started to invest in infrastructure (see Part B – Infrastructure Investment).

Trends

The search for uncorrelated, lower volatility returns, and for inflation-sensitive assets were key themes in institutional investment portfolios in the recent economic environment. Increased allocations to emerging markets equities and debt was also a salient trend. Since return expectations are low in traditional segments such as long-only equity and fixed income, allowing greater flexibility for active managers through out-of-benchmark investments, looser guidelines, taking advantage of illiquidity premia, and allowing shorting are some ways to gain additional return, or to diversify portfolio "beta" risks. Funds achieved this by adding alternative strategies such as hedge funds, private investments, credit opportunities, or by changing existing mandates with long-only managers to allow for greater flexibility.

Balance sheet risks facing pension funds were high in 2012. Due to quantitative easing and accommodative monetary policies in the OECD countries, interest rates reached all-time low levels, increasing pension liabilities. Using market-based discount rates, the true economic risk of pension funds increased in the OECD in 2012, despite the relative good performance in financial assets. Of the 25 DB funds that reported their funded status in 2011 and 2012, 12 reported a decrease in their funded ratio, 11 reported an increase, and 2 reported no change in funded status from the previous year.[18] Funding ratios remained a paramount concern for plan sponsors and mitigation of funding level risks an important long-term objective.

[18] Funded status is a self-reported statistic from each fund. Differences in discount rates and regulatory requirements may influence the change in funded status, e.g. some funds use market-based discount rates while other funds use a fixed discount rate that is periodically reviewed and adjusted when deemed necessary. Reported funded status is therefore a combination of asset performance and methodology for calculating pension liabilities.

Several funds such as the UK's BT and Japan's Pension Fund Association have dynamic processes that strive to adjust return-seeking assets based on the funding level of the plan, keeping in mind the market environment and impact. As explained from BT's 2012 Annual Report: "Over the life of the Scheme, the Trustee expects to reduce the level of return-seeking assets and increase the level of liability-matching assets in order to reflect the maturity of the Scheme. With the assistance of BTPSM, the Trustee actively monitors the assets and liabilities on an ongoing basis and is well positioned to respond quickly to changes in markets and/or funding levels[19]."

Investment related trends are highlighted from several examples:

- OPERS (Defined Benefit and Healthcare portfolios) approved an expansion of their internal credit mandate, added global high yield bonds as a sub-asset category, and increased the emerging markets debt sub-asset class to include investments in local currency markets. These changes diversify existing mandates into a broader opportunity set. The addition of risk-parity managers to the asset mix is also an example of relaxing manager constraints and utilizing unique strategies to invest in a low-return, high volatility environment.

- During 2012, USS investment committee approved changes in the strategic allocation of the fund to further decrease exposure to developed markets equities and to slightly reduce exposure to real estate. Some of the proceeds will fund an increase to emerging markets equities and infrastructure. The fund also launched a new allocation to emerging markets debt.

- Within the Defined Contribution market, growing demand and innovation is fuelling interest in alternative investment options. Whether it is hedge fund beta replication strategies or other liquid alternatives such as listed real estate or commodities, alternatives are increasingly part of DC plans. The Australia SuperFund includes illiquid investments such as private equity, infrastructure and real estate in its pre-mixed High Growth and Balanced fund options.

Green/Responsible Investments

Through their size and market presence, large pension funds can influence and set new standards for best practices in the industry. The United Nations-supported Principles of Responsible Investment (PRI) is a growing network of institutional investors, asset managers, and other signatories that promotes responsible investment. Many of the LPFs that responded to the survey adhere to the standards. An area of particular interest in the survey was the adoption of green/responsible investment mandates[20]. As climate change and environmental issues become an economic concern for governments and corporations, some funds that were surveyed have taken action.

For example:

- PREVI's pension fund, the largest in Latin America (domiciled in Rio de Janeiro, Brazil), updated its Code for Best Practices in Corporate Governance in 2012 to include sustainability as one of its business directives. The fund's investment policies include social and environmental criteria. The fund also actively interacts with companies where they have a significant equity stake to promote strong systems of corporate governance, social and environmental responsibility.

[19] BT Pension Scheme, Annual Report and Accounts, December 31, 2012, Page 9

[20] Green investments can be defined through many criteria, depending on investor values. For the survey, examples of such investments included green equity indexes such as FTSE4Good, S&P Global Eco Index, S&P Global Water Index, green bonds such as European Investment Bank climate awareness bonds, SEB & Credit Suisse – World Bank/IFC Green Bonds, and alternative investments in real estate that is environmentally acceptable such as improving energy efficiency, recycling, or improving CO2 emissions.

- ABP, the largest pension fund in the world (Netherlands based), has a clearly defined socially responsible investment policy. Along with financial factors, the fund considers ESG (environment, social and governance) factors when evaluating investments.

LPFs Foreign Investment

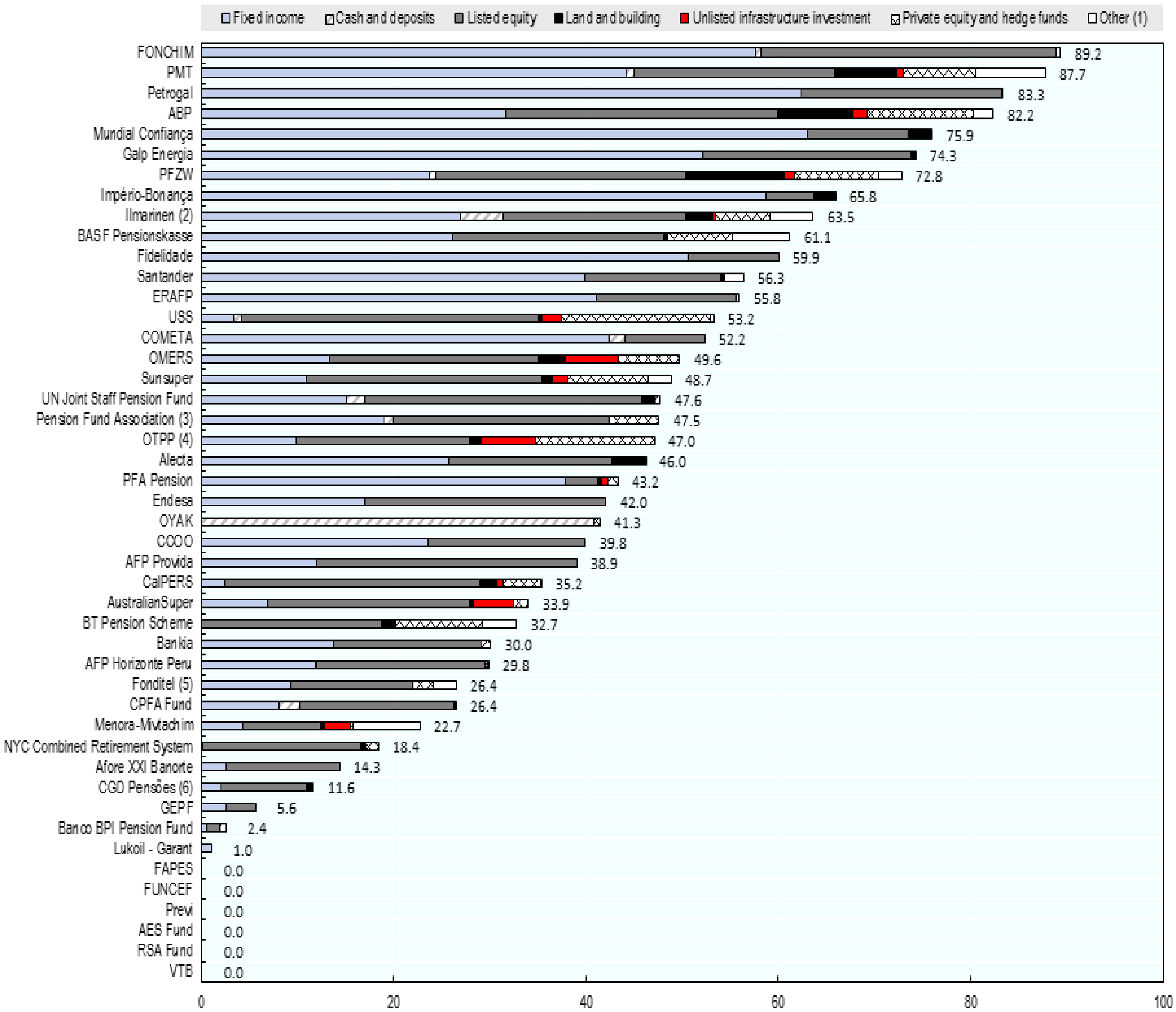
There was a large dispersion in levels of foreign investment amongst funds surveyed, but in general, most funds invested a substantial amount in foreign markets. This may be related to the size of domestic markets (funds based in countries with small domestic markets may be more inclined to invest in foreign financial markets), but the results indicate that foreign investment is mostly a function of investment policy. Funds based in Europe (with the exception of Portugal) tended to have large overseas allocations to both traditional and alternative investments. Funds in Latin America, with the exception of Chile's AFP Provida, had low foreign allocations. The average fund invested around 39.5% of assets abroad.

FONCHIM invested 89.2% in foreign markets, the most of any fund surveyed. PMT and Petrogal also held a large amount of foreign assets at 87.7% and 83.3%, respectively. 15 funds invested more than half of total assets in foreign markets.

The United Kingdom's USS had the highest allocation to listed foreign equities at 30.9%, followed closely by Italy's FONCHIM at 30.8% and the UN Joint Staff Pension Fund at 28.9%. Three Portugal based funds, all part of the PF system, led the survey population in allocation to foreign bonds at 62.9%, 62.2% and 58.6%. FONCHIM also had a large allocation to foreign bonds, investing 57.5% of total assets, followed by the Netherlands' PMT at 44.1%, Italy's COMETA at 42.4%, France's ERAFP at 40.9% and Spain's Santander at 39.8%. USS and Canada's OTPP had large allocations to foreign private equity, while the Netherlands' PFZW allocated over 10% of assets to foreign properties.

Figure 4. Share of selected large pension funds' foreign investment by asset class, 2012

as a percentage of total (i.e. domestic and foreign) investment



(1) The "Other" category includes loans, commodities and other investments. (2) Investments in commodities have been excluded from the chart because of negative values in 2012. (3) Data refer to the end of March 2012. (4) Investments in cash and deposits and other investments have been excluded because they were negative in 2012. (5) Foreign investments refer to investments outside the European Union. (6) Infrastructure investments reported under "unlisted infrastructure investment" are listed.

Source: OECD.

LPFs Performance – Investment Rate of Return

In general, investment returns were good in 2012: both stocks and bonds posted positive returns, with equity markets in emerging countries, Europe, and the United States gaining the most. Government bond yields were mostly lower in the OECD and credit spreads tightened, driving positive returns in fixed income. Differences in investment performance show a wide variation owing to heterogeneity in size, liability profile, asset allocation and other factors such as levels of liability hedging and/or currency hedging observed in the sample of retirement schemes.

Table 4. Nominal and real annual investment rate in selected LPFs in 2012

in percentage

Country	Name of the fund or institution	Nominal				Real			
		2010	2011	2012	*3-year average*	2010	2011	2012	*3-year average*
Australia	AustralianSuper	6.1	-1.4	13.2	*5.8*	3.4	-4.3	10.7	*3.1*
Australia	Sunsuper	11.0	2.6	12.8	*8.7*	8.1	-0.5	10.4	*5.9*
Australia	UniSuper	5.1	..	..	..	2.4	..	..	..
Brazil	FAPES	..	8.6	24.7	..	..	2.0	17.8	..
Brazil	FUNCEF	..	10.7	9.3	..	..	3.9	3.3	..
Brazil	Previ	..	7.6	12.6	..	..	1.1	6.4	..
Canada	OMERS	11.4	3.2	10.0	*8.1*	8.8	0.8	9.2	*6.2*
Canada	OTPP	14.3	11.2	13.0	*12.8*	11.7	8.6	12.1	*10.8*
Chile	AFP Cuprum	..	0.0	6.8	..	..	-4.2	5.3	..
Chile	AFP Provida	12.0	-1.2	7.2	*5.9*	8.8	-5.3	5.6	*2.8*
Colombia	AFP Horizonte-Col	18.8	..	..	..	15.2	..	..	..
Denmark	PFA Pension	8.0	11.1	10.5	*9.9*	5.0	8.4	8.4	*7.3*
Finland	Ilmarinen	..	-4.0	7.5	..	..	-6.7	5.0	..
France	ERAFP	..	-1.1	17.3	..	..	-3.4	15.7	..
Germany	BASF Pensionskasse	..	0.7	9.7	..	..	-1.3	7.5	..
Israel	Menora-Mivtachim	..	-0.8	11.8	..	..	-2.9	9.9	..
Italy	COMETA	2.1	0.8	7.7	*3.5*	0.2	-2.4	5.3	*1.0*
Italy	FONCHIM	2.4	-1.3	8.3	*3.1*	0.6	-4.5	5.9	*0.6*
Japan	Pension Fund Association	..	-4.3	16.0	..	..	-4.1	16.1	..
Mexico	Afore XXI Banorte	..	6.6	14.0	..	..	2.8	10.1	..
Netherlands	PFZW	12.6	8.4	13.4	*11.4*	10.5	5.9	10.1	*8.8*
Netherlands	PMT	11.6	7.0	12.6	*10.3*	9.5	4.4	9.3	*7.7*
Netherlands	ABP	13.5	3.3	13.7	*10.1*	11.4	0.9	10.4	*7.5*
Nigeria	AES Fund	..	2.5	16.5	..	..	-7.1	4.1	..
Nigeria	CPFA Fund	..	7.7	18.7	..	..	-2.4	6.0	..
Nigeria	RSA Fund	..	4.3	15.3	..	..	-5.5	3.0	..
Peru	AFP Horizonte Peru	19.4	-8.2	12.1	*7.1*	17.0	-12.4	9.2	*3.8*
Portugal	Banco BPI Pension Fund	3.1	-7.3	20.6	*4.8*	0.6	-10.5	18.3	*2.1*
Portugal	CGD Pensões	..	1.4	6.0	..	..	-2.2	4.0	..
Portugal	Fidelidade	..	-1.2	11.9	..	..	-4.7	9.8	..
Portugal	Galp Energia	..	1.7	9.6	..	..	-1.9	7.6	..
Portugal	Império-Bonança	..	-2.9	11.5	..	..	-6.3	9.3	..
Portugal	Mundial Confiança	..	-1.7	11.8	..	..	-5.1	9.6	..
Portugal	Petrogal	..	0.3	12.5	..	..	-3.2	10.4	..
Russia	Lukoil - Garant	..	1.8	7.5	..	..	-4.1	0.9	..
Russia	VTB	..	0.5	8.7	..	..	-5.3	2.0	..
South Africa	GEPF	12.2	11.9	21.8	*15.2*	8.4	5.5	15.2	*9.6*
Spain	Bankia	..	-2.0	6.3	..	..	-4.3	3.3	..
Spain	CCOO	0.6	2.0	7.3	*3.3*	-2.3	-0.4	4.3	*0.5*
Spain	Endesa	0.3	1.1	7.7	*3.0*	-2.7	-1.2	4.7	*0.2*
Spain	Fonditel	0.5	-5.3	9.0	*1.2*	-2.5	-7.4	5.9	*-1.5*
Spain	Santander	..	-1.5	6.6	..	..	-3.8	3.6	..
Sweden	Alecta	..	-2.1	11.4	..	..	-4.4	11.5	..
Turkey	OYAK	..	14.1	14.2	..	..	3.3	7.6	..
United Kingdom	BT Pension Scheme	..	1.7	7.5	..	..	-2.4	4.7	..
United Kingdom	USS	11.7	0.4	11.4	*7.7*	7.7	-3.6	8.5	*4.0*
United States	CalPERS	..	1.1	13.3	..	..	-1.9	11.4	..
United States	Massachusetts PRIM Board	..	-0.3	13.4	..	..	-3.2	11.5	..
United States	New York City Combined Retirement System	..	1.3	13.2	..	..	-1.7	11.3	..
United States	OPERS	..	0.2	14.4	..	..	-2.7	12.5	..
United Nations	United Nations Joint Staff Pension Fund	..	-3.9	12.7	..	..	-6.7	10.8	..

Note: Average real net investment returns have been calculated using the nominal interest rate and the variation of the end-of-period consumer price index between the end of each year.

Source: OECD.

The average fund surveyed returned 8.5% real in 2012. In a year where investing in riskier assets was rewarded, funds with larger allocations to equities and alternative investments reaped higher returns while conservative funds experienced lower, but more stable returns. LPFs with conservative portfolios such as funds based in Portugal, Spain, and Chile had the lowest nominal rates of return from the sample.

The highest rates of return in 2012 were observed amongst funds with large exposures to emerging markets equities and European equities. Portugal's BPI Pension Fund, which holds a large amount of domestic fixed income, performed strongly as yields declined sharply. Strong returns in 2012 helped to offset flat or negative returns in 2011 for most funds.

PART A2 – GENERAL OVERVIEW OF PUBLIC PENSION RESERVE FUNDS (PPRFS)

Public Pension Reserve Funds Size

The total amount of Public Pension Reserve Funds (PPRFs) assets at the end of 2012 were equivalent to USD 6.7 trillion within the countries for which we received or looked for data (Table 5). The largest reserve is held by the US Social Security Trust Fund at USD 2.7 trillion, followed by Japan's Government Pension Investment Fund at USD 1.3 trillion. Canada, Korea and Sweden had also accumulated large reserves. Of the countries surveyed, eleven had established their funds in the previous decade. The United States Social Security Trust Fund is the oldest, established over 70 years ago.

The overall trend in both survey periods (2010 and 2012) has been a slow but steady increase in total assets in the OECD countries surveyed.

Table 5. Total assets of selected PPRFs in 2012

Country	Name of the fund or institution	Founded in	Assets (1)		
			USD bn.	% of GDP	% increase (compared to the previous year)
Selected countries					
United States	Social Security Trust Fund	1940	2,732.3	17.5	2.0
Japan	Government Pension Investment Fund	2006	1,298.1	23.6	3.4
Saudi Arabia	General Organisation for Social Insurance (2,3)	1969	448.0	66.9	n.d.
Korea	National Pension Service (2,4)	1988	302.9	28.2	7.7
China	National Social Security Fund (4)	2001	175.9	2.1	27.3
Canada	Canada Pension Plan Investment Board (CPPIB)	1997	173.6	9.7	13.0
Sweden	National Pension Funds (AP1-AP4 and AP6)	2000	147.0	26.9	9.6
India	Employees' Provident Fund Organisation (4,5)	1952	106.7	5.4	17.1
Australia	Future Fund	2006	85.7	5.4	12.8
Spain	Social Security Reserve Fund (6)	1997	83.1	6.0	-5.7
France	AGIRC - ARRCO (2,4)	n.d.	65.7	2.5	n.d.
Argentina	Sustainability Guarantee Fund	2007	50.0	11.3	22.7
France	Pension Reserve Fund (4)	1999	47.9	1.8	3.0
Canada	Quebec Pension Plan	1966	39.3	2.2	12.1
Norway	Government Pension Fund - Norway (GPFN)	2006	27.8	5.3	13.4
Belgium	Zilverfonds	2001	25.3	5.1	4.3
Ireland	National Pensions Reserve Fund	2000	19.4	9.0	9.5
New Zealand	New Zealand Superannuation Fund	2001	17.2	10.1	17.4
Portugal	Social Security Financial Stabilisation Fund	1989	14.4	6.6	23.4
Chile	Pension Reserve Fund	2006	5.9	2.2	22.6
Indonesia	Jamsostek (7)	n.d.	14.1	1.6	15.9
Poland	Demographic Reserve Fund	2002	5.3	1.0	28.6
Mexico	IMSS Reserve	n.d.	1.6	0.1	9.7
Bosnia and Herzegovina	The Pension Reserve Fund Of Republic of Srpska	2011	0.2	1.8	3.0
Total selected countries (8)			5,887.3	21.4	5.0
Memo item: Sovereign Wealth Funds with a pension focus (9)					
Norway	Government Pension Fund - Global (GPFG)	1990	694.4	133.1	14.7
Russian Federation	National Wealth Fund (4)	2008	88.6	4.3	-3.7

(1) Data correspond to all forms of investment with a value associated to a pension fund/plan. (2) Data refer to 2011. (3) Source: Asset international's Chief Investment Officer (aiCIO). (4) Data have been gathered from publicly available reports. (5) Data refer to March 2012, and includes the Employees Provident Fund, the Employees Pension Fund and the Employees Deposit Linked Insurance Fund. (6) Assets held by the Public Pension Reserve Fund declined between 2011 and 2012 because a part of them was diverted by the Spanish government between in 2012 to cover treasury needs. (7) Data come from Jamasostek's webpage. Values for 2012 refer to November. The increase has been calculated between December 2011 and November 2012. (8) Weighted average for assets as a % of GDP and % increase. (9) Norway's Government Pension Fund - Global and Russia's National Wealth Funds are sovereign wealth funds and not public pension reserve funds, because their mandate goes beyond financing pension expenditures.

"n.d." means not available.

Source: OECD and various national sources.

Table 5 also shows five major non-OECD countries that are G20 members: Argentina, China, India, Indonesia and Saudi Arabia. China's National Social Security Trust Fund reached USD 175.9 billion at the end of 2012, an amount similar to Canada. Argentina's fund, founded in 2007, reached USD 50.0 billion.

The reserves put aside by the PPRFs for which we received data increased by 5% on average between 2011 and 2012. As was the case in 2010, Poland's Demographic Reserve Fund increased the most from the previous year amongst the OECD countries, this time in 2012 the fund increased 28.6% compared to the previous year (see last column of Table 5). PPRFs in Argentina, Chile, China and Portugal all experienced high increases, larger than 20%.

In terms of total assets relative to the national economy, Saudi Arabia had the highest ratio at 66.9% of GDP, followed by Korea at 28.2%, Sweden at 26.9% of GDP and Japan at 23.6% (Table 5). On average, PPRF assets accounted for 21.4% of GDP in the selected countries in 2012.

Large reserves are also accumulated in sovereign wealth funds that have a pension focus. The government pension fund "global" in Norway has two main goals: to facilitate government savings necessary to meet the rapid rise in public pension expenditures in coming years, and to support a long-term management of petroleum revenues. At the end of 2012, the fund held USD 694.4 billion in assets, accounting for 133% of Norway's GDP. Russia's national wealth fund is dedicated to supporting the pension system to guarantee long-term sound functioning of the system (see Annex).

PPRFs Asset Allocation

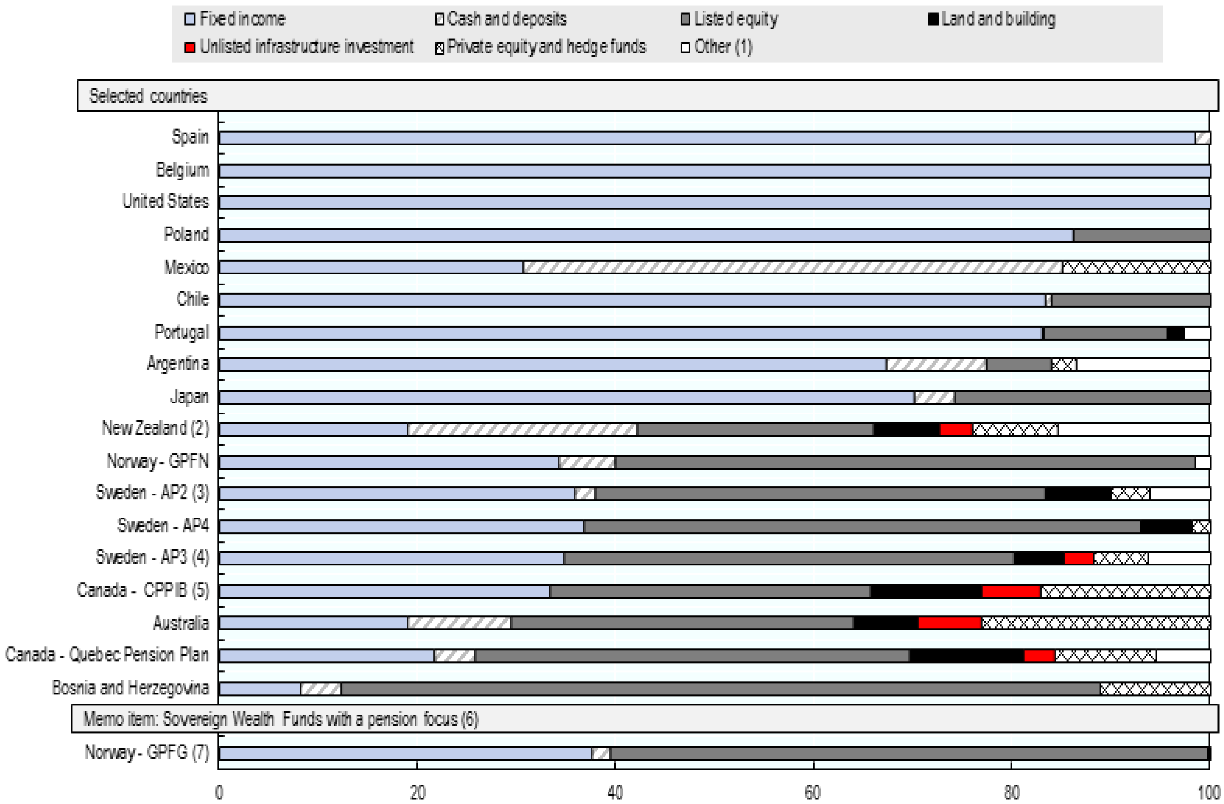
Compared to other pension funds, some PPRFs have a relative certainty of the asset base as well as amount and timing of future cash flows. Pay-as-you-go social security systems rely on the intergenerational contract of younger workers supporting older generations through contributions to the system. As such, PPRFs invest and manage surplus contributions that would only be tapped in the event that benefit payments exceed contributions, thus stabilizing the financing of the public retirement system. In theory, PPRFs are not driven to seek short-term returns that many other market participants must achieve due to their investment objectives. However, PPRFs may be subject to political pressure, which can undermine the perceived certainty of the asset base, directly influencing their asset allocation decisions.

Generally, PPRFs maintain conservative investment programs, emphasizing long-term stability, safety and liquidity of the asset base. There is, however, a large dispersion of risk tolerances and asset allocation profiles within the survey population. Compared to a typical defined benefit pension fund, PPRFs on average tend to have larger allocations to fixed income, and smaller allocations to equities and alternatives.

The simple average portfolio for the PPRFs included in the survey shows that 60% of the total assets were invested in fixed income and cash, 27% in listed equities, and 13% in alternative investments. Belgium and the United States invested 100% of the portfolio in domestic fixed income. Mexico's portfolio is also mostly invested in fixed income and cash. In 2010, the selected countries collectively invested 64% in fixed income and cash, 27% in listed equities and 10% in alternatives; since then, a slight rotation from fixed income to alternative investments has occurred. Australia, Canada, Norway and Sweden all maintain relatively low allocations to fixed income in favour of larger allocations to alternative investments.[21] Most funds utilize a mix of active and passive strategies in traditional sectors such as listed fixed income and equities.

[21] By law, the US Social Security Trust fund must be invested in U.S. government obligations (debt instruments of the U.S. government).

Figure 5. Asset allocation of PPRFs – actual 2012
as a percentage of total investment



(1) The "Other" category includes loans, commodities and other investments. (2) Other Investments include Timberlands, Farmland, Insurance linked securities and derivatives. (3) "Fixed income" includes, apart from bonds and certificates, investments in fixed income funds (including convertible funds, emerging market debt funds etc). Derivatives are reported at fair value as other investements. Any cash backing of these derivatives are included and reported as "Cash and Deposits". Unsettled transactions, accrued interest and dividends are reported as other investments. (4) Other investments include derivatives, convertibles, insurance-linked securities. (5) Structured products are included in "Cash and deposits". "Listed Equity" refers to public equities and includes public emerging market equities, public Canadian equities and public foreign developed market equities. (6) Norway's Government Pension Fund - Global is a Sovereign Wealth Fund and is not a Public Pension Reserve Fund, because its mandate goes beyond financing pension expenditures. (7) "Fixed income" includes bonds and other fixed-income instruments and bonds lent. "Cash and deposits" includes deposits in bank, lending associated with reverse repurchase agreements, unsettled trades, financial derivatives, other financial assets. "Listed equity" includes equities and units, and equities lent.

Source: OECD

Alternatives

Alternative investments in PPRF portfolios include hedge funds, unlisted infrastructure, private equity, and other categories such as commodities and timberlands. The Swedish funds AP2, AP3 and AP4 have all increased their allocations to alternatives over the past few years. From 2010 to 2012, AP3 increased from 13.6% to 19.8%, and AP4 increased from 5.9% to 7.1%, respectively. AP4 established a new allocation to hedge funds in 2012 and increased allocations to unlisted real estate. AP3 increased private equity and hedge fund allocations.

PPRFs also invest in infrastructure assets mainly though listed and unlisted equity. Sweden's AP3 fund increased unlisted infrastructure exposure from 2.1% of the total portfolio in 2010 to 3.0% in 2012. The Australia Future Fund's allocation to infrastructure increased by 2.3 percentage points from 2010 to 2012. The Canadian Pension Plan invests 6% of total assets in unlisted infrastructure.

Trends

Low bond yields, economic uncertainty in developed markets and low future (expected) equity returns were key themes shaping asset allocation in PPRFs during the period. While all funds generally have long-term risk and return objectives, some funds are able to change allocations in reaction to shorter-term market movements. The Swedish funds all include a process of dynamic asset allocation in the overall portfolio management framework, allowing the funds to adapt to the changing risk/return environment. Canada's Pension Fund does not have a target allocation to alternatives, but is essentially opportunistically allocating to strategies that are attractive vis-à-vis traditional investments such as long-only equities and fixed income. Opportunistic investment strategies and volatility-based strategies are examples of a more dynamic asset allocation strategy.

Major changes in investment strategies took place in Spain, Portugal, Ireland and Chile. Spain's Social Security Reserve Fund migrated nearly all assets (97%) to Spanish government bonds by the end of 2012, and also increased liquidity by increasing cash holdings. Portugal de-risked the Social Security Financial Stabilization Fund by increasing fixed income allocations and decreasing listed equities and real estate related holdings. Since 2010, Portugal's fund increased fixed income and cash from 65.3% of assets to 83.2% by the end of 2012. Ireland's National Pension Reserve Fund's mandate was changed by the government to invest only in areas of "strategic importance to the Irish economy". As such, the fund transitioned into a capital preservation mode, anticipating an eventual transition to the Ireland Strategic Investment Fund, which will have a newly established mandate and investment program to be determined. In 2012, Chile diversified its investment portfolio by reallocating 16.1% of assets from fixed income and cash to listed global equities. It is the fund's first foray into equity investments. The fund also diversified its fixed income holdings by investing in investment grade corporate bonds.

Green/Responsible Investments

Drawing from the survey results, there is a wide variation in the adoption of ESG criteria in the management of PPRFs. Some funds, due to statutory requirements, can only invest in certain securities and markets and therefore do not have ESG guidelines (i.e. Belgium's Zilverfonds can only invest in Belgian Government Securities), while others have broadly diversified portfolios that are more likely to incorporate ESG criteria in the investment due diligence and asset allocation processes. Taken as a group, the PPRFs surveyed had fewer ESG investment guidelines and mandates compared to LPFs. Some funds, however, have taken action and have well established ESG guidelines and investment programs.

For example:

- The New Zealand Superannuation Fund invests in green alternatives to help mitigate environmental risks and to promote sustainability and macro-environmental themes. Some investments include clean technologies, renewable energies, low carbon or energy efficient products, sustainable forestry, and organic farming.

- Some of the Nordic funds surveyed had established ESG criteria in their investment programs. Sweden's AP2 integrates ESG criteria into aspects of all investments, and maintained exposure to private equity targeted to renewable energy and climate solutions, forestry and farmland. In 2009, Norway's Government Pension Fund Global established specific mandates for environment-related investments.

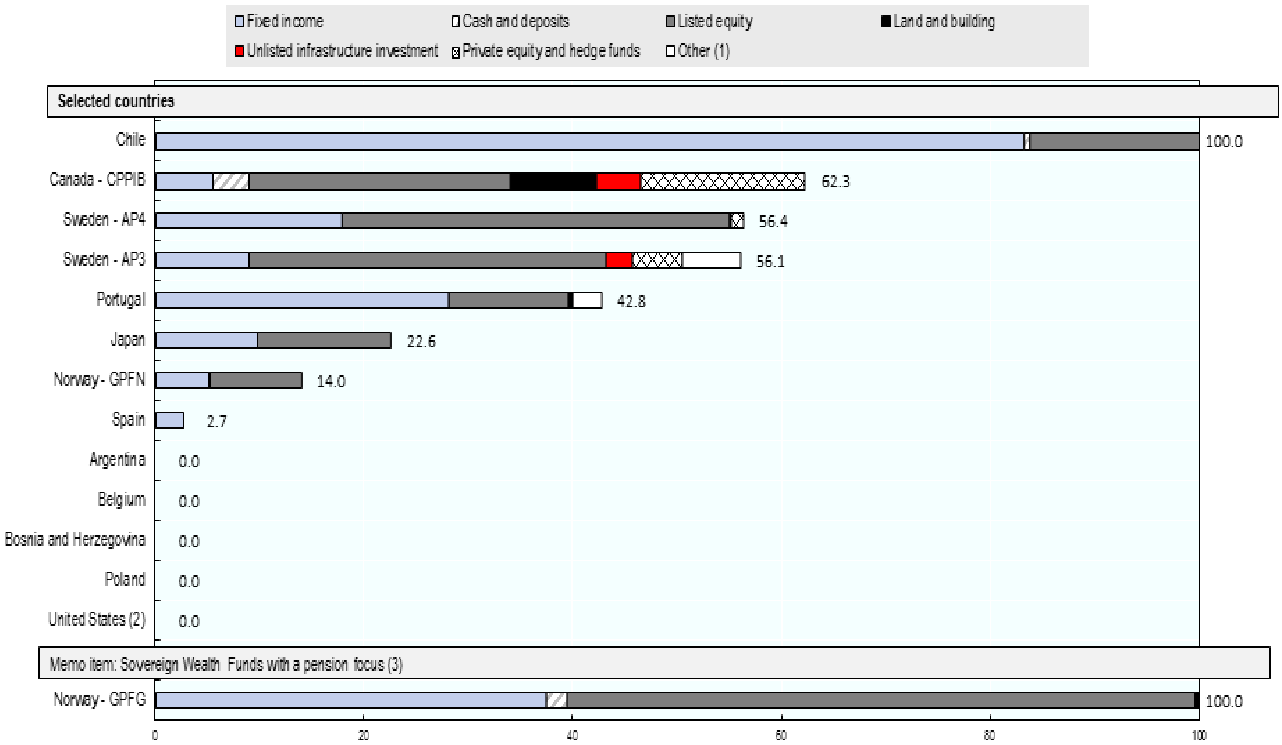
PPRF's Foreign Investment

Japan's Government Investment Pension Fund invested in dedicated emerging markets equities for the first time in 2011, and increased its allocations to international equities, reducing holdings in domestic bonds in 2012. With some major exceptions, most funds maintain exposure to foreign markets through both equity and fixed income instruments (Figure 7). Chile's entire portfolio was fully invested abroad, including the newly established equity allocation, which includes developed and emerging markets stocks. In 2012, Chile also diversified its foreign holdings into emerging markets stocks and bonds for the first time.

Emerging markets investing is a wave that PPRFs are riding, along with many other institutional investors. Of the eight funds surveyed that reported foreign equity exposure at the end of 2012, five had allocations to emerging markets equities. PPRFs also diversified fixed income holdings into emerging markets. Of the nine funds surveyed that reported foreign fixed income exposure, four reported allocations to emerging markets debt.

Figure 6. Foreign investment by asset class in selected PPRFs in 2012

as a percentage of total (i.e. domestic and foreign) investment



Note: In 2012, AP2 in Sweden invested 19.3% of its assets in foreign fixed income, 1.3% in foreign cash and deposits, 34.2% in foreign listed equities, 1.9% in foreign land and buildings, 3.9% in foreign private equity and hedge funds. The foreign investment in the "Other" category was negative, because the market value of the FX hedge was included in this category.

(1) The "Other" category includes loans, commodities and other investments. (2) All the assets are invested in interest-bearing securities of U.S. Government for purchase exclusively by the Social Security trust funds (special issues). (3) Norway's Government Pension Fund - Global is a Sovereign Wealth Fund and is not a Public Pension Reserve Fund, because its mandate goes beyond financing pension expenditures.

Source: OECD.

PPRFs Performance – Investment Rate of Return (Reported in Local Currency)

In 2012, equities staged a surprise rally with markets shrugging off worries about the future of the Eurozone and sovereign debt crisis. Thus portfolios with the largest allocation to global equities performed the best. For those funds that invest in alternatives, diversification in real estate and private equity contributed strongly to fund performance as these sectors experienced strong returns during the year. Fixed income also posted positive returns as credit spreads narrowed and governments maintained loose monetary policies, keeping interest rates at low levels. For the funds surveyed, of which 2011 and 2012 returns were both available, returned 5.1% on average (real) in 2012, compared to a minus 0.1% in 2011.

Returns in 2012 were positive for all funds except for Chile's Pension Reserve Fund, which invests all assets in foreign markets. Portugal's fund returned 21% in 2012, the highest amongst the funds surveyed. Performance was driven primarily through the fund's holdings in Portuguese government bonds as yields peaked at over 16% in early 2012, and declined to under 8% by the end of the year. Similarly, volatility in government bond yields drove the performance of Spain's SSRV, although yields on 10yr bonds were at similar levels at the end of 2012 compared to 2011.

New Zealand's Superannuation Fund returned a very strong 18.1% real in 2012. Performance was driven by investments in private markets and by strong results from active managers. PPRFs with conservative portfolios such as Belgium, Spain and the United States posted low but stable returns in 2012 and throughout previous periods.

Funds with high equity allocations such as the Norway's GPFN (58%), Sweden's AP4 (56%), AP3 and AP2 (both 45%) and the Québec Pension Plan (44%) all posted returns above 9% real in 2012. Australia's Future Fund, with the largest allocation to private equity in the survey, returned 10.4% real last year. 2012's good results are welcome on the heels of weaker performance in 2011, when risk assets sold off as the European debt crisis deepened.

Five-year real returns, which capture results from the beginning of the recession through the end of 2012, are positive for nearly all funds, with the exception of reserve funds in France, Ireland and Sweden's AP6. Ireland's fund experienced poor performance in 2011 due to the rescue of failed Irish banks, but staged a partial recovery in 2012.

Table 6. Nominal and real average annual investment rate of returns in selected PPRFs over 2008-2012 (in percentage)

Country	Name of the fund or institution	Nominal						Real					
		2008	2009	2010	2011	2012	*5-year average*	2008	2009	2010	2011	2012	*5-year average*
Selected countries													
Argentina	Sustainability Guarantee Fund	..	..	26.4	12.1	22.7	..	..	..	14.0	2.3	10.7	..
Australia	Future Fund	-8.5	11.1	9.5	1.6	12.8	*5.0*	-11.7	8.8	6.7	-1.5	10.4	*2.2*
Belgium	Zilverfonds	4.4	4.4	4.3	4.3	4.2	*4.3*	1.8	4.1	1.1	0.8	2.0	*2.0*
Bosnia and Herzegovina	The Pension Reserve Fund Of Republic of Srpska	..	..	..	-0.7	2.6	..	..	..	..	-3.2	0.8	..
Canada	CPPIB	-14.4	7.6	9.1	5.6	10.0	*3.1*	-15.4	6.2	6.6	3.1	9.1	*1.5*
Canada	Quebec Pension Plan	..	..	14.0	2.6	10.3	..	..	..	11.4	0.2	9.4	..
Chile	Pension Reserve Fund	37.6	-17.7	-5.7	14.8	-3.4	*3.4*	28.4	-15.5	-8.4	9.9	-4.8	*0.8*
France	AGIRC (1)	-7.8	10.6	..	-1.4	..	..	-8.6	9.6	..	-3.7	..	..
France	ARCCO (1)	-9.4	11.6	..	-2.4	..	..	-10.3	10.5	..	-4.7	..	..
France	Pension Reserve Fund	-24.9	15.0	4.2	0.4	10.5	*0.0*	-25.6	13.9	2.4	-2.0	9.0	*-1.5*
Ireland (2)	National Pensions Reserve Fund	-30.4	11.5	-3.0	-36.7	9.4	*-12.2*	-31.2	17.5	-4.3	-38.2	8.1	*-12.4*
Japan	Government Pension Investment Fund	..	7.9	0.4	-1.9	8.7	..	..	9.8	0.8	-1.7	8.8	..
Korea	National Pension Service	-0.2	10.4	10.4	2.3	..	..	-4.1	7.4	7.1	-1.7	..	..
Mexico	IMSS Reserve	7.3	6.7	6.6	5.0	4.3	*6.0*	0.7	3.0	2.2	1.2	0.7	*1.5*
New Zealand	New Zealand Superannuation Fund	-26.2	18.9	15.1	1.2	19.2	*4.0*	-28.6	16.6	10.7	-0.7	18.1	*1.6*
Norway	Government Pension Fund - Norway	-25.1	33.5	15.3	-3.9	12.2	*4.4*	-26.7	30.8	12.2	-4.1	10.6	*2.7*
Poland	Demographic Reserve Fund	-5.9	8.9	6.6	1.8	10.2	*4.2*	-8.8	4.9	3.4	-2.7	7.7	*0.7*
Portugal	Social Security Financial Stabilisation Fund	-3.9	6.3	0.1	-11.0	23.3	*2.3*	-4.7	6.4	-2.4	-14.1	21.0	*0.6*
Spain	Social Security Reserve Fund	4.7	4.6	4.0	4.1	4.2	*4.3*	3.2	3.8	0.9	1.7	1.3	*2.2*
Sweden	AP1	-21.9	20.2	10.3	-1.9	11.3	*2.5*	-22.6	19.5	7.8	-4.2	11.4	*1.3*
Sweden	AP2	-24.0	20.6	11.2	-2.1	13.3	*2.5*	-24.6	19.9	8.7	-4.4	13.4	*1.3*
Sweden	AP3	-19.8	16.3	9.0	-2.5	10.7	*1.9*	-20.5	15.6	6.5	-4.8	10.8	*0.7*
Sweden	AP4	-20.8	21.6	10.9	-0.7	11.2	*3.4*	-21.5	20.9	8.4	-3.0	11.3	*2.1*
Sweden	AP6	-16.6	11.3	9.4	-6.9	9.2	*0.6*	-17.3	10.7	6.9	-9.1	9.3	*-0.6*
United States	Social Security Trust Fund	5.1	4.9	4.6	4.4	4.1	*4.6*	5.0	2.0	3.1	1.3	2.3	*2.8*
Memo item: Sovereign Wealth Funds with a pension focus (3)													
Norway	Government Pension Fund - Global	..	..	..	-2.6	13.4	..	..	..	..	-2.8	11.8	..

Note: Average real net investment returns have been calculated using the nominal interest rate and the variation of the end-of-period consumer price index between the end of each year.

(1) AGIRC and ARRCO are unfunded mandatory supplementary plans for white-collar and blue-collar workers respectively, with reserves. (2) In 2011 the Directed Portfolio, which is included in the return of Ireland, had a negative return which was due to reductions in the valuations of the ordinary and preference shares of Allied Irish Banks and Bank of Ireland held by the Fund. (3) Norway's Government Pension Fund - Global is a Sovereign Wealth Fund and not a Public Pension Reserve Fund, because its mandate goes beyond financing pension expenditures.

Source: OECD and various national sources.

PART B – INFRASTRUCTURE INVESTMENT

For this part of the report -the infrastructure investment survey- we included data from 33 funds out of the total 69 funds that returned completed questionnaires– the complete survey. Out of the total 33 funds, 8 are PPRFs. The funds taken in consideration are investing in infrastructure and provided information on their infrastructure investment allocation.

Table 7. Detailed infrastructure investment of selected large pension funds and public pension reserve funds, 2012

as a percentage of total assets

Country	Name of the fund or institution	Assets in 2012 (in USD m.)	Infrastructure investment (as a % of total assets)		
			Unlisted Equity	Listed Equity	Debt
Netherlands	ABP	412,433.9	1.7	..	..
United States	CalPERS	248,775.0	1.3	..	..
Canada	Canada Pension Plan Investment Board	173,586.9	5.9	0.1	..
Netherlands	PFZW	171,003.5	1.6	..	..
South Africa	GEPF	143,690.1	1.2	..	..
Canada	OTPP (1)	127,876.8	6.1	..	0.0
Australia	Future Fund	85,726.8	6.4	..	..
Brazil	Previ	81,375.7	1.4	11.1	0.0
Netherlands	PMT	61,993.3	0.7	..	..
Canada	OMERS	61,763.5	14.8	..	..
United Kingdom	BT Pension Scheme	58,575.4	2.3	0.0	0.0
United Kingdom	USS	55,458.8	2.5	..	0.3
Australia	AustralianSuper	54,563.0	10.3	..	..
Denmark	PFA Pension	51,723.8	0.8	0.0	0.0
Argentina	Sustainability Guarantee Fund	49,979.3	..	..	13.0
Chile	AFP Provida	45,843.6	0.3	..	1.2
Canada	Quebec Pension Plan	39,258.7	3.1	..	..
Finland	Ilmarinen (2)	38,949.0	0.2	..	..
Sweden	AP3	35,814.0	3.0	0.4	..
Sweden	AP4	35,303.6	0.0	7.2	..
Brazil	FUNCEF	24,463.8	5.9	..	..
Australia	Sunsuper	22,512.3	4.3	..	0.3
Mexico	Afore XXI Banorte	18,946.0	0.0	0.8	0.8
New Zealand	New Zealand Superannuation Fund	17,158.0	3.4	4.4	0.0
Israel	Menora-Mivtachim	12,352.5	4.1	..	..
Peru	AFP Horizonte Peru	8,974.8	0.3	..	..
Turkey	OYAK	8,785.8	5.1	..	..
Chile	Pension Reserve Fund	5,883.3	0.0	3.7	5.1
Spain	Fonditel	4,501.5	0.1	0.0	0.0
Brazil	FAPES	4,309.9	..	5.4	5.1
Portugal	CGD Pensões	2,052.3	..	1.7	..
Spain	Endesa	1,758.7	0.0	13.1	7.2
Portugal	Banco BPI Pension Fund	1,225.3	..	7.4	..

(1) To calculate the share of infrastructure investments, investments in cash and deposits and other investments which were negative in 2012 have not been taken into account. (2) To calculate the share of infrastructure investments, investments in commodities which were negative in 2012 have not been taken into account.

".." means not available.

Source: OECD.

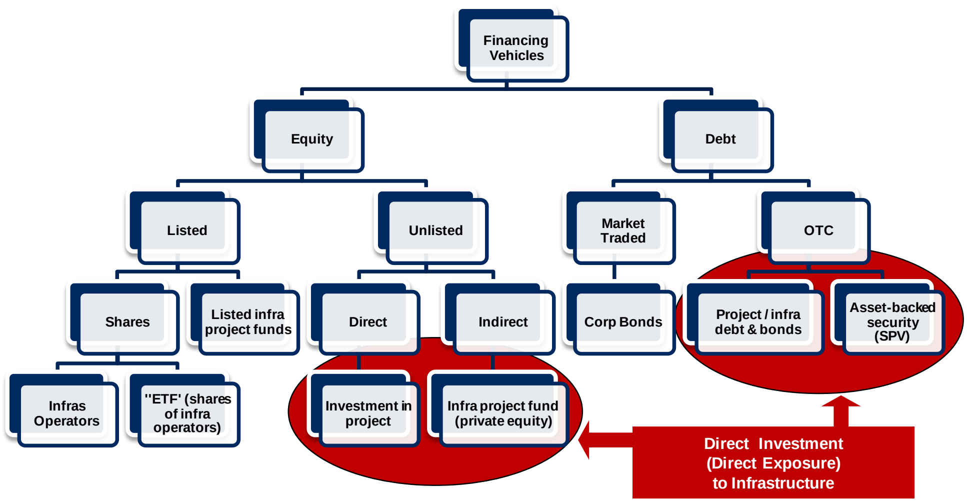
Box 2. Investing in Infrastructure

Pension funds can access infrastructure in several ways:

- *Debt financing*: lending to the owners or operators of the infrastructure (e.g. through project bonds or general obligations bonds).
- *Listed infrastructure companies*: Investment in equity of companies which are exposed to infrastructure.
- *Infrastructure funds:* Pensions can invest in publicly-listed equity funds trading on a stock exchange (e.g. Brookfield fund, Macquarie Power and Infrastructure Corporation) or in un-listed equity funds that focus on infrastructure investments (i.e. Cube Capital, Alinda).
- *Direct investment (or Co-Investment along infrastructure funds)* in equity of a single-asset project company

From an investor perspective, pension funds with a separate allocation to infrastructure aim to gain direct exposure to the characteristics of the infrastructure asset (i.e. long term, stable, often inflation linked etc.). Direct exposure is gained mainly through unlisted equity instruments (direct investment in projects and infrastructure funds) and project bonds while indirect exposure is normally associated with listed equity and corporate debt.

From a policy perspective one way to identifying how much finance from institutional investors is reaching infrastructure is by tracking the capital that institutional investors can provide via *direct* investment in these projects as highlighted in red below based on the main financing vehicles for infrastructure investment:



Source: OECD Working Paper: Insurers and Pension Funds as Long Term Investors: an approach to infrastructure investment (forthcoming)

Although the majority of funds surveyed stated they are actively investing in infrastructure as shown in Table 7, these total allocations are not comparable, as they relate to different forms of infrastructure.

Infrastructure Allocation in the Total Portfolio

Institutional investors are taking different approaches to infrastructure investing. Behind the separate investment allocation to infrastructure lies the investor decision to consider infrastructure as an asset class in its own right. Pension funds with a dedicated allocation have a target allocation to the asset class as part of the total portfolio and access the investment largely through unlisted equity instruments (infrastructure funds or direct investment). Of the 33 funds that indicated investment in infrastructure assets, 26 reported exposure to unlisted infrastructure assets, 15 had dedicated target allocations to the asset category (see Table 8), and another four had indicated that they planned to add a dedicated target allocation within the next one to two years. Spain's Endesa pension plan had a high allocation to infrastructure assets (20.3% of the total portfolio), funded entirely through listed securities, but did not have a dedicated allocation to the asset class (although the fund indicated that they planned to add a dedicated allocation in the near future).

Canada's OMERS and Australia's AustralianSuper both reported allocations to unlisted infrastructure of over 10% of plan assets. Canada and Australia both have well established private capital markets for infrastructure investments and a long history of institutional investor participation.

For funds without a separate allocation to infrastructure, investment in such assets may be included in real estate or private markets categories, or in the event that the fund invests in listed instruments, infrastructure investments may be categorized in listed equities or fixed income[22] as a result of passive investments in public securities, or part of active portfolios. Depending on the composition of industries in local bond and equity markets, infrastructure related issues may be a large component of overall market capitalization, as is the case in some developing markets.

Similar to real estate, infrastructure can have equity-like or bond-like characteristics and institutional investors have positioned infrastructure in the holistic asset allocation with different objectives, keeping in mind the unique risk/return characteristics. The following are some examples of asset allocation and portfolio investments in unlisted infrastructure:

- The AustralianSuper Fund, a defined contribution savings plan, includes infrastructure investments in several of its pre-mixed options. Global infrastructure investments include water, energy and communication utilities; transport assets such as airports, toll roads and ports, and social infrastructure such as hospitals and schools. The fund invests directly in infrastructure assets, and also maintains the allocation through external investment managers.

- The Investment Committee of USS, based in the UK, approved an increase in the plan's infrastructure asset target in the most recent time period. The fund plans to slowly increase its allocation to unlisted infrastructure, funding commitments from a reduction in developed markets quoted equities.

- CalPERS, the largest pension fund in the United States, increased its target allocation to infrastructure and forestland from 2% to 3% of total plan assets, effective in the third quarter of 2012. The allocation will be partly funded by a reduction in the target allocation of global fixed income from 18% to 16%.

[22] Several funds indicated that they would consider moving infrastructure investments to a dedicated allocation as investments mature, or as they see opportunities arise.

Table 8. Infrastructure investment in 2012 – portfolio allocation

Country	Name of the fund or institution	Infrastructure allocation	Where does it fit in the portfolio allocation
Netherlands	ABP	Separate	Infrastructure
United States	CalPERS	Separate	Infrastructure
Canada	CPPIB	Non-separate	n.d.
Netherlands	PFZW	Separate	Infrastructure
South Africa	GEPF	Non-separate	n.d.
Canada	OTPP	Separate	Infrastructure
Australia	Future Fund	Separate	Infrastructure
Brazil	Previ	Non-separate	Private Equity
Netherlands	PMT	Separate	Infrastructure
Canada	OMERS	Separate	Infrastructure
United Kingdom	BT Pension Scheme	Separate	Infrastructure
United Kingdom	USS	Separate	Infrastructure
Australia	AustralianSuper	Separate	Infrastructure
Denmark	PFA Pension	Non-separate	Equity and Fixed Income
Argentina	Sustainability Guarantee Fund	Separate	Infrastructure
Chile	AFP Provida	n.d.	n.d.
Canada	Quebec Pension Plan	Separate	Infrastructure
Finland	Ilmarinen	n.d.	n.d.
Sweden	AP3	Non-separate	n.d.
Sweden	AP4	Non-separate	n.d.
Brazil	FUNCEF	Non-separate	Equity and Fixed Income
Australia	Sunsuper	Separate	Infrastructure
Mexico	Afore XXI Banorte	Separate	Infrastructure
New Zealand	New Zealand Superannuation Fund	Non-separate	n.d.
Israel	Menora-Mivtachim	n.d.	n.d.
Peru	AFP Horizonte Peru	Non-separate	Equity
Turkey	OYAK	Separate	Infrastructure
Chile	Pension Reserve Fund	Non-separate	Equity and Fixed income
Spain	Fonditel	Non-separate	Private Equity
Brazil	FAPES	Non-separate	n.d.
Portugal	CGD Pensões	Non-separate	n.d.
Spain	Endesa	n.d.	n.d.
Portugal	Banco BPI Pension Fund	Non-separate	Equity

"n.d." means not available.

Source: OECD.

Infrastructure Investment

Based on the information provided by the 33 funds taken into consideration for this part of the survey, total investment in infrastructure at the end of 2012, considered as direct exposure, was USD 72.1 billion which represented 3.3% of total assets of these 33 funds. In 2010, the 28 funds that provided data on infrastructure investments reported a total direct exposure of USD 41.9 billion, which represented 2.9% of total assets of funds investing in infrastructure, surveyed at that time[23].

Unlisted equity (i.e. infrastructure funds or direct investments in projects) is the largest category of infrastructure investment at USD 64.0 billion, and 3.0% of total assets surveyed. From this total, a subset of funds reported their allocation to direct investments and to infrastructure funds, which totalled USD 57.2 billion at the end of 2012. In this sample, unlisted infrastructure funds accounted for 38% of the total, direct investments and co-investment in unlisted infrastructure companies 61%, (USD 35.0 billion out of USD 57.2 billion and other unlisted investments were 1% of the total. This high percentage of funds investing directly is indeed driven notably by a few large funds as for example the Canadian ones in the sample (i.e. the CPPIB investing USD 9.o billion and OMERS investing USD 9.1 billion in direct unlisted

[23] Figures may be understated given that for fixed income the majority of the funds don't report such details on their allocation and infrastructure unlisted equity is often included in other asset classes. Some funds also report their allocation to infrastructure through listed equity (i.e. infrastructure corporates), that for this survey, we have considered as indirect exposure.

infrastructure companies). Well over half of unlisted infrastructure investments amongst large funds is through direct or co-investment.

Debt exposure to infrastructure for the same funds was USD 8.1 billion or 0.4% of total assets in 2012. The debt category may contain either publicly traded debt instruments or direct project loans and bonds. Of the funds surveyed, nine reported exposure to direct loans and bonds. Spain's Endesa reported over 7% of the total portfolio was invested in private markets infrastructure debt. Brazil's FAPES reported over 5%, and Chile's AFP Provida invested 1.2% of the total portfolio in direct loans and bonds. Notably, Germany's BASF opened a target allocation to infrastructure loans and bonds at 4% of the total portfolio. Argentina's Sustainability Guarantee Fund, the only PPRF to report exposure to direct infrastructure fixed income, reported 13% allocated to loans and bonds. The fund is required by statute to invest at least 5%, and up to 20%, of the total portfolio in infrastructure projects.

A significant number of funds have increased their exposure to unlisted infrastructure over the recent time period. In 2011, unlisted equity investments amongst the survey population totalled USD 55.0 billion, compared to USD 64.0 billion in 2012, representing a nominal increase of 16.5% in the last year. Notably, Australia's Future Fund increased its total portfolio allocations to unlisted equity by 0.8 percentage points. Among pension funds, FUNCEF increased the infrastructure allocation by 2.3 percentage points.

Overall investment is still limited: if we consider total assets under management for the complete survey (i.e. 69 funds) infrastructure investment as unlisted equity and debt of USD 72.1 billion represents 0.9% of the total.

In the future, while the survey results indicate a growing demand for infrastructure assets, the regulatory framework and availability of assets may ultimately decide the growth capacity of this asset class. Long term capital supplied by institutional investors can help fiscally constrained governments fund infrastructure projects. However, mechanisms such as the availability of project debt financing, public-private partnerships, and a strong contract and regulatory environment can all play a role in financing direct infrastructure investments.

Table 9. Infrastructure investment in 2012 – portfolio allocation

	Total assets, in USD millions	As a % of total assets of funds in Part B of the report (1)	As a % of total assets for all funds (2)
Unlisted Equity	64,029.8	3.0	0.8
Debt	8,131.5	0.4	0.1

(1) Infrastructure investment is calculated as a percentage of total assets of funds investing in infrastructure. (2) Infrastructure investment is calculated as a percentage of total assets of all funds in the survey, excluding the ones stemming from annual reports.

Source: OECD.

ANNEX – TYPES OF SOVEREIGN AND PUBLIC PENSION RESERVE FUNDS

Although there is no single widely accepted definition, Sovereign and Public Pension Reserve Funds (SPFs) could be defined as funds set up by governments or social security institutions with the objective of contributing to financing the relevant pay-as-you-go pension plans. There are two types of SPFs. Although both have the same ultimate objective (i.e. meeting the potential financial liabilities relating to the social security system), they vary in terms of funding sources, investment strategies, and payout phases, among others:

- One is the fund that is part of the overall social security system, where the inflows are mainly surpluses of employee and/or employer contributions over current payouts, as we as top-up contributions from the government via fiscal transfers and other sources. Among others, Denmark's Social Security Fund, Japan's Government Pension Investment Fund, and USA's Social Security Trust Fund fall within this category. These funds may be managed by the social security institution itself or an independent -often public sector- fund management entity.

- The other type refers to those funds which are established directly by the government (completely separated from the social security system), and whose financial inflows are mainly from direct fiscal transfers from the government. Unlike the first type of SPFs, those within this category have been set up by governments to meet future deficits of the social security system. Some are not allowed to make any payouts for decades. All of these funds are under autonomous management entities. Examples include the Australia Super Fund, the New Zealand Superannuation Fund, the Norwegian Government Pension Fund, and the French "Fond de Réserve pour les Retraites". These funds are also sometimes classified as sovereign wealth funds (SWFs). Though they do not all have high foreign investment allocations.

Source: OECD Pension Markets in Focus.

www.oecd.org/fin/lti