PENSION MARKETS IN FOCUS

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In this issue

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Pension fund assets struggle to return to pre-crisis levels

The effects of the financial and economic crisis on public and private pension systems are still very visible.

The investment losses suffered in 2008 have not been fully recuperated yet. In fact, pension funds have only made up USD 1.5 trillion of the 3.5 trillion decline in the market value of assets experienced in 2008, although 2009 saw substantial gains in investment performance and a slight recovery in funding levels in some defined benefit systems. Outside the OECD area, pension funds apparently suffered less in 2008 and have also recovered quicker in 2009, with asset levels by December 2009 surpassing those at the end of 2007.

Public pension reserve funds, which support social security systems, also experienced positive returns in 2009 and by the end of the year many were close to the level of assets managed at the end of 2007.

In addition to performance indicators, this issue also presents more detailed stock and flow data on investments. The investment flow data show that pension funds in some countries acted in a countercyclical manner during 2008-9, engaging in large net equity purchases as markets tumbled and reducing the intensity of net purchases as markets recovered. However, in some other countries the opposite effect was found, which raises concerns over the funds' long-term performance as well as their role as market stabilisers. Preliminary results from a pilot data exercise on large pension funds sheds further light on this phenomenon.

As pension funds heal their wounds from the financial crisis, new challenges are appearing: the onset of retirement of the baby-boom generation, uncertainty over the strength of the economic recovery, and weakness of public bond markets. Regulatory changes are also on the horizon, with possible changes in solvency regulations and new accounting standards for plan sponsors. The OECD will continue to monitor these developments and contribute to the policy debate with the experience of our member countries and beyond. The high level of foreign investment by numerous pension funds (including public) will also deserve further monitoring.

by André Laboul, Head of the Financial Affairs Division

HIGHLIGHTS

While pension funds have strengthened with the financial market rebound, OECD data show that pension fund assets in most countries have yet to recover to pre-crisis levels. Public pension funds, however, have now fully made up for their crisis-related losses due to more conservative investment strategies.

- Thanks to the rebound in equity prices that started in March 2009, the total amount of pension fund assets in OECD countries recovered around USD 1.5 trillion of the USD 3.5 trillion in market value that they lost in 2008. Despite this recovery, total asset values in the OECD area were still 9% below the December 2007 levels on average. Some countries however already recuperated completely from the 2008 losses. This is the case for Austria, Chile, Hungary, Iceland, New Zealand, Norway, and Poland.

- The OECD weighted average asset-to-GDP ratio for pension funds increased from 60.3% of GDP in 2008 to 67.1% of GDP in 2009, with the Netherlands improving by a record 17.1pp jump in the value of its assets in the last year, equivalent to a gain of USD 48billion, from USD 979 billion to over USD 1 028 billion.

- Despite these positive outcomes, funding levels for pension funds were still significantly lower at the end of 2009 than two years previously. The median funding deficit (the gap between assets and liabilities) was 26 per cent at the end of last year, compared with 23 per cent a year earlier and 13 per cent in 2007. Decreasing bond yields (which are used to calculate liabilities) in many countries meant that liabilities went up, offsetting the investment recovery.

- While public pension reserve funds (PPRFs) in some countries were hit badly by the financial crisis during 2008, they experienced a strong recovery in performance in 2009, which largely made up for the losses suffered in the previous year. By the end of 2009, the total amount of PPRF assets was equivalent to USD 4.5 trillion, on average 7.3% higher than at the end of 2008, and 13.9% higher than in December 2007. The funds shielded from the crisis were those with conservative investment portfolios.

The primary source of this report is provided by national pension authorities through the OECD Global Pension Statistics (GPS) project. Within the GPS project the original data are administrative data collected on an ongoing basis.

Notes related to charts and tables contained in the publication can be found on pages 18 and 19.

Most of tables and charts contained in this edition, together with the underlying data, can be retrieved in MS Excel spreadsheets format at: **www.oecd.org/daf/pensions/pensionmarkets**.

FINANCIAL PERFORMANCE OF PENSION FUNDS IN SELECTED OECD AND NON-OECD COUNTRIES

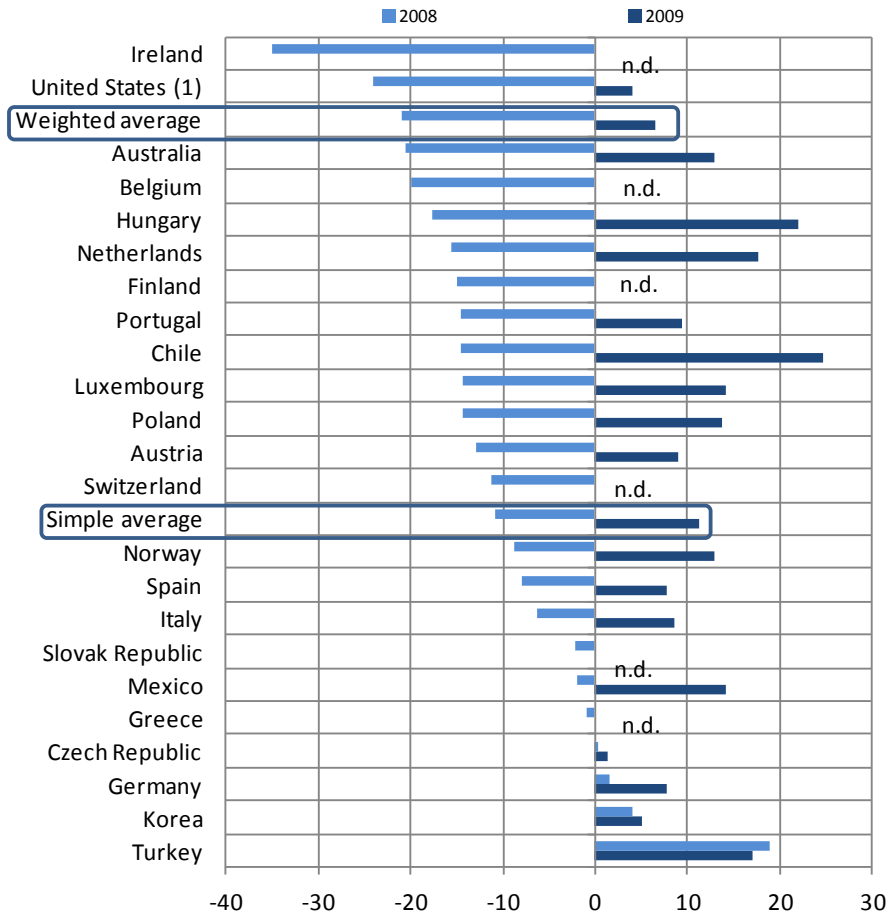
During 2009, pension funds experienced a positive investment rate of return of 6.6% on average. Despite this recovery, by 31 December 2009 their asset values were still on average 9% below their December 2007 levels.

Thanks to the rebound in equity prices that started in March 2009, pension funds in the OECD recovered around USD 1.5 trillion[1] of the USD 3.5 trillion in market value that they lost in 2008 (from USD 18.7 trillion in December 2007 to USD 15.3 trillion in December 2008). However, market developments in the first half of 2010 have largely stalled this recovery.

Pension funds experienced on average a positive investment rate of return of 6.6% in nominal terms up to the end of 2009 (6.0% in real terms). Figure 1 shows pension fund investment performance in 2009 in the 10-15% range in most OECD countries. The best performing pension funds amongst OECD countries in 2009 were Chile (25%), Hungary (22%), the Netherlands (18%), and Turkey (17.1%). On the other hand, in countries like Czech Republic and Korea pension funds had, on average, low positive investment rate of return (under 5%).

1. OECD estimate based on the 25 countries for which data are available for 2009. These countries represented 96.8% of total OECD pension funds' assets at the end of 2007, and 96.2% at the end of 2008. The loss between 2007 and 2008 in these countries represented 99.4% of the total pension funds' loss. Assuming that they also represent 99.4% of the recovery, total OECD recovery reached USD 1.5 trillion at the end of 2009.

Figure 1. Pension funds' nominal investment rate of return in selected OECD countries, 2008-2009 (%)

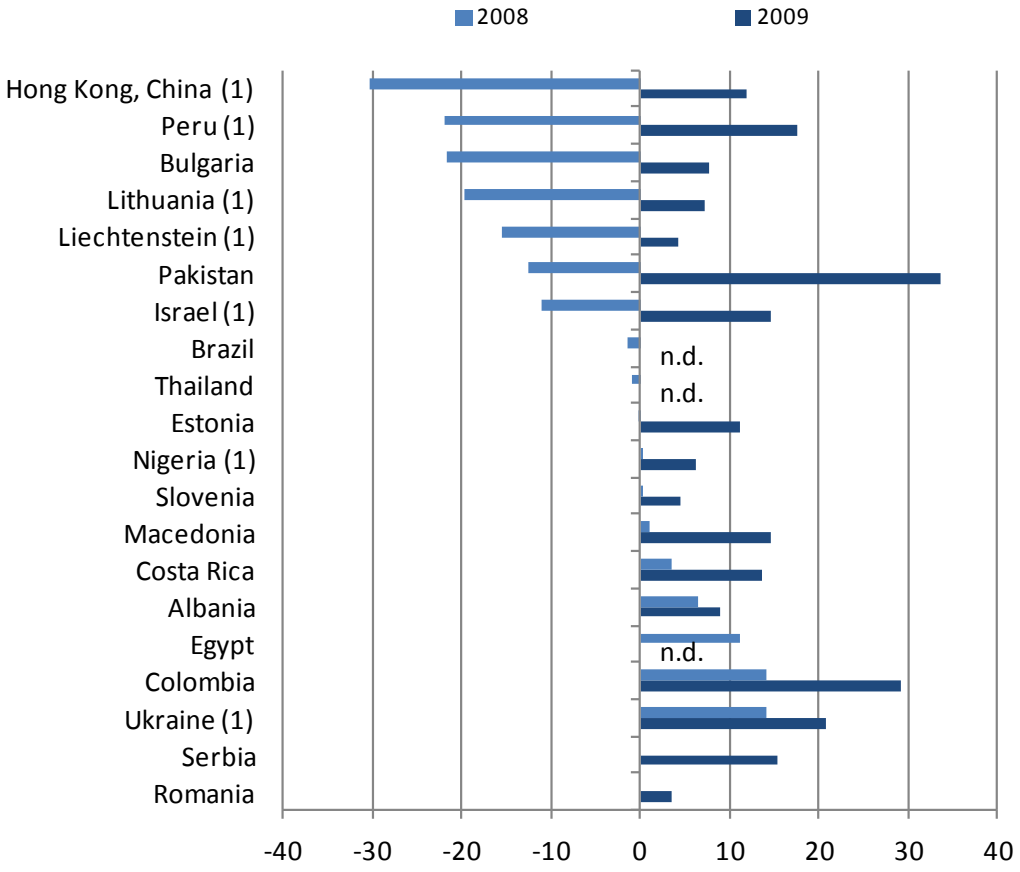


Source: OECD Global Pension Statistics and OECD estimates.

Despite this recovery, pension fund assets in most OECD countries have not climbed back above the level managed at the end of 2007 and it will be some time before the 2008 losses are fully recovered. Some countries however already recovered completely from the 2008 losses. This is the case for Austria (assets at the end of 2009 were 4.0% above the December 2007 level), Chile (8.4%), Hungary (23.3%), Iceland (3.5%), New Zealand (11.3%), Norway (9.2%), and Poland (28.3%).

For the countries for which information is available, on average, pension fund assets were, as of 30 December 2009, 9% below their December 2007 levels. As shown in Figure 2, the picture in the selected non-OECD countries is generally rosier as with a few exceptions investment losses in 2008 were smaller and the 2009 recovery stronger. By the end of 2009, assets of pension funds in Bulgaria, Estonia, Hong Kong (China), Israel, Jamaica, Pakistan, Slovenia and Thailand were above their December 2007 level.

Figure 2. Pension funds' nominal investment rate of return in selected non-OECD countries, 2008-2009 (%)

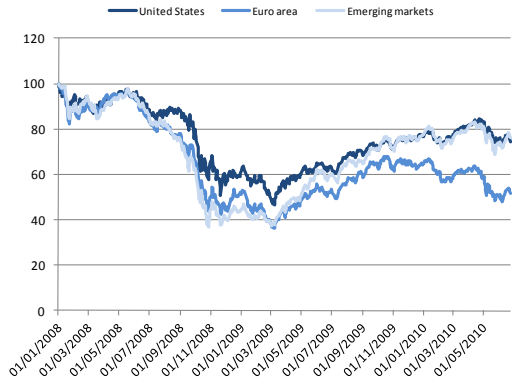


Note:
On 10 May 2010, Estonia, Israel and Slovenia were invited to become Members of the OECD.
Representatives from selected non-OECD countries provided input to the report through the OECD cooperation with the IOPS (International Organisation of Pension Supervisors)

Source: OECD Global Pension Statistics.

Box. Stock market developments, 2008-June 2010

Stock market valuations fell dramatically following the severe aggravation of the financial crisis in October 2008. However, in March 2009, markets began to rally. Between March and end-June 2010, stock indices rose by more than 35 percent for the United States and 30 percent for the Euro area. In the context of the turmoil related to concerns about the recent sovereign debt reversed this upswing trend for the time-being.



Note: "US-DS total market", "EMU-DS" and "EMERGING MARKETS-DS total market" are market indexes calculated by Datastream (DS) for the U.S., European Monetary Union, and emerging markets, respectively. (1/1/2008=100)
Source: Thomson Reuters Datastream.

The proportions of equities and bonds in pension fund portfolios remained relatively stable in most countries.

In the majority of countries for which 2009 data were available, bills and bonds remain the dominant asset classes, accounting for over 40 percent of total assets in thirteen OECD countries out of twenty one for which such information was available. Equities ranked first in Australia, Finland, and United States, or are in the same range as bonds in Canada and Chile, with more than one third of all investments. This exposure to equity is a major reason explaining the magnitude of the decline and rise of pension fund assets across these countries. The impact of adverse stock market performance on pension fund assets has been also felt strongly in countries like the UK and Ireland (official data are not currently available on these countries), where occupational pension plans are heavily exposed to equities. On average, pension funds in these countries targeted over 60 percent of plan assets in equities, an even greater exposure than US pension funds.

Between 2008 and 2009, the market value of equities in pension fund portfolios in the OECD area increased on average by 1.3 percentage points (pp), from 39.1% in 2008 to 40.4% in 2009.

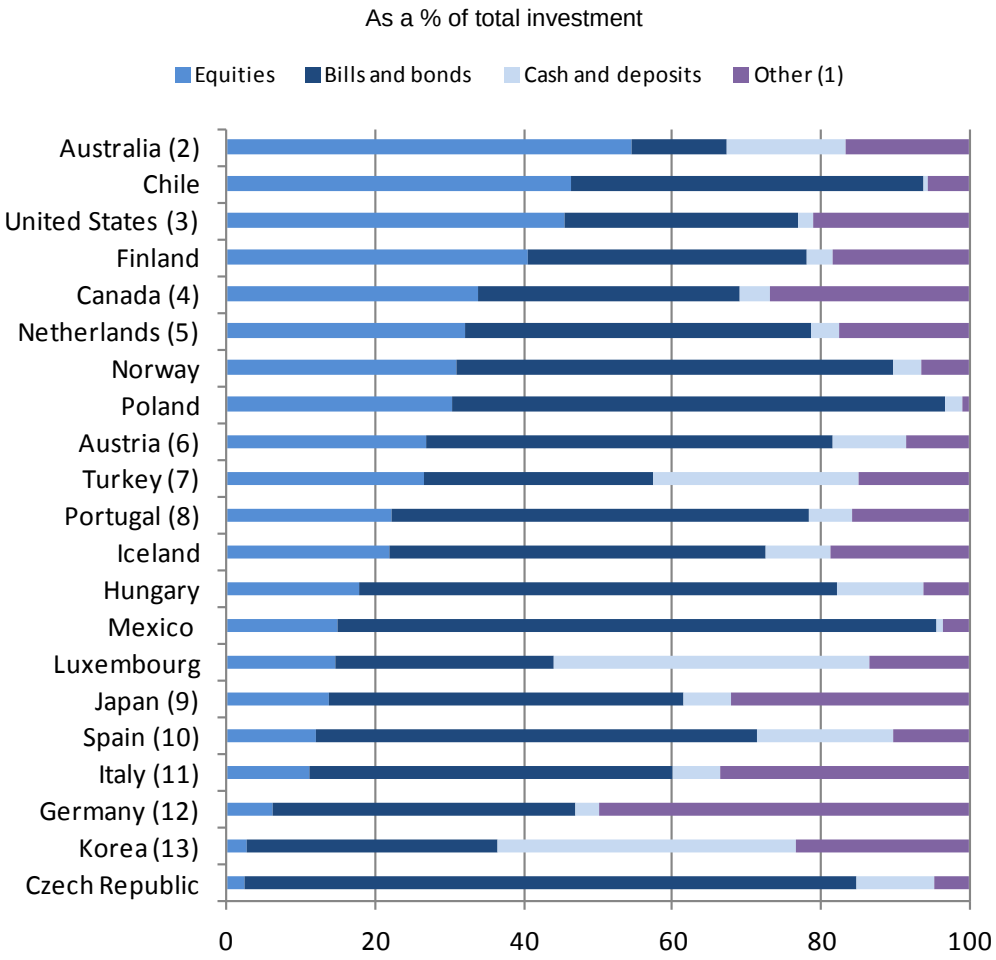
In Luxembourg, the Netherlands and Australia, pension funds' equity exposure has steadily decreased by 11.4pp, 1.2pp and 3.5pp, respectively. For other countries, suchas as Poland, Norway, Finland, and Austria, the increase was well above the OECD average, accounting respectively for 8.6pp, 8.5pp, 7.3pp, and 5.6pp.

In most OECD countries, cash and deposits, loans, and real estate (lands and buildings) only account for relatively small amounts of assets although some exceptions exist. Real estate, for example, is a significant component of pension fund portfolios in Portugal, Finland, Canada and Australia (in the range of 5 to 10% of total assets). Anecdotal evidence shows that pressure to close DB funding gaps and raise returns is driving a move into alternative investments[2] with pension funds increasingly using derivatives to hedge risks and as an alternative to direct investment in the underlying markets.

2010 is likely to witness further inroads by pension funds into hedge funds and other alternative investments, as well as a growing appetite for derivatives as a hedging tool. Pension funds are expected to become increasingly relevant players in the functioning of these markets (further details can be found in Issue 4 of Pension Markets in Focus).

2. Pension funds' asset allocation to alternative investment products are lumped together under the category "other investments" in Figure 3.

Figure 3. Pension fund asset allocation for selected investment categories in selected OECD countries, 2009



Source: OECD Global Pension Statistics.

Over 2008 and 2009, US DB pension funds were net sellers of equities, reflecting a move towards more conservative asset allocations. A similar trend was observed in Portugal and Spain.

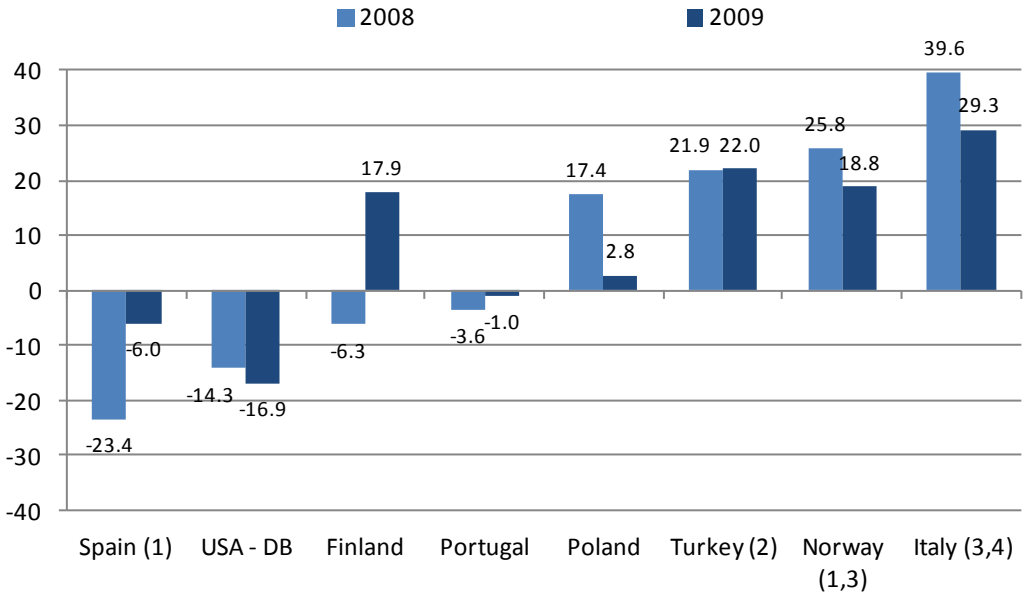
In other countries for which data are available such as Norway, Italy, Poland and Turkey, pension funds were net buyers of equities in 2008 and 2009, providing positive long-term fund inflows to the stock market. In these countries, pension funds have in general played a stabilising role in equity markets, continuing to purchase equities at times of high volatility.

It is to be noted that in some countries, such as in Italy, pension funds turned to be net buyers of equities also in 2009 only thanks to the flows into equities arising from the investment of new contributions; these flows compensated the sales made in order to keep constant the share of equities in the portfolio, as their prices recovered.

There are also growing signs of a move away from listed equities by pension funds in countries with high equity exposures such as Ireland and the United Kingdom. While official data are not available, industry reports show that the phase of de-risking continues post-crisis, with pension funds either selling out of equities or drifting out of equities and into bonds by not rebalancing.

Figure 4. Net purchases (+) / sales (-) of equities by pension funds in selected OECD countries, 2008-2009

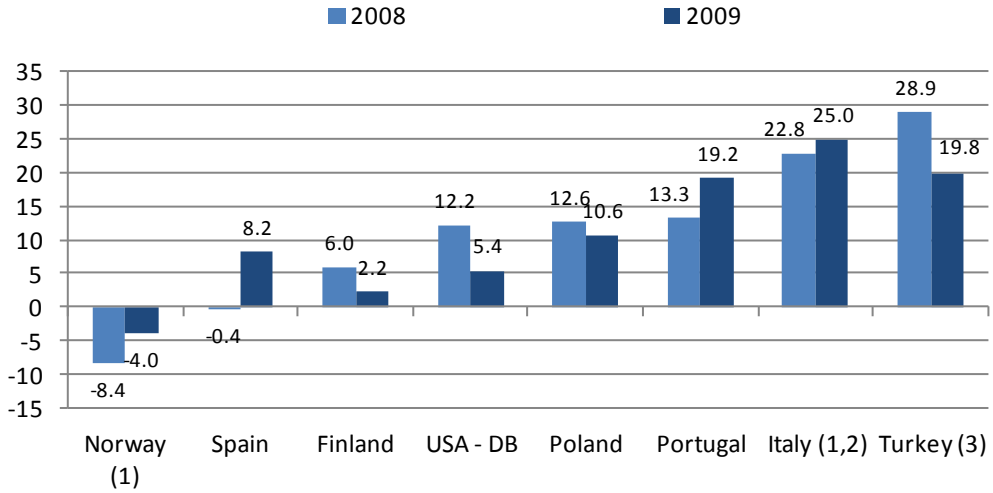
As a % of total equities held at the beginning of the year



Source: OECD Global Pension Statistics.

Figure 5. Net purchases (+) / sales (-) of bonds by pension funds in selected OECD countries, 2008-2009

As a % of total bonds held at the beginning of the year



Source: OECD Global Pension Statistics.

The OECD weighted average asset-to-GDP ratio for pension funds increased from 60.3% of GDP in 2008 to 67.1% of GDP in 2009, with the Netherlands improving by a record 17.1pp increase in the value of its assets in the last year, equivalent to a gain of USD 48billion, from USD 979 billion to over USD 1 028 billion.

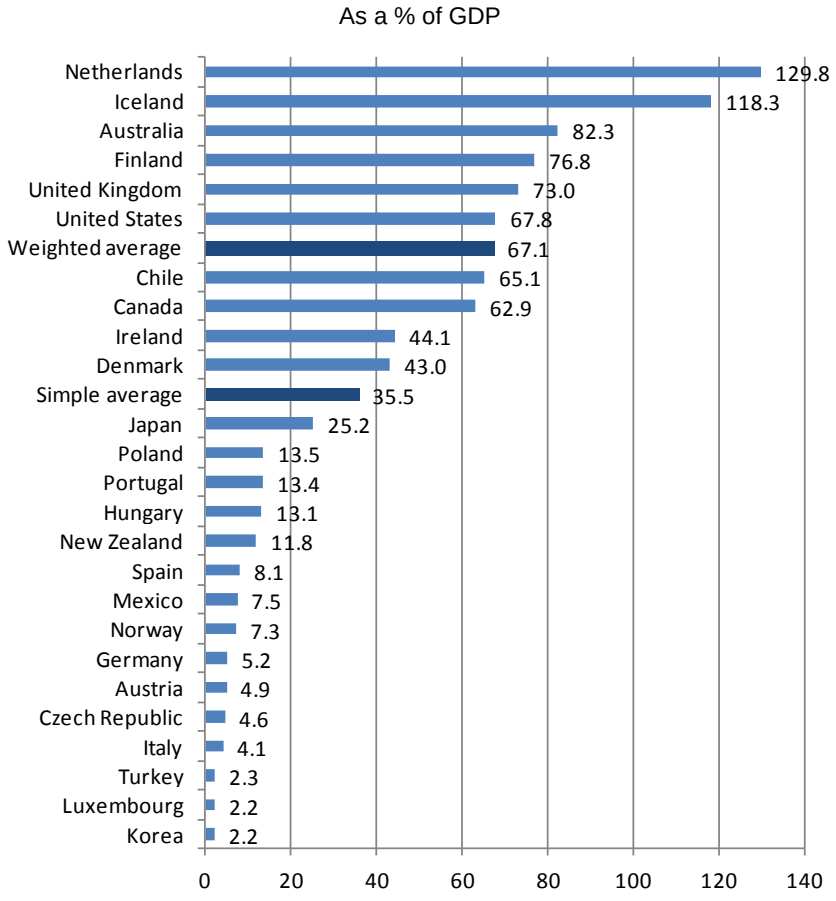
By December 2009, OECD pension fund assets in relation to national economies amounted to 67.1% of GDP on average, down from 78.2% in 2007, but substantially higher than the equivalent figure in 2008 of 60.3%. The Netherlands now has the largest proportion of pension assets to GDP (129.8%), followed by Iceland (118.3%) and Australia (82.3%).

Only five countries registered asset-to-GDP ratios lower in 2009 than in 2008 - Australia (-10.7pp), Denmark (-4.5pp), Mexico (-2.7pp), Czech Republic (-0.6pp) and Korea (-0.8pp). In addition to the Netherlands, Australia, Finland and the United Kingdom exceeded the OECD weighted average asset-to-GDP ratio of 67.1%. The 10% growth in assets is in sharp contrast to a 19% fall in asset values during 2008 and brought assets back to their 2006 levels.

In absolute terms, the United States has the largest pension fund market within OECD member countries with assets worth USD 9.6 trillion. In relative terms, however, the United States' share of OECD pension fund assets shrank from a level of 67% in 2001 to 57.5% in 2009.

Other OECD countries with large pension fund systems include the United Kingdom with assets worth USD 1.6 trillion and 9.5% share of the OECD pension fund market in 2009; the Netherlands and Japan, USD 1.0 trillion and 6.2%; and Australia and Canada, USD 0.8 trillion and 4.8%. For the remaining 25 countries, total pension fund assets in 2009 were valued at approximately USD 1.8 trillion, which account for 11% of the OECD total. All OECD countries saw significant growth in pension assets in 2009 (measured in local currency), except Denmark and Australia.

Figure 6. Importance of pension funds relative to the size of the economy in selected OECD countries, 2009



Source: OECD Global Pension Statistics.

Funding ratios of exchange-listed companies' defined benefit plans were still significantly lower at the end of 2009, and plans continue to be substantially underfunded in some OECD countries.

About 60% of OECD pension assets are in defined benefit and other plans which offer return or benefit guarantees. While markets have started to recover during 2009, funding levels of defined benefit plans remain very low in some OECD countries. Major 2008 asset losses experienced by defined benefit pension funds were partly offset in some countries by decreases in the level of defined benefit obligations as a result of increases in the corporate bond yields used for valuation purposes. In 2009, countries experienced the opposite effect, with large investment gains that were offset to some extent in several countries by increased defined benefit obligations due to decreased in corporate bond yields. Furthermore, some countries such as Australia experienced reduced investment returns due to adverse exchange rates movements.

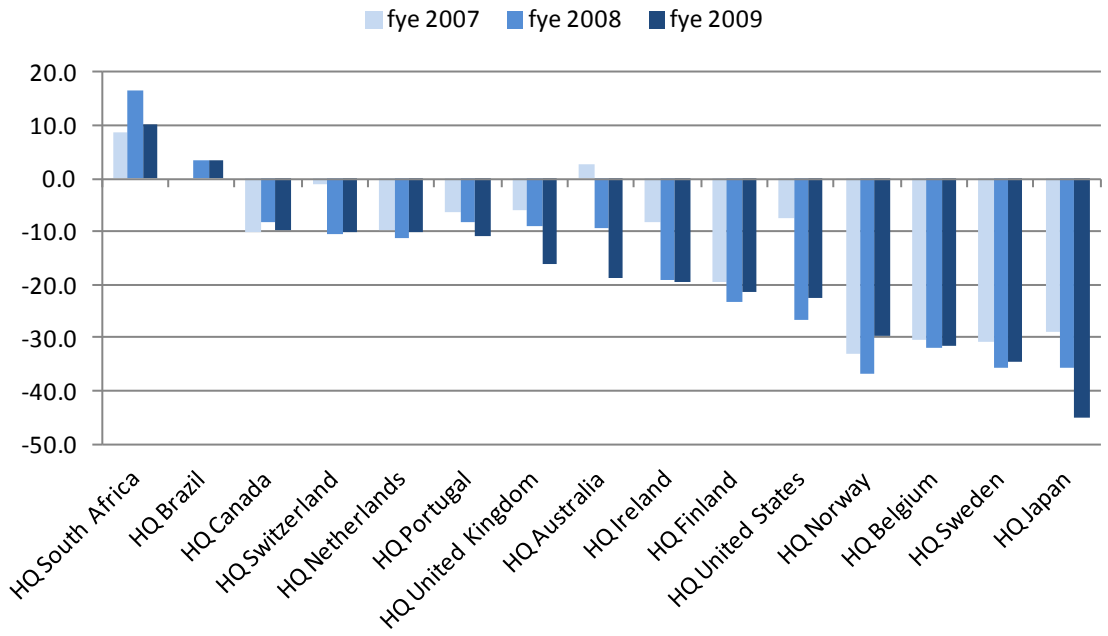
Figure 7 shows estimated median funding level of the aggregate defined benefit obligations of 2,100 publicly traded companies as published in their annual financial statements as of their fiscal years ending 2009, 2008 and 2007. Companies have been grouped by their country of domicile.[3]

The median funding level for these companies decreased from a 13% deficit as of the fiscal year ending 2007 to a 23% deficit as of fiscal year ending 2008. As of fiscal year ending 2009, the median funding level decreased slightly to a deficit of 26%.

[3] It is important to note that the funding levels found in corporate financial statements are most often reported on a global aggregate basis and can only serve as a very broad indication of what may have happened on a plan specific level or on a country regulatory funding basis.

Figure 7. Estimated median percentage surplus or deficit of 2,100 exchange-listed companies' aggregate defined benefit obligations

In percent, by country of domicile (*)



(*) Companies are grouped by country of domicile. Therefore, all data represent pension plans' administered by headquartered companies and not the pension plans of the country of domicile.

Source: Thomson Reuters Datastream.

INVESTMENT ACTIVITY IN SELECTED INDIVIDUAL PENSION FUNDS IN THE OECD

In January this year, the OECD launched a pilot project on investments by selected individual pension funds in the OECD area. The purpose of this exercise is to monitor the investment behaviour of large pension funds. For this first survey, information on 6 funds was included from three countries: Denmark, Italy, and the Netherlands. Going forward, it is expected that the exercise will be extended to more funds and countries, providing insights and detailed investment information which complement the administrative data gathered at the national level.

Table 1 presents the total assets under management in the six funds covered, together with the nominal investment return in 2008 and 2009. As can be seen, the funds with the largest losses in 2008 (the three Dutch funds) are also the ones which have experienced the best performance in 2009. However, the highest cumulative performance over the two years (2008-9) was delivered by the Danish fund PFA Pension, at 4.3% per year on average. In fact, the only other pension fund that has fully made up the investment losses suffered in 2008 was the Italian pension fund Cometa.

Table 1. Total assets 2009 and nominal investment return in 2008 and 2009

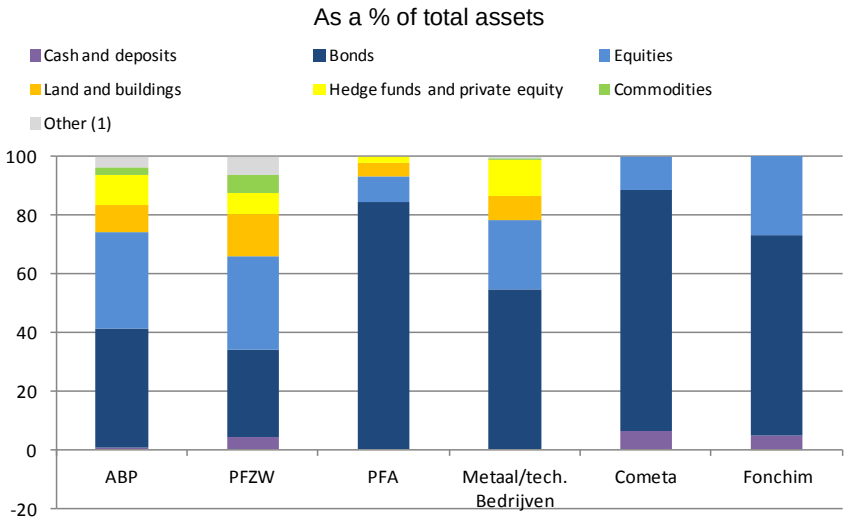
Name of pension fund	Country	Assets under management 2009 (thousands USD)	Assets as a % of country total (1)	Investment return (%) 2008	Investment return (%) 2009
ABP	Netherlands	287 283 117	27.9	-20.2%	20.2%
PFZW	Netherlands	99 075 000	9.6	-20.5%	17.6%
PFA Pension	Denmark	37 802 954	12.3	2.5%	6.2%
Metaal/tech. Bedrijven	Netherlands	46 705 556	4.5	-20.7%	14.8%
Cometa	Italy	6 862 389	7.9	-2.5%	6.2%
Fonchim	Italy	3 588 417	4.1	-10.2%	10.9%

Source: Individual pension funds.

These differences in investment performance reflect the wide range of asset allocations observed in the sample of pension funds. As shown in Figure 8, equity exposure at the end of 2009 was highest at ABP, with an allocation of 33.1% while the lowest was PFA's with an allocation of 8.6%. It is also noteworthy that the Dutch funds have the highest allocations to hedge funds and private equity (between 7.4 and 12.3%), real estate (between 8.2 and 9.4%) and commodities (between 0.4% and 6.3%). These three asset classes - often described as "alternative investments" - accounted for 21% to 29% of all assets of the Dutch funds, compared to 7% of the Danish fund PFA and 0% of the Italian funds.

The simplest asset allocations were observed among the two Italian funds which had practically only listed equities and bonds in their portfolios. Exposure to structured products (including asset- and mortgage-backed securities, classified under bonds in Figure 8) was also relatively low among all the funds surveyed, the highest being PFA's at 3%. The level of international diversification was generally very high, with exposures to foreign equities representing more than 90% of the total stock of equities held by the pension funds.

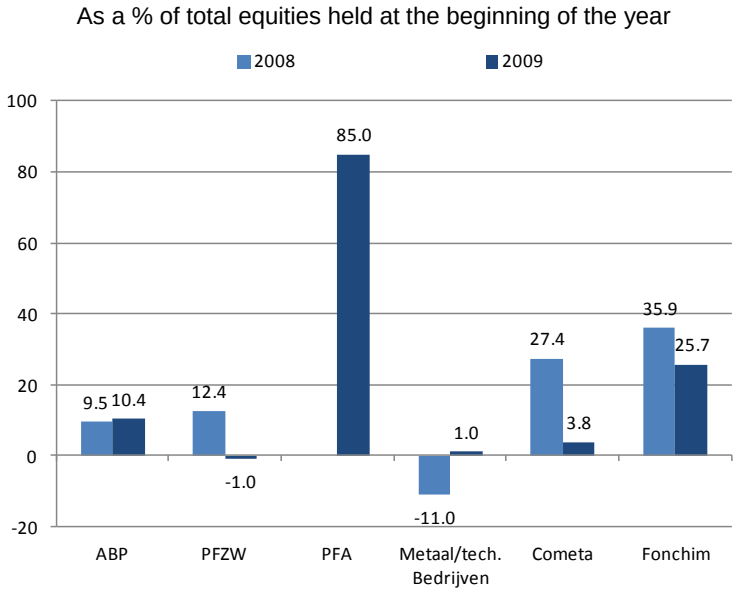
Figure 8. Asset allocation among the six funds, December 2009



Source: Individual pension funds.

Investment activity during both 2008 and 2009 was generally in line with the results observed at the aggregate level and referred to earlier. As shown in Figure 9, the pension funds surveyed, with the sole exception of one of the Dutch pension funds (Metaal/tech. Bedrijven) continued carrying out net purchases of equities during the main year of the crisis (2008), while only one (the Dutch funds PFZW) engaged in net sales of equities in 2009.

Figure 9. Net purchases (+) / sales (-) of equities by pension funds, 2008-09

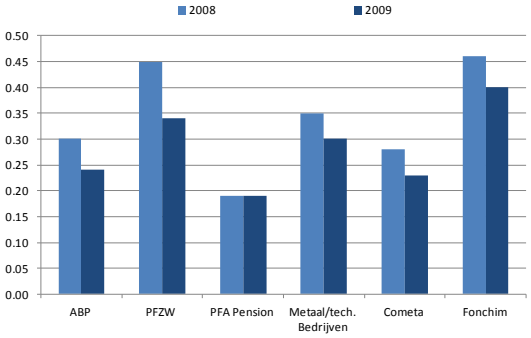


Source: Individual pension funds.

Total operating expenses (including both administration and investment costs) among the pension funds surveyed were generally low (below 0.4% of assets under management) and as shown in Figure 10, decreased somewhat between 2008-9. The lowest levels of costs as a percentage of assets were those of the Danish fund PFA (0.19%), while the highest were those of the Italian fund Fonchim (0.4%).

Figure 10. Total operating expenses, 2008-2009

As a % of total assets under management



Source: Individual pension funds.

OVERVIEW OF PUBLIC PENSION RESERVE FUNDS

In 2009, public pension reserve funds (PPRFs) regained the ground lost during the 2008 crisis. By the end of 2009, the total amount of PPRF assets was equivalent to USD 4.5 trillion, on average 7.3% higher than at the end of 2008, and 13.9% higher than in December 2007.

Table 2. Size of public pension reserve fund markets in selected OECD countries, 2009

Type of fund	Country	Name of the fund or institution	Founded in	Assets		
				USD billions	% of GDP	% increase
Social Security Reserve Fund	Canada	Canadian Pension Plan	1997	108.6	8.5	13.8
	France (1)	AGIRC-ARRCO	n.d.	72.4	2.5	n.d.
	Japan (1)	Government Pension Investment Fund	2006	1 137.7	23.2	n.d.
	Korea	National Pension Fund	1988	217.8	26.1	17.9
	Mexico	IMSS Reserve	n.d.	3.6	0.3	3.3
	Poland	Demographic Reserve Fund	2002	2.3	0.5	64.4
	Portugal	Social Security Financial Stabilisation Fund	1989	13.1	5.7	12.8
	Spain	Social Security Reserve Fund	1997	83.4	5.7	4.9
	Sweden	National Pension Funds (AP1-AP4 and AP6)	2000	108.8	27.2	13.2
	United States	Social Security Trust Fund	1940	2 540.3	17.9	5.0
Sovereign Pension Reserve Fund	Australia	Future Fund	2006	51.6	5.9	11.0
	Belgium	*Zilverfonds*	2001	23.5	5.0	4.4
	France	*Fond de Réserve des Retraites* (FRR)	1999	46.3	1.7	20.6
	Ireland	National Pensions Reserve Fund	2000	31.0	13.7	38.5
	New Zealand (2)	New Zealand Superannuation Fund	2001	8.3	7.1	-6.7
	Norway (3)	Government Pension Fund - Norway	n.d.	19.0	5.0	32.9
Total selected OECD countries (4)				4 467.7	18.6	7.3

Source: OECD Global Pension Statistics.

As Table 2 shows, total amounts of PPRF assets were equivalent to USD 4.5 trillion by the end of 2009 within the OECD countries dealt with in this publication. The largest reserve was held by the US Social Security Trust Fund at USD 2.5 trillion, while Japan's Government Pension Investment Fund was second at USD 1.1 trillion. Of the remaining countries, Canada, Korea and Sweden had also accumulated large reserves.

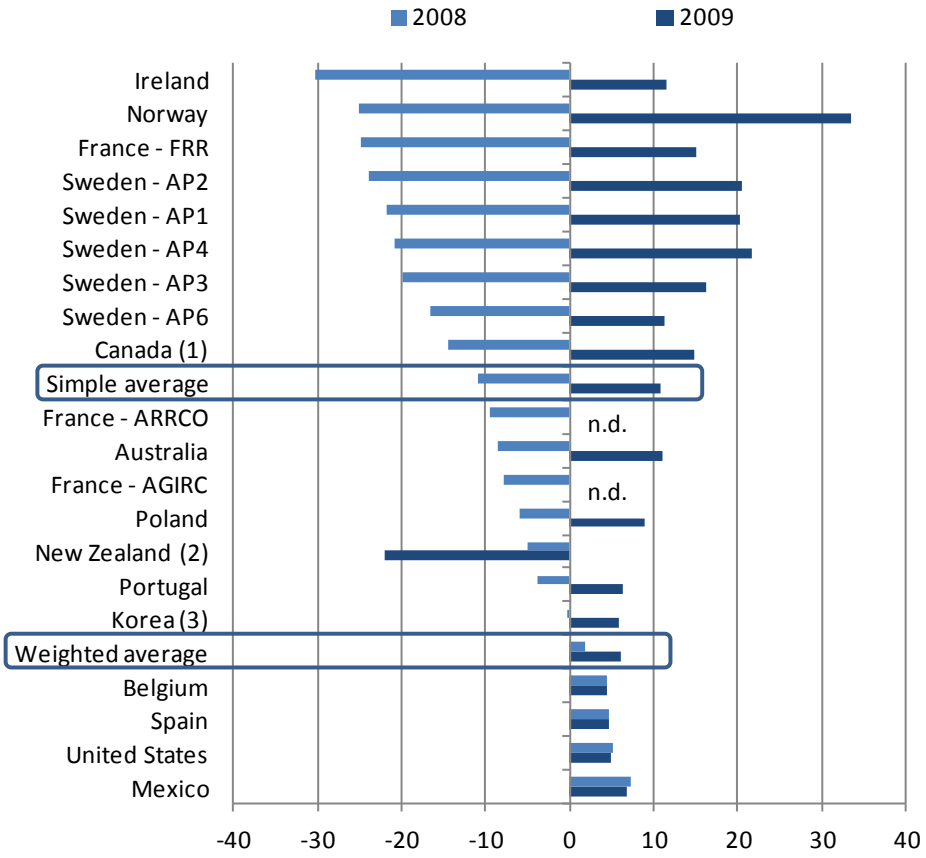
The reserves put aside by the countries covered by this publication increased between 2008 and 2009 by 7.3% on average. The largest increase was observed for Poland's Demographic Reserve Fund, with 64.4% (see last column of Table 2). PPRFs in France, Ireland and Norway also experienced high increases, larger than 20%. The New Zealand superannuation fund is the only fund that experienced a negative growth of assets (but the data refer to June 2008 and June 2009, not December).

In terms of total assets relative to the national economy, Table 2 shows that Sweden had the highest ratio at 27.2% of GDP, followed by Korea with 26.1% of GDP and Japan with 23.2%.

While PPRFs in some countries were hit badly by the financial crisis during 2008, they experienced a strong recovery in performance in 2009, which largely made up for the losses suffered in the previous year. The funds shielded from the crisis were those with conservative investment portfolios.

The impact of the 2008 crisis on investment returns varies greatly across countries (see Figure 11), as public pension reserve funds in some countries experienced strong negative returns in 2008, below -20% (Ireland, Norway, France and Sweden), while others had positive returns (Belgium, Spain, the United States and Mexico). At the end of 2009, all public pension reserve funds for which data are available experienced positive nominal net investment returns, ranking from 4.4% in Belgium to 33.5% in Norway.

Figure 11. Public pension reserve funds' nominal net investment returns in selected OECD countries, 2008-2009 (%)



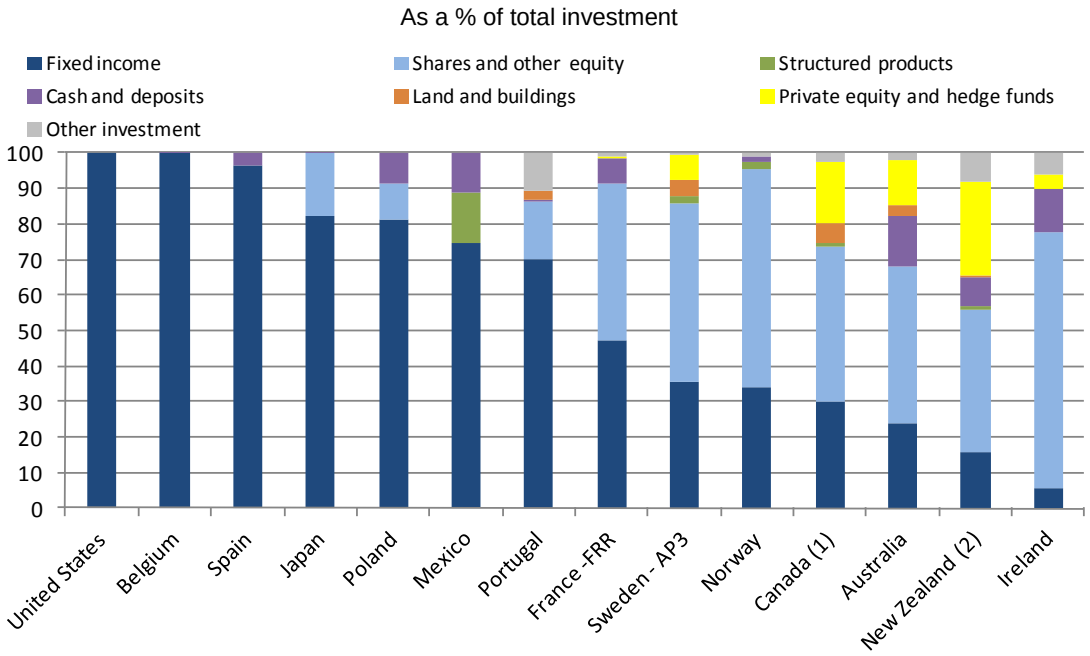
Source: OECD Global Pension Statistics.

PPRFs that experienced the more extreme investment returns in 2008 and 2009 are also the ones in which equities represent a large part of total assets invested. As shown in Figure 12, the public pension reserve fund in Ireland was the most exposed to equities in December 2009, at 72.0% of total assets,[4] followed by Norway (61.4%) and Sweden (50.2%). The funds with the highest allocation to private equity and hedge funds were New Zealand (26.7% of total in 2009), Canada (17.1%) and Australia (12.7%).

At the other extreme, public pension reserve funds in Belgium, Spain, and the United States experienced roughly constant returns for both years (between 4.4% and 5.1%) as they were fully invested in government bonds in 2009. Poland's reserve fund also has a high government bond allocation (81.4% of total in 2009) and relatively stable returns. In contrast Mexico's reserve fund invested more in corporate than government bonds, and also had a significant allocation to structured products, a unique feature among the PPRFs covered in this publication

4. "Directed Investments" are included in equities and comprise preference share investments in Bank of Ireland and Allied Irish Banks plc and warrants which give an option to purchase up to 25% of the enlarged ordinary share capital of each bank following exercise of the warrants. The investments were made by the Commission for the purposes of bank recapitalisation at the direction of the Minister for Finance under the Investment of the National Pensions Reserve Fund and Miscellaneous Provisions Act 2009. "Directed Investments" represent 31.3% of total assets.

Figure 12. Asset allocation of public pension reserve funds in selected OECD countries, 2009



Source: OECD Global Pension Statistics.

The 2009 recovery represents a major step towards correcting the damage caused by the bursting of two major bubbles within the same decade. When measured over a longer investment period, performance looks healthier though still below long-term trends. As shown in Table 3, the average yearly nominal rate of return over the last 5 years ranges from 1.5% in Ireland (-0.6% in real terms) to 7.5% in Mexico (3% in real terms). For the countries that have longer data series, performance figures look somewhat brighter. For instance, over the last 10 years, the IMSS reserve in Mexico had an average nominal return of 8.8% annually; the Polish Demographic Reserve Fund's return was 8.5% and the Government pension fund – Norway's 6.8%.

Table 3. Nominal and real average annual PPRF returns in selected OECD countries over 2005-2009 (%)

Country	5-year average return	
	Nominal	Real
Belgium	4.4	2.2
Canada	5.7	3.8
France - FRR	2.5	0.9
Ireland	1.5	-0.6
Korea	4.7	1.7
Mexico	7.5	3.0
Norway	5.9	3.7
New Zealand	2.9	-0.1
Poland	6.9	4.0
Portugal	3.6	1.7
Spain	4.6	1.9
Sweden - AP1	4.8	3.3
Sweden - AP2	5.1	3.6
Sweden - AP3	4.8	3.3
Sweden - AP4	5.0	3.5
Sweden - AP6	5.6	4.1
United States	5.2	2.6

Source: OECD Global Pension Statistics.

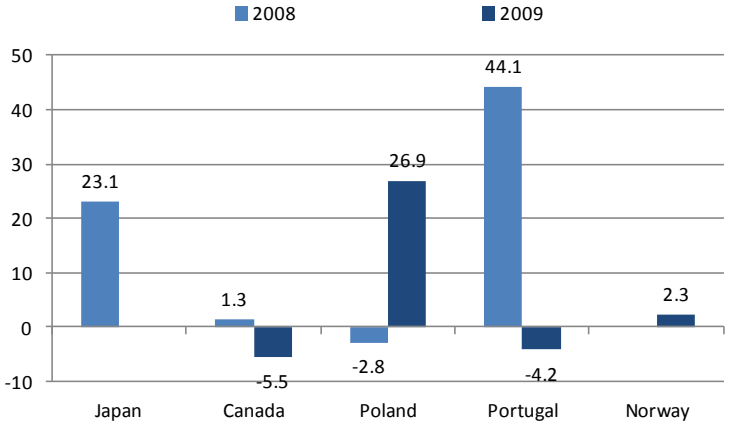
PPRFs continued to buy equities during the crisis and have since expanded further into foreign markets, while some have increased their allocation to private equity and hedge funds.

During the crisis, some PPRFs played the role of "market stabilisers" as they continued to buy equities when markets crashed in 2008. This is most clearly the case of the Portuguese social security financial stabilisation fund and the Japanese government pension investment fund, as shown in Figure 13. This counter-cyclical strategy allowed the Portuguese fund to end 2009 with more equities (+12%) than at the beginning of 2008 and to maintain its target allocation in equities to 17% despite the fall in equity markets in 2008 (see Figure 14).

Figure 13 also shows that Canada and Norway made only small net equity purchases in 2008. Together with the equity crash, this drove them away from their target allocation. In December 2009, the Canadian reserve fund still had a large gap between its target and actual equity allocation, as shown in Figure 14. The Polish demographic reserve fund even had a somewhat pro-cyclical strategy regarding equities, as the fund sold equities in 2008 and bought equities when the markets recovered in 2009. Over 90% of the fund's net cash flow in 2008 and 2009 was placed in fixed income instruments (government bonds).

Figure 13. Net purchases (+) / sales (-) of equities by pension funds, 2008-2009

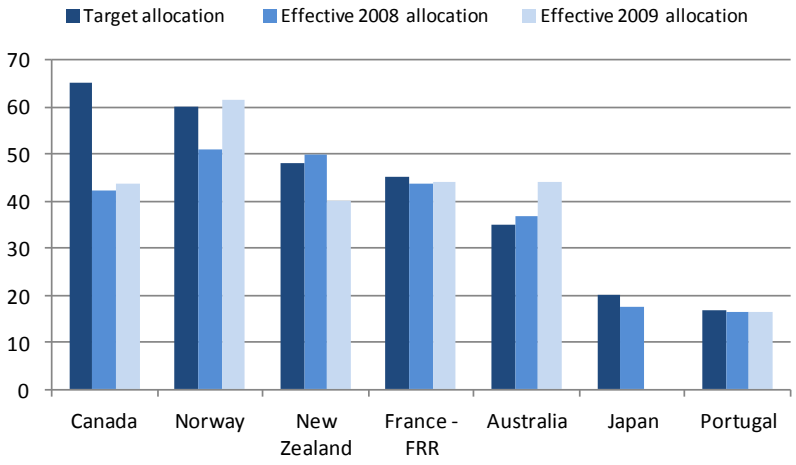
As a % of total equities held at the beginning of the year



Source: OECD Global Pension Statistics.

Figure 14. Comparison of effective allocation in shares and other equity in 2008 and 2009 with the target allocation

As a % of total investment



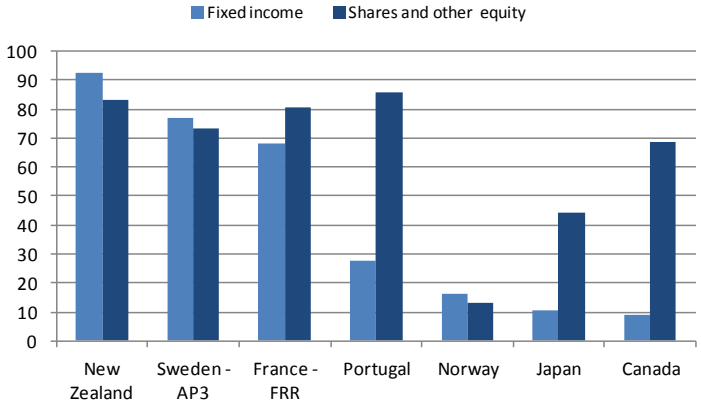
Source: OECD Global Pension Statistics.

Some PPRFs increased their existing allocations to non-traditional asset classes like private equity and hedge funds. For instance, the Australian Future Fund allocated 12.7% of its assets in private investment funds in 2009, from 4.8% in 2008. This share should further increase as the fund's target allocation into alternative assets is set to 15%. None of the funds covered by this publication invested yet in commodities.

PPRFs have also continued diversifying into foreign markets (see Figure 15). Reserve funds in New Zealand, Sweden, France, Portugal, and Canada had over 70% of their equity portfolios invested abroad. On the other hand, the Japanese reserve fund had only 42% of its equity portfolio in foreign assets, while the Norwegian one had slightly over 10%.

Figure 15. Foreign investment of public pension reserve funds by asset class in selected OECD countries, 2009

As a % of total fixed income investment and as a % of total shares and other equity investment



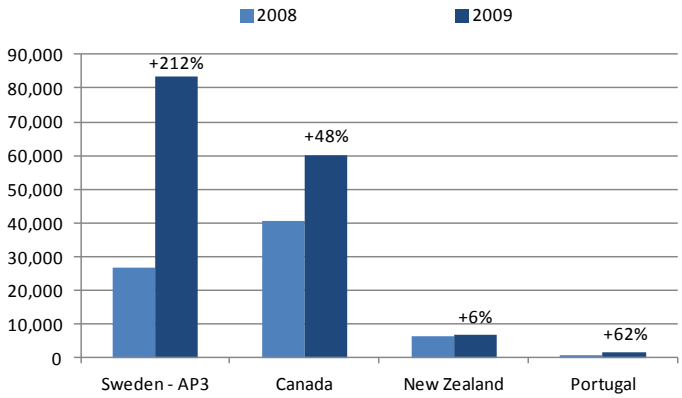
Source: OECD Global Pension Statistics.

The use of derivatives to generate value-added investment returns and to control risk or alter financial exposures increased substantially in 2009.

Not all PPRFs are allowed to invest in derivatives. Countries in which reserve funds are not allowed to do so include Belgium, Spain, Mexico, Poland and the United States. These countries mainly invest in domestic bonds, reducing the need for derivatives. As shown in Figure 16, the use of derivatives increased sharply between 2008 and 2009 for the funds for which the information is available. For instance, the value of derivatives held more than doubled for the AP3 fund in Sweden and increased by more than 60% in Portugal, though from a lower value. The objectives of the funds' derivatives policy are mainly to generate value-added investment returns and to limit or adjust market, credit, interest rate, currency, and other financial exposures without directly purchasing or selling the underlying instrument.

Figure 16. Total notional value of derivatives held, outstanding, in selected OECD countries, 2008-2009

In millions of USD and 2009 increase in %



Source: OECD Global Pension Statistics.

The level and the structure of operating costs in public pension reserve funds vary significantly between funds.

The efficiency of PPRFs can be judged by looking at operating costs in relation to assets managed. As shown in Table 4, operating costs in 2009 varied greatly between funds, from 0.002% of total assets in the Belgian *Zilverfonds* to 0.566% in the New Zealand Superannuation Fund. There may be two reasons explaining high costs in New Zealand. First, given the fund size, less economies of scale can be achieved as compared to bigger funds. Second, the fund invests more than others in private equity and hedge funds which usually have higher management fees and managed externally.

Costs remained stable between 2007 and 2009 for funds in Belgium, Mexico, Portugal and the United States. They increased in Australia, and Sweden. The New Zealand Superannuation Fund is the only fund in which costs decreased constantly and significantly during the period 2007-09. This reserve fund is also the one with the highest share of investment management costs in total operating costs (72%) as shown in Figure 17. At the other extreme, in countries that exclusively invest in government bonds (United States and Belgium), operating costs are only composed of administrative costs.

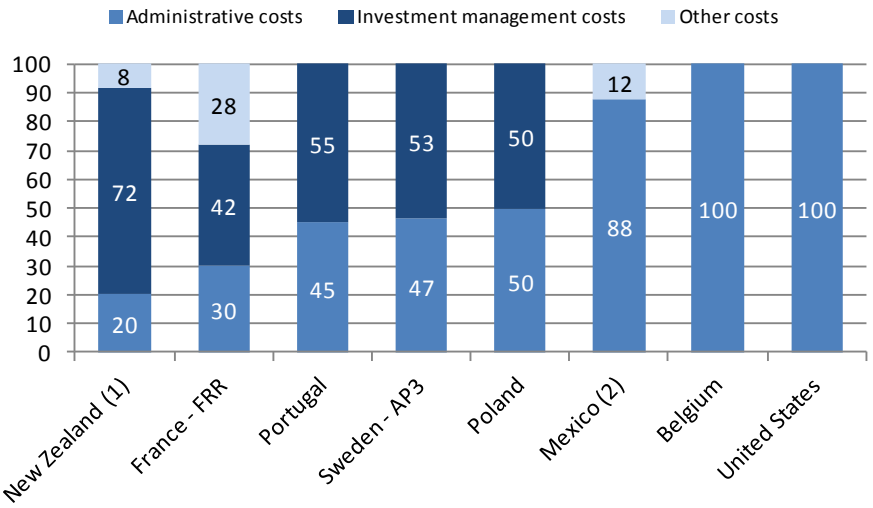
Table 4. Total operating costs as a % of assets under management

Country	2007	2008	2009
Australia	0.03	0.07	0.18
Belgium	0.00	0.00	0.00
Canada	0.13	0.17	0.19
France - FRR	0.17	0.19	0.16
Mexico	0.04	0.03	0.03
Norway	0.05	0.09	0.09
New Zealand	1.04	0.64	0.57
Poland	0.04	0.01	0.02
Portugal	0.06	0.06	0.06
Sweden - AP3	0.13	0.14	0.17
United States	0.25	0.24	0.24

Source: OECD Global Pension Statistics.

Figure 17. Breakdown of total operating costs by type, 2009

As a % of total operating costs



Source: OECD Global Pension Statistics.

NOTES TO BE TAKEN INTO CONSIDERATION WHEN INTERPRETING THE DATA

Within the framework of the OECD Global Pension Statistics' project the original data sources are official administrative sources.

Data include pension funds as per the OECD classification (Private Pensions: OECD Classification and Glossary, available at www.oecd.org/dataoecd/0/49/38356329.pdf). All types of plans are included (occupational and personal, mandatory and voluntary) covering both public and private sector workers.

Conventional sign:
n.d.: not available.

Figure 1:
1. Estimated data including IRAs. 2009 data refer to the period January-June 2009.

Figure 2:
1. 2009 data refer to the period January-June 2009.

Figure 3:
The GPS database provides information about investments in mutual funds and the look-through mutual fund investments in cash and deposits, bills and bonds, shares and other. When the look-through was not provided by the countries, estimates were made based on asset allocation data for open-end companies (mutual funds) from the OECD Institutional Investors' database. Therefore, asset allocation data in this Figure include both direct investment in shares, bills and bonds and cash and indirect investment through mutual funds.

1. The "Other" category includes loans, land and buildings, unallocated insurance contracts, private investment funds, other mutual funds (i.e. not invested in cash, bills and bonds or shares) and other investments.
2. For self-managed superannuation funds, "Cash and deposits" include debt securities and fixed interest and "Other investments" include overseas investment. "Other investments" include receivables, other investments (including derivatives and leased assets) and deferred tax assets.
3. "Other investments" include private pension funds' and state and local government employee retirement funds' unidentified miscellaneous assets, private pension funds' insurance or pension fund claims contributions receivable, and federal government retirement funds nonmarketable Treasury securities from the Civil Service Retirement and Disability Fund, the Railroad Retirement Board, the Military Retirement Fund, the Foreign Service Retirement and Disability Fund , and the Judicial Retirement Fund.
4. "Other investments" include accrued interest and dividends, accounts receivable, derivatives and partnerships.
5. "Other investments" include participations and loans to daughters, real estate for own use, other assets (everything not mentioned elsewhere), reinsurance part of provisions, and non financial assets including capital assets.
6. Part of "Bills and bonds" are held-to-maturity and hence book-value. "Other investments" include derivatives (reported with their market value) and outstanding accounts against the plan sponsors.
7. The vast majority of the "Other investments" for personal pension plans includes Reverse Repo investments which constitutes 14.74% of the total investments.
8. "Other investments" include short term payable and receivable accounts.
9. "Other investments" include outward investments in securities, representing around 26% of total investments, but the split between various securities is not available.
10. "Other investments" include structured products.
11. "Other investments" refer chiefly unallocated insurance contracts and investments in affiliated companies (generally with a 100% holding) that hold land and buildings.
12. The high value for the "Other" category is mainly driven by loans (30%) and other mutual funds (16%).
13. For personal pension plans, retirement insurance plans and retirement trust, "Other investments" include tangible assets and other assets (accounts receivable, an amount prepaid). For employer-sponsored DB&DC plans, "Other investments" include lending to banking account.

Figure 4:
1. Data include cash flow in both equities and mutual funds.

2. Inflows/outflows reflect data from the personal pension system only and thus exclude occupational pension plan data.
3. Preliminary 2009 data.
4. Data refer to new pension funds (contractual pension funds and open pension funds instituted after the 1993 legislation). Data are partly estimated. Only directly held securities are included.

Figure 5:

1. Preliminary 2009 data.
2. Data refer to new pension funds (contractual pension funds and open pension funds instituted after the 1993 legislation). Data are partly estimated. Only directly held securities are included.
3. Inflows/outflows reflect data from the personal pension system only and thus exclude occupational pension plan data.

Figure 7:

Only companies from the index that reported a defined benefit obligation in 2009 were included. Fiscal year-end 2007 data are not available for Brazil. Estimated median percentage surplus/deficit of exchange-listed companies' aggregate defined benefit obligations have been calculated using international accounting valuations.

Table 1:

1. Total country assets refer to total pension funds' assets for the Netherlands and Italy, and to total pension insurance contracts' assets for Denmark.

Figure 8:

1. The "Other" category includes loans, unallocated insurance contracts, and other investments.

Table 2:

1. Data refer to 2008.
2. Data refer to June 2009.
3. The Government Pension Fund - Global is treated as a Sovereign Wealth Fund by the OECD and is not covered by this publication.
4. Weighted average for assets as a % of GDP and % increase.

Figure 11:

1. 2009 data refer to fiscal year 2010 ending March 31, 2010.
2. Data refer to June of each year.
3. 2009 data refer to the period January-March 2010.

Figure 12:

1. The category "Other investment" represents loans investment.
2. Data refer to June 2009.

Figure 17:

1. Other costs include advisor fees, depreciation and amortisation, trade and brokerage costs.
2. Other costs reflect the contingent labour liabilities.

ACKNOWLEDGEMENTS

The production of *Pension Markets in Focus* was made possible by the contributions of Delegates to the OECD Working Party on Private Pensions and its Task Force on Pension Statistics. The OECD gratefully acknowledges their effort to supply qualitative information contained in this publication as well as data compiled within the framework of the OECD Global Pension Statistics project.

Representatives from non-OECD countries provided input to the report through the OECD cooperation with the IOPS (International Organisation of Pension Supervisors). This publication also benefits greatly from the comments and insights of Ambrogio Rinaldi from Covip (Italy) and Chairman of the OECD Working Party on Private Pensions (WPPP), Ross Jones from APRA (Australia) and Deputy Chairman of the WPPP, William Bortz from the US Treasury and member of the WPPP Bureau, Uluc Icoz from the Turkish Treasury and José Pavao Nunes from the Portuguese Pension Supervisory Authority and Chairman of the OECD Taskforce on Pension Statistics.

The information on large pension funds was collected and analysed with the help of a consultant, Ignacio Luque.

IN BRIEF

WORKING PAPERS

Working Papers on "Finance , Insurance and Private Pensions" can be accessed at: www.oecd.org/daf/fin/wp

Pension Funds' Risk Management Framework (WP40)

Drawing on the experience of the pensions and other financial sectors, this paper examines what sort of risk-management framework pension funds should have in place. Such frameworks are broken down into four main categories: management oversight and culture; strategy and risk assessment; control systems; and information and reporting. Ways in which supervisory authorities can check that such systems are operating are also considered, with a check list provided to assist pension supervisory authorities with their oversight of this important area.

Private Pensions and Policy Responses to the Financial and Economic Crisis (WP36)

This paper discusses responses to current financial and economic crisis by regulators, supervisors and policy makers in the area of private pensions. These responses are examined in the light of international guidelines, best practices and recommendations to improve the design of private pensions.

Assessing Default Investment Strategies in Defined Contribution Pension Plans (WP2)

Assessing default investment strategies in defined contribution pension plans. This paper assesses the relative performance of different investment strategies for different structures of the payout phase. In particular, it looks at whether the specific glide-path of life-cycle investment strategies and the introduction of dynamic features in the design of default investment strategies affect significantly retirement income outcomes.

Governance and Performance Measurement of pension Supervisory Authorities, IOPS Working Papers on Effective Pension Supervision, N°10

The governance, oversight and performance measurement of financial supervisory authorities are increasingly recognized as important topics – not least due to the recent financial crisis and perceived problems in (and lack of) the regulatory oversight of financial institutions. Yet this is a relatively under-researched area, particularly in relation to pension supervision. This paper therefore attempts to combine theoretical material from a range of financial sectors along with practical examples from the pensions sector to establish what the good governance of pension supervisory authorities entails, how it is applied in practice, and how it can be monitored and measured. www.iopsweb.org/

FORTHCOMING OECD MEETING ON FUNDED PENSIONS

OECD/IOPS Global Forum 2010: Designing adequate defined contribution (DC) pensions: Global experience and lessons from Asia-Pacific, 2-3 November 2010, Sydney

Hosted by the Australian Prudential Regulation Authority (APRA), the Annual OECD/IOPS Global Forum on Private Pensions will be held in Sydney, Australia, on 2 and 3 November 2010. The IOPS Committee Meetings and the IOPS Annual General Meeting will precede the Global Forum and take place on the 1 and 2 November (morning session) respectively. APRA will be organising a Training Superannuation Seminar on 4-5 November.

The main objective of the Global Forum will be to examine innovative governmental policies intended to enhance the security and adequacy of defined contribution (DC) retirement plans – which represent a growing share of retirement savings in the Asia-Pacific region and globally. The recent financial crisis, which had a negative impact on the asset value and benefit adequacy of such plans, has further compelled governments around the world to take action to strengthen regulatory requirements and supervisory policies with respect to the operation of these plans.