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2009 Global Pension Assets Study

Watson Wyatt Worldwide

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2009 Global Pension Assets Study

Executive Summary

Global Pension Asset Study 2009

Key Findings

P11 Pension Assets at end 2008

- At the end of 2008 pension assets for the 11 markets in the study were estimated at USD 20,418 bn, representing a 19% fall compared to the 2007 year-end value. In contrast, during 2007 assets (measured in USD) had grown at a rate of 10%
- Global pension assets are now below their 2005 level. In terms of the pension assets to GDP ratio, it is back to its 1996 levels
- In 2008 all markets in the study suffered losses in value in USD terms
- The largest pension markets are the US, Japan and the UK. However, over the last 10 years, the US and Japan have seen their share in global pension assets decline due to slower growth rates relative to their counterparts
- The issues facing global pension markets amid the financial crisis include: liquidity, the management of credit/collateral risk and asset manager underperformance along with the new challenges in strategic asset allocation.

P7 DB/DC Allocation at end 2008

- During the last five years DC assets have grown at a rate of 7.9% p.a. while DB assets have grown at a much slower pace of 1.7% p.a.
- Currently DC assets represent 45% of total pension assets compared to 37% in 2003 and 30% in 1998
- The markets that show a larger proportion of DC assets are Australia, Switzerland and the US, while Japan is essentially 100% DB. Netherlands, also basically DB, is now showing strong signs of a shift to DC.

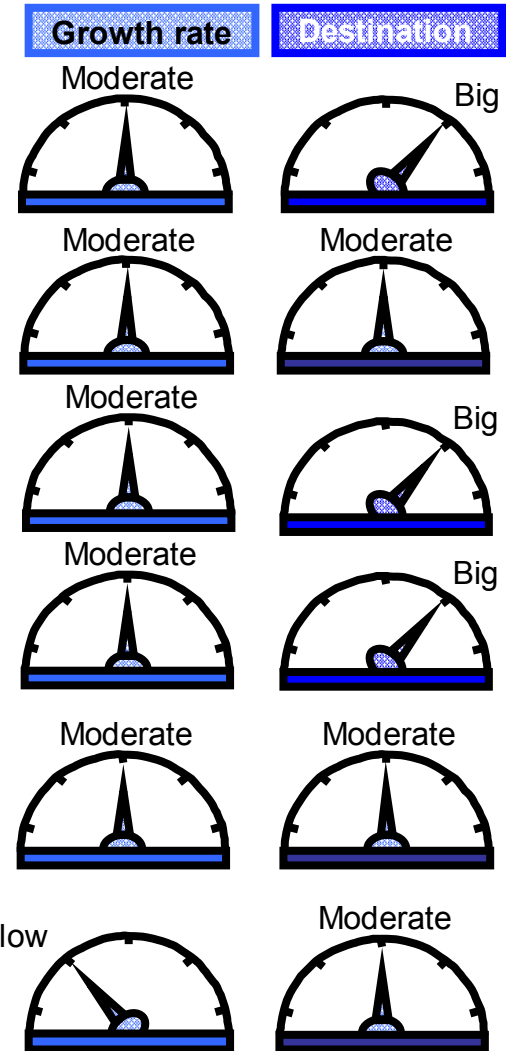
P7 Asset Allocation at end 2008

- Within the seven largest pensions markets a larger proportion of assets are allocated to “risky” assets in the UK, the US and Australia. More conservative investment strategies – more bonds and less equities – are followed in the Netherlands and Switzerland
- During the last five years, the allocation to equities has declined, while the allocation to bonds increased. Diversification into alternative assets continued in 2008.
- In 2008 allocations to equities fell significantly in the seven largest pensions markets, resulting in a sizeable shift from 55% invested in equities in 2007 to 41.5% in 2008, largely as a result of the poor performance of stock markets
- At the end of 2008 the average global asset allocation of the seven largest markets was 41.5% equities, 40.2% bonds, 1.8% cash and 16.5% other assets (which includes property and other alternatives).

The six 'faces of change'

Six medium-term factors growing in influence on pension fund development

1. **Improvements in governance**
Improved recognition of return on governance feeds through in increased attention and growing focus on risk management; more talent attracted to Chief Investment Officer role at funds
2. **Product proliferation**
Product specialisation leads to major proliferation, with risk, style and scope of mandates all getting broader; increasing requirement for transparency in the wake of the financial crisis
3. **Pension design, towards a DC model**
DC becomes the dominant global model with its attendant "individualisation", with risk transfer and new ownership versus control tension
4. **Organisation change**
Organisations address change in terms of scaling, specialisation, HR with expansion globally and in adjacent spaces putting leadership and survival on the line
5. **Pressure for talent**
Strong competition for talent, particularly on the leadership level, despite the reduced short-term demands as a result of the financial crisis
6. **New food chain**
A more effective "food chain" will emerge, where expense on various activities has a better value proposition than exists today. In light of the poor performance of a range of products, funds are better positioned today to secure a more favourable fee deal.

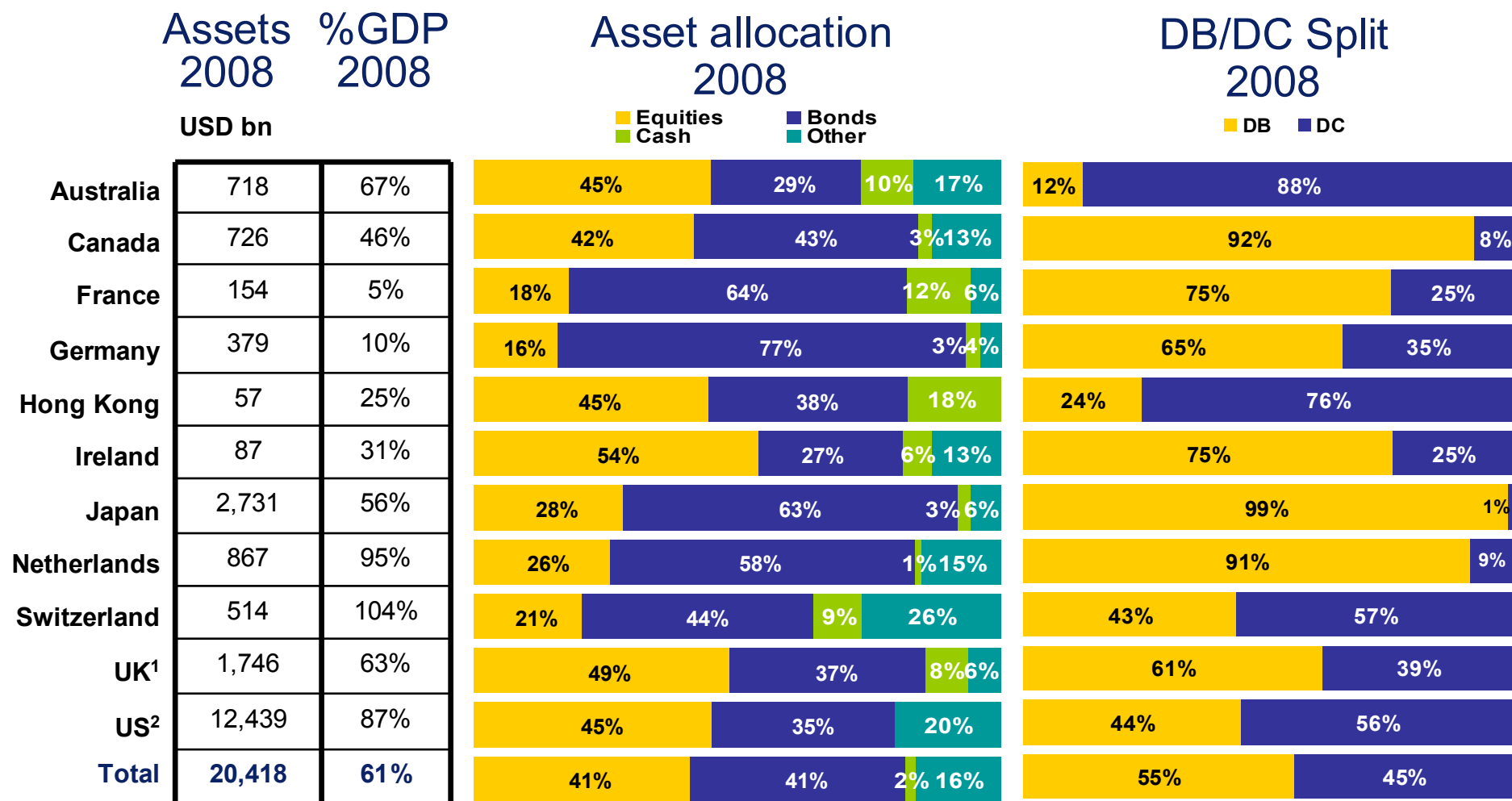


The current pension fund watch list

Commentary on current issue		Watch out in 2009 for...
Solvency	Significant deterioration in solvency, raising probability of plan defaults and producing pressures for revised strategies	Correction plans, based on contributions, contingent assets, investments
Risk management	Expanded and more expansive view of risk, identifying greater allowance for extreme events and the softer elements of risk with respect to credit and liquidity	Increased attention to risk and risk management processes
Risk budget and strategy	Consideration of diversification in the context of increased correlations and volatility, with associated review of rebalancing and drifting strategies	Greater focus on hedging strategies
Benefits, stakeholders	Reviews of future service pension commitments in the context of changing risk tolerances	Closures of DB plans to future service accrual, alongside switches to DC
Manager underperformance	Multiple manager styles have had difficulties meeting benchmarks given stressed markets and portfolios whipsawed by enforced liquidity	Active managers under pressure to perform better
DC risk management	Greater attention given to meeting plan participants' expectations, particularly with respect to retirement planning	Focus on risk exposure in investment defaults and design of lifecycle strategies

Global Pension Asset Study 2009

Key Findings - Figures



Source: Watson Wyatt Worldwide and various secondary sources

¹ Excludes Personal and Stakeholder DC assets
² Includes IRAs

Global Pension Asset Study 2009

Survey Coverage

- The survey covers 11 pension markets, whose pension assets total USD 20,418 bn and account for 61% of the GDP of these economies
- These 11 pension markets have the largest corporate workplace pension systems and we use the shorthand 'P11' to denote them
- We analyse 7 countries in greater depth by excluding the four smallest markets (France, Germany, Ireland and Hong Kong) of the P11. We use the shorthand 'P7' to denote these countries. P7 assets are over 97% of P11
- The analysis is divided into 3 sections
 1. Asset size including growth statistics, comparison of asset size with GDP and liabilities (P11)
 2. Asset allocation (P7)
 3. DB and DC share of pension assets (P7)

P11



Australia



Canada



France



Germany



HK



Ireland



Japan



Netherlands



Switzerland



UK



US

P7



Australia



Canada



Japan



Netherlands



Switzerland



UK



US

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2009 Global Pension Asset Study

1. **Asset size**
 - i. Asset size and growth statistics
 - ii. Comparison of asset size with GDP and liabilities

Global pension assets

Evolution 1998-2008 – USD Billion

P11

- Global pension assets at the end of 2008 were USD 20,417 bn, almost USD 5 tm lower than the year before, and back to 2005 levels
- This equates to a 19.2% fall in total assets compared to 2007. The drop in assets is largely explained by the poor performance of markets around the world and the high exposure of pension funds to equities
- To the end 2007, global pension assets had more than doubled in the previous ten years, growing at a Compound Annual Growth Rate (CAGR) of 7.1%. This year's results have reduced the 10-year CAGR to 3.7%
- The largest value of pension assets are held by the US and Japan, together accounting for 74.3% of total assets
- The smallest markets in descending order are Germany, France, Ireland and Hong Kong.

Market	Total assets (USD billion)	Total assets (USD billion)
	Year-end 1998	Year-end 2008e
Australia	205	718
Canada	424	726
France	77	154
Germany	172	379
Hong Kong	21	57
Ireland	46	87
Japan	2,285	2,731
Netherlands	470	867
Switzerland	350	514
UK ¹	1,159	1,746
US ²	9,027	12,439
Total (USD)	14,236	20,417

Source: Watson Wyatt Worldwide and various secondary sources

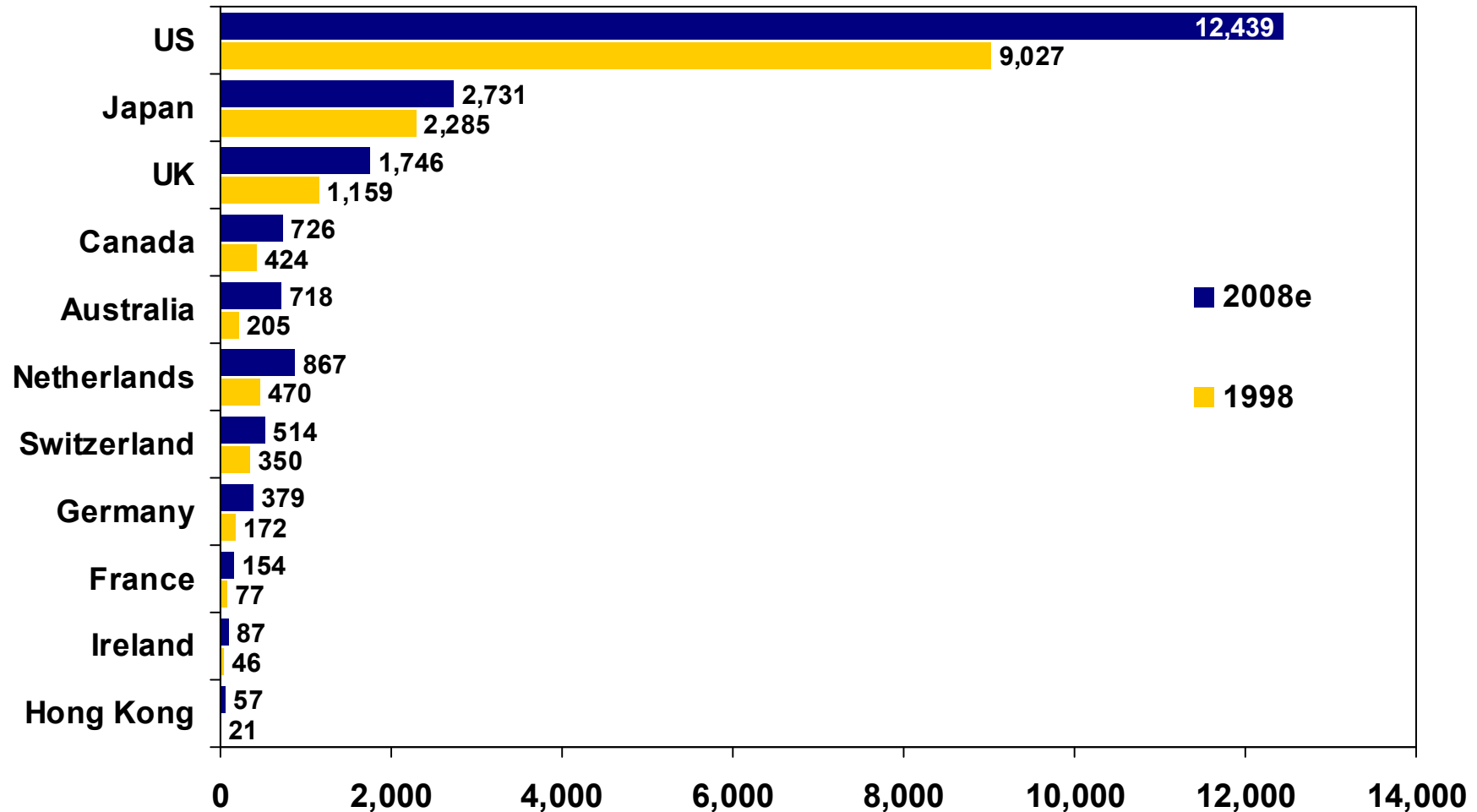
¹ Excludes Personal and Stakeholder DC assets

² Includes IRAs

Global pension assets

Evolution 1998-2008 – USD Billion

P11














Source: Watson Wyatt Worldwide and various secondary sources

Global pension assets

Relative weights of each market

P11

- Looking back over the last decade, pension fund assets in the US and Japan have lost share to other markets in the P11
- Despite a reduced share, resulting from slower growth, the US and Japan remained the two largest pension markets in the world
- Australia is the fastest growing country of the group, now claiming the fifth place in the P11.

P11	End 1998	End 2008e
Australia	1.4%	 3.5%
Canada	3.0%	 3.6%
France	0.5%	 0.8%
Germany	1.2%	 1.9%
Hong Kong	0.2%	 0.3%
Ireland	0.3%	 0.4%
Japan	16.1%	 13.4%
Netherlands	3.3%	 4.2%
Switzerland	2.5%	 2.5%
UK ¹	8.1%	 8.6%
US ²	63.4%	 60.9%
P11	100%	100%

Source: Watson Wyatt Worldwide and various secondary sources

¹ Excludes Personal and Stakeholder DC assets

² Includes IRAs

Global pension assets growth rates

Compound Annual Growth Rates – Local Currency – 2008e

P11

- Annual growth rates are significantly different when comparing 2008 rates to those of 2007. The effect of the current world financial crisis is evident. While in 2007 several countries were still growing, in 2008 all countries except Germany suffered losses
- The biggest differences are found in Australia and Hong Kong, which grew 21% each in 2007 but fell 16% and 25% respectively in 2008
- On average, global pension assets, measured in local currency, fell by 14.7% during the last year, compared to the 5-year CAGR of 4.8% and the similar 10-year CAGR of 5.0%
- This year results have strongly reduced the 5-year annual growth rates. The most dramatic example is Japan, which had achieved positive results up to the end of 2007 but suffered significant losses in 2008, which turned CAGRs for the last 5 and 10 years negative
- 5-year growth rates now range from -4.5% in Japan to 12.9% in Australia. France and Canada also show negative growth in the last 5 years.

Market	1-year (31/12/06- 31/12/07) Actual	Growth rates to 2008e (Local Currency)		
		1-year (31/12/07- 31/12/08)	5-year (31/12/03- 31/12/08) CAGR	10-year (31/12/98- 31/12/08) CAGR
Australia	20.9%	-16.2%	12.9%	12.0%
Canada	-0.9%	-12.2%	-1.2%	3.2%
France	-3.3%	-6.0%	-0.3%	5.1%
Germany	5.7%	1.1%	8.0%	6.2%
Hong Kong	20.6%	-25.1%	9.0%	10.4%
Ireland	-1.3%	-28.6%	4.1%	4.6%
Japan	-6.7%	-20.8%	-4.5%	-0.7%
Netherlands	-3.7%	-14.5%	4.7%	4.3%
Switzerland	4.0%	-10.6%	4.3%	1.2%
UK ¹	8.0%	-10.4%	11.2%	5.6%
US ²	10.5%	-18.9%	4.6%	3.3%
Average	4.9%	-14.7%	4.8%	5.0%

Source: Watson Wyatt Worldwide and various secondary sources

¹ Excludes Personal and Stakeholder DC assets

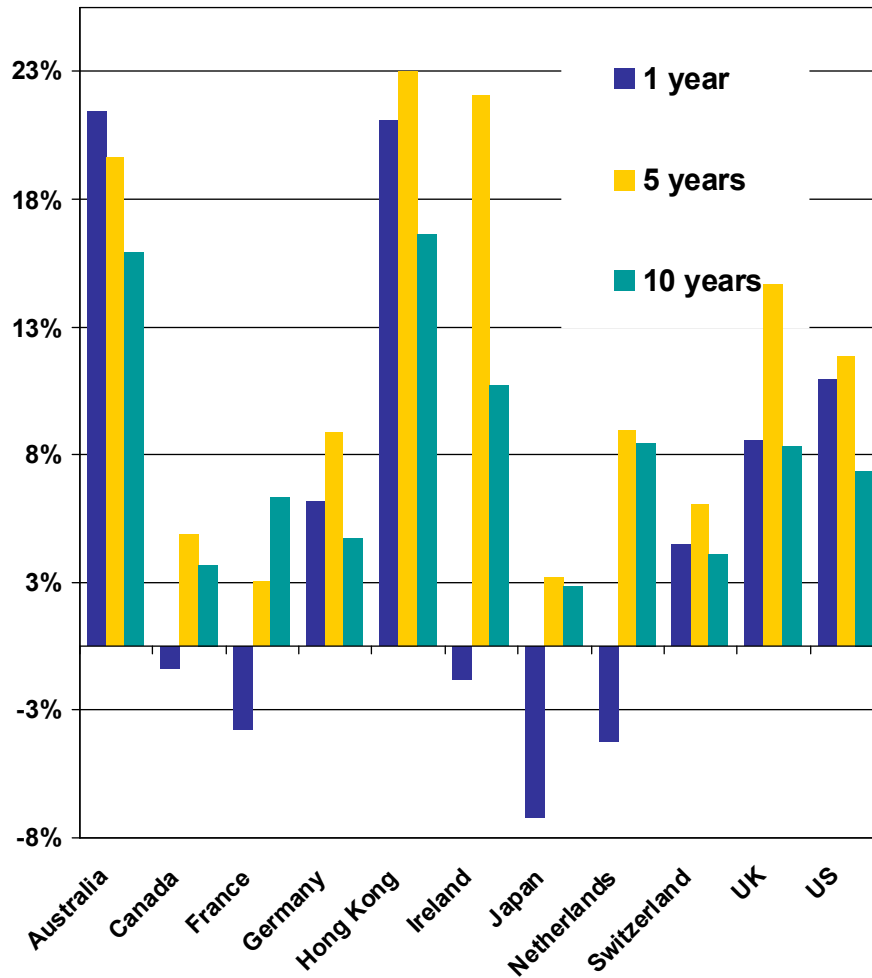
² Includes IRAs

Global pension assets growth rates

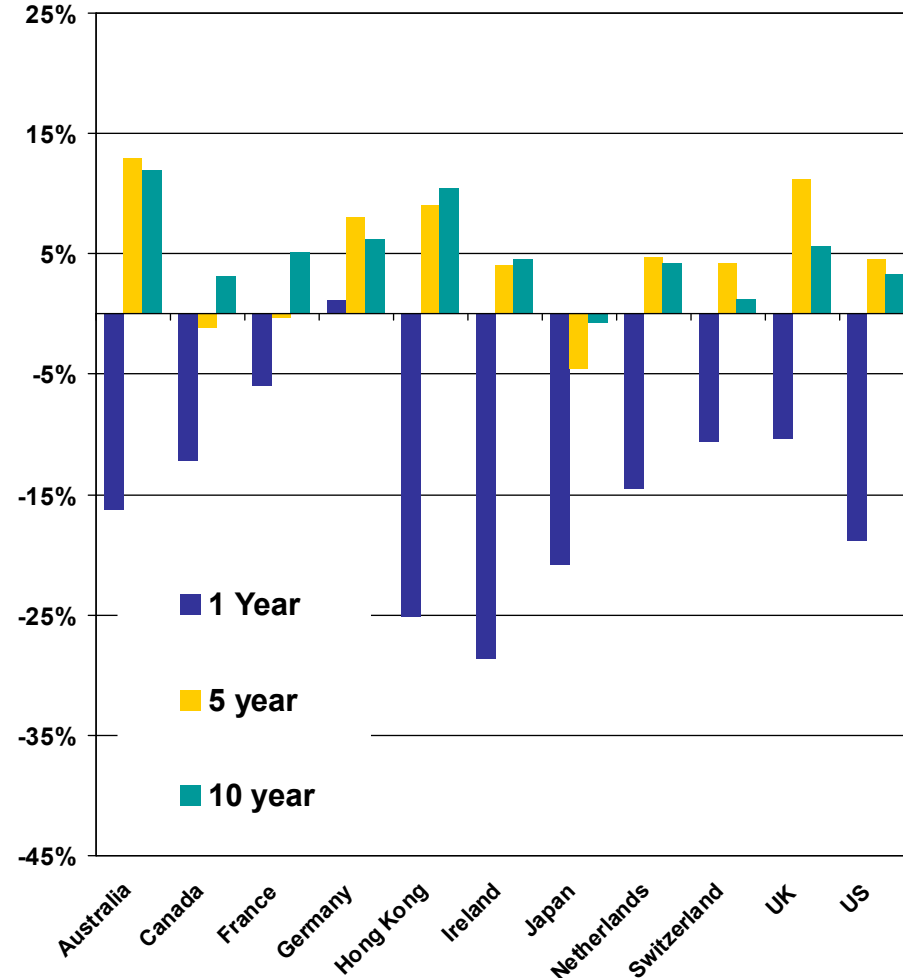
Compound Annual Growth Rates – Local Currency

P11

2007



2008e



Source: Watson Wyatt Worldwide and various secondary sources

Global pension assets growth rates

Compound Annual Growth Rates – USD

P11

- Total pension fund assets, measured in USD, fell on average 19.2% in 2008, with the UK, Australia, Ireland and Canada experiencing the greatest falls. Japan, Germany and Switzerland had the smallest losses and no country in the study experienced asset growth in USD terms in 2008
- Negative growth rates last year impacted the 5 and 10 year CAGRs, which respectively fell from 11.6% and 7.1% in 2007 to 4.1% and 3.7% in 2008
- During the last 10 years, the markets that have shown the fastest growth in their pension assets in US dollar terms are Australia, Hong Kong and Germany
- In contrast, some of the largest pension markets such as Japan, the US and Switzerland have experienced the lowest 10-year pension assets growth rates.

Market	1-year (31/12/06- 31/12/07) Actual	Growth rates to 2008e (USD)		
		1-year (31/12/07- 31/12/08)	5-year (31/12/03- 31/12/08) CAGR	10-year (31/12/98- 31/12/08) CAGR
Australia	34.3%	-33.9%	11.1%	13.4%
Canada	17.6%	-29.4%	0.0%	5.5%
France	7.9%	-9.9%	2.1%	7.1%
Germany	17.9%	-3.2%	10.6%	8.2%
Hong Kong	20.2%	-24.6%	9.1%	10.4%
Ireland	10.1%	-31.6%	6.6%	6.6%
Japan	-1.1%	-1.5%	-1.2%	1.8%
Netherlands	7.4%	-18.1%	7.2%	6.3%
Switzerland	12.6%	-4.6%	7.7%	3.9%
UK ¹	10.1%	-35.0%	6.7%	4.2%
US ²	10.5%	-18.9%	4.6%	3.3%
Total (USD)	10.2%	-19.2%	4.1%	3.7%

Source: Watson Wyatt Worldwide and various secondary sources

¹ Excludes Personal and Stakeholder DC assets

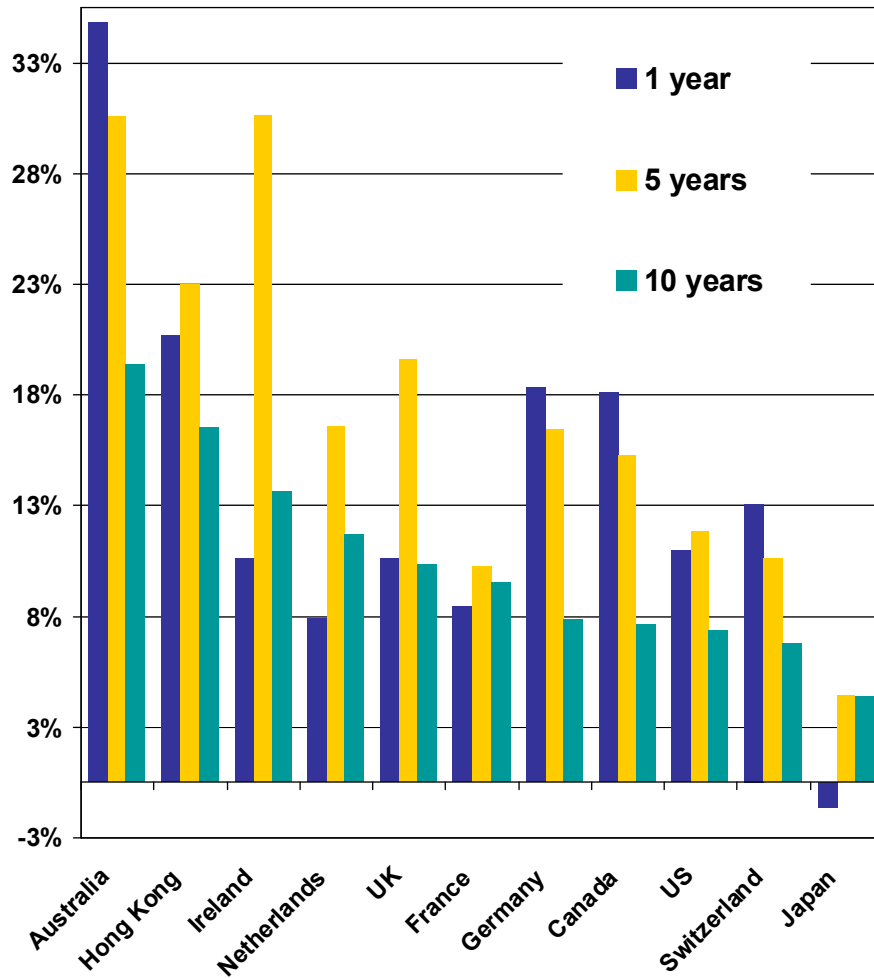
² Includes IRAs

Global pension assets growth rates

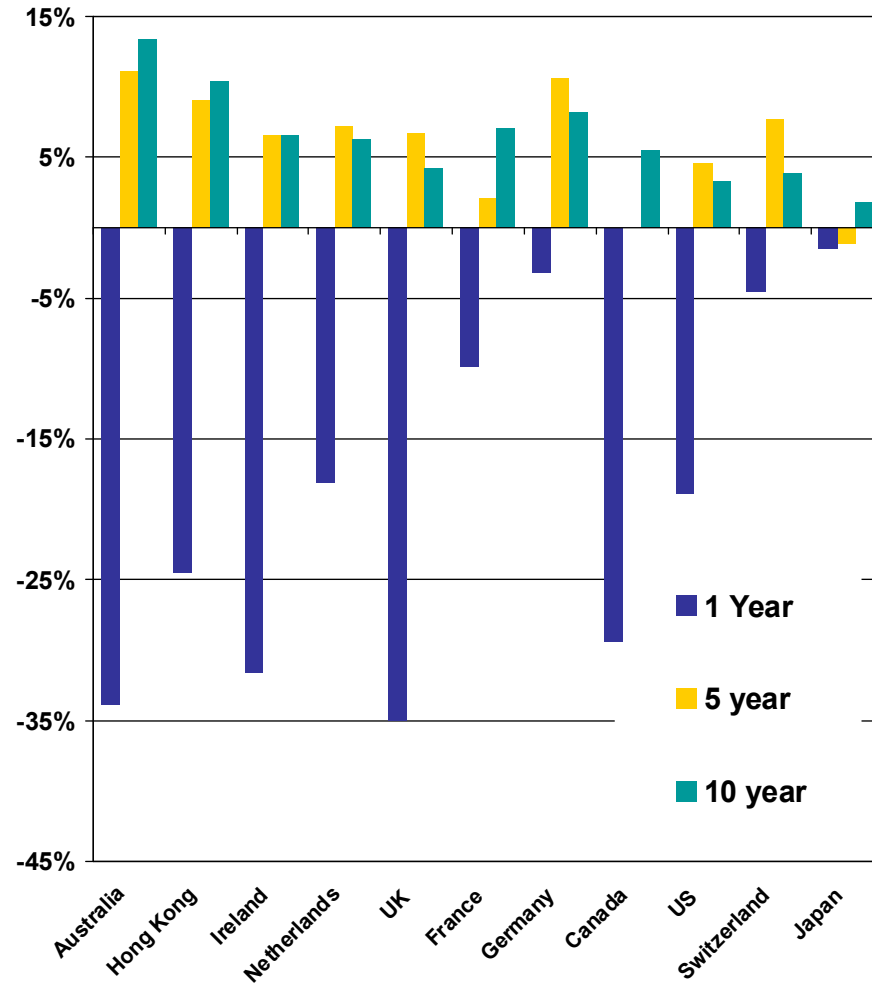
Compound Annual Growth Rates – USD

P11

2007



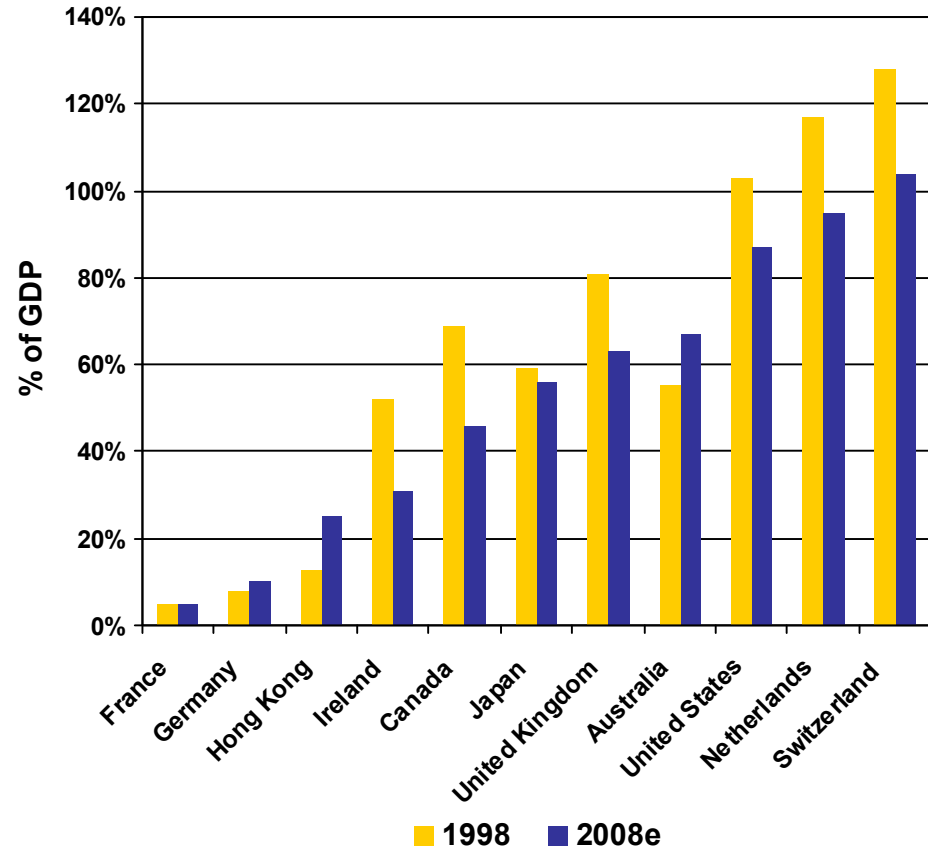
2008e



Source: Watson Wyatt Worldwide and various secondary sources

Global pension assets vs. GDP

	Pension assets as % of GDP		
	1998	2008e	Change
Australia	55%	67%	12%
Canada	69%	46%	-23%
France	5%	5%	0%
Germany	8%	10%	2%
Hong Kong	13%	25%	12%
Ireland	52%	31%	-21%
Japan	59%	56%	-3%
Netherlands	117%	95%	-21%
Switzerland	128%	104%	-24%
UK ¹	81%	63%	-18%
US ²	103%	87%	-16%
Weighted average	72%	61%	-11%



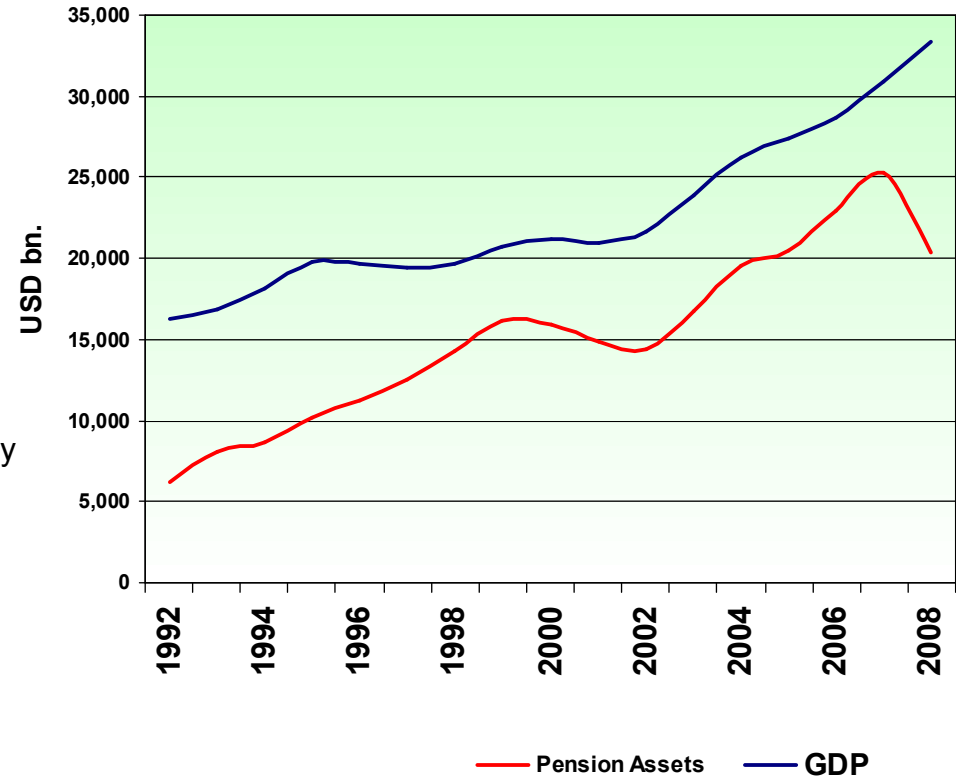
Source: Watson Wyatt Worldwide and various secondary sources
 GDP values from IMF, taken in USD at current prices

¹ Excludes Personal and Stakeholder DC assets

² Includes IRAs

Global pension assets vs. GDP

- The ratio of pension assets to GDP fell significantly over 2008, from 82% at the end of 2007 to 61% at the 2008 year-end
- The current global pension assets to GDP ratio almost returns to its 1996 level, when this ratio was around 57%
- Switzerland remains the country with the highest proportion of pension assets to GDP, followed by the Netherlands, the US and Australia
- The markets where assets represent a lower proportion of GDP are France (which has a tradition of pay-as-you-go schemes) and Germany
- The markets which experienced the most significant fall in the assets/GDP ratio were the Switzerland and Canada
- The proportion of assets to GDP in Hong Kong and Australia have continued to increase since 1998
- Global GDP¹ grew 70% in the 10-year period, while global pension assets grew considerably less (43%), influenced by the strong decline during this last year.



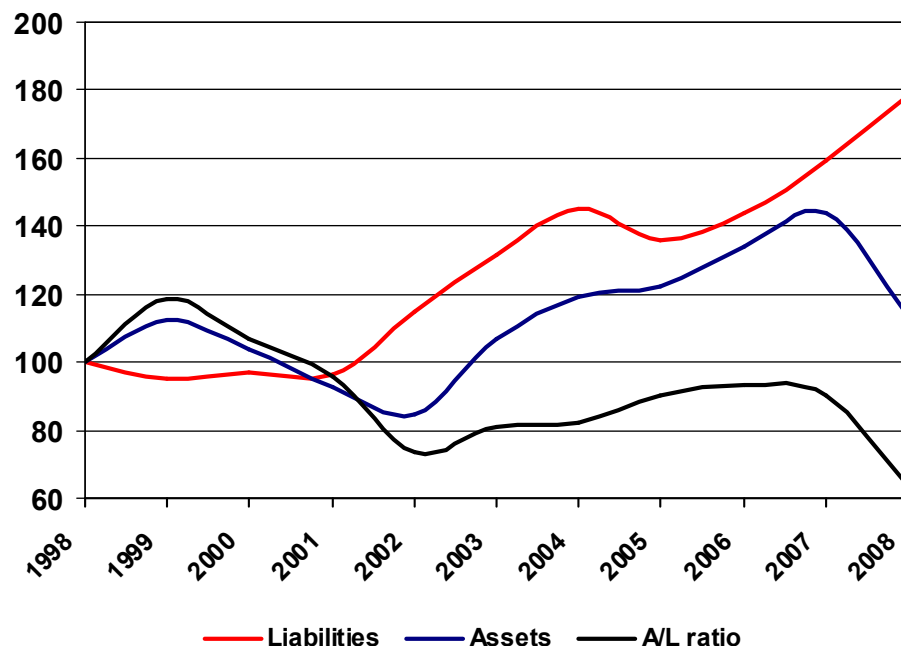
Source: Watson Wyatt Worldwide, the IMF and various secondary sources

¹GDP measured in current USD

DB asset/liability indicator – global basis

Percent change from 31 December 1998 (in USD)

P11



Source: Watson Wyatt Worldwide, Bloomberg

DB assets only within asset totals
UK assets exclude Personal and Stakeholder assets
US assets include IRAs in all periods

Mortality changes are not incorporated in these figures

Year end	Liability increases relative to end 1998	Asset increases relative to end 1998	Asset liability indicator - cumulative change relative to end 1998	Asset liability indicator - change in year
1999	-5.1%	12.5%	18.5%	18.5%
2000	-2.9%	3.9%	6.9%	-9.7%
2001	-3.6%	-7.4%	-4.0%	-10.2%
2002	15.0%	-15.2%	-26.3%	-23.2%
2003	31.7%	6.7%	-19.0%	9.9%
2004	45.0%	19.0%	-18.0%	1.3%
2005	35.6%	22.5%	-9.6%	10.2%
2006	43.6%	33.7%	-6.9%	3.0%
2007	59.1%	43.7%	-9.7%	-3.0%
2008	78.2%	13.6%	-36.3%	-29.4%

- Global pension fund balance sheets suffered significantly in 2008, when funds saw their assets shrink amid the financial crisis and liabilities surge during the same period.
- Compared to its 1998 level, global asset/liability ratio deteriorated by 36.3%, of which almost 29 percentage points came in 2008.
- At an individual market level, asset/liability levels plunged in 2008 and are now significantly lower in most countries than they were in 1998.

Methodology for this section

- In this survey we seek to provide estimates of pension fund assets (i.e. assets whose official primary purpose is to provide pension income). This data is comprised of:
 - Hard data typically as of year-end 2007, collected by Watson Wyatt and from various secondary sources
 - Estimates as at year-end 2008 based on index movements
- Before 2006 we focused only on 'institutional pension fund assets', primarily 2nd pillar assets (occupational pensions). Since 2006, the survey has been slightly widened, incorporating DC assets (IRAs) within US' total pension assets. The objective was to better capture retirement assets around the globe and expand the survey into the 3rd pillar (individual savings) universe, which is primarily being used for pensions purposes in many countries. Furthermore, this innovation enables us to estimate the global split between DB and DC assets
- UK assets exclude Personal and Stakeholder assets.

Comparison with GDP

- This section compares total pension fund assets within each market to GDP at current prices sourced from the IMF.

Comparison with liabilities

- This section compares the evolution of *defined benefit* assets to the evolution of liabilities within each country
- Defined benefit assets are updated with capital contributions to the latest date for which we can obtain hard data for assets (typically year-end 2007). From that date onwards, defined benefit assets are simply updated for asset movements obtained using index estimates.
- We do not use hard figures for liabilities for any period and simply account for the change in liabilities that will result from changes in the corresponding government bond yields
- The asset/liability ratio for each market may change from year to year as prior DB asset totals and DB/DC splits are restated.

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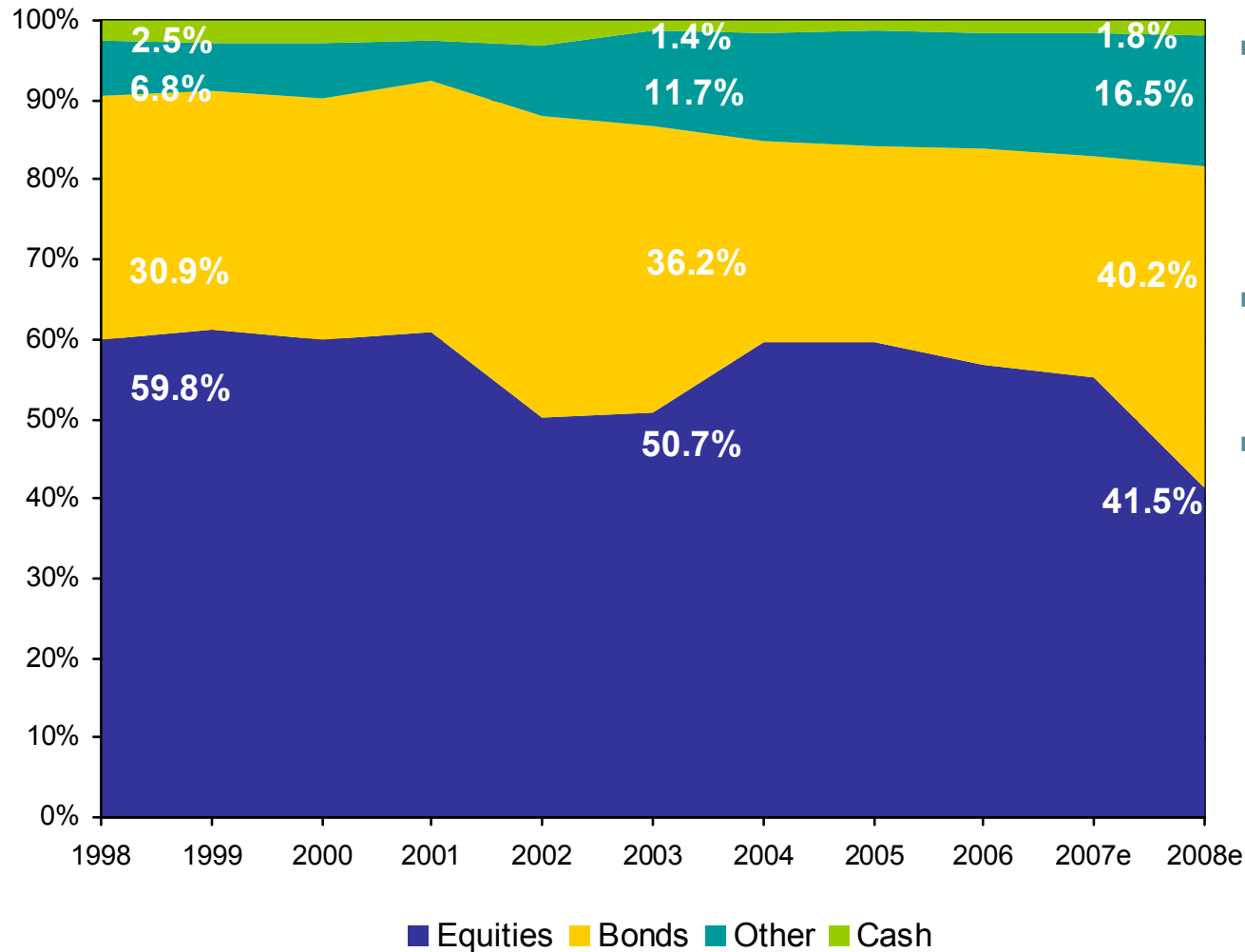
2009 Global Pension Assets Study

2. Asset allocation (P7)

Pension assets allocation

Aggregate P7 asset allocation from 1998 to 2008

P7



- Bond allocations have been increasing since 2005, from 24.5% that year to 40.2% in 2008 and this trend is likely to continue due to increasing interest in liability hedging and de-risking strategies
- Allocations to equities have continued to fall since 2005, from 59.7% to 41.5% at the end of 2008
- Exposure to cash and other alternative assets has continued to grow, extending an established trend and reflecting pension funds' growing appetite for diversification.

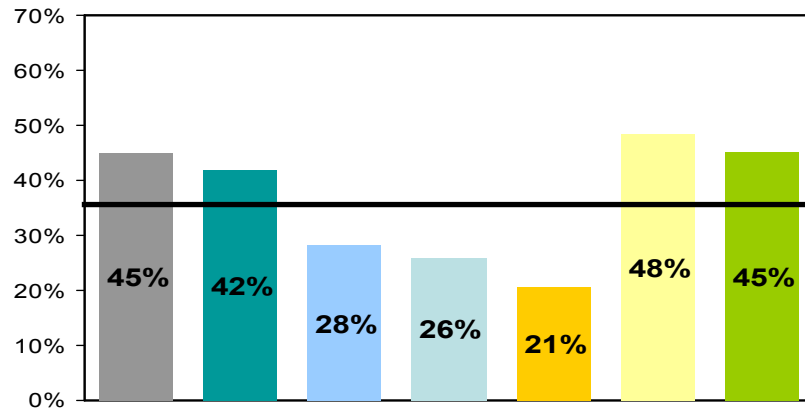
Sources: Watson Wyatt Worldwide and various secondary sources

Pension assets allocation

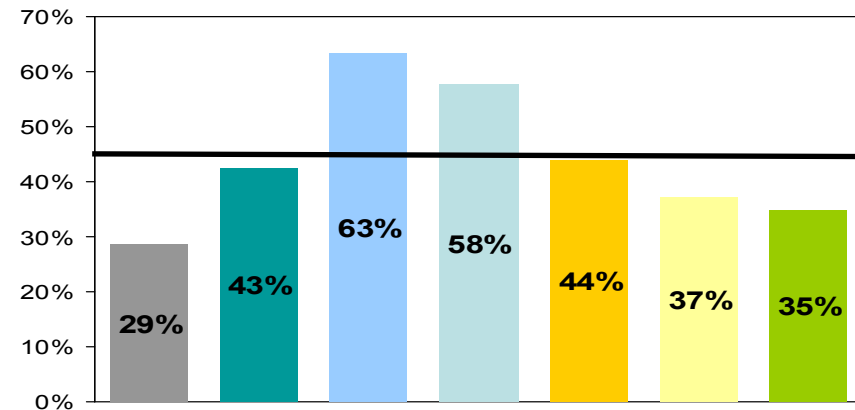
Equities and Bonds

P7

Equities



Bonds



■ Australia
 ■ Canada
 ■ Japan
 ■ Netherlands
 ■ Switzerland
 ■ UK
 ■ US
 Average for whole sample

- The UK, the US, Canada and Australia have above-average allocation to equities. The Netherlands, Switzerland and Japan have significantly lower exposure to equities (and higher allocation to bonds). As a result, these markets experienced a lower decline in assets than those with higher equity allocation.

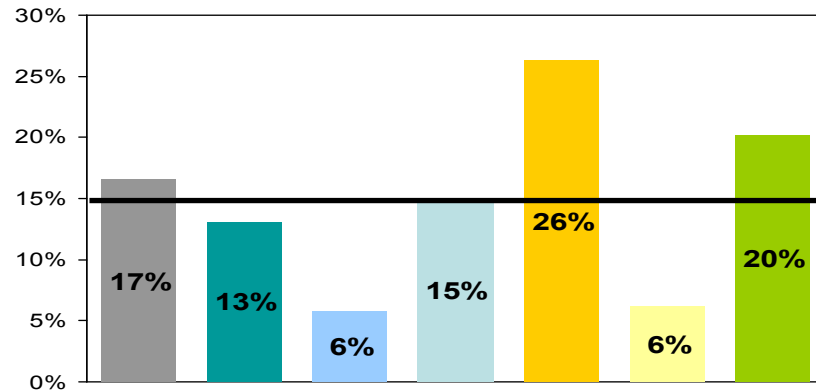
Sources: Watson Wyatt Worldwide and various secondary sources

Pension assets allocation

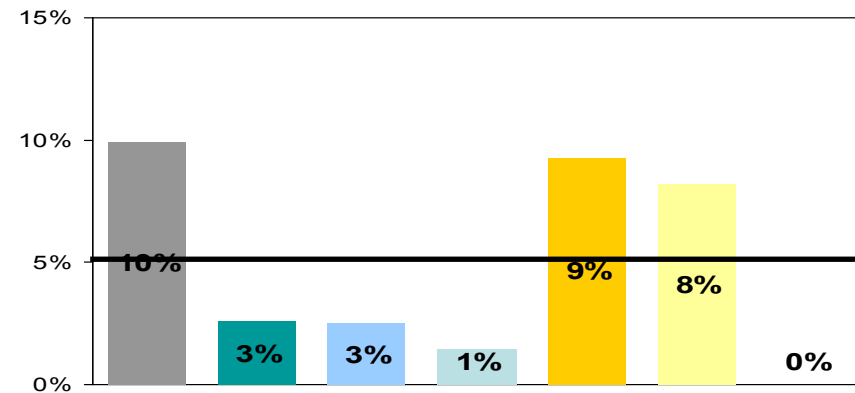
Other assets and Cash

P7

Other assets



Cash



■ Australia
 ■ Canada
 ■ Japan
 ■ Netherlands
 ■ Switzerland
 ■ UK
 ■ US
 Average for whole sample

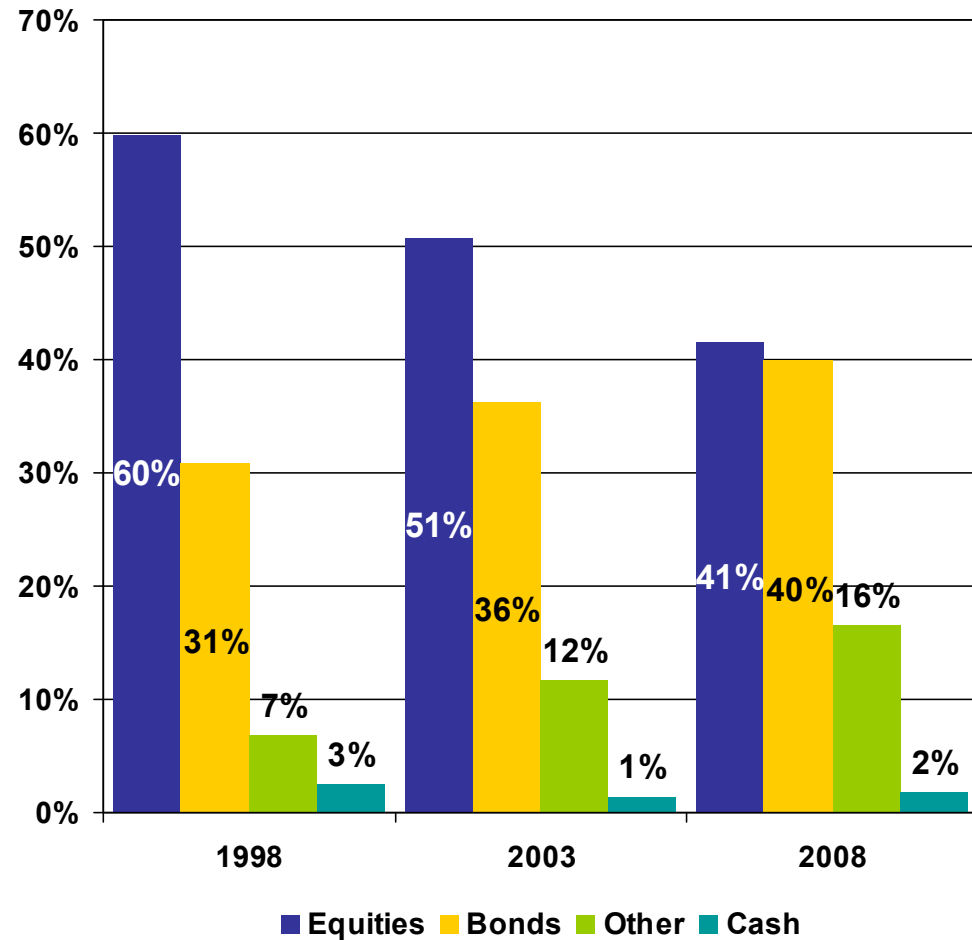
- Switzerland, the US, and Australia have the highest allocation to alternative assets. In Switzerland's case, its allocation to other assets is 11 points above the average, with this allocation dominated by property assets.
- Australia, Switzerland and the UK have the highest proportion of cash, while the other countries in the P7 are significantly below the average.

Sources: Watson Wyatt Worldwide and various secondary sources

Aggregate asset allocation 1998 - 2008

P7

- During the 10-year period from 1998 -2008 we observe a decrease in the allocation to equities as well as an increase in the allocation to bonds
- Over the same period, pension funds continued to diversify into alternative assets.



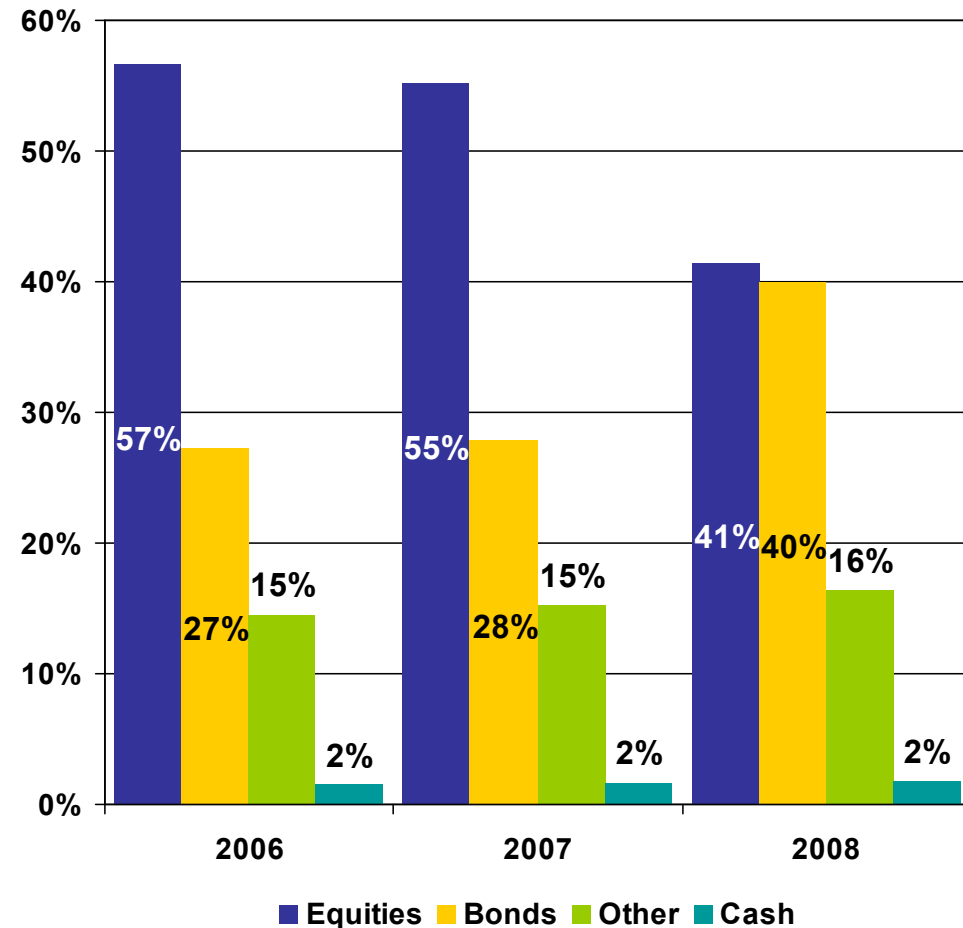
Sources: Watson Wyatt Worldwide and various secondary sources

Aggregate asset allocation

2006 - 2008

P7

- The effects of the financial crisis on asset allocation have been striking. Asset allocation remained almost static between 2006 and 2007 but changed profoundly in 2008
- Compared to 2006 year-end, allocation to equities at the end of 2008 fell 16% while allocation to bonds increased by 13%
- The allocation to cash remained unchanged, while allocation to alternative assets increased slightly.

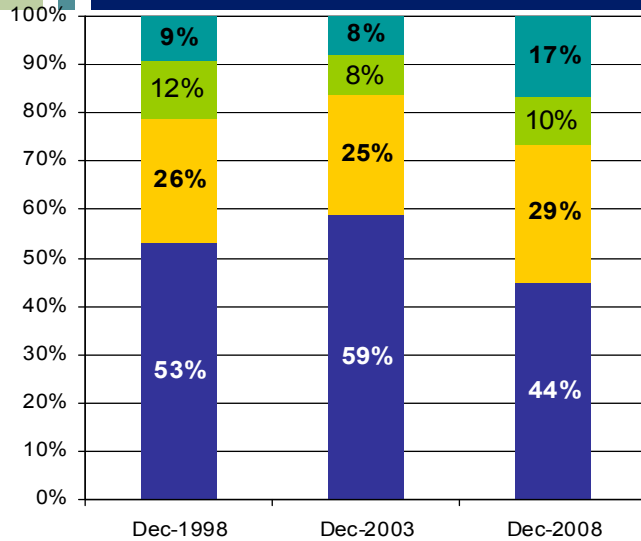


Sources: Watson Wyatt Worldwide and various secondary sources

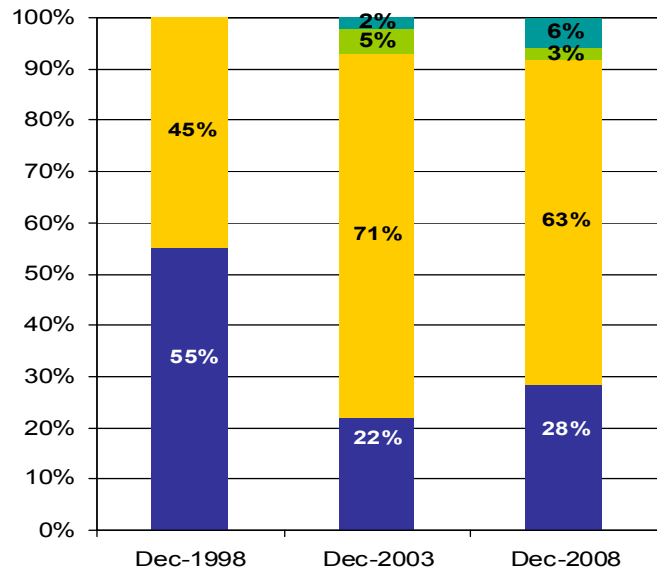
Pension assets allocation

Aggregate – end 1998 versus end 2003 versus end 2008

Australia



Japan



■ Equities

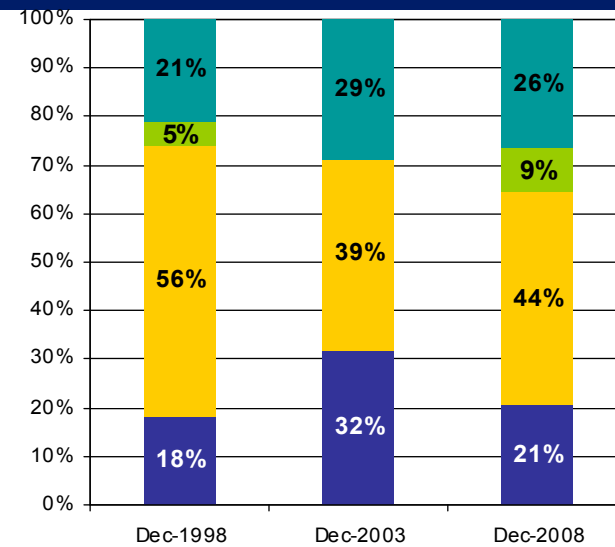
■ Bonds

■ Cash

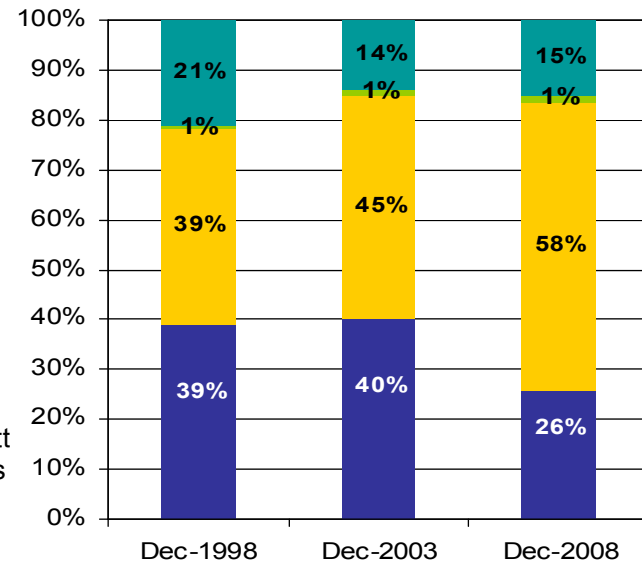
■ Other

Sources: Watson Wyatt Worldwide and various secondary sources

Switzerland



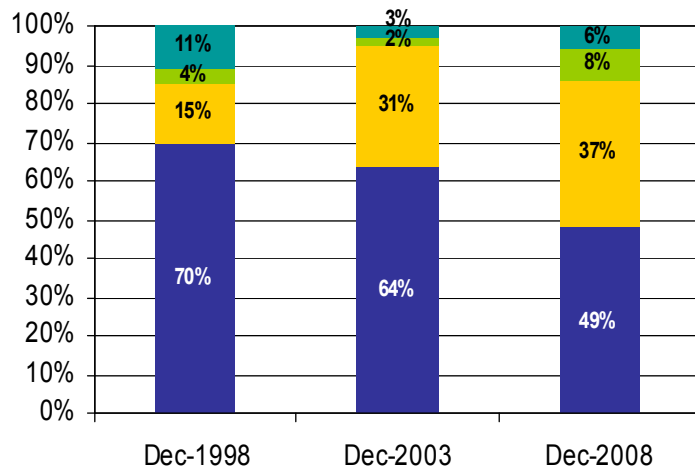
Netherlands



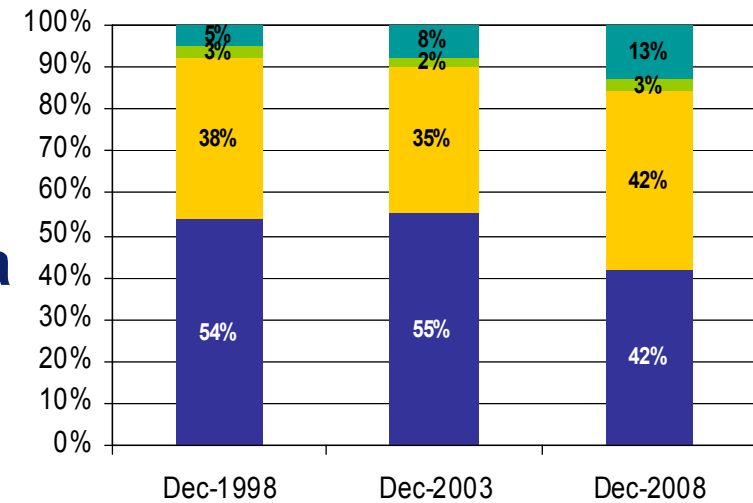
Pension assets allocation

Aggregate – end 1998 versus end 2003 versus end 2008

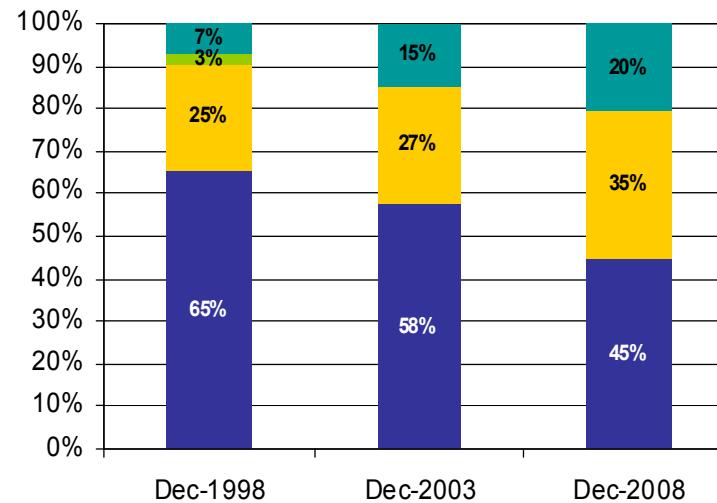
P7



Canada



- Equities
- Bonds
- Cash
- Other



Source: Watson Wyatt Worldwide and various secondary sources

US DC assets include IRAs

Pension assets allocation

Comments

P7

- Although Australia, Canada, the UK and the US had the highest allocation to equities at the end of 1998, 2003 and 2008, these allocations at year end 2008 were much lower than 2007
- Japan, the Netherlands and Switzerland have traditionally had a higher exposure to bonds, although Japan has seen a shift to equities in the last few years, being the only country in this study to increase its allocation to equities since 2003
- Nonetheless, in 2008 every market reduced equity allocations and increased their investments in bonds
- Switzerland, the US and Australia have had the highest allocation to alternative assets. Increased exposure to alternative assets can also be seen in Canada, the Netherlands and the UK, whereas Japan has maintained a relatively small allocation to alternative assets
- Allocation to cash remains very small in most markets, with the highest proportion being 10% in Australia and 9% in Switzerland.

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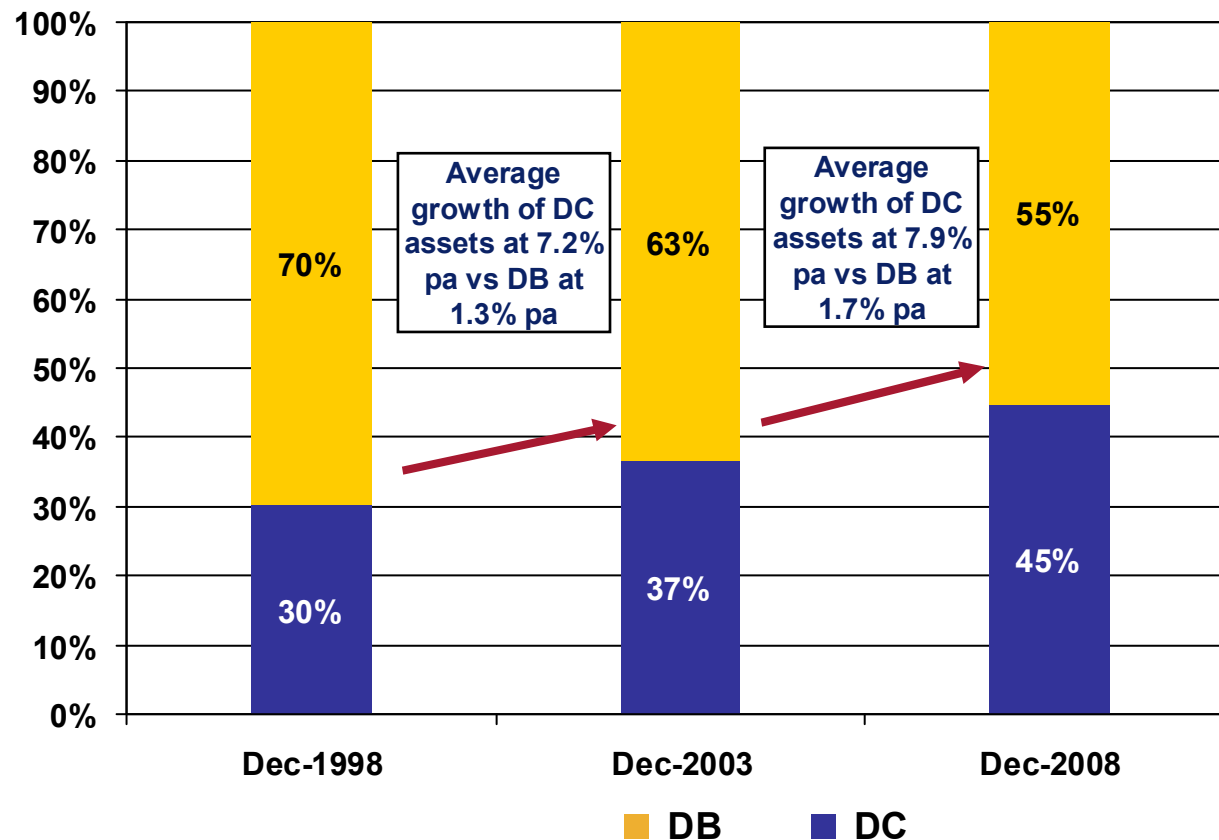
3. DB/DC allocations (P7)

DB/DC asset split

Change over the 10 years to the end of 2008

P7

Defined contribution (DC) fund assets



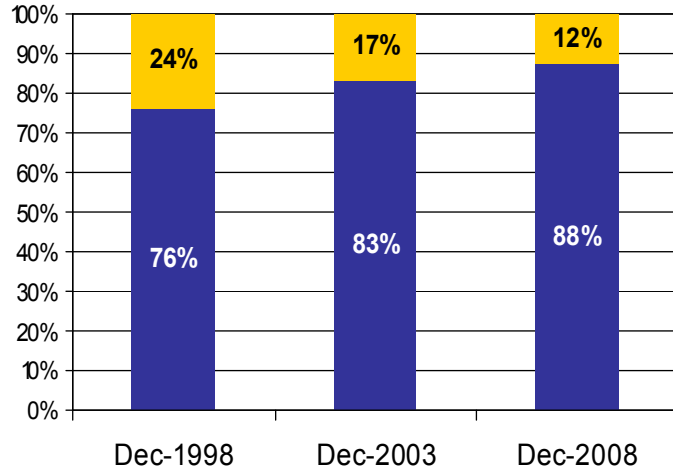
- During the ten-year period from 1998 to 2008, the CAGR of DC assets was 7.5% against a rate of 1.5% for DB assets.
- The variations in the proportions of assets in DC and DB reflect the trend towards DC, although DB assets continue to represent more than half of total assets.

Source: Watson Wyatt Worldwide and various secondary sources

DB/DC asset split

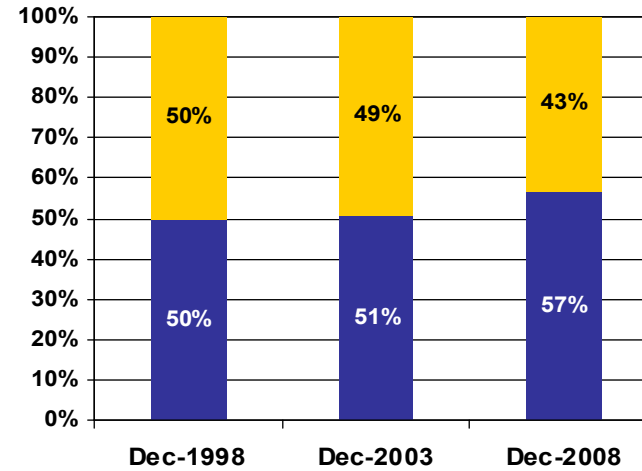
By country – change over the 10 years to the end of 2008

Australia

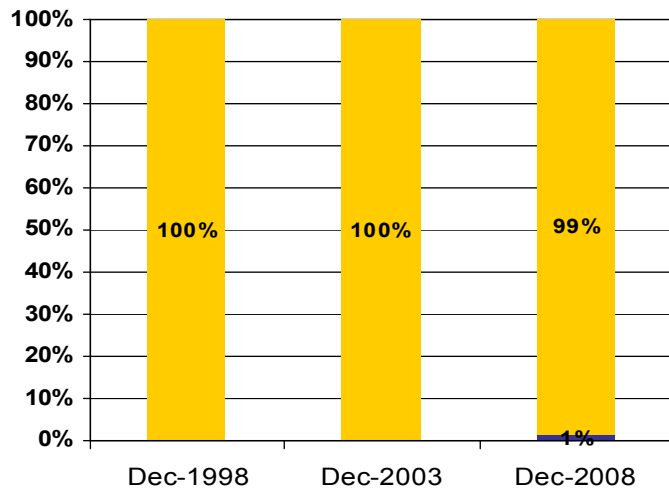


■ DB
■ DC

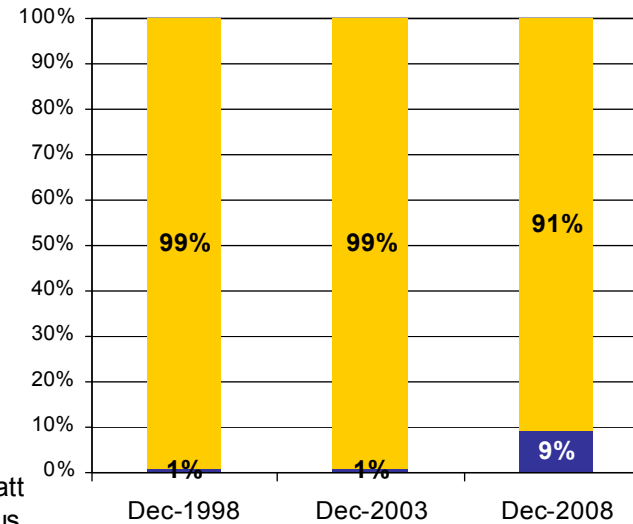
Switzerland



Japan



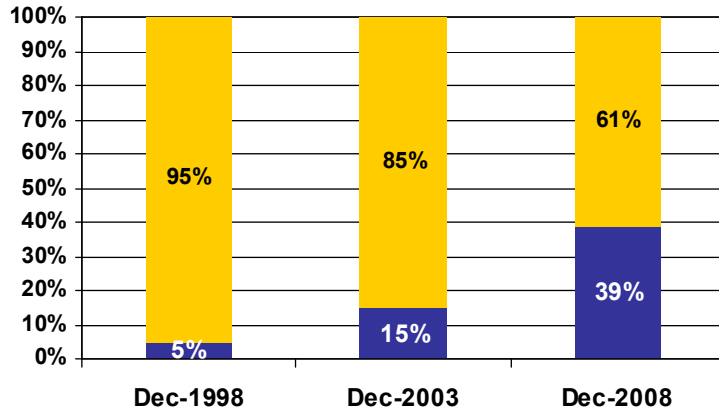
Netherlands



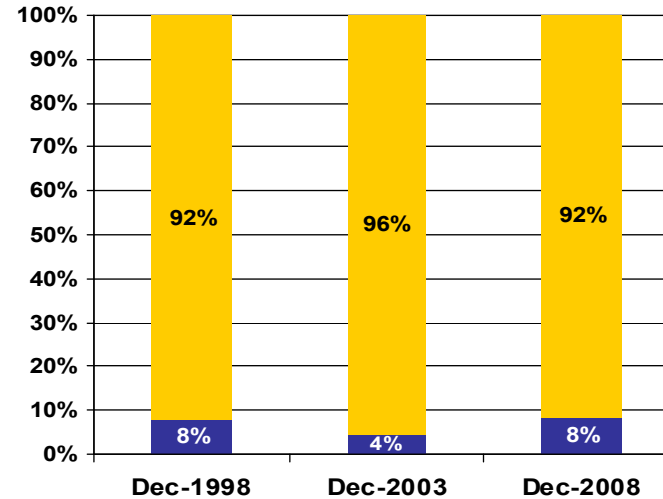
Sources: Watson Wyatt Worldwide and various secondary sources

DB/DC asset split

By country – change over the 10 years to the end of 2008

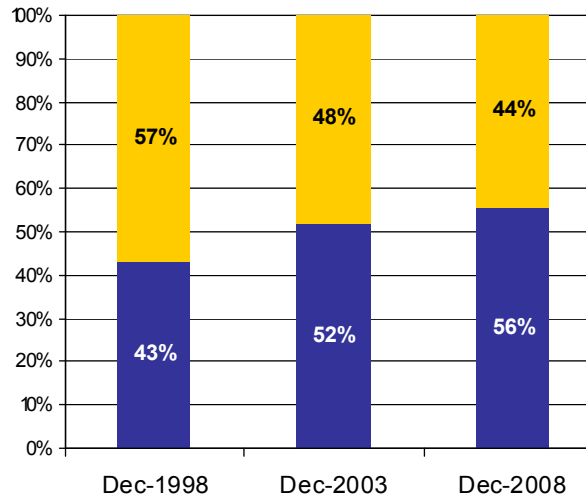


UK



Canada

■ DB
■ DC



US

Source: Watson Wyatt Worldwide and various secondary sources

UK data does not include Personal and Stakeholder assets but includes insurance administrated vehicles. If the latter were excluded as well, proportion of DC assets would go down to 27%

US assets include IRAs

DB/DC asset split

By market – change over the 10 years to the end of 2008

P7

- Both at the end of 1998 and 2008, Australia had the highest proportion of total pension assets in DC plans (76% to 88% in 1998 and 2008 respectively).
- Of the P7 markets, Switzerland now fills the second position in terms of the proportion of total assets in DC plans at the end of 2008 with 57%, up from 50% in 1998. The US fills third place with 56% and shows a similar growth path, having had only 43% in DC plans in 1998.
- However, the biggest changes can be seen in the UK and the Netherlands. Since 2003, UK pension funds have experienced an important shift to DC, jumping from 15% in that year to 39% in 2008. Similarly, in the Netherlands 9% of assets are in DC, up 8 percentage points from 1% in 2007.
- Japan remains the country with the lowest proportion of pension assets in DC followed by Canada and the Netherlands, although for the latter two the DC market is growing quickly. In Canada, DC plans now account for 8% of total assets.

Contact details and limitations of reliance

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Limitations of reliance – Thinking Ahead Group

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