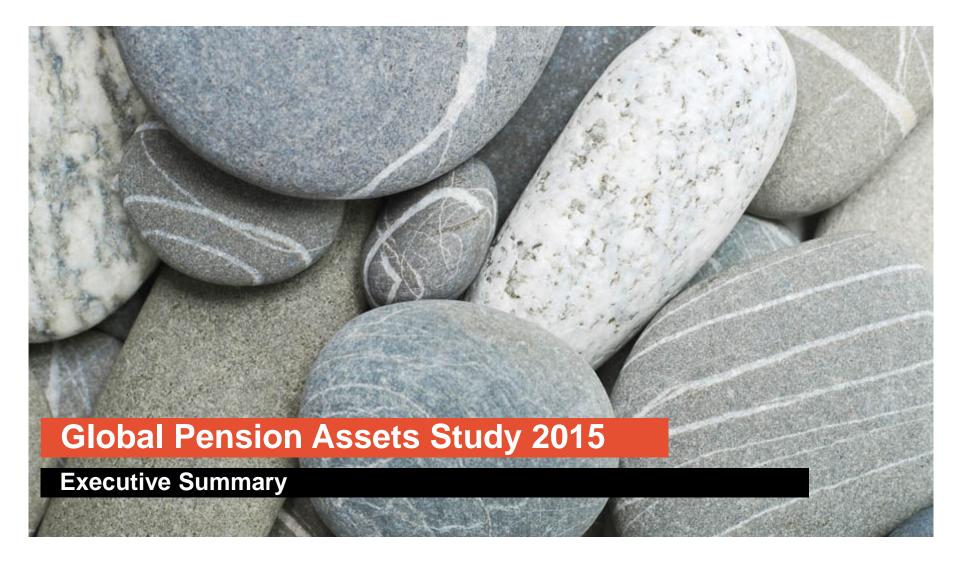


February 2015



Global Pension Assets Study 2015

Survey coverage

- The study covers 16 major pension markets, which total USD 36,119 billion in pension assets and account for 84.4% of the GDP of these economies. Malaysia, Mexico and South Korea were added to this year's study. We use the shorthand 'P16' to denote them.
- We perform a deeper analysis for seven of these markets, excluding the nine smallest markets (Brazil, France, Germany, Hong Kong, Ireland, Malaysia, Mexico, South Africa and South Korea) and use the shorthand 'P7' to denote them. P7 assets are around 93.5% of the P16.
- The analysis is organised in four sections:
 - Asset size, including growth statistics and comparison of asset size with GDP (P16)
 - Asset allocation (P7)
 - DB and DC share of pension assets (P7)
 - The faces of change Six medium-term factors growing in influence on pension fund development

P16









Switzerland

US





Brazil

















Japan



Malaysia

















Netherland



Switzerland





Global Pension Assets Study 2015

Key findings

P16 pension assets at the end of 2014

- At the end of 2014 pension assets for the 16 markets in the study were estimated at USD 36,119 billion, representing a 6.1% rise compared to the 2013 year-end value.
- Pension assets relative to GDP reached 84.4% in 2014, which represents a 2.3% increase from 2013 ratio of 82.1%.
- The largest pension markets are the US, UK and Japan with 61.2%, 9.2% and 7.9% of total pension assets in the study, respectively.
- In USD terms, the pension assets growth rate of these three largest markets in 2014 was 9.0%, 5.7% and -1.2% respectively.
- It is important to caveat the impact of the currency exchange rates when measuring the growth of pension assets in USD, as in many cases the results vary significantly with those in local currency terms. For example, in local currency terms, the pension assets growth rate of Japan in 2014 was 12.7%.

Global Pension Asset Study 2015

Key findings

P7 (excluding Switzerland¹) DB/DC allocation at the end of 2014

- During the last 10 years DC assets have grown at a rate of 7.0% pa while DB assets have grown at a slower pace of 4.3% pa.
- Currently DC assets represent 46.7% of total P7 pension assets, in line with the established trend towards the growing dominance of DC pensions.
- DC is dominant in Australia and the US.
 Japan and Canada, both historically only DB, are now showing signs of a shift to DC.

P7 Asset allocation at the end of 2014

- At the end of 2014 the average global asset allocation of the seven largest markets was 42.3% equities, 30.6% bonds, 2.3% cash and 24.8% other assets (including property and other alternatives).
- The asset allocation pattern has changed somewhat compared to the end of 2013.
 Allocations to bonds increased while allocations to cash and other investments fell. Allocations to equities remained somewhat the same.
- Australia, the UK, and the US have higher allocations to equities than the rest of the P7 markets. More conservative investment strategies – more bonds and less equities – occur in the Netherlands, Japan and Switzerland.

¹ DC assets in Switzerland are cash balance plans and are excluded from this analysis.

Global Pension Assets Study 2015

Key findings - figures

5	Total Assets 2014 (USD billion)	% GDP in USD billion ⁶
Australia	1,675	113.0%
Brazil ¹	268	12.0%
Canada	1,526	85.1%
France	171	5.9%
Germany ²	520	13.6%
Hong Kong	120	41.2%
Ireland	132	53.7%
Japan ³	2,862	60.0%
Malaysia	205	60.7%
Mexico	190	14.6%
Netherlands	1,457	165.5%
South Africa	234	68.6%
South Korea	511	35.3%
Switzerland ⁴	823	121.2%
UK	3,309	116.2%
US ⁵	22,117	127.0%
Total	36,119	84.4%

Brazil Pension Assets only include those from closed entities
 Only collect pension assets for company pension schemes
 Do not contain the unfunded benefit obligation of Corporate pensions (account receivables)
 Only includes total of autonomous pension funds. Do not consider insurance companies assets of USD 139.5 billion

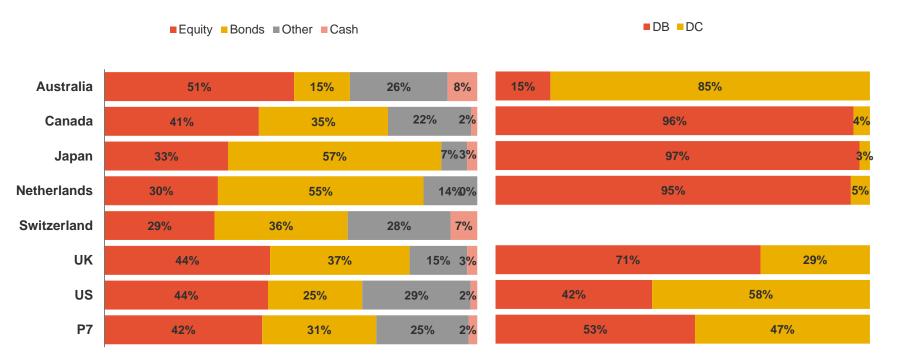
⁶ Assets/GDP ratio for the world is calculated in USD and assets were estimated as of 31 Dec 2014

Global Pension Assets Study 2014

Key findings - figures

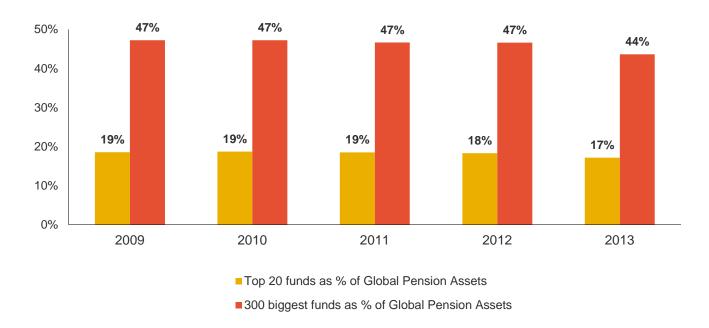
Asset allocation 2014

DB/DC Split 2014



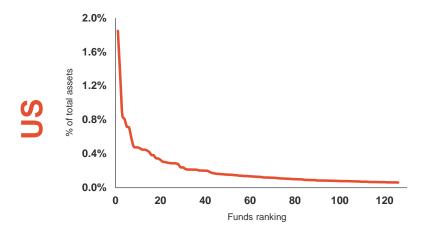
¹ DC assets in Switzerland are cash balance plans and are excluded from this analysis Source: Towers Watson and secondary sources

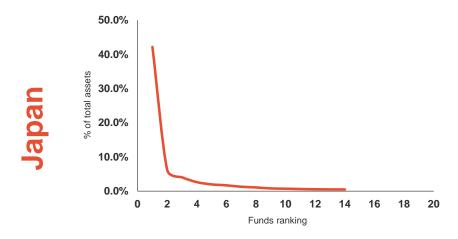
Relative proportion of top 300 pension funds

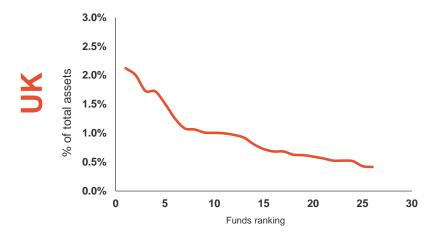


- The <u>Pension & Investments/Towers Watson 300 Analysis</u> is carried out every year and ranks the world's largest 300 pension funds in terms of assets under management.
- Assets under management of top 300 pension funds represented 43.6% of the total global pension assets in 2013.
- The top 20 pension funds accounted for 17.1% of total pension assets globally.

Relative proportion of top 300 pension funds by market







- While US' top 10 pension funds represent 8.3% of the market's total assets under management, the top 10 Japanese funds account for 62.7% of Japan's pension assets. This is largely explained by the Government Pension Investment fund that represents 42.2% of Japan's pension assets.
- In the UK, the top 10 pension funds represent 14.5% of the total UK pension assets. Among them, 10.4% are private pension funds and the remaining 4.1% are state-sponsored pension funds.



Asset size and growth statistics Comparison of asset size with GDP

Global pension assets

Evolution 2004-2014 – USD billion

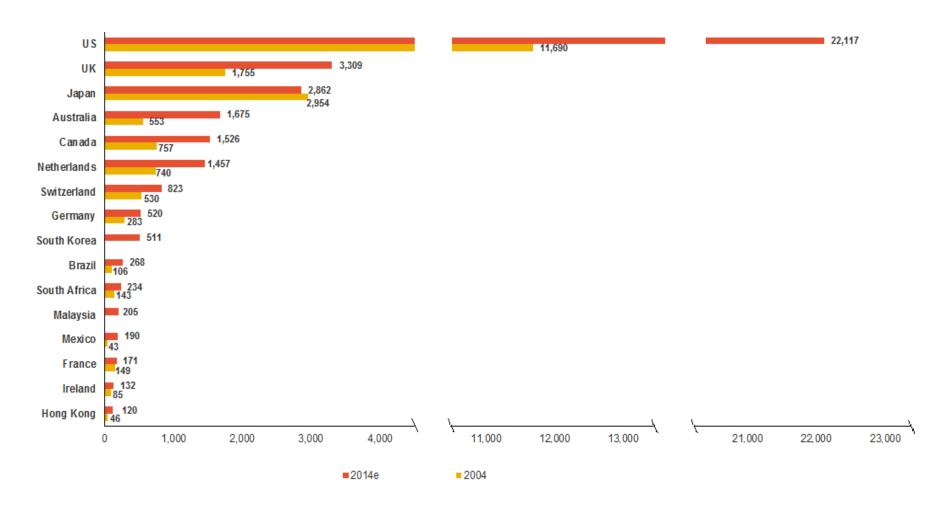
- Global pension assets in 2014 are estimated to have reached USD 36,119 billion, an increase of 6.1% since the end of 2013.
- The US continues to be the largest market in terms of pension assets, then followed, at significant distance, by UK and Japan. Together they account for over 78.3% of total assets.
- The smallest markets are, in descending order, France, Ireland and Hong Kong.

Market	Total Assets (USD billion)	Total Assets (USD billion)	Growth rate (USD)
	Year end 2004	Year end 2014e	10-year CAGR ¹
Australia	553	1,675	11.7%
Brazil	106	268	9.7%
Canada	757	1,526	7.3%
France	149	171	1.4%
Germany	283	520	6.3%
Hong Kong	46	120	10.0%
Ireland	85	132	4.5%
Japan	2,954	2,862	-0.3%
Malaysia	_	205	_
Mexico	43	190	16.1%
Netherlands	740	1,457	7.0%
South Africa	143	234	5.0%
South Korea	_	511	_
Switzerland	530	823	4.5%
UK	1,755	3,309	6.5%
US	11,690	22,117	6.6%
Total	19,835	36,119	6.0%

¹ Malaysia and South Korea were not considered for the 10-year Growth rate Source: Towers Watson and secondary sources

Global pension assets

Evolution 2004-2014 – USD billion



Global pension assets

Relative weights of each market

 Over the past decade the weights of France, Japan and Switzerland have declined relative to the other markets in the study.

Market	Relative weights of each market			
Wai Ket	End 2004	End 2014e		
Australia	2.8%	4.6%		
Brazil	0.5%	0.7%		
Canada ¹	3.8%	4.2%		
France ¹	0.8%	0.5%		
Germany	1.4%	1.4%		
Hong Kong	0.2%	0.3%		
Ireland	0.4%	0.4%		
Japan	14.9%	7.9%		
Malaysia ²	_	0.6%		
Mexico	0.2%	0.5%		
Netherlands	3.7%	4.0%		
South Africa	0.7%	0.6%		
South Korea ²	_	1.4%		
Switzerland	2.7%	2.3%		
UK ¹	8.8%	9.2%		
US	58.9%	61.2%		
Total	100.0%	100.0%		

¹ For France and Canada, there was a methodology change in 2008/2009. For UK it was in 2012.

² Malaysia and South Korea 2004 figures are not available Source: Towers Watson and secondary sources

Compound annual growth rates – *local currency* – 2014e

- The estimated 5-year growth rates ranged from 4.4% pa in Japan to 13.6% pa in South Korea.
- During the past 10 years, all the markets considered in this analysis experienced an increase in their pension assets. Mexico has seen the fastest growth rate, followed by South Africa, Australia, Hong Kong, Brazil and the UK.

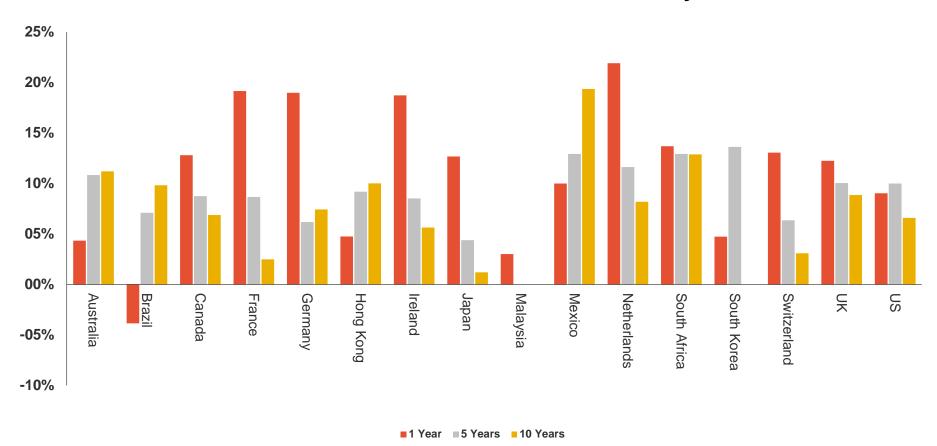
ency – 2014	₽		
	Growth rates to 2014e (Local Currency)		
Market	5 -year (31/12/04- 31/12/14) CAGR	10-year (31/12/04- 31/12/14) CAGR	
Australia	10.8%	11.2%	
Brazil	7.1%	9.8%	
Canada ¹	8.8%	6.9%	
France ¹	8.7%	2.5%	
Germany	6.2%	7.4%	
Hong Kong	9.2%	10.0%	
Ireland	8.5%	5.6%	
Japan	4.4%	1.2%	
Malaysia ²	1	_	
Mexico	12.9%	19.4%	
Netherlands	11.6%	8.2%	
South Africa	12.9%	12.9%	
South Korea ²	13.6%	_	
Switzerland	6.4%	3.1%	
UK ¹	10.0%	8.9%	
US	10.0%	6.6%	
Average	9.4%	8.1%	

¹ For France and Canada, there was a methodology change in 2008/2009. For UK it was in 2012.

² No figures available for Malaysia. South Korea 10-year CAGR not available. Source: Towers Watson and secondary sources

Compound annual growth rates – *local currency*

2014e CAGR – Local Currency¹



¹5 and 10 year growth rates are not available for Malaysia. South Korea 10 year growth rate is not available. Source: Tower Watson and secondary sources

Compound annual growth rates – USD

- In 2014 global pension assets are estimated to have increased 1.5% on average, compared to a 8.3% increase seen in 2013, measured in US dollar terms.
- During the last 10 years, the most rapidly growing pension markets have been Mexico (16.1%), Australia³ (11.7%), Hong Kong (10.0%), Brazil (9.7%) and Canada (7.3) when measured in US dollar terms.
- On the other hand, Japan and France showed the slowest rates of growth in US dollar terms since 2004 (-0.3% and 1.4% respectively).

1-year (31/12/12- 31/12/13) Actual		Growth rates to 2014e (USD)		
	1-year (31/12/13- 31/12/14) CAGR ²	5-year (31/12/09- 31/12/14) CAGR	10-year (31/12/04- 31/12/14) CAGR	
Australia ³	18.3%	-4.1%	8.9%	11.7%
Brazil	-3.8%	-15.8%	-1.8%	9.7%
Canada ¹	3.5%	3.7%	6.5%	7.3%
France ¹	5.7%	5.2%	5.1%	1.4%
Germany	5.6%	5.0%	2.7%	6.3%
Hong Kong	12.9%	4.7%	9.2%	10.0%
Ireland	18.4%	4.8%	5.0%	4.5%
Japan	-8.6%	-1.2%	-1.0%	-0.3%
Malaysia⁴	5.3%	-3.1%	1	_
Mexico	7.4%	-2.6%	10.1%	16.1%
Netherlands	8.1%	7.6%	8.0%	7.0%
South Africa	-9.9%	2.8%	3.2%	5.0%
South Korea ⁴	30.6%	0.4%	15.0%	_
Switzerland	9.9%	1.7%	7.4%	4.5%
UK¹	8.7%	5.7%	9.5%	6.5%
US	20.4%	9.0%	10.0%	6.6%
Average	8.3%	1.5%	6.5%	6.9%

¹ For France and Canada, change in methodology in 2008/2009. For UK it was in 2012.

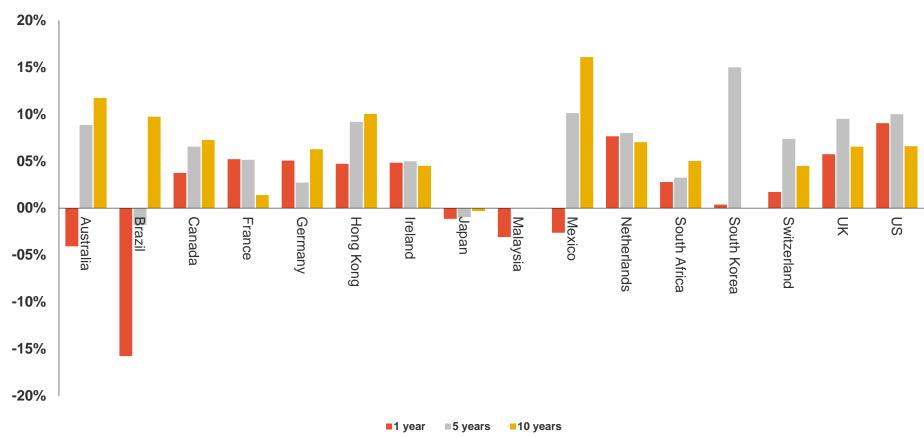
² 1-year growth does not capture net contributions in markets

³ In the case of Australia, the existing contribution rates as well as the fact that retirees can cash in all their benefits (i.e. no compulsion to lock in or annuities), can have a significant impact on expected asset growth.

 $^{^4}$ 5 and 10-year CAGR are not available for Malaysia. 10-year CAGR not available for South Korea.

Compound annual growth rates – USD

2014e CAGR - USD1



¹5 and 10 year growth rates are not available for Malaysia. South Korea 10 year growth rate is not available.

Source: Towers Watson and secondary sources

Currency impact

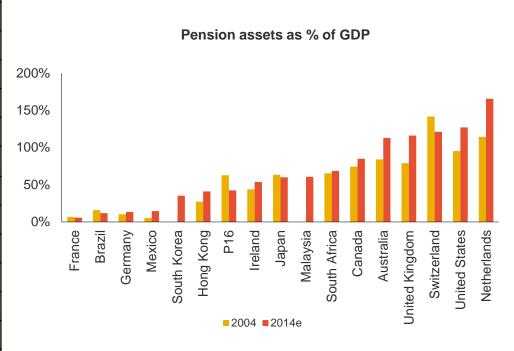
- During 2014, none of the currencies appreciated against the US dollar.
- In the last year the currencies that depreciated the most against the USD were the Brazilian Real (-12.4%), the Japanese Yen (-12.3%) and the Euro (-11.7%).
- During the last 10 years the Swiss Franc saw the biggest appreciation (1.4% pa), followed by the Australian Dollar (0.5% pa), while over the last 5 years the South Korean Won appreciated the most (1.2% pa).
- Over longer periods there has been a trend of appreciation of the USD relative to other major currencies.

	Variation in FX rates against USD		
Market	1-year (31/12/13- 30/12/14)	5-year (31/12/09- 30/12/14) CAGR	10-year (31/12/04- 30/12/14) CAGR
Australia	-8.1%	-1.8%	0.5%
Brazil	-12.4%	-8.3%	-0.1%
Canada	-8.0%	-2.0%	0.4%
France	-11.7%	-3.2%	-1.1%
Germany	-11.7%	-3.2%	-1.1%
Hong Kong	0.0%	0.0%	0.0%
Ireland	-11.7%	-3.2%	-1.1%
Japan	-12.3%	-5.1%	-1.5%
Malaysia ¹	-5.9%	_	_
Mexico	-11.5%	-2.5%	-2.8%
Netherlands	-11.7%	-3.2%	-1.1%
South Africa	-9.6%	-8.6%	-7.0%
South Korea ¹	-4.2%	1.2%	_
Switzerland	-10.0%	1.0%	1.4%
UK	-5.8%	-0.5%	-2.1%

²5 and 10-year CAGR are not available for Malaysia. 10-year CAGR not available for South Korea.

Global pension assets vs. GDP in local currency

Market	Pension assets as % of GDP		
iviai ket	2004	2014e	Change ¹
Australia	84%	113%	29%
Brazil	16%	12%	-4%
Canada	74%	85%	11%
France	7%	6%	-1%
Germany	10%	14%	3%
Hong Kong	27%	41%	14%
Ireland	44%	54%	10%
Japan	63%	60%	-3%
Malaysia ²	_	61%	_
Mexico	6%	15%	9%
Netherlands	114%	166%	51%
South Africa	65%	69%	3%
South Korea ²	_	35%	_
Switzerland	142%	121%	-21%
UK	79%	116%	37%
US	95%	127%	32%

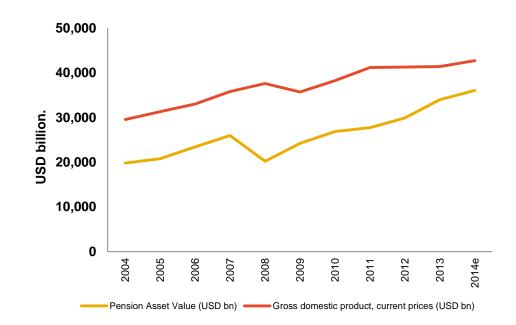


¹ In percentage points

² 2004 figures are not available for Malaysia and South Korea Source: Towers Watson and secondary sources/ GDP values in Local Currency from IMF towerswatson.com

Global pension assets vs. GDP in USD

- Global pension assets to GDP ratio (P16) increased from 82.1% at the end of 2013 to 84.4% at the end of 2014.
- The Netherlands has the highest ratio of pension assets to GDP (166%) followed by the US (127%), Switzerland (121%) and the UK (116%).
- During the last 10 years, the pension assets to GDP ratio grew the most in the Netherlands and the UK (51 and 37 percentage points respectively). It declined in Switzerland, Brazil, Japan and France during the same period.

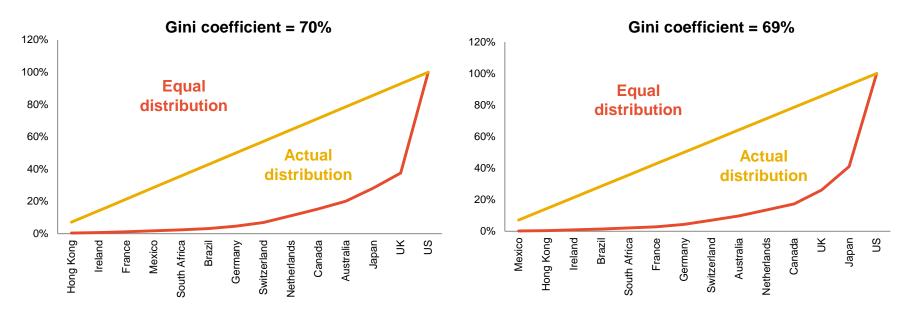


21

Gini coefficient - global pension assets 2004 vs 2014

Lorenz curve for pension assets in 2004

Lorenz curve for pension assets in 2014



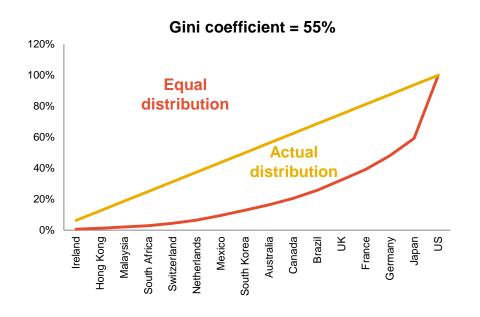
- The Gini coefficient of global pension assets in 2014 was 68.9% which indicates the pension assets are still concentrated in relatively few markets.
- The global pension market has become less concentrated during the last 10 years, revealed by a higher Gini coefficient (69.7%) at 2004.

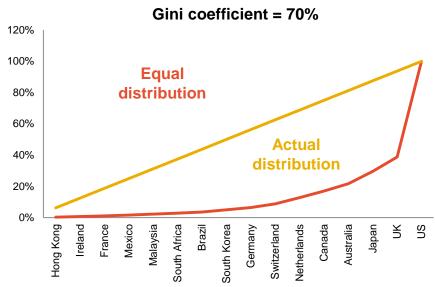
Note: Malaysia and South Korea are not included in the analysis Source: Towers Watson and secondary sources

Gini coefficient - pension assets vs GDP



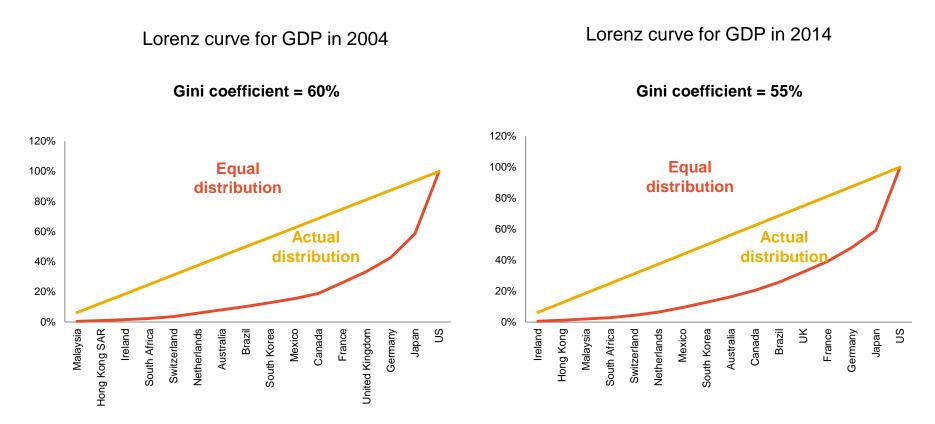
Lorenz curve for pension assets in 2014





The lower Gini coefficient for GDP (55.1%) relative to pension market size (70.2%) suggests that
the global pension asset pool is more concentrated than what would be suggested by their GDP
levels. This could be explained by a number of factors including but not limited to a more developed
capital market and a more mature pension system within the leading markets.

Gini coefficient - GDP 2004 vs. 2014



 The Gini coefficient for GDP has dropped over the last 10 years, from 59.8% in 2004 to 55.1% in 2014, showing a less concentrated GDP for the markets included in this analysis.

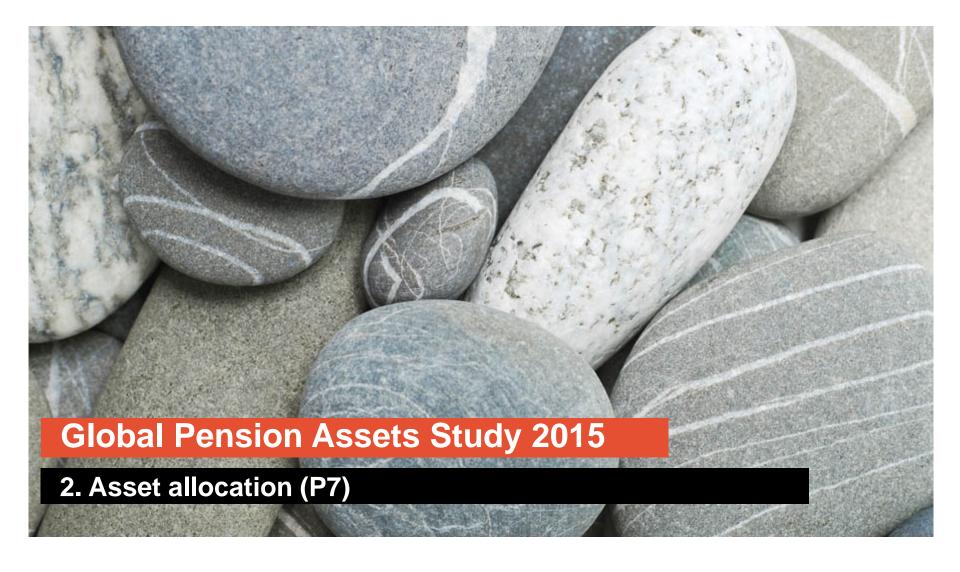
Methodology

Asset estimation

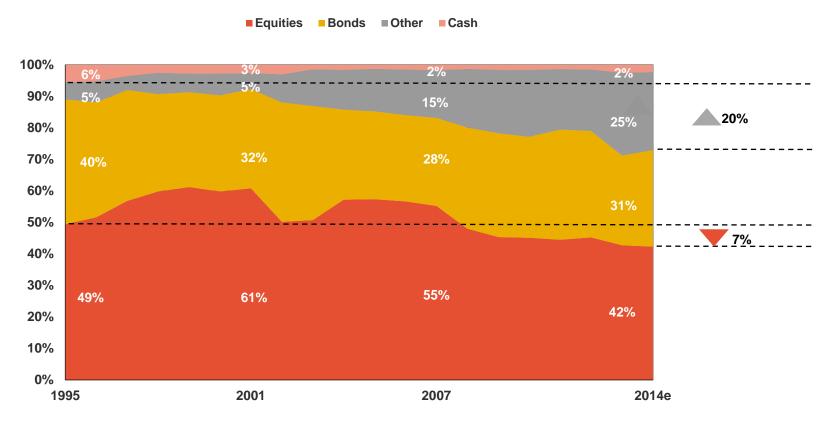
- In this analysis we seek to provide estimates of pension fund assets (i.e. assets whose official primary purpose is to provide pension income). This data is comprised of:
 - Hard data typically as of year-end 2013 (except for Australia and Brazil which is from June 2014 and the UK for which part of the data was available as of December 2010) collected by Towers Watson and from various secondary sources.
 - Estimates as at year-end 2014 based on index movements.
- Before 2006 we focused only on 'institutional pension fund assets', primarily 2nd pillar assets
 (occupational pensions). Since 2006, the analysis has been slightly widened, incorporating DC assets
 (IRAs) within US's total pension assets. The objective was to better capture retirement assets around
 the globe and expand the analysis into the 3rd pillar (individual savings) universe, which is primarily
 being used for pensions purposes in many markets. Furthermore, this innovation enables us to
 estimate the global split between DB and DC assets.
- UK's methodology changed as of 2012. The source of data has been changed to be based on information published by Office for National Statistics and other secondary sources.

Comparison with GDP

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



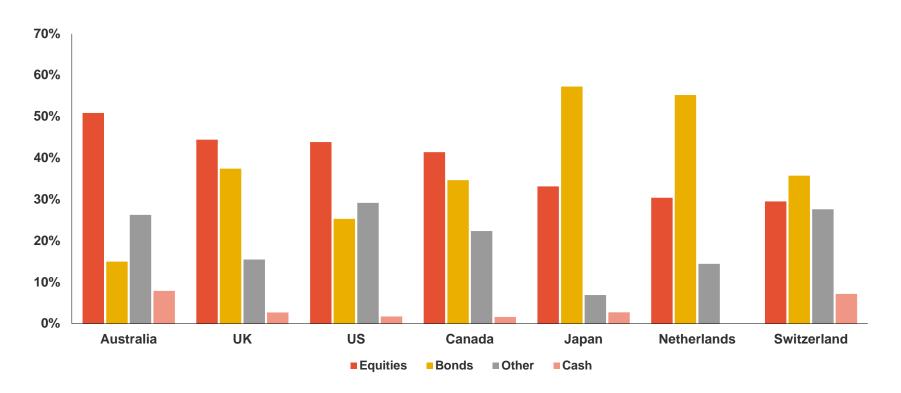
Aggregate P7 asset allocation from 1995 to 2014



- Since 1995 bonds, equities and cash allocations have been reduced to a varying degree while allocations to other (alternative) assets have increased from 5% to 25%.
- Alternative assets in pension fund portfolios managed the world's top 100 asset managers reached nearly \$1.4 trillion in 2013 according to Towers Watson's *Global Alternatives Survey*.

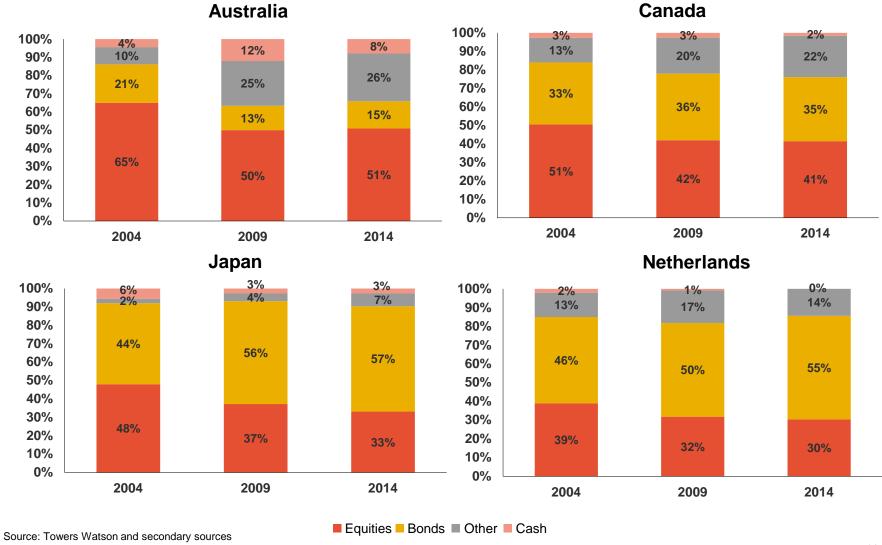
Source: Towers Watson and secondary sources

P7 in 2014

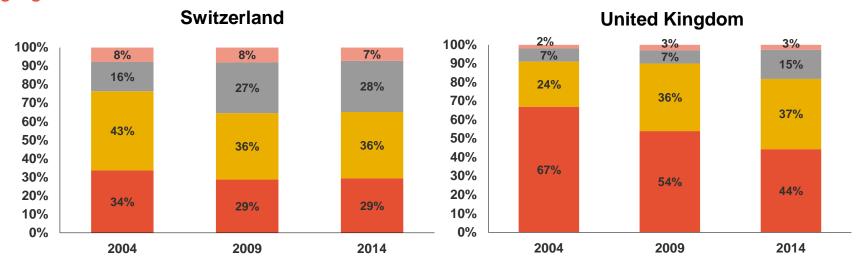


- In 2014 Australia, the UK and the US continued to have above average equity allocations, while Canada retained an equity allocation proxy to the average.
- The Netherlands and Japan are the markets with higher than average exposure to bonds, while Switzerland is the most diversified, with similar allocations to equities, bonds and other assets.

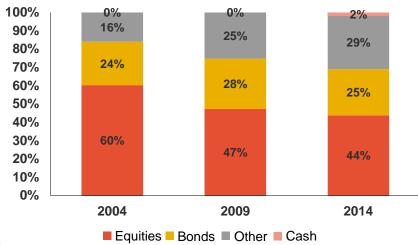
Aggregate - end 2004 versus end 2009 versus end 2014



Aggregate - end 2004 versus end 2009 versus end 2014

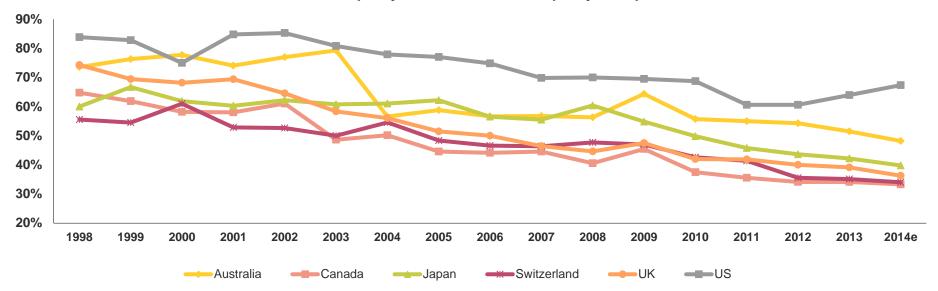


United States



Domestic equity exposure

Domestic equity over total equity exposure

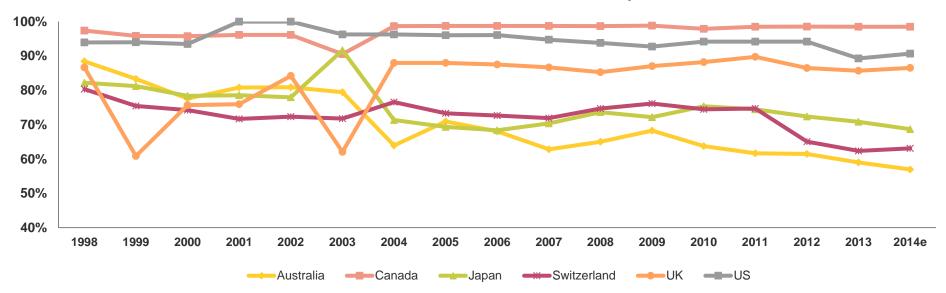


- There is a clear sign of reduced home bias in equities, as the weight of domestic equities in pension assets portfolios has fell, on average, from 64.7% in 1998 to 42.9% in 2014.
- The US pension market remains the most dependent market on domestic equities while Canada has been the least dependent market on domestic equities over the last 10 years.

Note: The Netherlands is not considered Source: Towers Watson and secondary sources

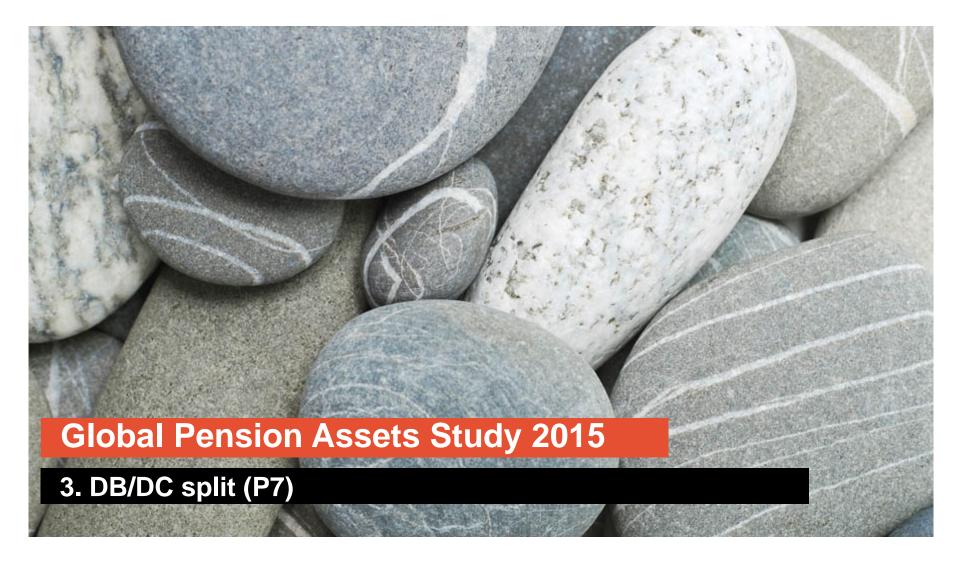
Domestic bonds exposure

Domestic bonds over total bond exposure



- Regarding fixed income investment, the relationship between domestic and foreign bonds has remained high. On average, the allocation to domestic bonds as a percentage of total bonds was 88.2% in 1998 and 78.8% in 2014.
- Canada and the US have most of their fixed income investments in domestic bonds, while Australia is the market with more foreign fixed income exposure than the rest of the markets in the P7.

Note: The Netherlands is not considered Source: Towers Watson and secondary sources



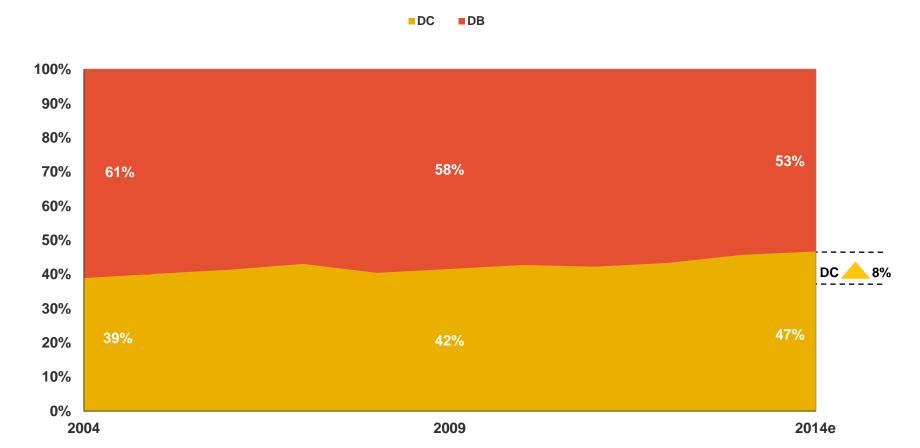
DB/DC asset split

Change over the past years

- The markets with a bigger proportion of DC assets relative to DB in 2014 are Australia with 85.4% and the US with 58.2%.
- Japan, Canada and the Netherlands have only 2.8%, 4.3% and 5.1% respectively of DC assets in 2014.
- DC pension assets from the P7 have grown from 38.9% in 2004 to 46.7% in 2014.
- During the last 10 years DC assets have grown at a rate of 7.0% pa while DB assets have grown at a slower pace of 4.3% pa.

DB/DC asset split

Change over the last 10 years

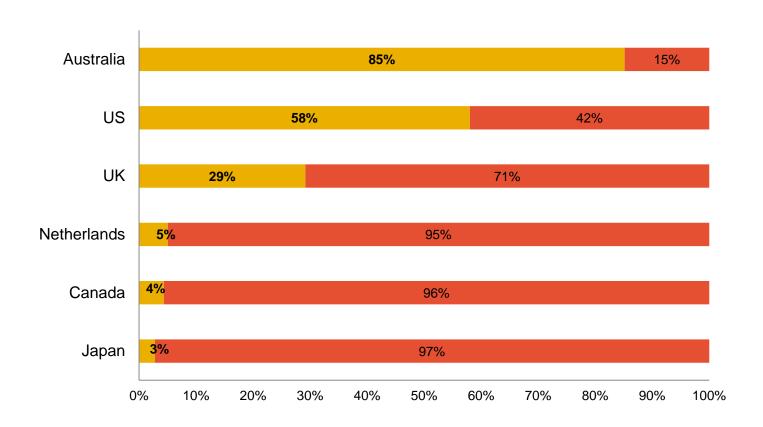


Note: In Switzerland DC stands for cash balance, where the plan sponsor shares the investment risk and all assets are pooled. There are almost no pure DC assets where members make an investment choice and receive market returns on their funds. Therefore, Switzerland is excluded from this analysis.

DB/DC asset split per market

DB DC

P7 in 2014

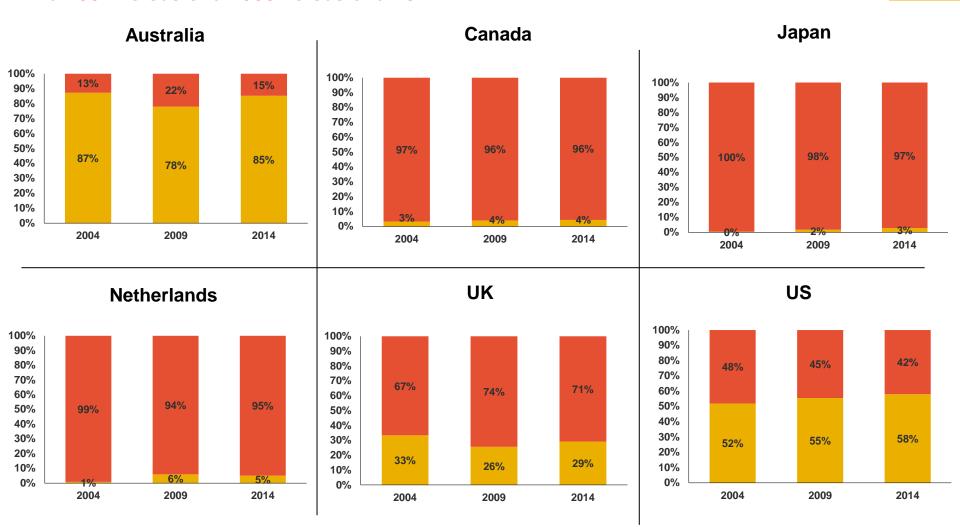


Note: In Switzerland DC stands for cash balance, where the plan sponsor shares the investment risk and all assets are pooled. There are almost no pure DC assets where members make an investment choice and receive market returns on their funds. Therefore, Switzerland is excluded from this analysis.

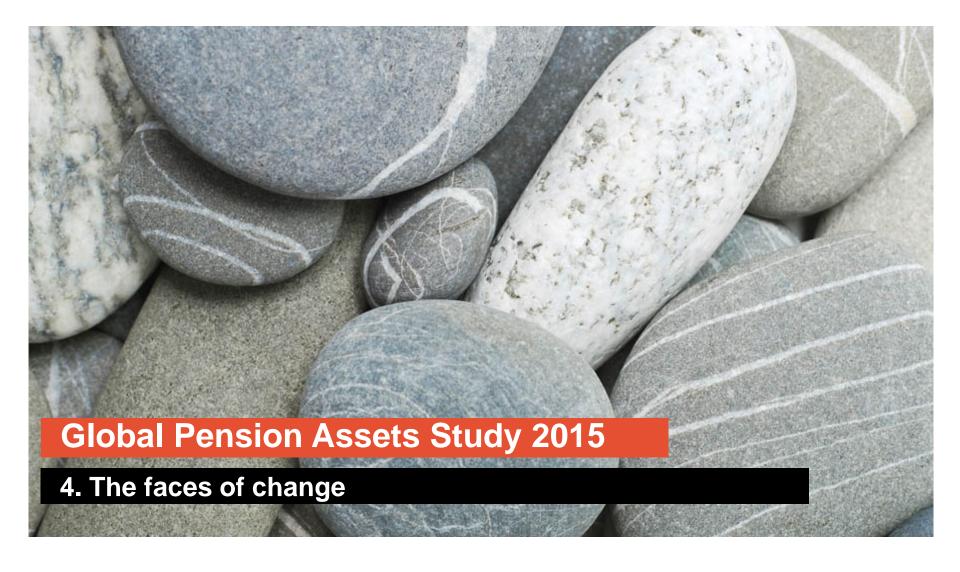
DC

DB/DC asset split per market

End 2004 versus end 2009 versus end 2014



Note: In Switzerland DC stands for cash balance, where the plan sponsor shares the investment risk and all assets are pooled. There are almost no pure DC assets where members make an investment choice and receive market returns on their funds. Therefore, Switzerland is excluded from this analysis.



The 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 performance from all sources; more talent attracted to Chief Investment Officer role at funds.

Risk management focus

Funds focus on risk intensifies, with two separate groups: those where the appetite for risk is trimmed from previous levels; those needing risk for their situation

3. Pension design, towards a DC model

DC becomes the dominant global model with its attendant risk transfer causing tension in the balance of ownership and control

4. 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.

5. New value chain

A more effective "value chain" will emerge, where expense on various activities has a better value proposition than exists today. The use of passive approaches and smart betas is leading to modest fee compression.

6. New ideology emerging

Some shift from a pure finance way of seeing pension investing (where short-term performance is paramount) to one where the longer-term sustainable growth aspect is considered (where longer term cash flow and stakeholder value with a longer term focus are critical); in this model, more integrated approaches to ESG and better stewardship exercised over ownership will be present

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Limitations of reliance – Thinking Ahead Group

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