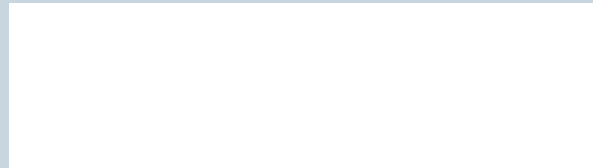
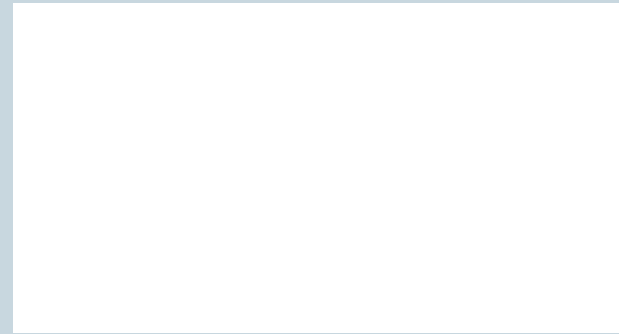


Global Pension Assets Study 2017

Global Pension Assets Study 2017

Executive Summary



Global Pension Assets Study 2017

Survey Coverage

- The study covers 22 major pension markets, which total USD 36,435 billion in pension assets and account for 62.0%¹ of the GDP of these economies. China, Finland and Italy were added to this year's study. We use the shorthand 'P22' to denote them.
- We perform a deeper analysis for seven of these markets (Australia, Canada, Japan, Netherlands, Switzerland, UK and US) and use the shorthand 'P7' to denote them. The P7 countries comprise 91.7% of total assets.
- The analysis is organised in three sections:
 - Asset size, including growth statistics and comparison of asset size with GDP (P22)
 - Asset allocation (P7)
 - DB and DC share of pension assets (P7)

P22



P7



¹ The ratio of Total Pension Assets to GDP declined from 2016 with the addition of China. China's pension assets represent 1.2% of total GDP.

Global Pension Assets Study 2017

Key Findings

P22 pension assets at the end of 2016

- At the end of 2016, total pension assets were estimated at USD 36,435 billion, which represents an increase of 4.3% compared to USD 34,931 billion at the end of 2015
- Pension assets relative to GDP reached 62.0%¹ in 2016, which represents a decrease of 18.0% from the 2015 ratio of 80.0%
- The largest pension markets are the US, UK and Japan with 61.7%, 7.9% and 7.7% of total pension assets in the study, respectively
- In USD terms, the pension assets growth rate of these three largest markets in 2016 were 5.1%, 1.3% and 5.1% 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

¹ The ratio of Total Pension Assets to GDP declined from 2016 with the addition of China. China's pension assets represent 1.2% of total GDP.

Global Pension Assets Study 2017

Key Findings

P7 asset allocation at the end of 2016

- At the end of 2016, the average global asset allocation of the seven largest markets was 46% equities, 28% bonds, 24% other assets (including real estate and other alternatives) and 3% cash
- The asset allocation pattern has changed since 1996. Allocation to other assets have increased while allocation to equities and bonds have decreased.
- US, Australia and the UK have higher allocations to equities than the rest of the P7 markets. Switzerland, Japan and the Netherlands have more conservative investment strategies – higher allocation to bonds.

P7 DB/DC allocation at the end of 2016¹

- During the last 10 years, DC assets have grown at a rate of 5.6% pa while DB assets have grown at a slower pace of 2.6% pa
- DC assets represent 48.4% of total P7 pension assets, in line with the established trend towards the growing dominance of DC plans
- DC is dominant in Australia and the US. Japan and Canada, both predominantly only DB, are now showing signs of a shift to DC

¹ The majority of pension fund assets in Switzerland are DC and take the form of cash balance plans, whereby the plan sponsor shares the investment risk and the assets are pooled. Pure DC assets have only recently been introduced in Switzerland and, although they have seen strong growth, they are not yet large enough to justify inclusion in this analysis.

Global Pension Assets Study 2017

Key findings – Figures

Country	Total Assets 2016 (USD billion)	Assets/GDP ratio (%) ⁷
Australia	1,583	126.0%
Brazil ¹	251	14.2%
Canada	1,575	102.8%
Chile	172	73.0%
China ²	141	1.2%
Finland	199	83.2%
France	146	5.9%
Germany ³	415	11.9%
Hong Kong	133	42.0%
India	105	4.7%
Ireland	130	42.2%
Italy	153	8.2%
Japan ⁴	2,808	59.4%
Malaysia	190	62.7%
Mexico	154	14.5%
Netherlands	1,296	168.3%
South Africa	207	73.8%
South Korea	575	40.9%
Spain	39	3.1%
Switzerland ⁵	817	123.3%
UK	2,868	108.2%
US ⁶	22,480	121.1%
Total	36,435	62.0% ⁸

Source: Willis Towers Watson and secondary sources

¹ Only includes pension assets from closed entities.

² Only includes Enterprise Annuity assets.

³ Only includes pension assets for company pension schemes.

⁴ Does not include the unfunded benefit obligation of corporate pension plans (account receivables).

⁵ Only includes autonomous pension funds. Does not consider insurance companies assets.

⁶ Includes IRAs.

⁷ The Assets/GDP ratio for individual markets are calculated in local currency terms, and the total Assets/GDP ratio is calculated in USD.

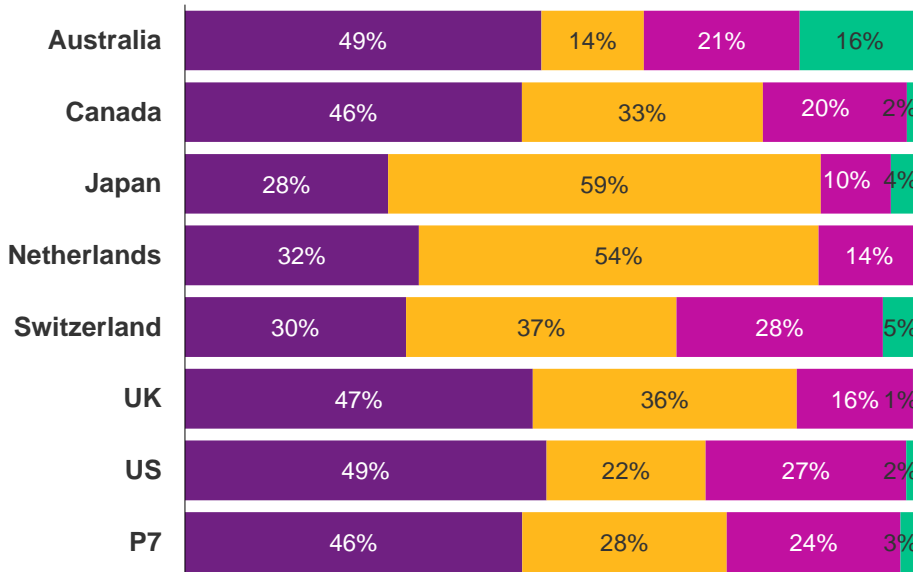
⁸ The ratio of Total Pension Assets to GDP declined from 2016 with the addition of China. China's pension assets represent 1.2% of total GDP.

Global Pension Assets Study 2017

Key findings – Figures

Asset allocation 2016

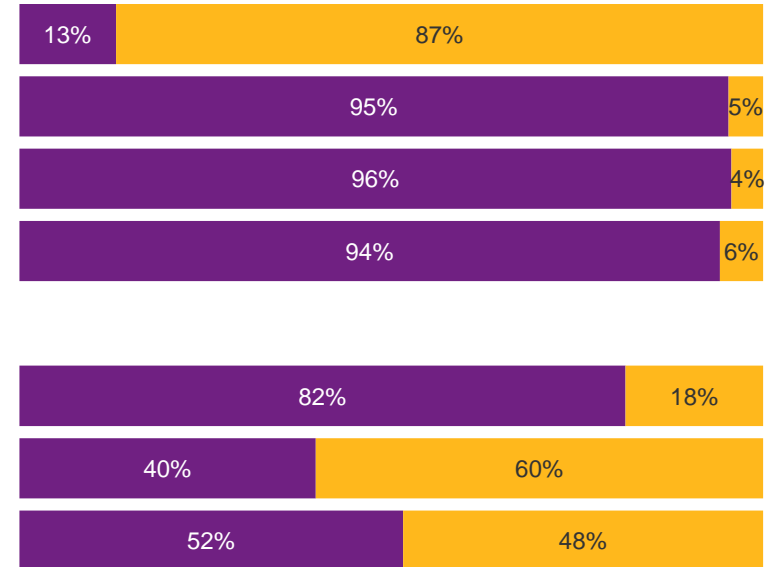
■ Equity ■ Bonds ■ Other ■ Cash



Source: Willis Towers Watson and secondary sources

DB/DC Split 2016^{1,2}

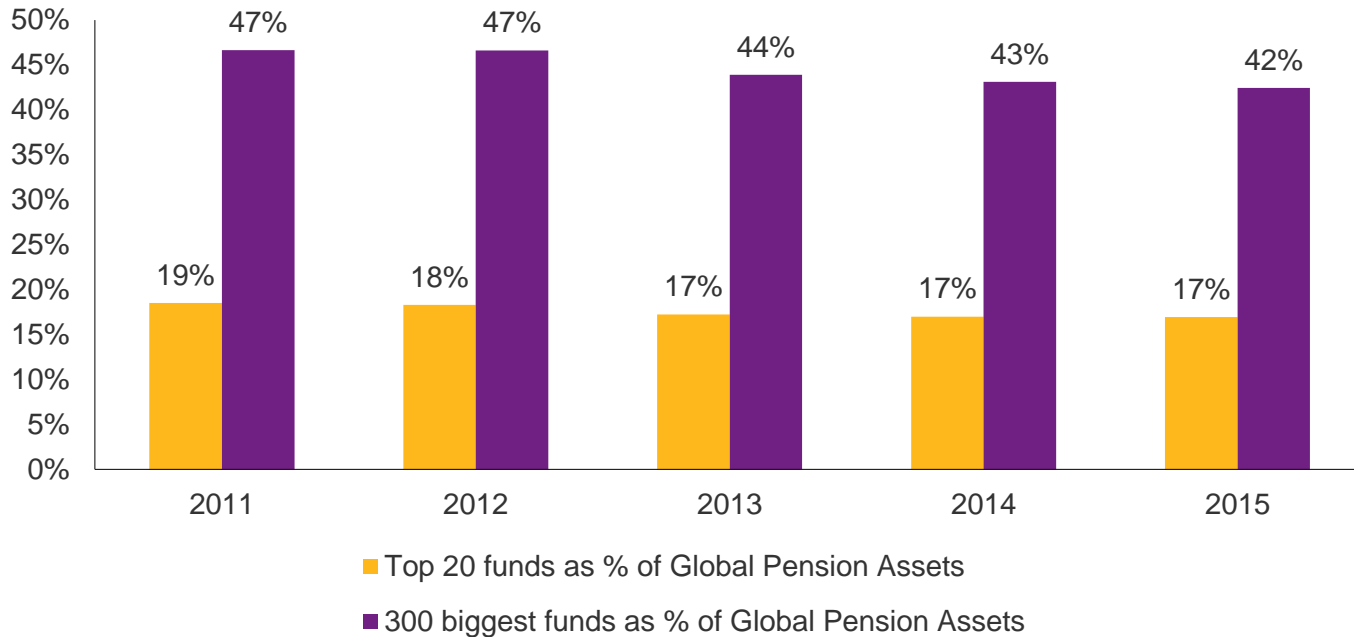
■ DB ■ DC



¹ DC assets in Switzerland are cash balance plans where the plan sponsor shares the investment risk and all assets are pooled. There are no pure DC assets where members make an investment choice and receive market returns on their funds. Therefore, Switzerland is excluded from this analysis.

² In January 2017, the UK's Office for National Statistics stated that the figures previously disclosed for DC entitlements were significantly overestimated. As a result there is a significant decrease in UK DC pension assets this year when compared to the previous editions of this study. This change has a very limited impact on the P7 DC assets; in the order of a one percent reduction.

Relative proportion of top 300 pension funds

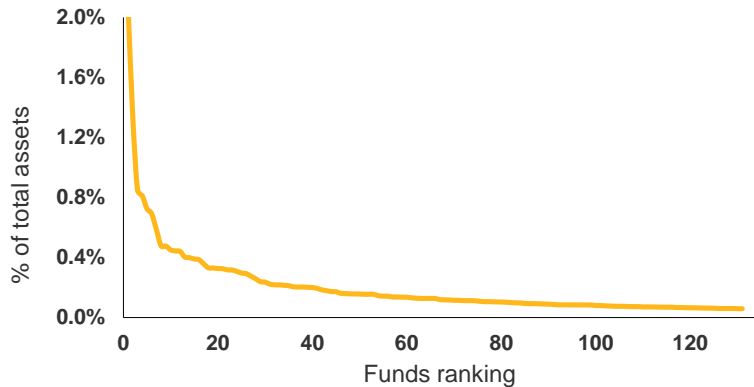


Source: Willis Towers Watson and secondary sources

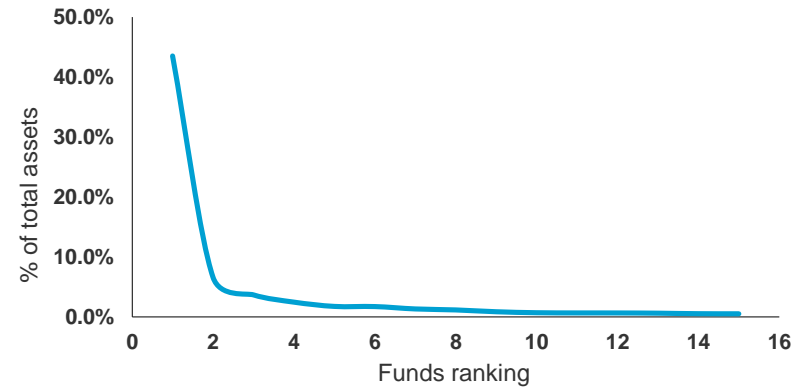
- The annual [Pension & Investments/Willis Towers Watson 300 Analysis](#) ranks the world's largest 300 pension funds in terms of assets under management
- Assets under management of top 300 pension funds represented 42.5% of the total global pension assets in 2016
- The top 20 pension funds accounted for 17.0% of total pension assets globally

Relative proportion of top 300 pension funds by market

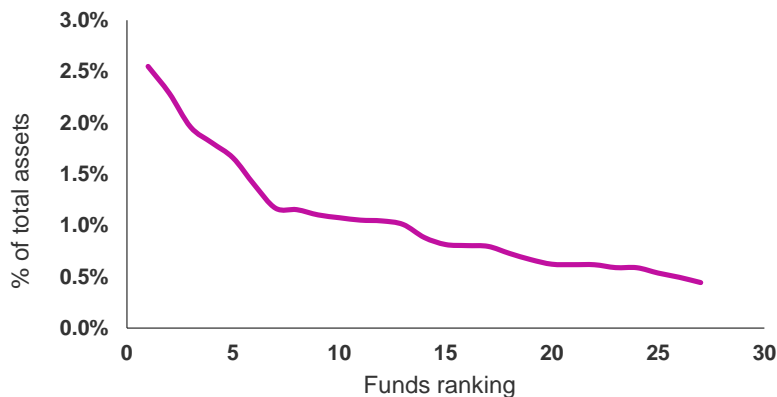
US



Japan



UK



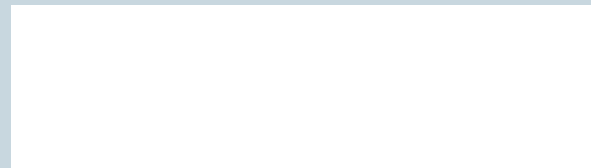
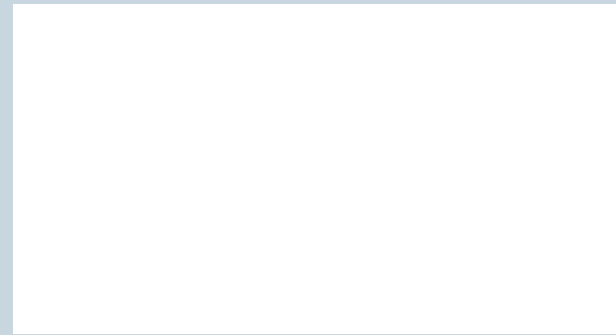
- While the top 10 US pension funds represent 8.5% of total assets, the top 10 Japanese pension funds account for 63.7% of total assets. This is largely explained by the Government Pension Investment fund that represents 43.5% of Japan's pension assets.
- In the UK, the top 10 pension funds represent 16.2% of the total UK pension assets. Among them, 12.4% are private pension funds and the remaining 3.7% are state-sponsored pension funds.

Source: Willis Towers Watson and secondary sources

Global Pension Assets Study 2017

1. Asset Size

Asset size and growth statistics
Comparison of asset size with GDP



Global Pension Assets

Evolution 2006-2016 – USD billion

- Global pension assets in 2016 are estimated to have reached USD 36,435 billion, an increase of 4.3% since the end of 2015
- 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 77.3% of total assets.
- The smallest markets are, in descending order, Ireland, India and Spain

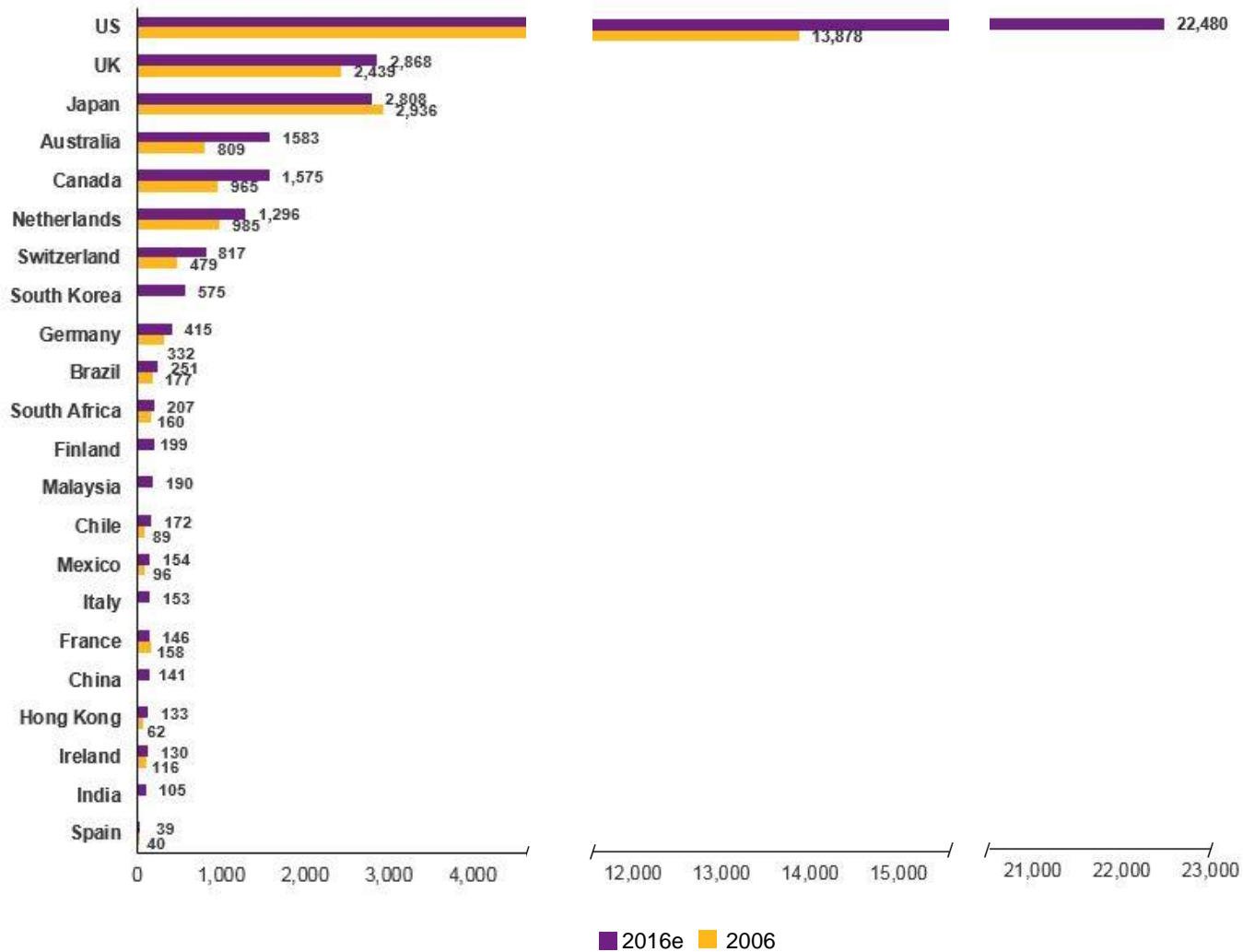
Country	Total assets 2006 (USD billion)	Total assets 2016e (USD billion)	10-year CAGR (USD)
Australia	809	1,583	6.9%
Brazil ¹	177	251	3.6%
Canada	965	1,575	5.0%
Chile	89	172	6.8%
China ¹	—	141	—
Finland ¹	—	199	—
France	158	146	-0.8%
Germany	332	415	2.3%
Hong Kong	62	133	7.8%
India ¹	—	105	—
Ireland	116	130	1.2%
Italy ¹	-	153	—
Japan	2,936	2,808	-0.4%
Malaysia ¹	—	190	—
Mexico	96	154	4.8%
Netherlands	985	1,296	2.8%
South Africa	160	207	2.6%
South Korea ¹	—	575	—
Spain	40	39	-0.1%
Switzerland	479	817	5.5%
UK	2,439	2,868	1.6%
US	13,878	22,480	4.9%
Total	23,721	36,435	4.0%

Source: Willis Towers Watson and secondary sources

¹ 10 year growth rates are not available for China, Finland, India, Italy, Malaysia and South Korea.

Global Pension Assets

Evolution 2006-2016 – USD billion



Source: Willis Towers Watson and secondary sources

Global Pension Assets

Relative weights of each market

- Over the past decade, the weights of France, Germany, Ireland, Japan, Netherlands, South Africa, Spain and UK have declined relative to the other countries in the study

Country	Relative weights of each country		
	2006	2016e	
Australia	3.4%	4.3%	▲
Brazil	0.7%	0.7%	
Canada ¹	4.1%	4.3%	▲
Chile	0.4%	0.5%	▲
China ²	—	0.4%	
Finland ²	—	0.5%	
France ¹	0.7%	0.4%	▼
Germany	1.4%	1.1%	▼
Hong Kong	0.3%	0.4%	▲
India ²	—	0.3%	
Ireland	0.5%	0.4%	▼
Italy ²	—	0.4%	
Japan	12.4%	7.7%	▼
Malaysia ²	—	0.5%	
Mexico	0.4%	0.4%	
Netherlands	4.2%	3.6%	▼
South Africa	0.7%	0.6%	▼
South Korea ²	—	1.6%	
Spain	0.2%	0.1%	▼
Switzerland	2.0%	2.2%	▲
UK ¹	10.3%	7.9%	▼
US	58.5%	61.7%	▲
Total	100.0%	100.0%	

Source: Willis Towers Watson and secondary sources

¹ There was a methodology change for France and Canada in 2008/2009 and a methodology change for UK in 2012 and 2016.

² 2006 figures for China, Finland, India, Italy, Malaysia and South Korea are not available.

Global pension assets growth rates

Compound annual growth rates – local currency – 2016e

- Estimated 5-year growth rates ranged from 2.7% pa in Germany and Japan to 22.4% pa in China
- During the past 10 years Mexico has seen the fastest growth rate, followed by South Africa, Chile, Brazil, Australia and Hong Kong

Country	5 -year CAGR	10-year CAGR
Australia	9.5%	7.9%
Brazil	6.3%	8.0%
Canada ¹	9.1%	6.5%
Chile	10.2%	9.2%
China ²	22.4%	—
Finland ²	6.9%	—
France ¹	5.1%	1.5%
Germany	2.7%	4.6%
Hong Kong	8.0%	7.8%
India ²	11.0%	—
Ireland	11.3%	3.5%
Italy ²	9.8%	—
Japan	2.7%	-0.2%
Malaysia ²	—	—
Mexico	9.9%	11.8%
Netherlands	8.1%	5.1%
South Africa	9.6%	9.7%
South Korea ²	13.4%	—
Spain	3.7%	2.2%
Switzerland	5.9%	3.6%
UK ¹	7.7%	6.5%
US	8.0%	4.9%
Average	8.7%	5.8%

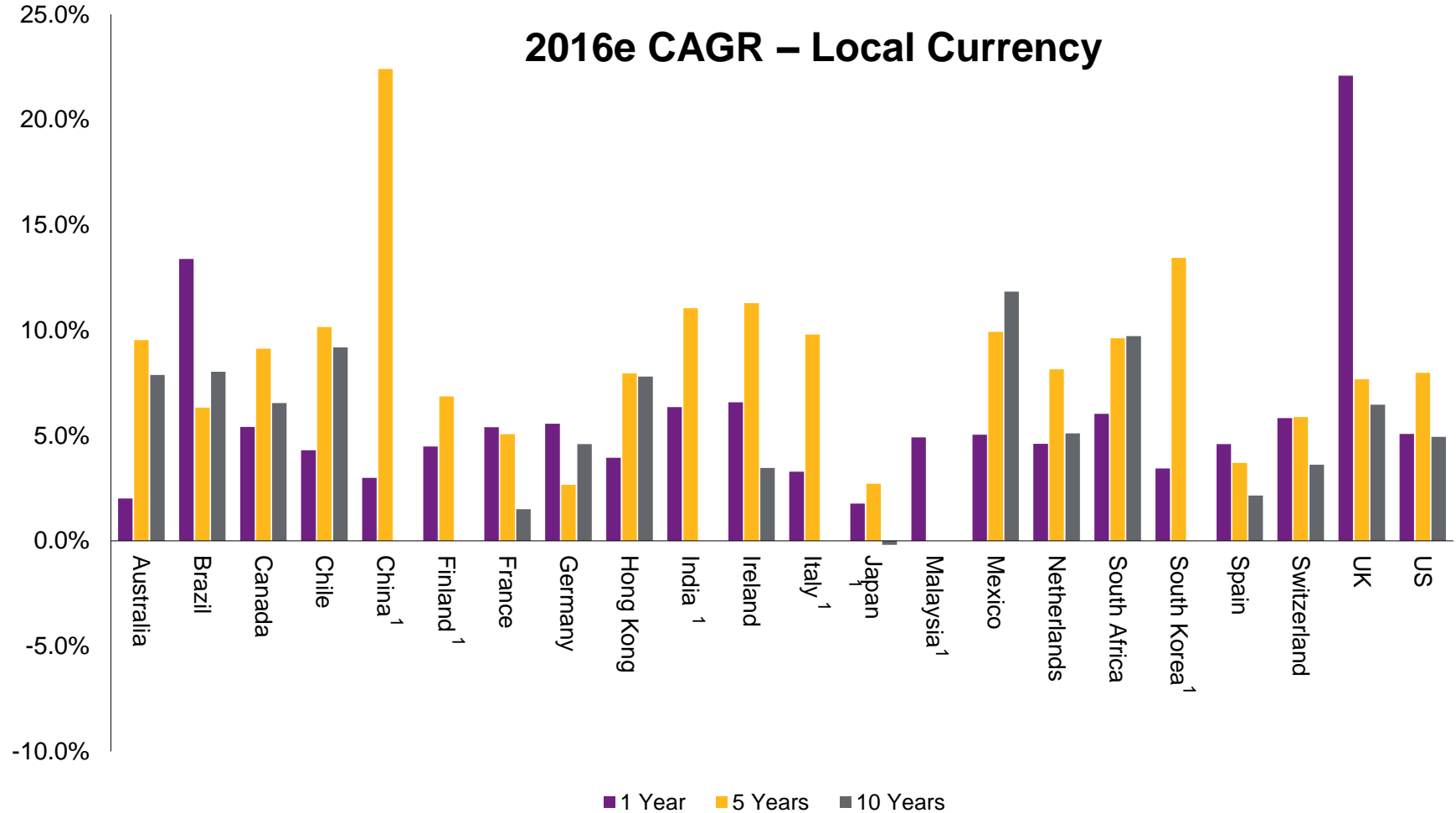
Source: Willis Towers Watson and secondary sources

¹ There was a methodology change for France and Canada in 2008/2009 and a methodology change for UK in 2012 and 2016.

² 5 and 10 year growth rates are not available for Malaysia. 10 year growth rates are not available for China, Finland, India, Italy, Malaysia and South Korea.

Global pension assets growth rates

Compound annual growth rates – local currency



Source: Willis Towers Watson and secondary sources

¹5 and 10 year growth rates are not available for Malaysia. 10 year growth rates are not available for China, Finland, India, Italy and South Korea.

Global pension assets growth rates

Compound annual growth rates – USD

- In 2016, global pension assets were estimated to have increased 3.0% on average
- During the last 10 years, the fastest growing pension markets have been Hong Kong (7.8%), Australia (6.9%) and Chile (6.8%) when measured in USD terms
- France and Spain have had the slowest rates of growth in USD terms since 2006 (-0.8% and -0.1% respectively)

Growth rates to 2016e (USD)

Country	1-year CAGR ²	5-year CAGR	10-year CAGR
Australia ³	1.1%	2.3%	6.9%
Brazil	7.4%	-4.9%	3.6%
Canada ¹	8.5%	3.2%	5.0%
Chile	11.0%	4.8%	6.8%
China ⁴	-3.8%	20.3%	—
Finland ⁴	0.8%	2.5%	—
France ¹	1.6%	0.8%	-0.8%
Germany	1.8%	-1.5%	2.3%
Hong Kong	3.9%	8.0%	7.8%
India	3.8%	6.2%	—
Ireland	2.8%	6.8%	1.2%
Italy ⁴	-0.4%	5.4%	—
Japan	5.1%	-5.4%	0.0%
Malaysia ⁴	0.5%	—	—
Mexico	-12.2%	1.6%	4.8%
Netherlands	0.9%	3.8%	2.8%
South Africa	19.6%	-1.2%	2.6%
South Korea ⁴	0.8%	12.6%	—
Spain	0.9%	-0.5%	-0.1%
Switzerland	2.9%	4.2%	5.5%
UK ¹	1.3%	2.9%	1.6%
US	5.1%	8.0%	4.9%
Average	2.9%	3.8%	3.4%

Source: Willis Towers Watson and secondary sources

¹ There was a methodology change for France and Canada in 2008/2009 and a methodology change for UK in 2012 and 2016.

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

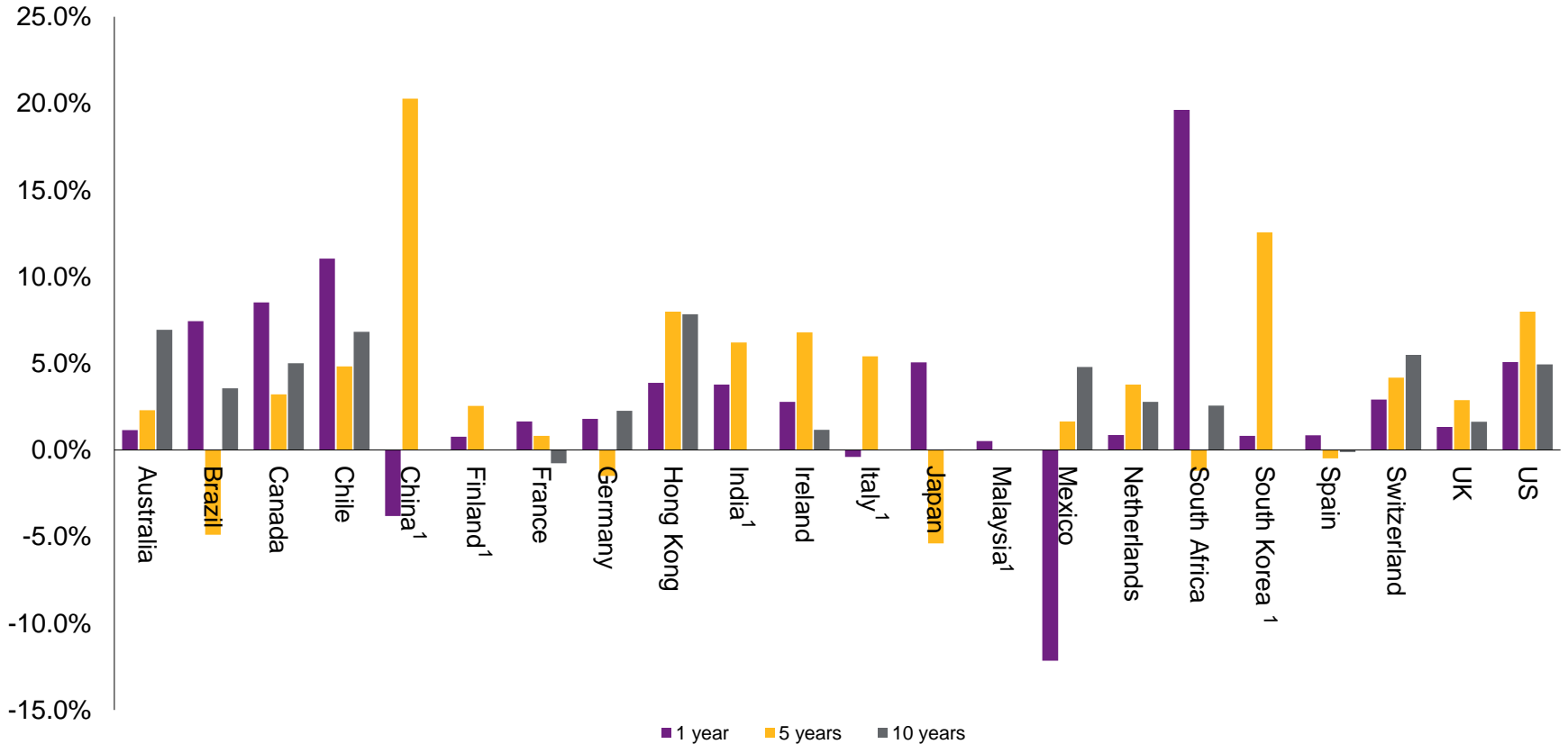
³ Existing contribution rates as well as the fact that retirees can cash in all their benefits (i.e. no compulsion to lock in or annuities), can have a significant impact on expected asset growth in Australia.

⁴ 5 and 10 year growth rates are not available for Malaysia. 10 year growth rates are not available for China, Finland, India, Italy and South Korea.

Global pension assets growth rates

Compound annual growth rates – USD

2016e CAGR - USD



Source: Willis Towers Watson and secondary sources

¹5 and 10 year growth rates are not available for Malaysia. 10 year growth rates are not available for China, Finland, India, Italy and South Korea.

Global pension assets growth rates

Currency impact

- In 2016, several currencies depreciated against the US Dollar, except the Brazilian Real, Canadian Dollar, Chilean Peso, Japanese Yen and the South African Rand
- Currencies that experienced the largest depreciation against the USD were the Great British Pound (-17.0%), the Mexican Peso (-16.4%), the Chinese Yuan (-6.6%), the Malaysian Ringgit (-4.2%) and the Euro (-3.6%)
- Over longer periods, there has been a trend of appreciation of the USD relative to other major currencies. During the last 10 years, the only currencies that appreciated against the USD were the Swiss Franc (1.8% pa) and the Japanese Yen (0.2% pa), while over the last 5 years, none of the currencies of the markets in this study appreciated against the USD.

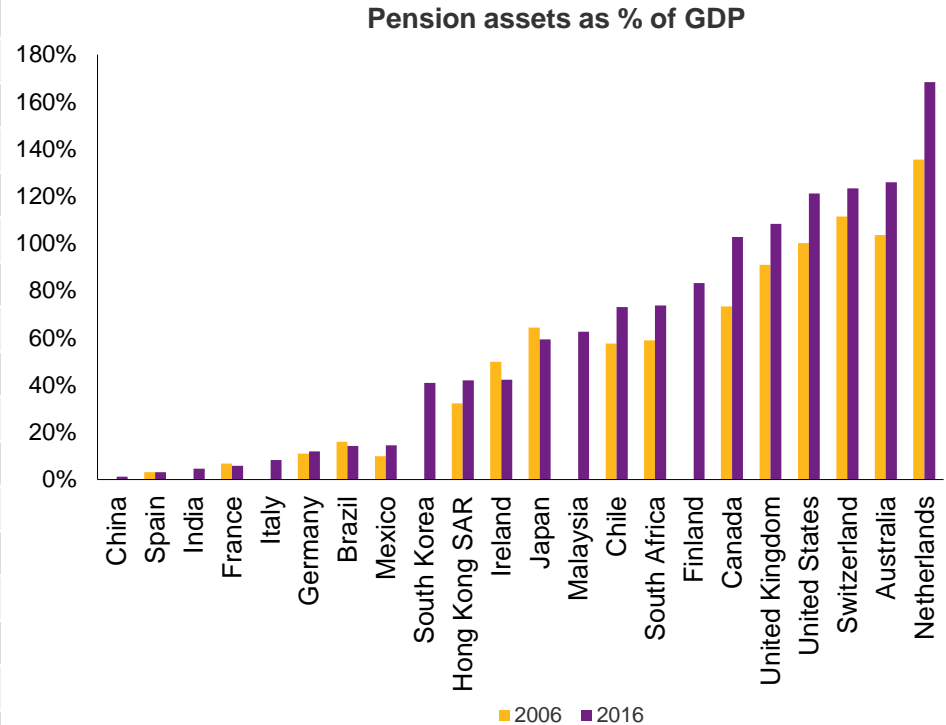
Country	Variation in FX rates against USD		
	1-year	5-year CAGR	10-year CAGR
Australia	-2.6%	-6.6%	-0.9%
Brazil	-5.3%	-10.5%	-4.1%
Canada	2.9%	-5.4%	-1.4%
Chile	6.5%	-4.8%	-2.2%
China ¹	-6.6%	-1.7%	—
Finland ¹	-3.6%	-4.0%	—
France	-3.6%	-4.0%	-2.2%
Germany	-3.6%	-4.0%	-2.2%
Hong Kong	-0.1%	0.0%	0.0%
India ¹	-2.4%	-4.4%	—
Ireland	-3.6%	-4.0%	-2.2%
Italy ¹	-3.6%	-4.0%	—
Japan	3.2%	-7.9%	0.2%
Malaysia ¹	-4.2%	—	—
Mexico	-16.4%	-7.5%	-6.3%
Netherlands	-3.6%	-4.0%	-2.2%
South Africa	12.8%	-9.9%	-6.5%
South Korea ¹	-2.5%	-0.8%	—
Spain	-3.6%	-4.0%	-2.2%
Switzerland	-2.8%	-1.6%	1.8%
UK	-17.0%	-4.5%	-4.5%

¹ 5 and 10 year growth rates are not available for Malaysia. China, Finland, India, Italy and South Korea 10 year growth rates are not available.

Source: Willis Towers Watson and secondary sources

Global pension assets vs. GDP in local currency

Country	Pension assets as a % of GDP		
	2006	2016e	Change ¹
Australia	104%	126%	22%
Brazil	16%	14%	-2%
Canada	73%	103%	30%
Chile	58%	73%	15%
China ²	—	1%	—
Finland ²	—	83%	—
France	7%	6%	-1%
Germany	11%	12%	1%
Hong Kong	32%	42%	10%
India ²	—	5%	—
Ireland	50%	42%	-8%
Italy ²	—	8%	—
Japan	64%	59%	-5%
Malaysia ²	—	63%	—
Mexico	10%	14%	4%
Netherlands	135%	168%	33%
South Africa	59%	74%	15%
South Korea ²	—	41%	—
Spain	3%	3%	0%
Switzerland	111%	123%	12%
UK	91%	108%	17%
US	100%	121%	21%



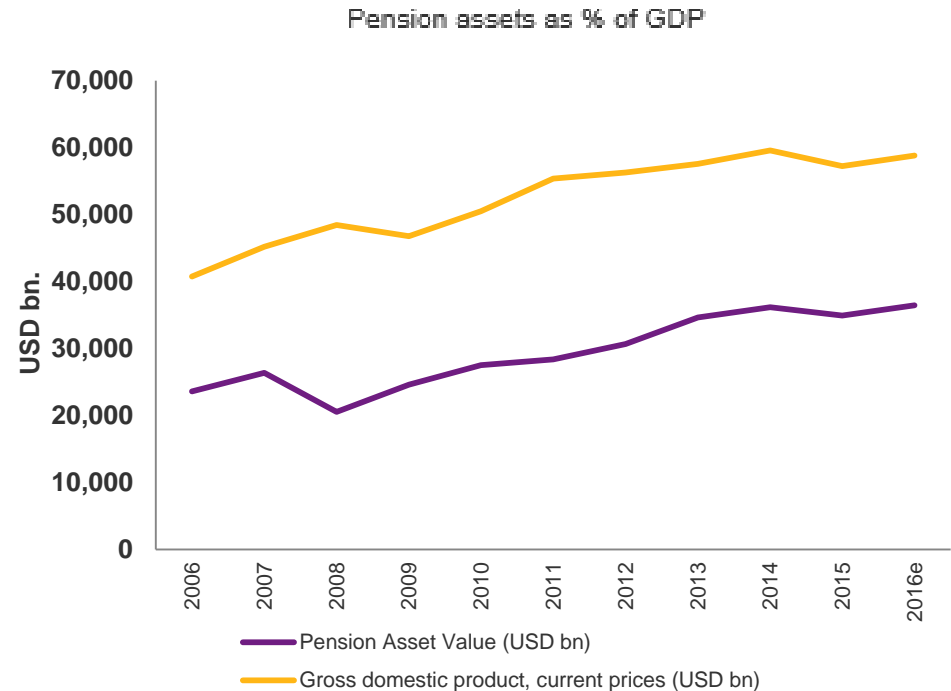
¹ In percentage points, figures are rounded.

² 2006 figures are not available for China, Finland, India, Italy, Malaysia and South Korea.

Source: Willis Towers Watson and secondary sources

Global pension assets VS. GDP in USD

- The total pension assets to GDP ratio reached 62.0%¹ at the end of 2016
- The Netherlands has the highest ratio of pension assets to GDP (168%) followed by Australia (126%), Switzerland (123%), the US (121%) and UK (108%)
- During the last 10 years, the pension assets to GDP ratio increased the most in Australia, Netherlands, Canada and the US (44, 33, 29 and 21 percentage points respectively). It declined in Ireland, Japan, Brazil and France during the same period.



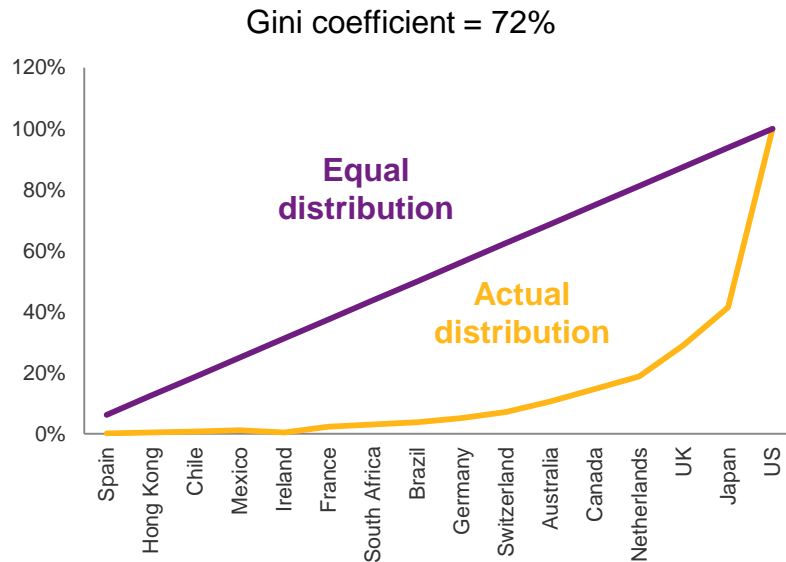
Source: Willis Towers Watson and secondary sources

Note: World GDP measured in USD and market GDP in Local Currency

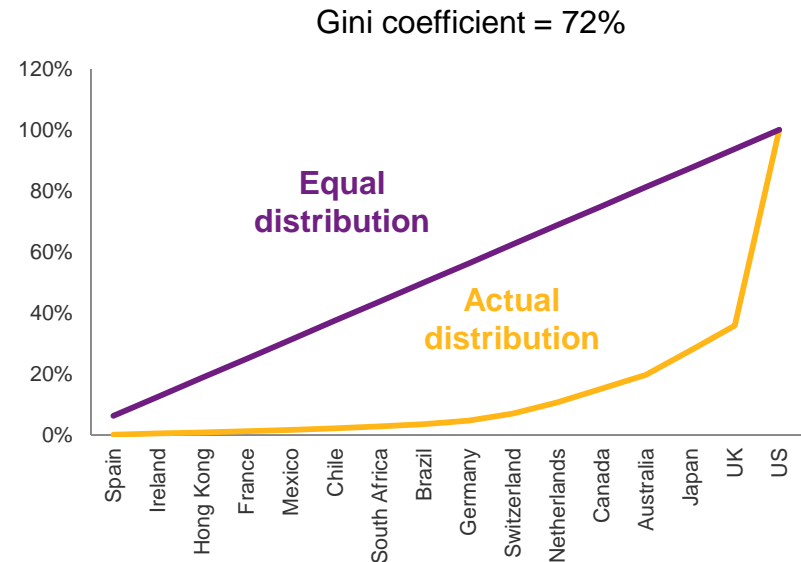
¹ The ratio of Total Pension Assets to GDP declined from 2016 with the addition of China. China's pension assets represent 1.2% of total GDP.

Gini coefficient – global pension assets 2006 vs 2016

Lorenz curve for pension assets in 2006



Lorenz curve for pension assets in 2016



Source: Willis Towers Watson and secondary sources

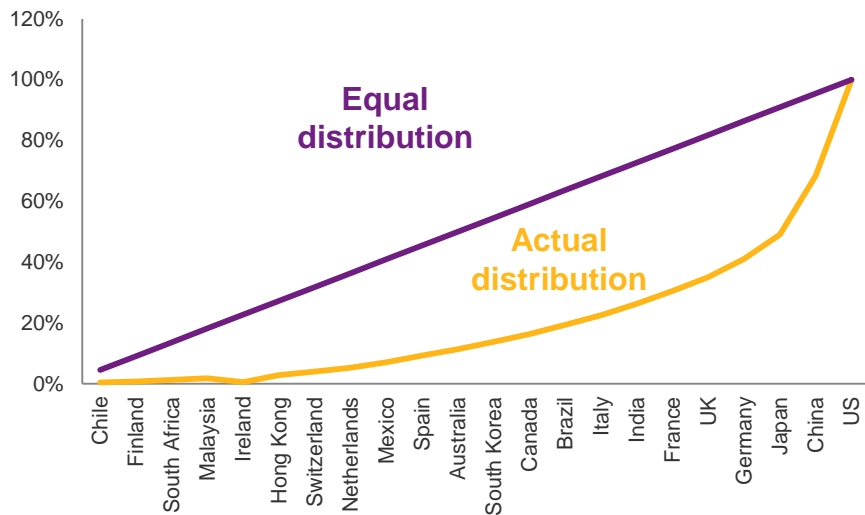
- The Gini coefficient of global pension assets in 2016 was 72.5% which indicates the pension assets are still concentrated in relatively few countries
- The global pension market has remained largely unchanged over the last 10 years. The Gini coefficient was 71.7% in 2006.

Note: China, Finland, India, Italy, Malaysia and South Korea are not included in the analysis

Gini coefficient – pension assets vs GDP

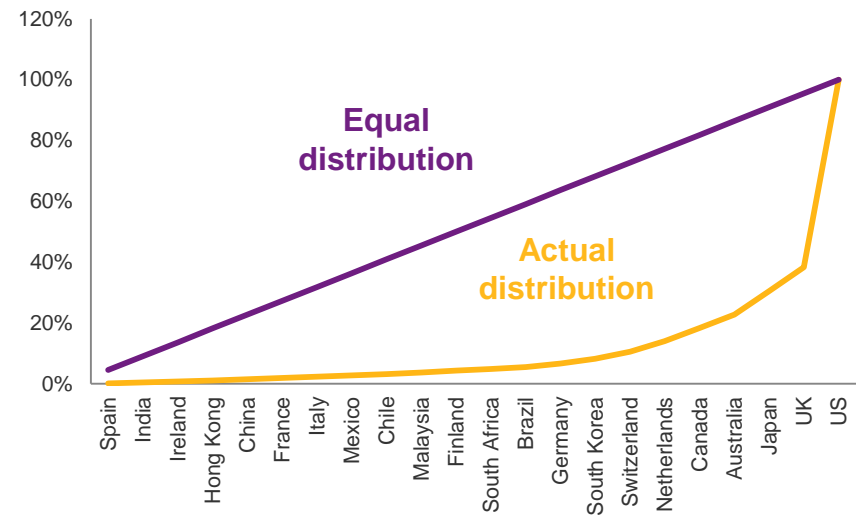
Lorenz curve for GDP in 2016

Gini coefficient = 59%



Lorenz curve for pension assets in 2016

Gini coefficient = 75%



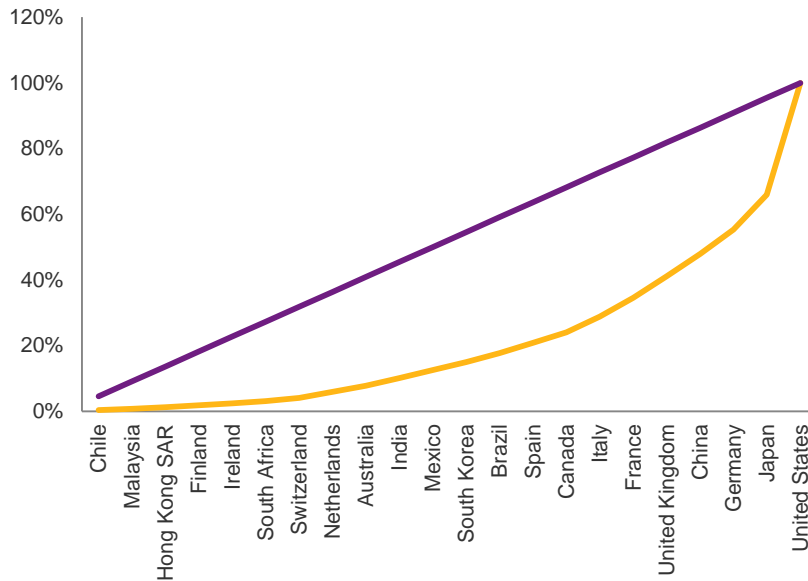
Source: Willis Towers Watson and secondary sources

- The lower Gini coefficient for GDP (59.2%) relative to pension market size (75.5%) 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 larger countries.

Gini coefficient – GDP 2006 vs. 2016

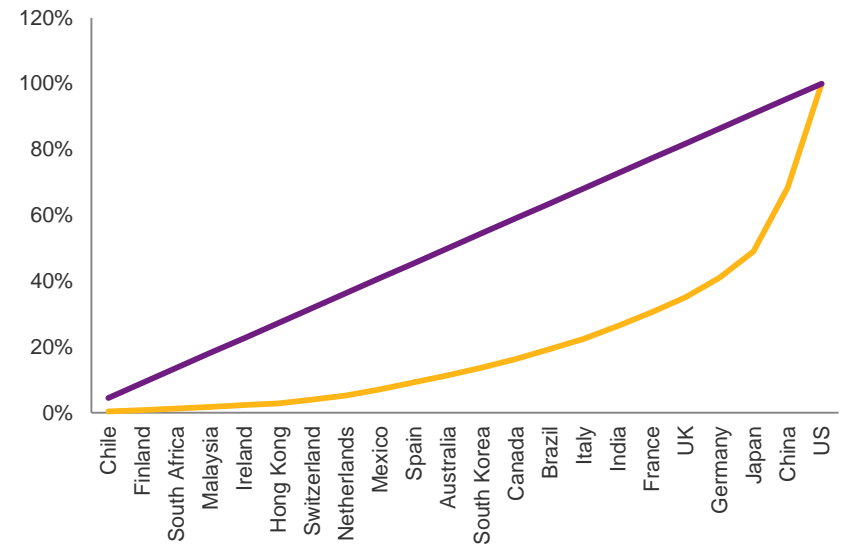
Lorenz curve for GDP in 2006

Gini coefficient = 56%



Lorenz curve for GDP in 2016

Gini coefficient = 59%

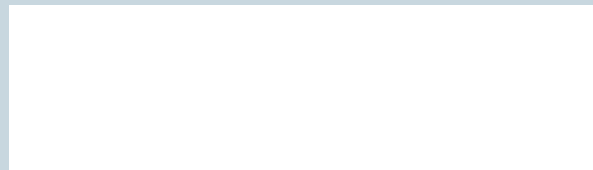
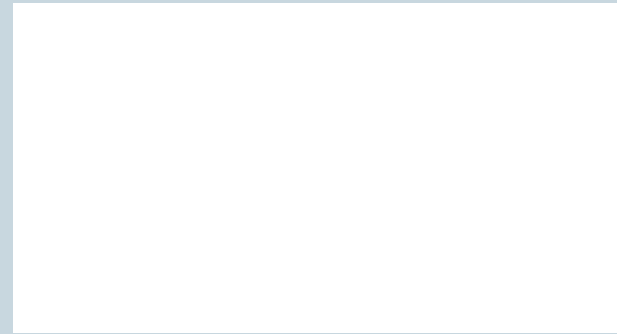


- The Gini coefficient for GDP has increased over the last 10 years, from 56.4% in 2006 to 59.2% in 2016, showing a more concentrated GDP for the countries included in this analysis

Source: Willis Towers Watson and secondary sources

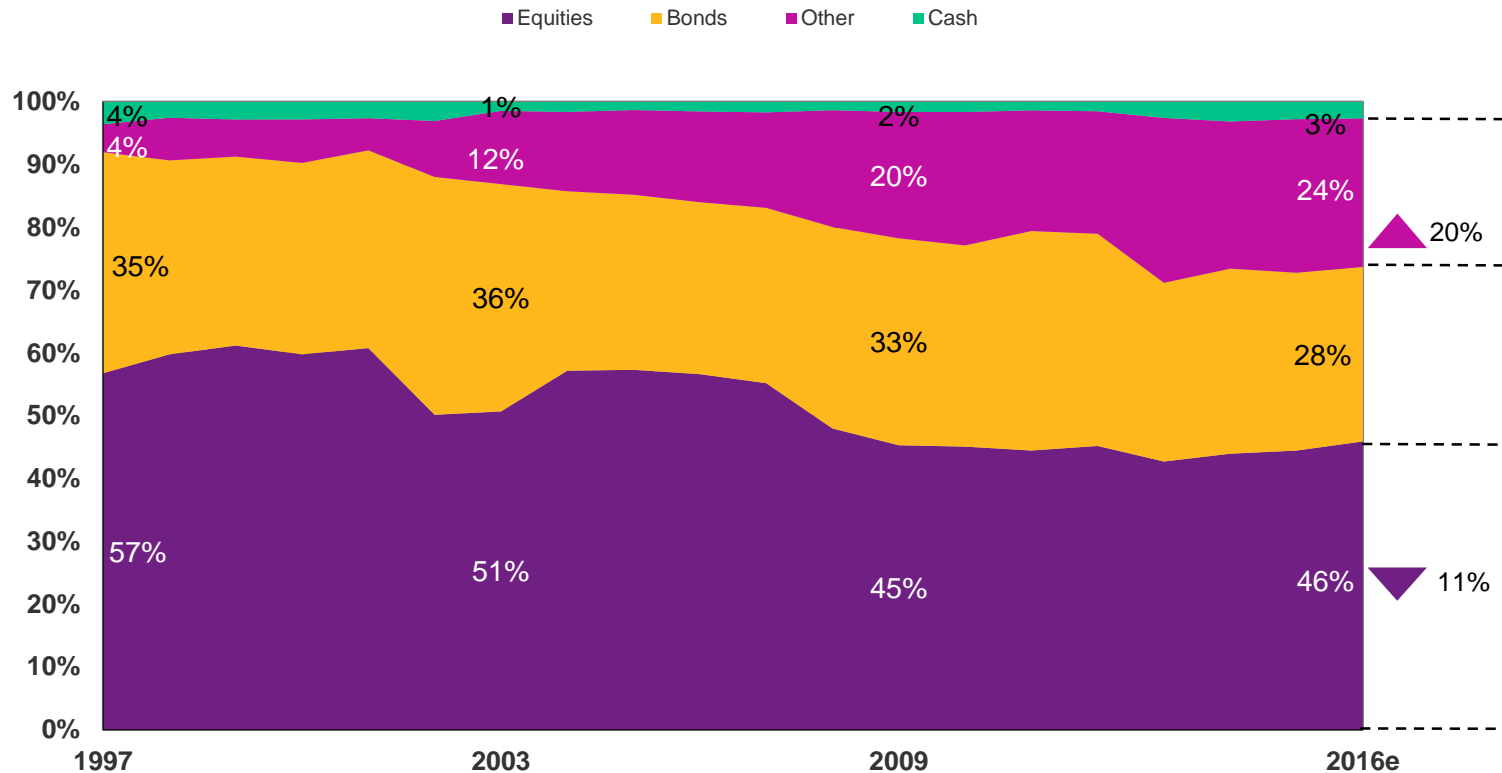
Global Pension Assets Study 2017

2. Asset allocation (P7)



Pension asset allocation

Aggregate P7 asset allocation from 1997 to 2016

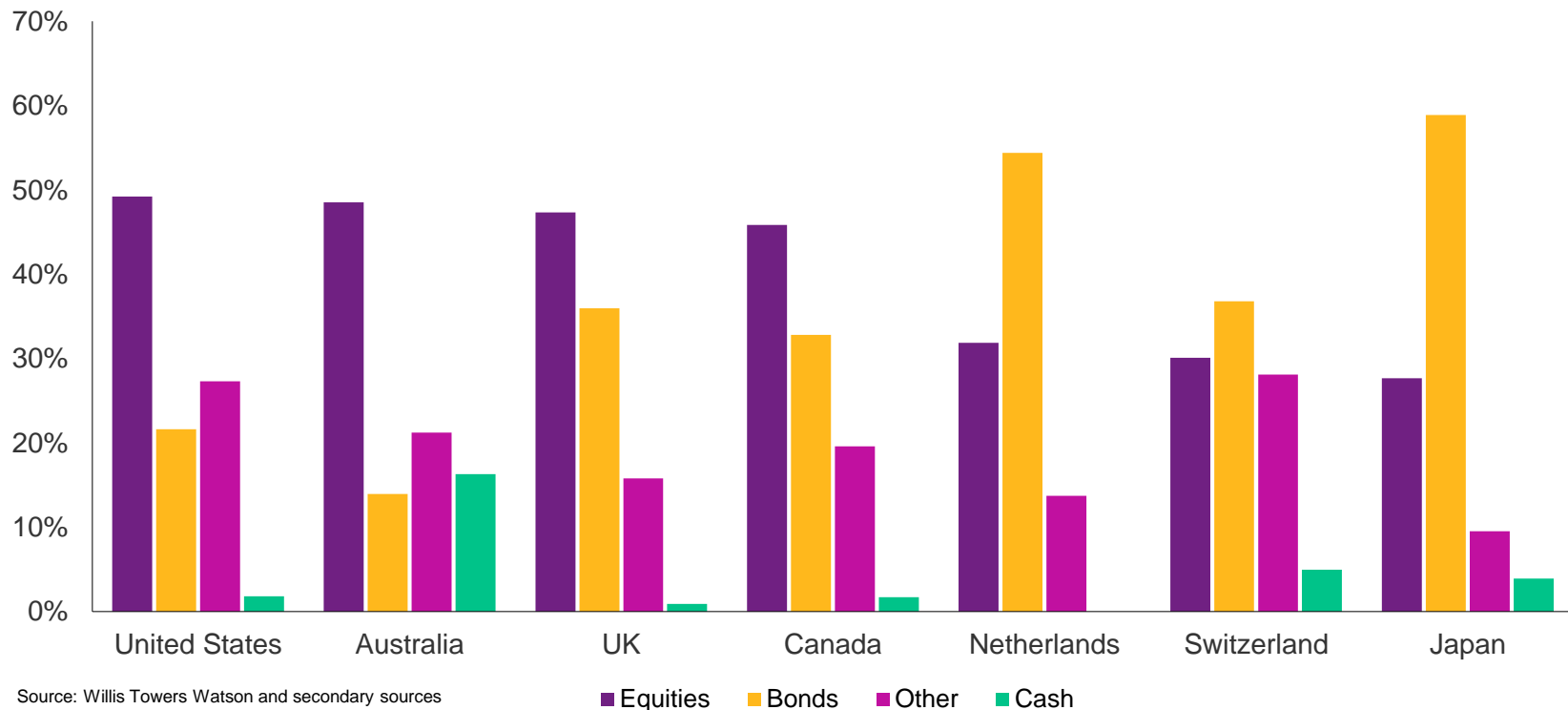


Source: Willis Towers Watson and secondary sources

- Since 1997, bonds, equities and cash allocations have been reduced to varying degrees while allocations to other assets (real estate and other alternatives) have increased from 4% to 24%
- Pension fund assets managed by the top 100 alternative asset managers amount to USD 1,492.8 billion in 2016 according to Willis Towers Watson's [Global Alternatives Survey](#)

Pension asset allocation

P7 in 2016

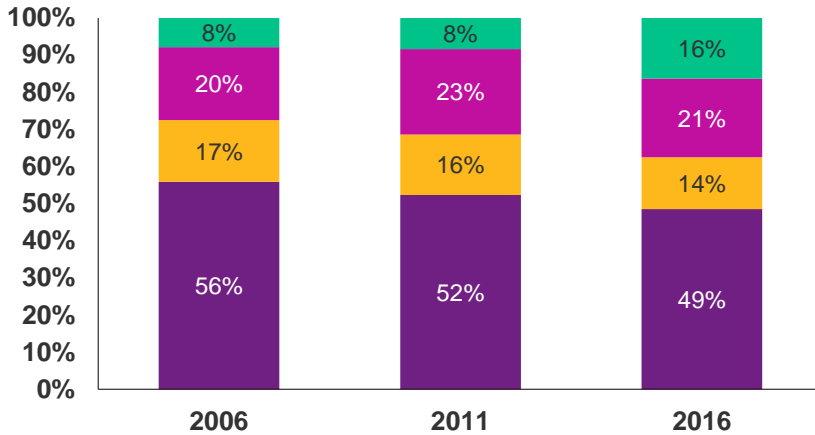


- In 2016, Australia, the UK and the US continued to have above average equity allocation
- The Netherlands and Japan have above average exposure to bonds, while Switzerland has the most even allocations across equities, bonds and other assets

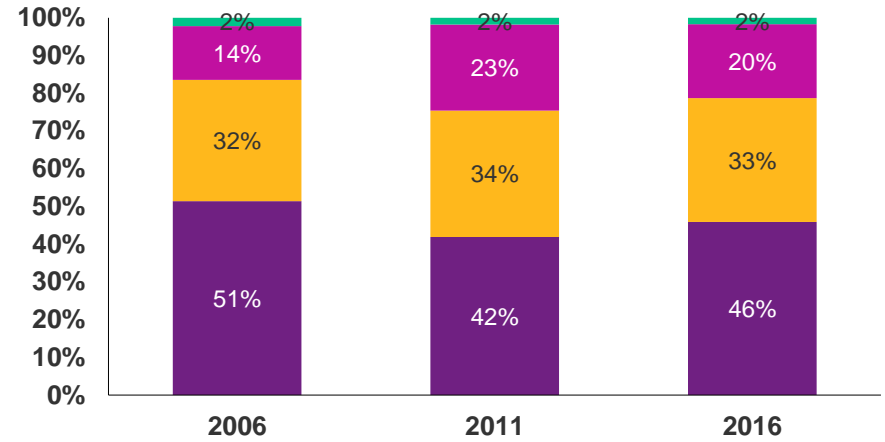
Pension asset allocation

Aggregate – end 2006 versus end 2011 versus end 2016

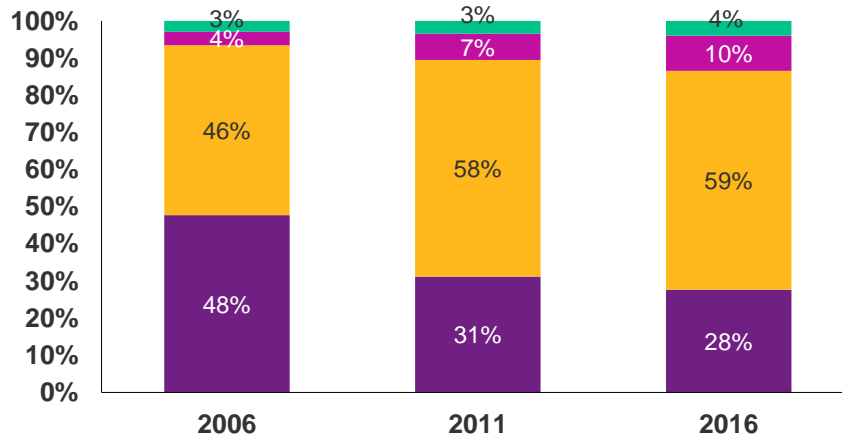
Australia



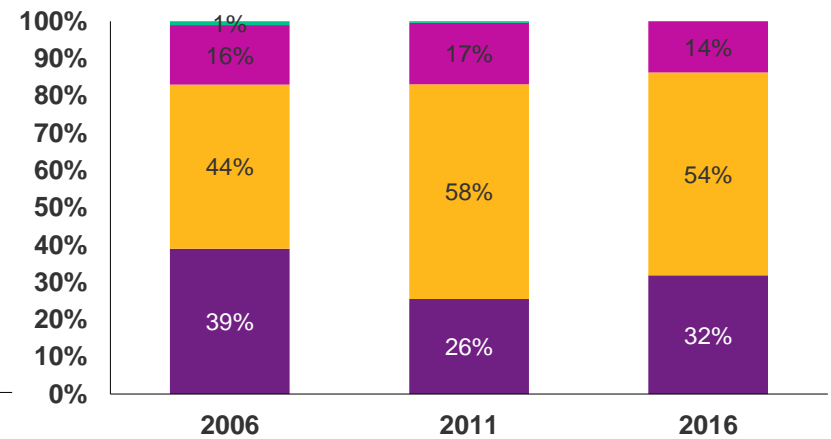
Canada



Japan



Netherlands



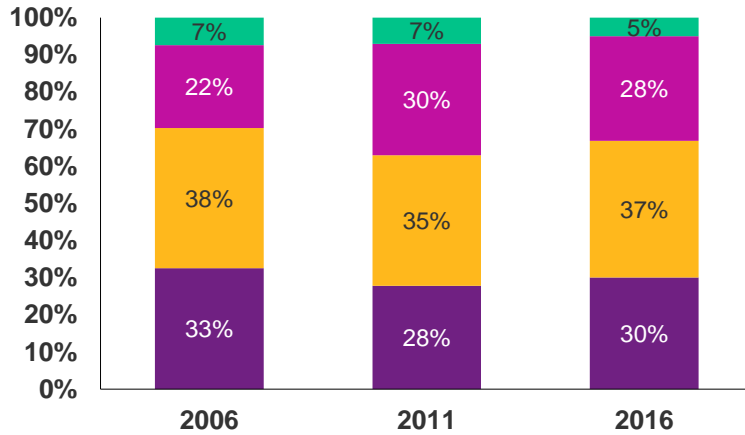
Source: Willis Towers Watson and secondary sources

■ Equities ■ Bonds ■ Other ■ Cash

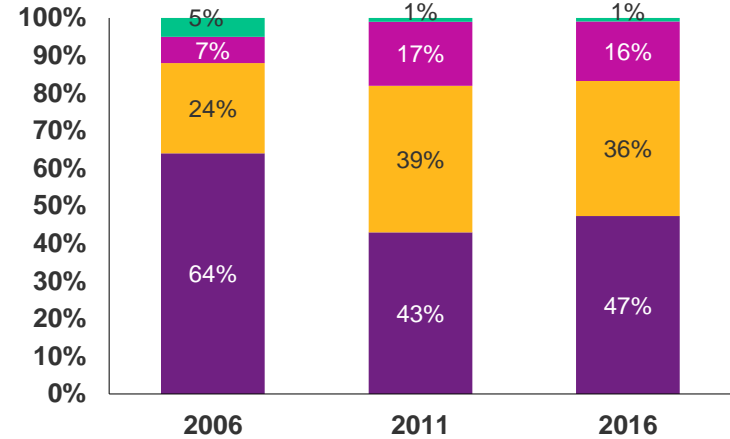
Pension asset allocation

Aggregate – end 2006 versus end 2011 versus end 2016

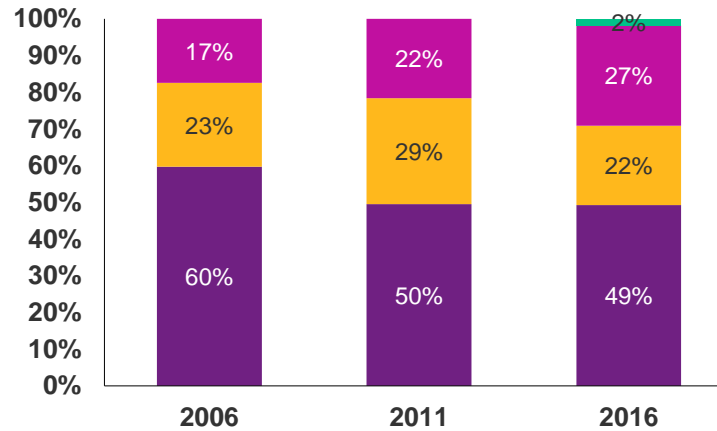
Switzerland



UK



US



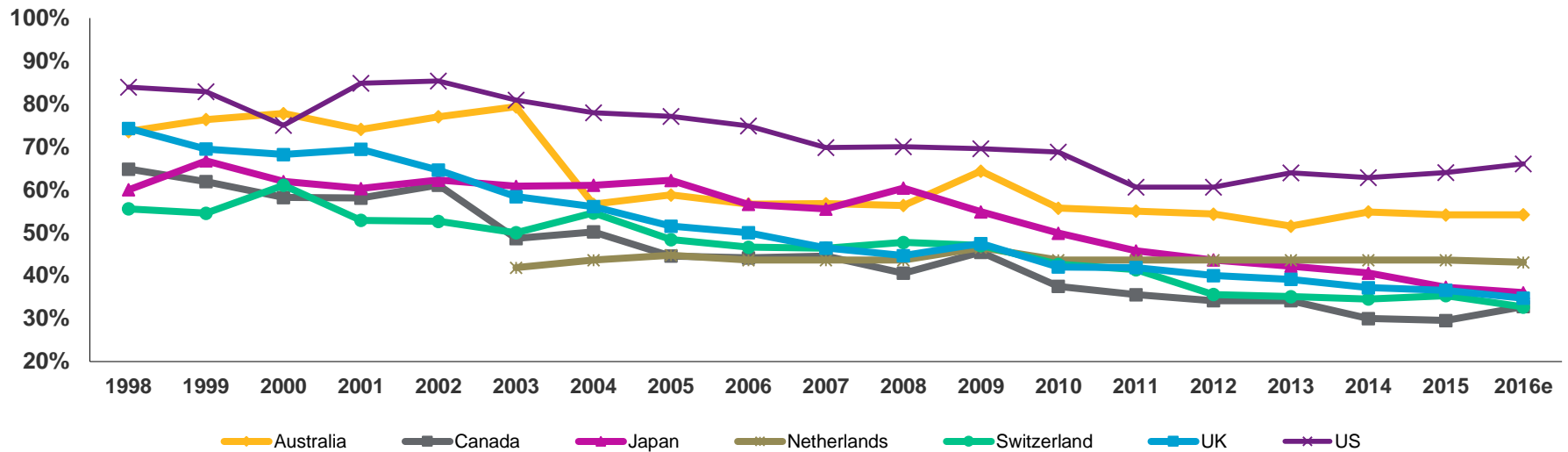
Source: Willis Towers Watson and secondary sources

■ Equities ■ Bonds ■ Other ■ Cash

Pension asset allocation

Domestic equity exposure

Domestic equity over total equity exposure



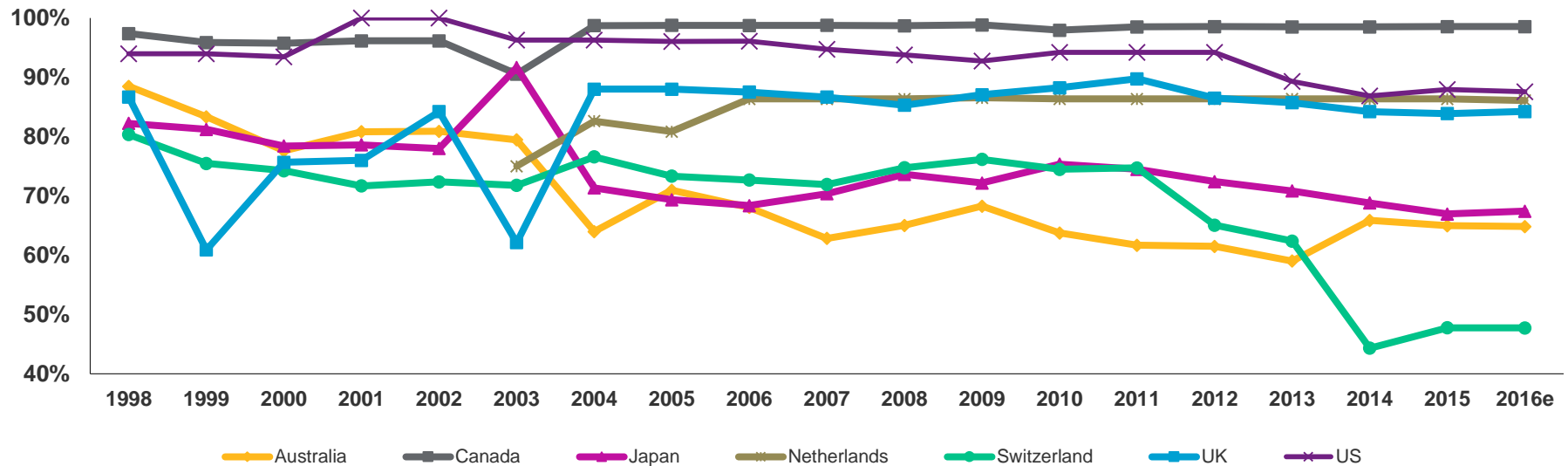
Source: Willis Towers Watson and secondary sources

- There is a clear sign of a reduced home bias in equities, as the weight of domestic equities has fallen, on average, from 68.7% in 1998 to 42.8% in 2016
- Over the past 10 years, US has had the highest allocation to domestic equities, while Canada Switzerland and UK had the lowest allocation

Pension asset allocation

Domestic bonds exposure

Domestic bonds over total bond exposure

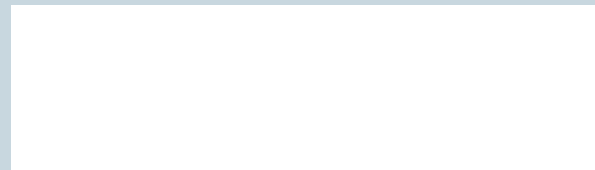
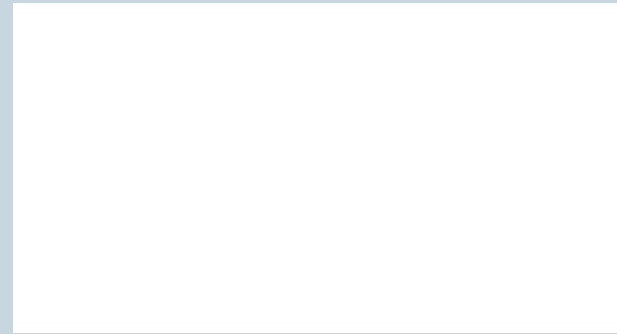


Source: Willis Towers Watson and secondary sources

- The allocation to domestic bonds has remained high. On average, the allocation to domestic bonds as a percentage of total bonds was 88.2% in 1998 and 76.6% in 2016.
- Canada, Netherlands and the US have the highest allocation to domestic bonds, while Switzerland has the highest foreign bond exposure

Global Pension Assets Study 2017

3. DB/DC Split (P7)



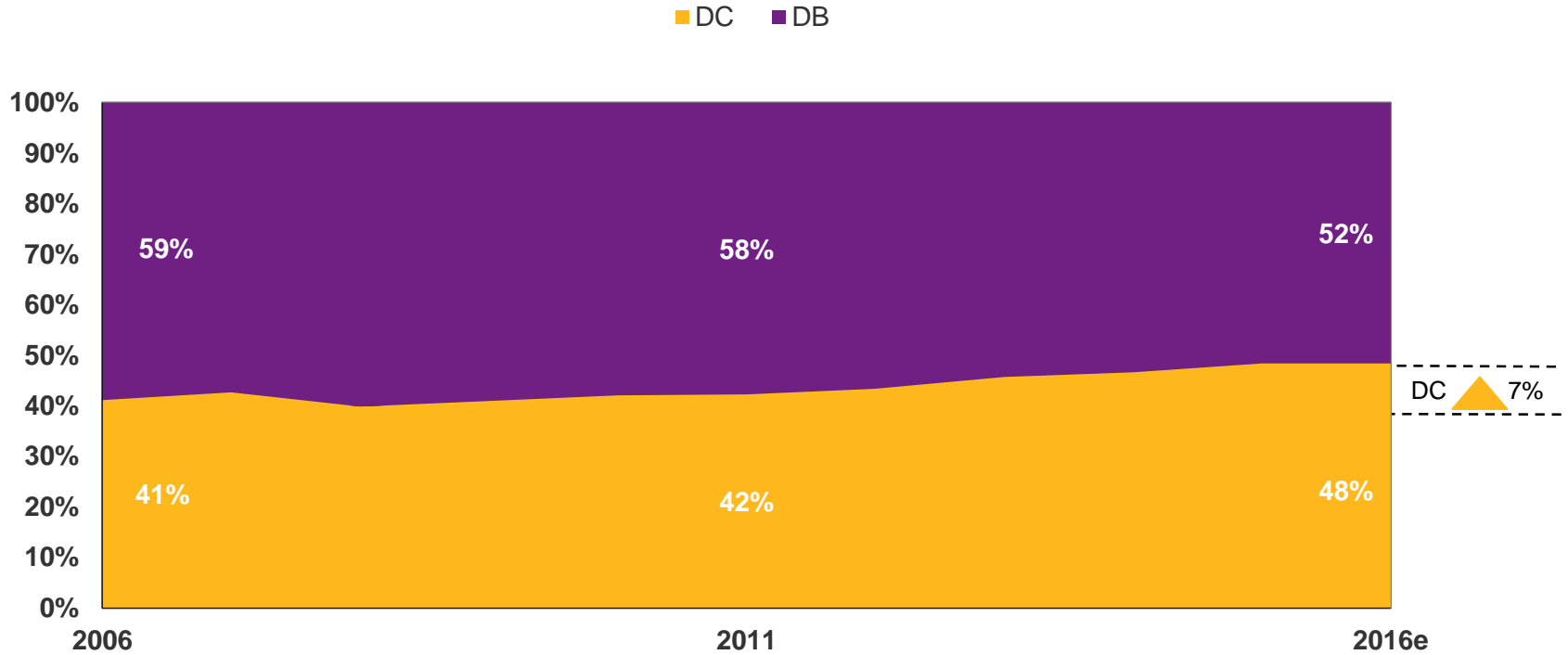
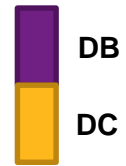
DB/DC asset split

Change over the past years

- Countries with a higher allocation to DC assets in 2016 were Australia with 87.0% and the US with 60.1%
- Japan, Canada and the Netherlands only have 4.2%, 4.6% and 5.8% respectively in DC assets in 2016
- DC pension assets have grown from 41.1% in 2006 to 48.4% in 2016.
- During the last 10 years, DC assets have grown at a rate of 5.6% pa while DB assets have grown at a slower pace of 2.6% pa

DB/DC asset split

Change over the last 10 years

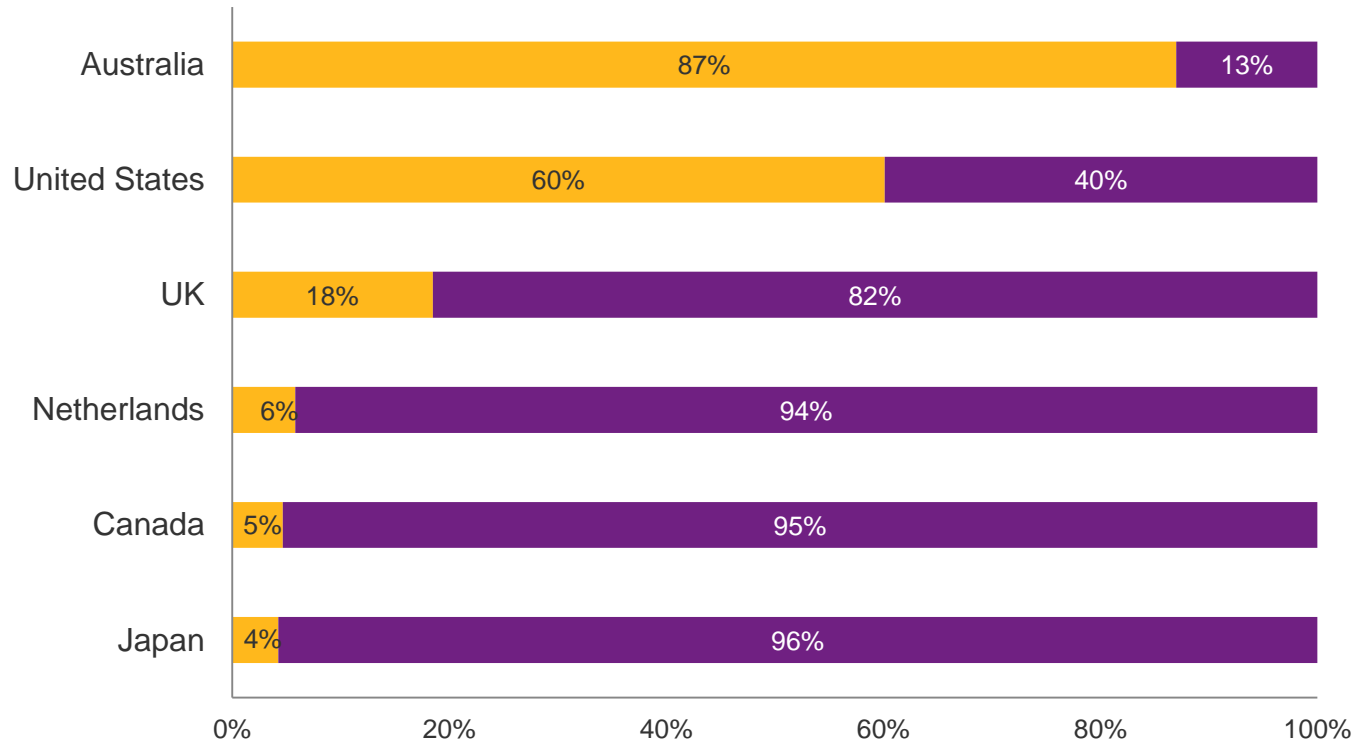
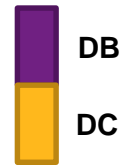


Source: Willis Towers Watson and secondary sources

Note: DC assets in Switzerland are cash balance plans where the plan sponsor shares the investment risk and all assets are pooled. There are 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

P7 in 2016

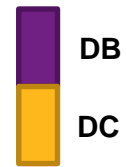


Source: Willis Towers Watson and secondary sources

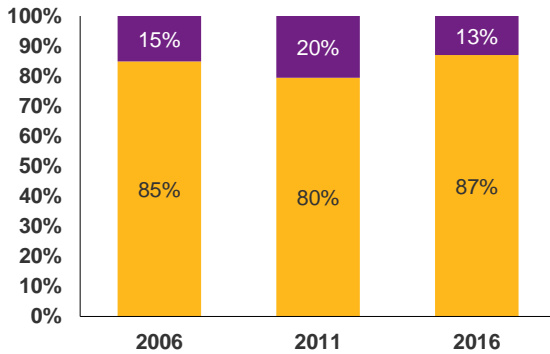
Note: The majority of pension fund assets in Switzerland are DC and take the form of cash balance plans, whereby the plan sponsor shares the investment risk and the assets are pooled. Pure DC assets have only recently been introduced in Switzerland and, although they have seen strong growth, they are not yet large enough to justify inclusion in this analysis

DB/DC asset split per market

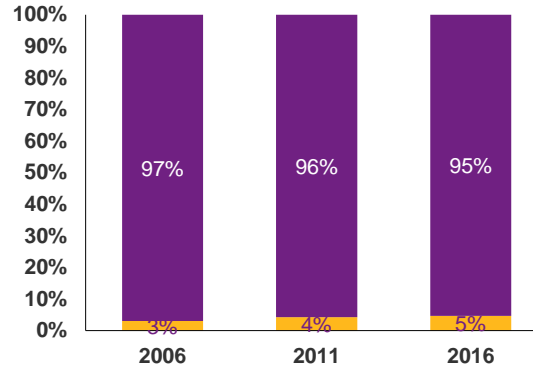
End 2006 versus end 2011 versus end 2016



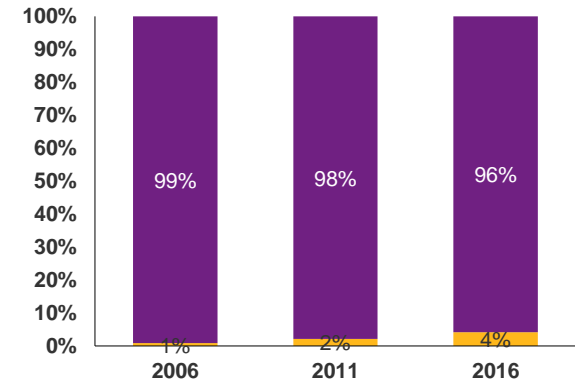
Australia



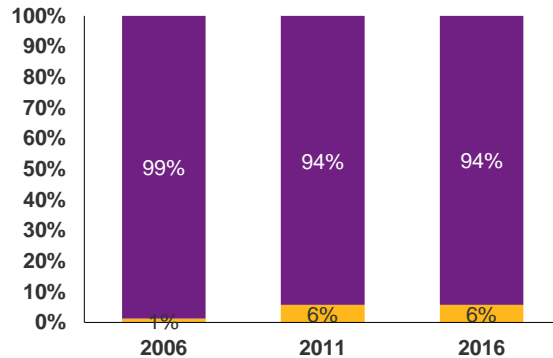
Canada



Japan



Netherlands



US



Source: Willis Towers Watson and secondary sources

Notes: The majority of pension fund assets in Switzerland are DC and take the form of cash balance plans, whereby the plan sponsor shares the investment risk and the assets are pooled. Pure DC assets have only recently been introduced in Switzerland and, although they have seen strong growth, they are not yet large enough to justify inclusion in this analysis. In January 2017, the UK's Office for National Statistics stated that the figures previously disclosed for DC entitlements were significantly overestimated. As a result, we do not have confidence in making comparisons with prior years and so have omitted this chart.

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.

2. **Risk management focus**

Funds' focus on risk intensifies, with two separate groups: those where the appetite for risk is trimmed from previous levels, and 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 among funds, 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. **ESG and stranded assets**

The move towards more integrated approaches to managing ESG (Environment, Social and Governance) factors and better stewardship exercised over ownership is gathering pace; this will require the support of increased disclosure, measurement and analysis of extra-financial factors.

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 comprises:
 - Hard data typically as of year-end 2015 (except for Australia and Brazil which is from June 2016) collected by Willis Towers Watson and from various secondary sources.
 - Estimates as at year-end 2016 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
- In the 2016 edition of the GPAS Australian assets started to include Self-Managed Super Fund (SMSF) assets. SMSF represent almost a third of Australia’s pension assets.
- The source for UK pension data was changed this year from the Official National Statistics (ONS) to a variety of publicly available sources. This change was prompted by methodological changes announced by the ONS in January 2017
- Due to unavailability of pensions data in China, the study collects information on Enterprise Annuity (Pillar II) assets only. Data relating to Pillar I assets - social pooling (DB) and individual accounts (DC) - is very limited and therefore not included. The National Social Security Fund pension assets (c. US\$295 billion at December 31, 2015) are also not included as it is considered as a reserve fund and separate from the pension system

Comparison with GDP

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

Contact details and limitations of reliance

Paul Deane-Williams
+44 1737 274397
Paul.Deane-Williams@willistowerswatson.com

Limitations of reliance

Willis Towers Watson has prepared this presentation for general information and education purposes only.

In preparing this report at times we have relied upon data supplied to us by third parties. While reasonable care has been taken to gauge the reliability of this data, this report therefore carries no guarantee of accuracy or completeness and Willis Towers Watson cannot be held accountable for the misrepresentation of data by third parties involved.

This report is based on information available to Willis Towers Watson at the date of the report and takes no account of subsequent developments after that date. It may not be modified or provided to any other party without Willis Towers Watson's prior written permission. It may also not be disclosed to any other party without Willis Towers Watson's prior written permission except as may be required by law. In the absence of our express written agreement to the contrary, Willis Towers Watson accepts no responsibility for any consequences arising from any third party relying on this report or the opinions we have expressed. This report is not intended by Willis Towers Watson to form a basis of any decision by a third party to do or omit to do anything.

Please note that investment returns can fall as well as rise and that past performance is not a guide to future investment returns. Willis Towers Watson is authorised and regulated by the Financial Services Authority.