

10 YEARS AFTER THE FINANCIAL CRISIS – HOW HAVE WE RECOVERED

International Comparisons





Outline of the presentation

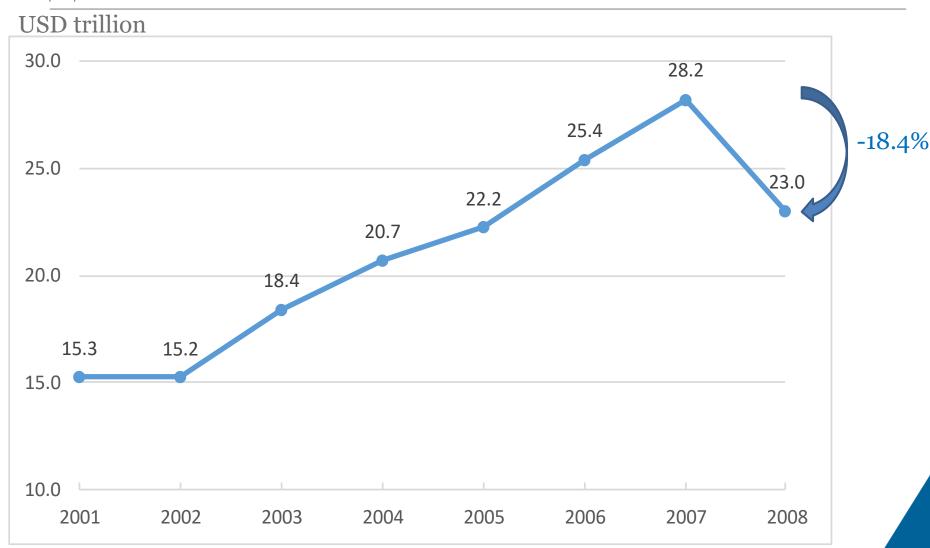
1. International comparisons of the impact of the financial crisis on private pensions

- 2. Responses of the stakeholders in the private pension sector to the financial crisis
- 3. Trends in the pension sector since the financial crisis

4. Challenges ahead

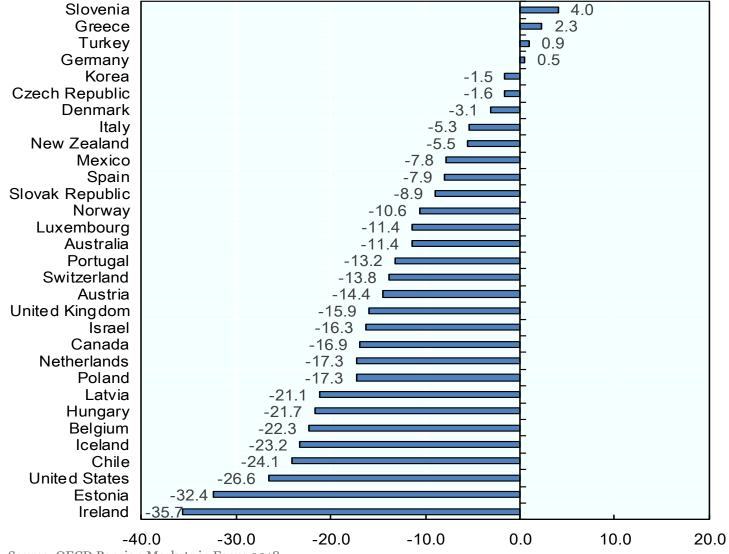


Impact of the financial crisis A 18% drop in OECD pension assets in 2008





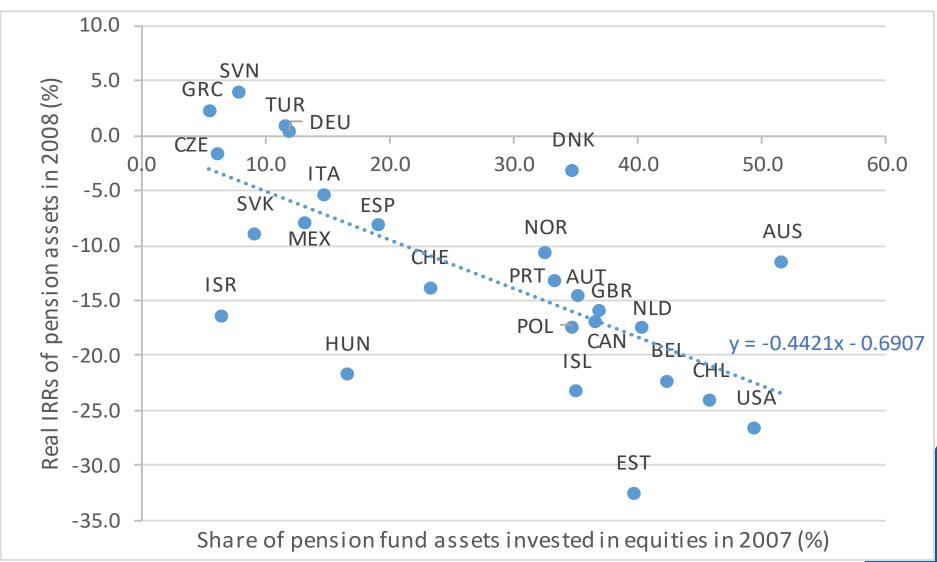
Real investment rates of return negative in most OECD countries in 2008, to different extents



Lowest investment performance in Ireland, Estonia, the US, Chile and Iceland



The financial crisis affected the most systems with the largest share of pension fund assets in equities





Impacts of adverse event on financial markets on different pension arrangements

- The impact of the financial crisis on the different stakeholders differs by type of pension arrangements:
 - In DC plans: members are directly affected by investment losses (except if guarantees). Effect may be the strongest on the eldest workers who may have: i) the largest pension pot (compared to the youngest workers); ii) little time to recoup losses before retirement.
 - In DB (traditional) plans: the decline in assets leads to a deterioration of funding ratio (e.g. Norway, UK, US). The responsibilities of covering funding shortfall may lie on the plan sponsor.
 - In DB hybrid plans: investment losses may be shared among members and retirees (through benefit adjustments), triggering benefit cuts (e.g. Iceland and the Netherlands).
- The financial crisis also triggered an economic crisis, that led to higher unemployment. This can have a spill-over effect as members may have more difficulties in contributing.



2. Responses to the financial crisis a. Pension funds

- An IOPS (2018) study analysed the investment behaviour of pension funds during and after the financial crisis in 4 countries: Chile, Italy, Mexico and Poland. This study is based on quarterly data spanning between 2008 and 2016 (varying by country).
- The study found that pension funds had a countercyclical effect during the crisis in Italy and Poland, purchasing equities when the stock indices were declining. Pension funds in Chile by contrast had a pro-cyclical effect, selling equities during the crisis. No significant conclusion for Mexico.
- The study accounts for the differences in behaviours by different strategic decisions and institutional frameworks, such as strategic asset allocation benchmark in Italy, and investment portfolios chosen by members in Chile.

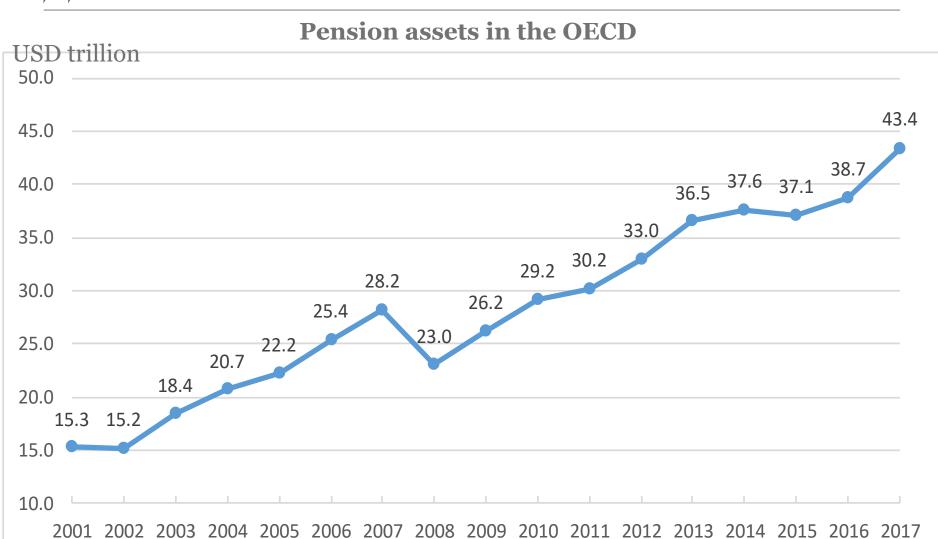


2.b. Responses of policymakers in the pension area following the financial crisis – some examples

- Introduction of more flexibility for DB plans to avoid procyclicality, e.g.: extension of the recovery period in the Netherlands. More risk sharing features considered or introduced to pool/share investment and longevity risks.
- Introduction of mechanisms in DC schemes reducing investment risk as people age such as lifecycle investment strategies.
- Alleviation of some restrictions on pension fund investments for greater diversification of pension fund portfolios despite some notable exceptions (e.g. Iceland outlawing new foreign investment abroad to contain capital outflows right after the following crisis now largely lifted).
- Reversal of funded pension programmes in Hungary



3. How have private pension systems fared since the financial crisis?





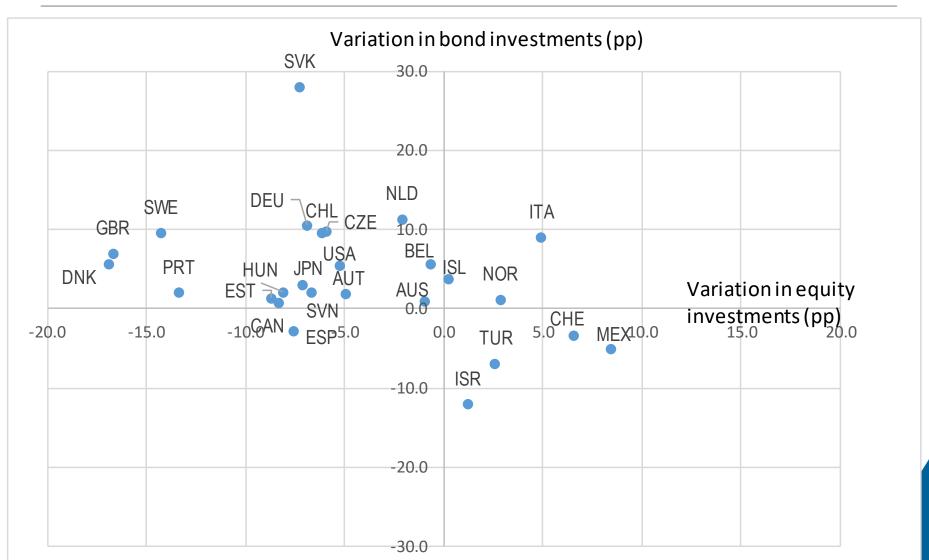
Positive long-term investment returns in real terms in most countries, despite the financial crisis

10-year annual average (Dec 2007-Dec 2017) (Dec 2002-Dec 2017) Australia 2.5 4.2 Austria 1.1 2.0 Belgium 2.1 4.0 Canada 4.0 5.5 Chile 2.0 4.1 Czech Republic -0.1 0.2 Denmark 4.4 4.7 Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovak Republic -0.3 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3 United States 0.5 1.7			
Dec 2007-Dec 2017) (Dec 2002-Dec 2017) Australia 2.5 4.2 Austria 1.1 2.0 Belgium 2.1 4.0 Canada 4.0 5.5 Chile 2.0 4.1 Czech Republic -0.1 0.2 Denmark 4.4 4.7 Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3		•	·
Austria 1.1 2.0 Belgium 2.1 4.0 Canada 4.0 5.5 Chile 2.0 4.1 Czech Republic -0.1 0.2 Denmark 4.4 4.7 Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3		•	•
Belgium 2.1 4.0 Canada 4.0 5.5 Chile 2.0 4.1 Czech Republic -0.1 0.2 Denmark 4.4 4.7 Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Australia	2.5	4.2
Canada 4.0 5.5 Chile 2.0 4.1 Czech Republic -0.1 0.2 Denmark 4.4 4.7 Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Austria	1.1	2.0
Chile 2.0 4.1 Czech Republic -0.1 0.2 Denmark 4.4 4.7 Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Belgium	2.1	4.0
Czech Republic -0.1 0.2 Denmark 4.4 4.7 Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Canada	4.0	5.5
Denmark 4.4 4.7 Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Chile	2.0	4.1
Estonia -1.3 -0.2 Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Czech Republic	-0.1	0.2
Germany 2.6 2.6 Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Denmark	4.4	4.7
Iceland 0.8 3.2 Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Estonia	-1.3	-0.2
Israel 4.0 Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Germany	2.6	2.6
Italy 1.7 2.0 Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Iceland	0.8	3.2
Korea 1.8 1.6 Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Israel	4.0	
Latvia 0.5 -0.5 Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Italy	1.7	2.0
Luxembourg 1.3 Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Korea	1.8	1.6
Mexico 1.9 Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Latvia	0.5	-0.5
Netherlands 4.4 5.3 Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Luxembourg	1.3	
Norway 3.2 4.7 Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Mexico	1.9	••
Portugal 0.9 2.8 Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Netherlands	4.4	5.3
Slovak Republic -0.3 Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Norway	3.2	4.7
Slovenia 4.6 Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Portugal	0.9	2.8
Spain 1.7 Switzerland 3.0 3.5 Turkey 1.3	Slovak Republic	-0.3	
Switzerland 3.0 3.5 Turkey 1.3	Slovenia	4.6	
Turkey 1.3	Spain	1.7	
,	Switzerland	3.0	3.5
United States 0.5 1.7	Turkey	1.3	
	United States	0.5	1.7

10



A move away of pension funds from equity investments in a number of countries between 2007 and 2015



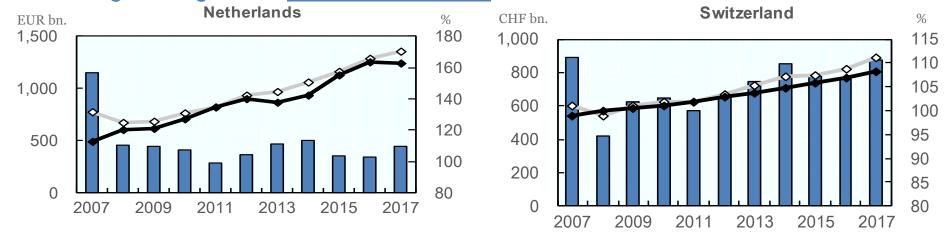
Source: OECD Pension Markets in Focus 2016



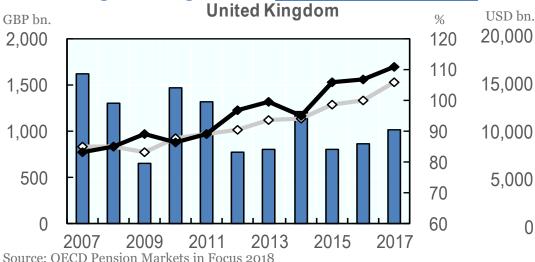
Funding ratios of DB plans in 2017 still below their pre-financial crisis level

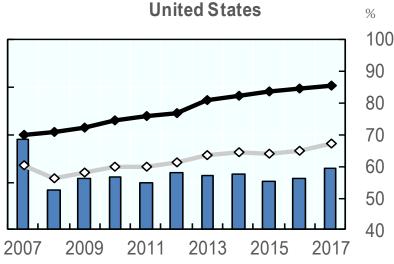


Declining funding ratios, **level above 100%** in 2017



Declining funding ratios, **level below 100%** in 2017







4. Challenges ahead

• The risks and challenges that the pension system and the different stakeholders face are still the same, e.g.: population ageing, low growth, low interest rates, sustainability of promises. In particular, pension funds and other pension providers continue to face investment and longevity risk.

• Diversification of pension arrangements may offer protection against the different types of risk that pension systems may face.