



Pension Funds in Figures



May 2017

Pension fund assets grew in most economies in 2016

Preliminary statistics suggest that pension fund assets grew in most reporting economies in 2016. Pension fund investments increased in 32 out of 35 OECD economies and 25 out of the 27 non-OECD economies participating in the statistical exercise (Table 1). The highest increase of pension fund investments in national currency occurred in Korea, followed by Estonia and Latvia. Pension fund investments also grew by more than 15% in nine other non-OECD economies: Albania, Armenia, Bulgaria, Colombia, Dominican Republic, Ghana, Lithuania, Malawi and Romania. The funded pension system is still relatively recent in all these economies, with a mandatory savings component in all but Albania and Lithuania.

Table 1. Total investment of pension funds and all retirement vehicles, 2016 (preliminary)

OECD economies	Pension funds					All retirement vehicles % of GDP	Selected non-OECD economies	Pension funds					All retirement vehicles % of GDP
	millions of national currency	millions of USD	% of GDP	% change (national currency)	% of all retirement vehicles			millions of national currency	millions of USD	% of GDP	% change (national currency)	% of all retirement vehicles	
Australia	2,000,569	1,485,623	120.9	4.6	97.4	124.1	Albania	1,328	11	0.1	42.8	100.0	0.1
Austria	20,839	21,966	6.0	1.3	..	..	Armenia	63,323	131	1.2	100.8	100.0	1.2
Belgium	24,879	26,225	5.9	4.4	..	..	Brazil	754,643	231,592	12.0	10.7	52.7	22.9
Canada	1,726,407	1,316,160	86.0	4.3	53.6	160.5	Bulgaria	10,824	5,833	11.7	15.2	100.0	11.7
Chile	116,428,629	174,480	70.1	6.4	100.0	70.1	Colombia	190,077,802	63,344	22.0	16.1	100.0	22.0
Czech Republic	402,119	15,684	8.5	7.8	100.0	8.5	Costa Rica	5,518,666	9,950	17.6	13.7	100.0	17.6
Denmark	975,718	138,345	47.3	9.6	23.1	204.9	Croatia	89,092	12,428	26.0	12.9	100.0	26.0
Estonia	3,096	3,264	14.8	18.5	89.3	16.6	Dominican Republic	397,260	8,502	12.0	18.1	..	..
Finland	105,055	110,738	49.1	1.7	84.9	57.8	El Salvador	80,942	9,251	34.6	8.6	..	..
France	13,000	14,433	0.6	6.7	6.0	9.8	Ghana	6,638	1,580	3.9	42.1	100.0	3.9
Germany	212,414	223,906	6.8	5.0	..	..	Guyana	47,013	228	6.6	3.5	100.0	6.6
Greece	1,190	1,254	0.7	4.8	..	..	Hong Kong, China	953,240	122,935	38.3	6.9	99.9	38.3
Hungary	1,499,422	5,105	4.3	8.6	73.8	5.8	Indonesia	228,771,515	17,027	1.8	14.3	..	..
Iceland	3,508,625	31,099	144.9	7.1	94.8	152.8	Jamaica	452,146	3,533	25.8	14.4	99.8	25.9
Ireland	106,465	112,225	40.0	..	..	..	Liechtenstein	5,283	5,191	80.6	7.1	100.0	80.6
Israel	681,691	177,293	55.7	8.6	..	..	Lithuania	2,567	2,706	6.6	17.6	100.0	6.6
Italy	119,800	126,281	7.2	6.5	78.1	9.2	Malawi	365,340	504	9.3	19.1	100.0	9.3
Japan	158,235,300	1,354,754	29.4	-0.8	100.0	29.4	Namibia	118,315	8,646	75.5	-0.3	87.2	86.6
Korea	161,288,800	133,462	9.9	26.3	37.0	26.7	Panama	478	478	0.9	12.1	..	..
Latvia	382	403	1.5	15.4	12.1	12.7	Peru	136,353	40,630	20.7	9.9	100.0	20.7
Luxembourg	1,576	1,662	2.9	9.2	..	..	Romania	32,988	7,666	4.3	27.2	100.0	4.3
Mexico	3,034,366	146,366	15.6	7.6	93.6	16.6	Russia	5,196,899	85,677	6.1	8.4	100.0	6.1
Netherlands	1,266,699	1,335,227	181.8	8.9	..	..	Serbia	32,860	281	0.8	13.5	100.0	0.8
New Zealand	59,348	41,027	23.7	11.5	100.0	23.7	Tanzania	8,265,691	3,804	8.0	12.3	..	..
Norway	316,694	36,739	10.2	5.1	..	..	Thailand	979,399	27,334	6.8	10.0	..	..
Poland	154,005	36,849	8.3	7.8	91.1	9.1	Uganda	8,043,945	2,228	9.0	..	..	..
Portugal	18,386	19,380	9.9	1.2	93.0	10.7	Uruguay	363,198	12,414	22.5	14.6	100.0	22.5
Slovak Republic	9,034	9,523	11.2	12.4	100.0	11.2	total		683,904	10.9			
Slovenia	2,311	2,436	5.8	4.0	59.6	7.1	Notes: ".." means not available. Total pension fund investment as a % of GDP for the OECD and non-OECD areas is calculated as the ratio between all pension fund investments and the GDPs (in US dollar) of all economies reporting in the area considered. See the end of this factsheet for more country-specific details.						
Spain	106,252	112,000	9.5	2.2	68.2	14.0	Source: OECD Global Pension Statistics; AIOS; National Bank of Belgium; French Asset Management Association; Bank of Japan; Bank of Korea; Reserve Bank of New Zealand; Willis Towers Watson "Global Pension Assets Study 2017".						
Sweden	375,954	41,486	8.6	1.9	11.9	72.3							
Switzerland	831,543	817,000	127.9	5.5	..	..					
Turkey	121,098	34,380	4.7	11.9	..	..					
United Kingdom	1,848,247	2,273,713	95.3	-0.1	..	..					
United States	15,040,102	15,040,102	81.0	5.6	59.7	135.7							
OECD total		25,420,592	55.3										

This third issue of **Pension Funds in Figures** provides a short preview of the characteristics of funded pension systems, especially pension funds, in a selection of OECD and non-OECD economies in 2016. Indicators in this note are based on preliminary data and early estimates. A more developed analysis based on the final data collected for 2016 will be published in the 2017 edition of **Pension Markets in Focus** (forthcoming). An Excel file of the underlying data can be found at www.oecd.org/daf/pensions/pensionmarkets.

This factsheet was made possible by close co-operation between the OECD, the International Organisation of Pension Supervisors, the World Bank and the various national bodies which provided data and comments.

For more information, please contact Pablo Antolin (pablo.antolin@oecd.org), Romain Despalins (romain.despalins@oecd.org) or Stéphanie Payet (stephanie.payet@oecd.org).

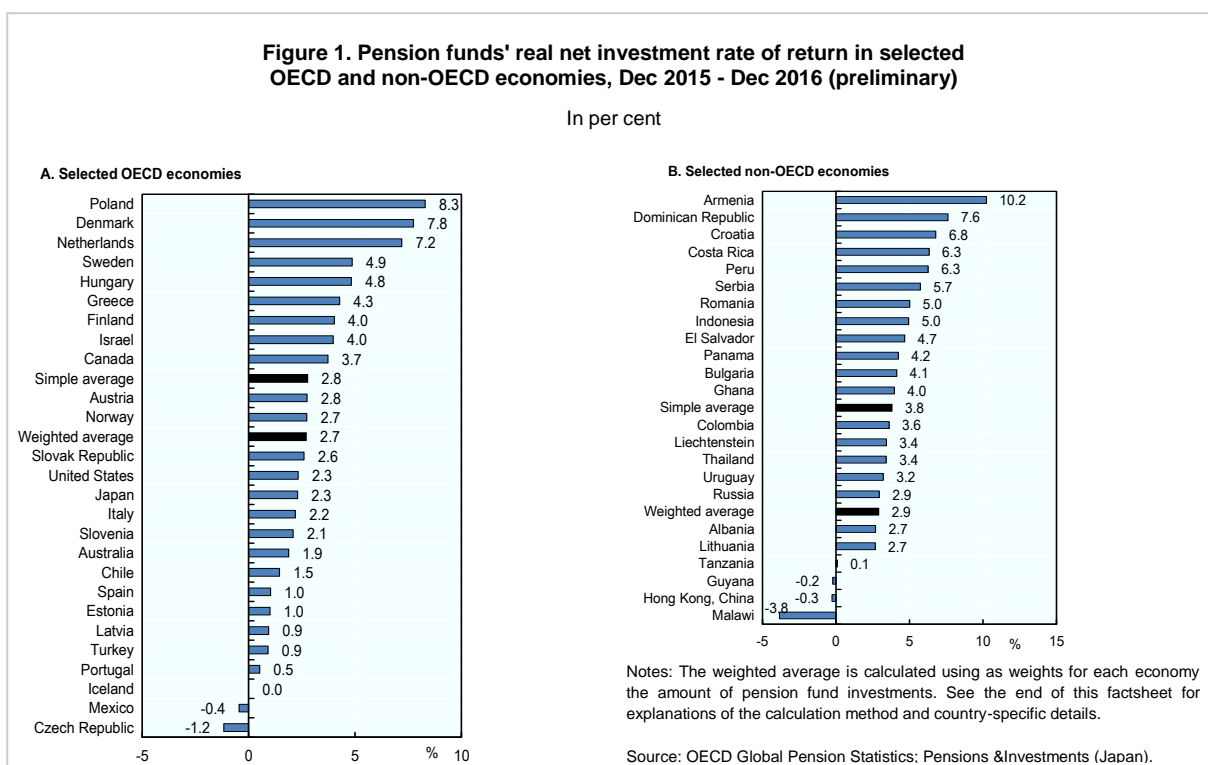
OECD pension fund investments exceeded the USD 25 trillion mark again like in 2014 (see [Pension Markets in Focus 2016](#)), reaching their highest level ever at USD 25.4 trillion (or 55.3% of GDP). Most of the largest pension markets experienced a significant increase of pension fund investments. These investments increased by more than 4% in Australia, Canada, the Netherlands, Switzerland and the United States which are among the largest pension markets in terms of assets in 2016. By contrast, pension fund assets slightly declined in two OECD economies: Japan (-0.8%) and the United Kingdom (-0.1%). Outside the OECD area, pension fund assets amounted to USD 0.7 trillion or 10.9% of the GDP of the reporting economies in 2016.

Private pension assets managed by any type of financing vehicle exceeded GDP in 2016 in seven economies: Australia, Canada, Denmark, Iceland, the Netherlands, Switzerland and the United States. Assets accumulated in private pension arrangements are larger than pension fund assets, as in some economies individuals can save in retirement products offered and managed by other institutions than pension funds, such as life insurance companies in Denmark, France and Sweden.

Average returns on pension fund investments were positive in most economies

Pension funds exhibited positive real investment rates of return (net of investment expenses) in most OECD economies (23 out of the 26 reporting) and non-OECD economies (20 out of the 23 reporting), as shown in Figure 1.

In the OECD area, pension funds achieved the highest returns in 2016 in Poland (8.3%), followed by Denmark (7.8%) and the Netherlands (7.2%). Real investment rates of return of pension funds were close to 5% in Sweden (4.9%) and Hungary (4.8%). Eleven further economies exhibited real returns higher than 2% in 2016, including some of the largest pension markets in terms of assets (i.e. Canada and the United States). As a result, the OECD weighted average real return was above 2%. By contrast, preliminary estimates suggest that the Czech Republic, Iceland and Mexico failed to achieve positive real rates of return on pension fund investments in 2016.



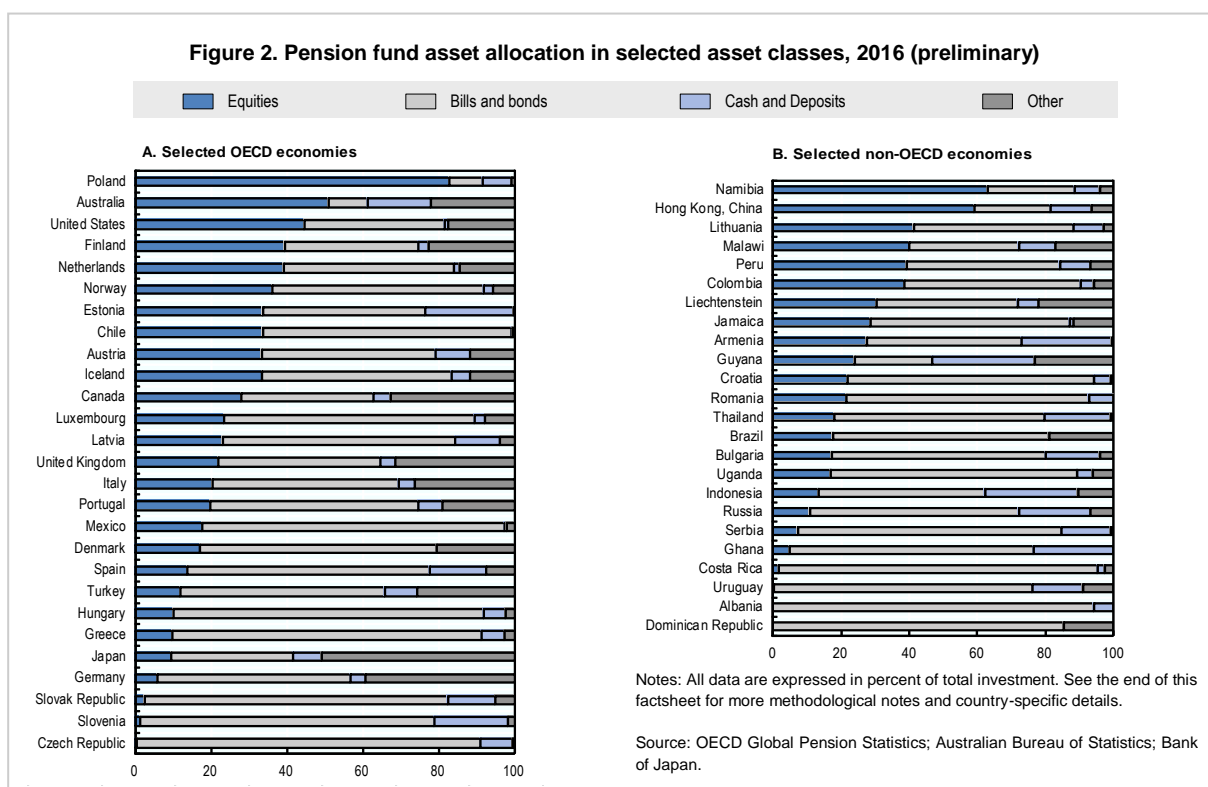
Outside the OECD area, real returns were above 2% in 19 out of the 23 reporting economies, and were higher on average than those in the OECD area. Pension funds showed the strongest real returns in Armenia (10.2%), the Dominican Republic (7.6%), Croatia (6.8%), Costa Rica (6.3%), Peru (6.3%), Serbia (5.7%), Romania (5.0%) and Indonesia (5.0%). Real returns were however negative in three non-OECD economies: Guyana (-0.2%), Hong Kong (China) (-0.3%) and Malawi (-3.8%). Despite a high return of pension fund investments in Malawi in nominal terms (15.4%), prices soared at a faster pace in 2016 (20.0%).

Pension funds mainly remained exposed to equities and bonds

Pension funds continue to invest mainly in equities and bonds in 2016. Pension funds held more than 75% of their portfolios in equities and bonds in 18 out of 27 reporting OECD economies and 18 out of the 24 other economies participating in the statistical exercise.

As shown in Figure 2, equities represented more than 50% of pension fund portfolios in 2016 in two OECD economies (Australia, Poland) and two non-OECD economies (Hong Kong (China) and Namibia). Pension funds in Poland hold the highest share in equities following the 2014 reform that prevents open pension funds from investing in treasury bonds and state-backed bonds and requires these funds to invest a minimum share of their portfolios in equities instead.

Despite the prolonged low interest rate environment, pension funds still hold a high share of their portfolios in bills and bonds in 2016, especially in some Central and Eastern European economies (e.g. Czech Republic, Hungary, Serbia, the Slovak Republic) and Latin American economies (e.g. Chile, Costa Rica, the Dominican Republic, Mexico, Uruguay) where bills and bonds accounted for more than half of the portfolio in 2016.



METHODOLOGICAL NOTES TO BE TAKEN INTO CONSIDERATION WHEN INTERPRETING THE DATA

General: The data are collected from national pension authorities within the framework of the OECD Global Pension Statistics (GPS) project. The data in this note are preliminary and may be revised in the 2017 edition of the newsletter *Pension Markets in Focus* (forthcoming). Data focus on autonomous pension funds as per the OECD classification (*Private Pensions: OECD Classification and Glossary*, available at www.oecd.org/daf/pensions). All types of plans are included (occupational and personal, mandatory and voluntary) covering both public and private sector workers.

Data on pension funds in Estonia only refer to the mandatory funded pension system. Data for Germany only refer to Pensionskassen and Pensionsfonds. Data for Israel refer to old, new and general pension funds. Data for Japan come from Bank of Japan. Data on pension funds for Latvia only refer to open and closed voluntary private pension funds. Data on pension funds in Slovenia refer to mutual pension funds under the supervision of the Securities Market Agency and pension companies under the supervision of the Insurance Supervision Agency. Data on pension funds in Brazil only refer to closed pension funds under the supervision of PREVIC. Data for El Salvador and Panama come from AIOS. Data for Indonesia refer to voluntary pension funds and do not include civil servants and military pensions, nor mandatory pension held by BPJS Employment. Data for Russia refer to non-state pension funds and the Pension Reserve Fund of the Russian Federation. Data for 2016 refer to the end of 2016, except for: New Zealand where data refer to the end of March 2016; Australia and France where data refer to the end of June 2016; Canada and Russia (non-state pension funds) where data refer to the end of September 2016.

Table 1: Data for Mexico cover occupational plans (2015 data) and personal plans (2016 data). The main part of the Swedish funded pension market is secured via insurance contracts. Data for 2016 for Switzerland are OECD estimates based on Willis Towers Watson's report *Global Pension Assets Study 2017* and are not official data from the Swiss Statistical Office. Pension funds' investments as a % of GDP refer to 2015 for Liechtenstein. The share of pension fund investments in the overall funded pension system was calculated using sometimes 2015 values for some vehicles as in the case of Canada, Finland, Hungary, Italy, Korea, Poland, Portugal and Sweden.

Figure 1: Data have been calculated using a common formula for the average nominal net investment return (ratio between the net investment income at the end of the year and the average level of assets during the year) for all the economies, except for Austria, Finland, Iceland, Israel, Italy, Japan, the Slovak Republic, Sweden and the United States among OECD economies, and for Croatia, El Salvador, Ghana, Hong Kong (China), Lithuania, Panama, Peru and Uruguay for which values have been given by the data providers or come from national or international official publications. Average real net investment returns have been calculated using the nominal investment rate of return (as described above) and the variation of the end-of-period consumer price index for the same period over which the nominal return is calculated, i.e. between June 2015 and June 2016 for Australia, between December 2015 and September 2016 for Canada, and between December 2015 and December 2016 for all the other economies. The result only refers to: new pension funds for Israel; contractual pension funds for Italy; personal pension plans for Mexico and Turkey; mandatory provident fund (MPF) schemes for Hong Kong, China. The result for Liechtenstein is nominal.

Figure 2: The "Other" category includes loans, land and buildings, unallocated insurance contracts, hedge funds, private equity funds, structured products, other mutual funds (i.e. not invested in equities, bills and bonds or cash and deposits) and other investments. The GPS database provides information about investments in Collective Investment Schemes and the look-through of Collective Investment Schemes' investments in equities, bills and bonds, cash and deposits and other. When the look-through was not reported by the data providers, estimates were made assuming that mutual funds' investment allocation in equities, bills and bonds, cash and deposits and other was the same as pension funds' direct investments in these categories. Therefore, asset allocation data in these figures include both direct investment in equities, bills and bonds, cash and deposits and indirect investment through Collective Investment Schemes. Data for Germany are preliminary estimates as the requested breakdown was not available for Pensionsfonds and the breakdown of investments of collective investment schemes has not been approved by external auditors yet for 2016. Data for Japan exclude claims of pension funds on pension managers. The high value for the "Other" category in Japan is mainly driven by outward investments in securities. Data for Mexico and Turkey only refer to personal pension plans. Data for Hong Kong, China include MPF schemes and MPF exempted ORSO (Occupational Retirement Schemes) registered schemes. Derivatives were excluded from the calculations when negative (i.e. for Mexico and Lithuania). For Russia, "other" includes investments in collective investment schemes.

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