Pension Funds in Figures

May 2019

Pension fund assets in the OECD area decline in 2018

Preliminary data for 2018 show that assets in pension funds amounted to USD 27.6 trillion in the OECD area, close to 4% lower than in 2017 (Table 1). Calculated in national currencies, pension fund assets declined in 12 out of 34 reporting OECD countries, including some of the largest pension markets: Japan (-1.1%), the Netherlands (-1.2%), Switzerland (-0.7%), the United Kingdom (-0.3%) and the United States (-5.0%). Poland experienced the most significant decline at -12.3%. Korea and Australia fared better with a 12.9% and a 9.2% increase respectively, although for the period from June 2017 to June 2018 for Australia.

Table 1. Assets in pension funds and all retirement vehicles in 2018 (preliminary)

OECD countries	Pension funds			All retirement vehicles
	% change	in USD million	% of GDP	% of GDP
Australia	9.2	1,810,346	132.6	135.4
Austria	-4.1	24,508	5.5	..
Belgium	-3.8	37,531	7.3	..
Canada	2.9	1,459,272	85.6	..
Chile	3.7	193,110	70.2	70.2
Czech Republic	5.6	20,935	8.9	8.9
Denmark	1.2	154,373	45.4	199.0
Estonia	8.2	4,511	15.4	16.9
Finland	-2.7	127,560	47.7	..
France	4.3	19,007	0.7	..
Germany	0.9	261,058	6.7	..
Greece	-0.8	1,584	0.7	..
Hungary	0.2	5,876	3.9	5.3
Iceland	8.9	36,328	150.8	160.1
Ireland	1.3	115,073	31.6	33.5
Israel	2.2	203,224	57.4	..
Italy	2.1	153,430	7.6	9.8
Japan	-1.1	1,398,144	28.2	..
Korea	12.9	191,066	12.0	..
Latvia	6.3	529	1.6	13.8
Lithuania	7.1	3,689	7.1	7.1
Luxembourg	1.9	1,883	2.8	..
Mexico	5.1	168,311	14.1	..
Netherlands	-1.2	1,514,345	171.0	..
New Zealand	6.7	54,481	27.4	27.4
Norway	0.1	39,834	9.8	..
Poland	-12.3	42,112	7.5	..
Portugal	-1.5	22,292	9.7	..
Slovak Republic	5.4	12,038	11.7	11.7
Slovenia	5.1	2,954	5.6	6.8
Spain	-3.7	121,421	8.8	12.5
Sweden	..	22,610	4.1	90.6
Switzerland	-0.7	888,799	126.9	..
Turkey	..	14,520	2.1	..
United Kingdom	-0.3	2,809,112	104.5	..
United States	-5.0	15,637,266	76.3	135.1
OECD Total	**-3.9**	**27,573,129**	**53.3**	

Selected other jurisdictions	Pension funds			All retirement vehicles
	% change	in USD million	% of GDP	% of GDP
Albania	32.9	21	0.1	0.1
Armenia	50.2	329	2.6	..
Botswana	-3.7	7,358	40.8	..
Brazil	7.9	223,193	12.6	..
Bulgaria	5.7	7,881	12.5	12.5
Colombia	0.2	70,607	23.5	23.5
Costa Rica	13.9	11,527	20.2	20.2
Croatia	6.5	16,028	27.2	27.3
Dominican Republic	14.3	10,073	12.6	12.6
Egypt	10.0	3,757	1.5	1.5
El Salvador	6.6	10,648	40.9	..
Ghana	18.1	2,700	4.4	4.4
Guyana	21.5	309	8.3	8.3
Hong Kong, China	0.5	148,531	40.9	40.9
Indonesia	2.2	18,020	1.8	..
Isle of Man	6.6	14,321	..	..
Jamaica	14.6	4,750	30.2	30.2
Kenya	8.0	11,452	12.9	12.9
Kosovo	2.2	1,934	25.0	25.0
Malawi	37.6	944	13.7	13.7
Maldives	19.5	568	10.7	10.7
Namibia	9.5	10,213	80.2	91.3
Nigeria	14.9	28,136	6.7	6.7
North Macedonia	13.2	1,228	10.0	10.0
Pakistan	10.3	185	0.1	..
Panama	3.7	557	0.9	..
Papua New Guinea	6.8	3,825	18.2	18.2
Peru	-1.8	45,469	20.7	20.7
Romania	19.4	12,176	5.2	5.2
Russia	1.4	81,456	5.5	5.5
Serbia	10.9	389	0.8	0.8
Suriname	3.5	467	13.6	..
Thailand	4.4	35,094	7.0	..
Ukraine	11.3	98	0.1	..
Uruguay	7.3	15,438	27.1	27.1
Total	**-4.1**	**799,686**	**10.3**	

Notes: ".." means not available. See the end of this factsheet for country-specific details.

Source: OECD Global Pension Statistics; French Asset Management Association; Bank of Japan; Bank of Korea; Swiss Occupational Pension Supervisory Commission; AIOS (for El Salvador and Panama).

Pension Funds in Figures provides a short preview of the characteristics of pension funds in a selection of OECD and non-OECD jurisdictions. This fifth issue shows indicators based on preliminary data and early estimates for 2018. An Excel file of the underlying data is available 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 that provided data and comments.

A more developed analysis on the whole private pension system (including vehicles other than pension funds used to save for retirement, such as book reserves, pension insurance contracts and funds managed by banks and investment companies) will be published in the 2019 edition of **Pension Markets in Focus** (forthcoming in October). This newsletter will be based on the final data collected for 2018.

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

Assets in pension funds rose in national currency during 2018 in nearly all reporting jurisdictions outside the OECD area. Pension funds experienced a growth in local currencies in all reporting non-OECD jurisdictions but Botswana (-3.7%) and Peru (-1.8%). The total amount of pension fund assets outside the OECD area was, however, 4% lower in 2018 than in 2017, at USD 800 billion. This decline reflects a depreciation of local currencies against the US dollar. The value of the local currencies of 26 of the 33 reporting non-OECD jurisdictions declined in 2018 relatively to the US dollar according to the IMF International Financial Statistics database.

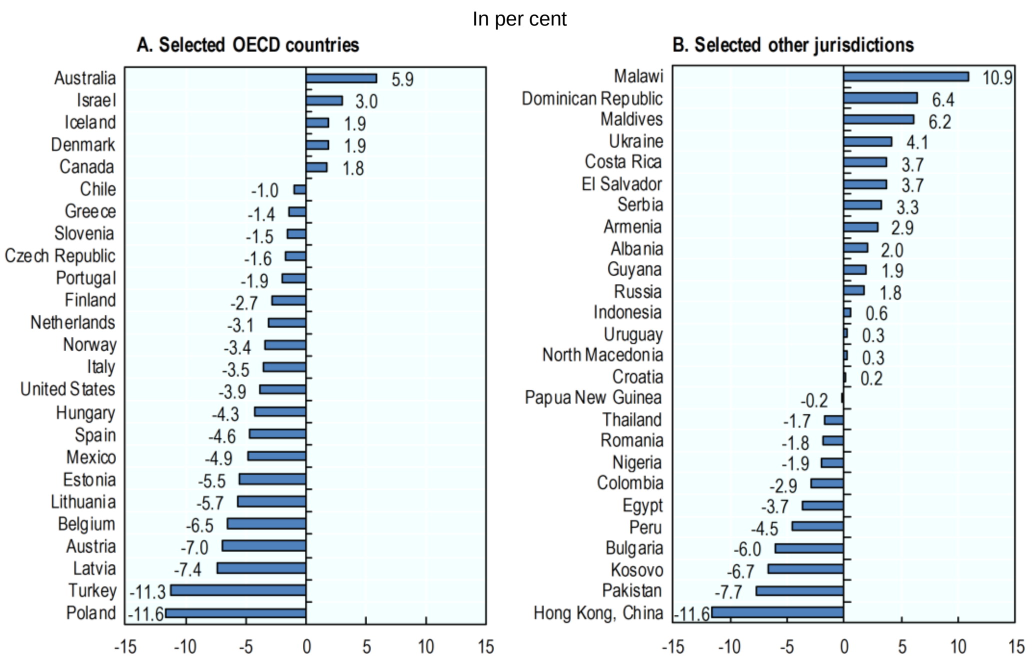
The level of pension fund assets still varied widely across jurisdictions in 2018. Assets ranged from USD 21 million in Albania to over USD 15 trillion in the United States in 2018. The difference in the size of pension fund assets across jurisdictions remains visible after accounting for the size of the domestic economy. Pension funds held assets worth less than 1% of GDP in Albania while they held over 170% of GDP in the Netherlands. Assets earmarked for retirement in pension funds represented 53% of the GDP of the OECD area but just over 10% of the GDP of the non-OECD jurisdictions considered.

In some countries, other vehicles than pension funds are used to save for retirement. Examples include pension rights included in employers' books (Austria, Germany, Sweden); pension insurance contracts (Belgium, Denmark, France, Sweden); and other vehicles offered and managed by banks, investment companies or other entities (Belgium, Denmark, United States). More assets were accumulated in these other vehicles than in pension funds in Denmark and Latvia in 2018. Denmark has the largest amount of pension assets relative to GDP when considering the whole private pension system (twice the size of GDP). The 2019 edition of *Pension Markets in Focus*, coming out in October, will cover these issues further.

The decline in assets reflects negative real investment returns in 2018

Pension funds experienced negative real investment rates of return in most countries in 2018, especially in the OECD area (Figure 1). Pension funds suffered financial losses in real terms in 20 out of the 25 reporting OECD countries, compared to 11 out of the 26 reporting non-OECD jurisdictions. The lowest investment rates of return were observed in Hong Kong (China) (-11.6%), Poland (-11.6%) and Turkey (-11.3%). Pension funds managed to achieve positive real investment returns in some jurisdictions such as in Malawi (10.9%), which had the strongest investment performance among the reporting jurisdictions in 2018. Australian pension funds also exhibited a relatively strong real investment return (5.9%), but this performance is calculated over the financial year (June 2017-June 2018) instead of the calendar year.

Figure 1. Real investment rates of return of pension funds, Dec 2017 - Dec 2018 (preliminary)



Notes: See the end of this factsheet for explanations of the calculation method and country-specific details.
Source: OECD Global Pension Statistics; AIOS (for El Salvador).

Poor financial results of pension funds in 2018 probably result from the downturn on equity markets in the last quarter of 2018. Some of the major stocks indices fell sharply in 2018 compared to 2017, suffering sometimes one of the worst declines since the 2008 financial crisis (e.g. S&P500). This negative performance on equity markets contributed to the decline of pension fund assets in 2018 when these losses were not compensated by increases in contributions of plan members.

Investment returns were positive in nominal terms but failed to grow as fast as prices in 2018 in some countries. This is the case for instance in Egypt, Nigeria, Papua New Guinea, and Romania, where investment returns were positive in nominal terms in 2018 but lower than inflation.

Pension funds have a long-term horizon. Long-term trends therefore matter more than short-term results on these markets. Short-term results are also likely to improve given the recovery of equity markets in 2019 Q1.

Despite an overall decline, the share of pension fund assets invested in equities remained strong in some countries

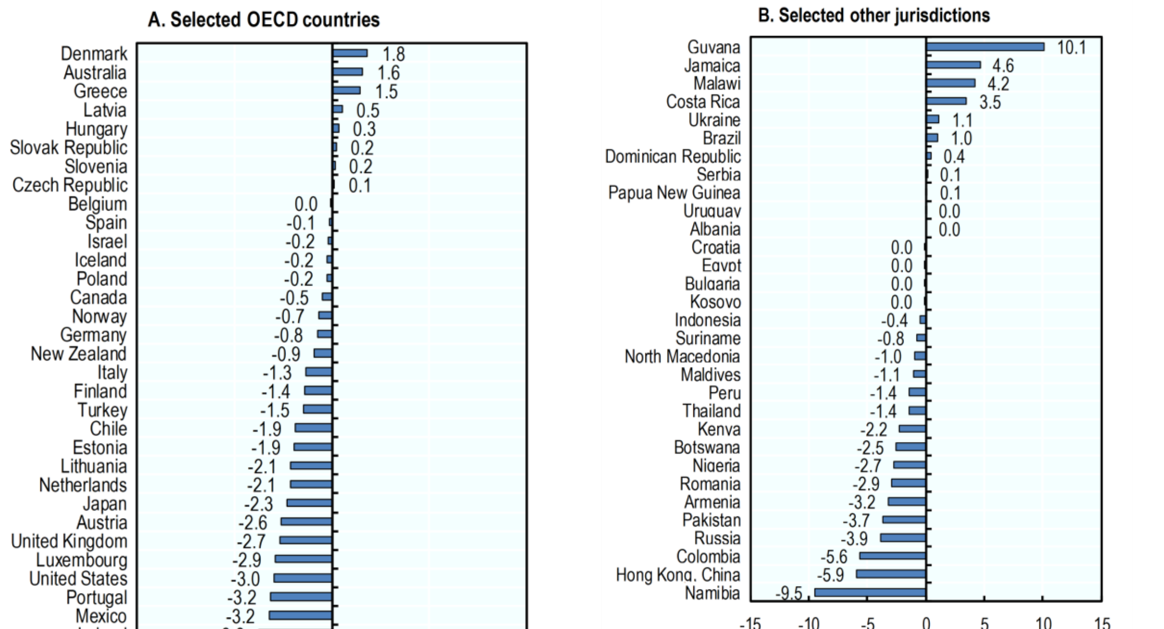
The proportion of equities in pension fund investments fell in 2018 compared to 2017 in 24 reporting OECD countries (out of 32 in the OECD area) and 20 other reporting jurisdictions (out of 31 outside the OECD area). Ireland recorded the largest decline among OECD countries and Namibia among non-OECD jurisdictions, with the share of assets invested in equities dropping by 4 and 9 percentage points respectively (Figure 2).

Changes in the asset mix may be due to a combination of factors. The drop in equity prices lowers the value of equities (and therefore their proportion) in the portfolio of pension funds, *ceteris paribus*. Changes in the asset mix from one year to the next may also reflect a change in the investment strategy. Pension funds may also however purchase equities to keep their proportion in line with the strategic asset allocation.

Equities remained the main investment of pension funds in Botswana, Hong Kong (China), Namibia and Poland where they accounted for more than half of assets invested in 2018 (Figure 3). The proportion of equities in the asset mix of pension funds remained high in Australia, Belgium, Finland, Lithuania and Netherlands among OECD countries and in Malawi, Pakistan, Papua New Guinea and Peru among non-OECD jurisdictions where they represented between 40% and 50% of their investments.

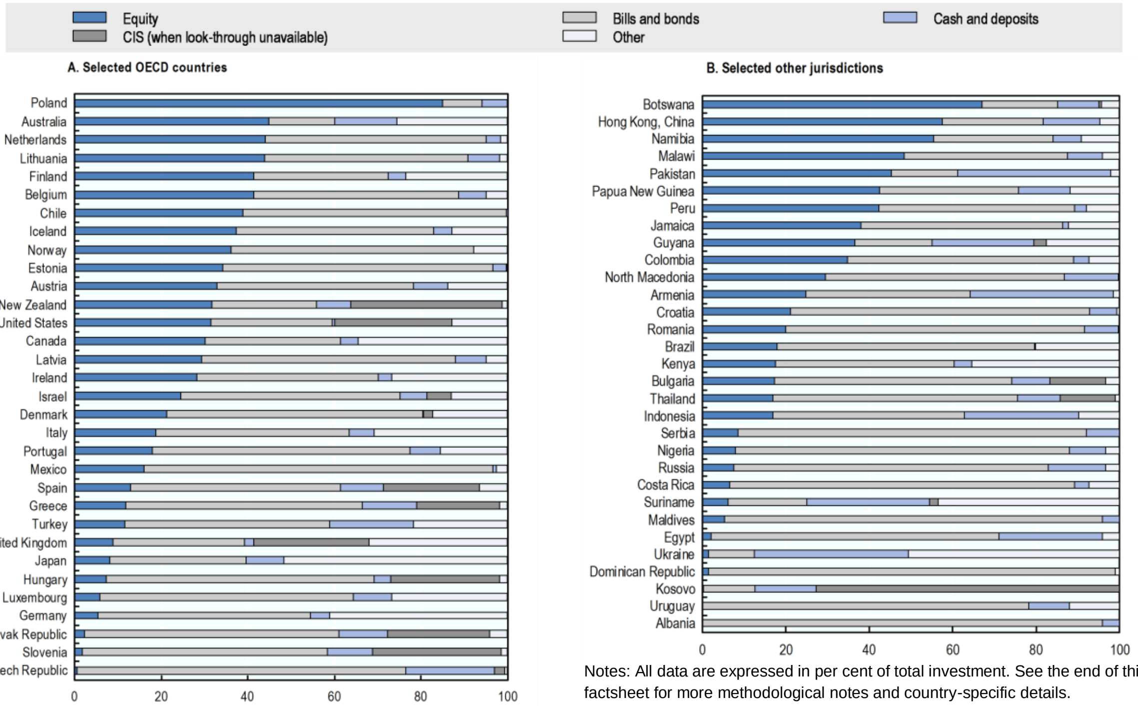
Pension fund assets remained mostly invested in bills, bonds and equities in most jurisdictions. These instruments accounted for more than 75% of pension fund investments in 36 out of 63 reporting jurisdictions. Any developments in equity and bond markets therefore affect investment returns of pension funds.

Figure 2. Variations in the share of pension fund assets invested in equities between 2017 and 2018 (preliminary)



Notes: All data are expressed in percentage points. See the end of this factsheet for more methodological notes and country-specific details.
Source: OECD Global Pension Statistics; Bank of Japan.

Figure 3. Asset allocation of pension funds in selected investment categories in 2018 (preliminary)



Notes: All data are expressed in per cent of total investment. See the end of this factsheet for more methodological notes and country-specific details.
Source: OECD Global Pension Statistics; Bank of Japan.

METHODOLOGICAL NOTES TO BE TAKEN INTO CONSIDERATION WHEN INTERPRETING THE DATA

General: Data are collected from national pension authorities within the framework of the OECD Global Pension Statistics (GPS) project. This exercise covers all funded plans that may be financed through pension funds, pension insurance contracts or other vehicles, publicly or privately administered, mandatory or voluntary, occupational or personal, for public or private-sector workers. Employers' book reserves are also in the scope. The classification of pension plans and the related definitions are available in *Private Pensions: OECD Classification and Glossar*y, accessible at www.oecd.org/daf/pensions. For ease of reference, this note uses the term "private pensions" to refer to all the plans in the scope of the GPS exercise. Data are preliminary and may be revised in the 2019 edition of the newsletter *Pension Markets in Focus* (forthcoming). Data for 2018 refer to the end of 2018, except for: Australia where data refer to June 2018; Belgium (pension savings funds), Canada (pension funds) and the United States (individual retirement accounts) where data refer to end Q3-2018; Iceland where data on pension insurance contracts refer to 2017; and Brazil where data refer to November 2018. Data on pension funds only refer to: mandatory plans in Estonia, earnings-related pension companies and funds in Finland, Pensionskassen and Pensionsfonds supervised by BaFin in Germany, PERCO plans in France (as no data available yet on the newly created FRPS pension vehicle), voluntary plans in Latvia, personal plans in Mexico and Turkey, mandatory pension funds in Armenia, employer pension funds and financial institution pension funds in Indonesia, private pension schemes registered with Securities and Exchange Commission of Pakistan, and defined contribution provident funds in Thailand. This note focuses on pension funds (except Table 1).

Table 1*:* Investments are used as a proxy of assets. The column "% change" shows the nominal change of pension fund assets in national currency compared to the level in December 2017, except for Australia (June 2017). The total % change for the OECD and non-OECD areas is calculated as the change of total assets in the considered area (in US dollar) between end-2017 and end-2018. Total pension fund assets as a % of GDP in the OECD and non-OECD areas are calculated as the ratio between the sum of all pension fund assets and the sum of all the GDPs (in US dollar) of the reporting jurisdictions in the area considered. The column "All retirement vehicles" gives the amount of assets in the whole private pension systems in 2018, except for Ireland (where retirement annuity contracts are missing). Data for Sweden refer to 2017.

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 period and the average level of assets over the period) for all jurisdictions, except for Austria, Finland, Iceland, Israel, Italy, Lithuania, the Netherlands, Portugal, Slovenia and the United States among OECD countries, and for Croatia, El Salvador, Hong Kong (China), Indonesia, Russia and Ukraine where values come from the own calculations of national authorities or from 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 2017 and June 2018 for Australia, between December 2017 and September 2018 for Canada, and between December 2017 and December 2018 for all the other jurisdictions. These results may deviate from the own calculations of national authorities. The investment rate of return of pension funds is calculated only for new pension funds for Israel, contractual pension funds for Italy (and is net of taxes), mutual pension funds for Slovenia, Mandatory Provident Fund (MPF) schemes for Hong Kong (China), and the Pension Fund of the Russian Federation for Russia. Pension funds achieved a 5% nominal return in 2018 in Suriname (real return not available).

Figures 2-3: The GPS database gathers information on investments in Collective Investment Schemes (CIS) and the look-through of these investments in equities, bills and bonds, cash and deposits and other. Data on asset allocation in these figures include both direct investment in equities, bills and bonds, cash and deposits and indirect investment through CIS when the look-through of CIS investments is available. Otherwise, investments by pension funds in CIS are shown in a separate category. Data for Australia come from APRA and do not include small APRA funds and Single-Member Funds. Data for Germany are estimates; the breakdown of investments through CIS has not been approved by external auditors yet and is not available for Pensionsfonds. Data for Ireland only refer to DB plans. Data refer to new pension funds only for Israel. The high value for the "Other" category in Japan is mainly driven by outward investments in securities. Data for Hong Kong (China) cover MPF schemes and MPF-exempted ORSO registered schemes only. Data for Luxembourg refer to pension funds under the supervision of the Insurance Commission only.