



Pension Funds in Figures



June 2020

Pension fund assets rose to USD 32 trillion in 2019 but COVID-19 impacts are set to reverse some of these gains

Preliminary data for 2019 show that pension funds held USD 32.3 trillion in the OECD area and USD 0.7 trillion in 29 other reporting jurisdictions (Table 1). The United States exhibited the largest amount of assets in pension funds at end-2019 (USD 18.8 trillion), followed by the United Kingdom (USD 3.6 trillion), Australia (USD 1.8 trillion), the Netherlands (USD 1.7 trillion), Canada (USD 1.5 trillion), Japan (USD 1.4 trillion) and Switzerland (USD 1.0 trillion). These seven countries held over 90% of all pension fund assets in the OECD area.

Table 1. Assets in pension funds and all retirement vehicles in 2019 (preliminary)

OECD countries	Pension funds			All retirement vehicles	Selected other jurisdictions	Pension funds			All retirement vehicles
	% change	in USD million	% of GDP	% of GDP		% change	in USD million	% of GDP	% of GDP
Australia	6.3	1,779,374	132.0	135.0	Albania	26.8	27	0.2	0.2
Austria	13.5	27,293	6.1	..	Angola	13.1	554	0.8	..
Belgium	18.0	44,674	8.4	..	Armenia	58.2	524	3.8	..
Canada	7.3	1,531,845	89.1	158.9	Brazil	5.9	218,406	12.2	26.2
Chile	19.4	215,373	80.8	..	Bulgaria	16.9	9,037	13.6	13.6
Colombia	16.6	83,737	26.0	26.0	Costa Rica	19.7	20,503	32.2	32.2
Czech Republic	8.0	22,445	9.0	9.0	Croatia	15.4	18,083	30.0	30.0
Denmark	12.4	169,434	48.7	219.1	Egypt	10.0	4,873	1.5	1.5
Estonia	20.7	5,342	17.0	18.6	Georgia	n.a.	180	1.2	1.2
Finland	..	132,184	49.4	..	Ghana	33.4	3,138	5.0	5.0
France	20.5	22,468	0.8	10.0	Guyana	13.2	337	8.3	8.3
Germany	8.4	285,522	7.4	..	Hong Kong, China	11.4	166,431	44.4	44.4
Greece	8.6	1,750	0.8	..	Indonesia	8.3	20,332	1.8	..
Hungary	8.9	6,098	3.8	5.4	Jamaica	16.6	5,353	33.5	33.5
Iceland	17.6	41,036	167.6	178.2	Kazakhstan	15.1	28,224	16.5	16.5
Ireland	20.8	140,425	36.0	..	Kenya	13.6	13,071	13.2	13.2
Israel	17.9	259,905	63.8	..	Kosovo	17.0	2,220	27.8	27.8
Italy	11.9	168,510	8.4	10.8	Malawi	23.1	1,150	15.0	15.0
Japan	0.4	1,443,125	28.4	..	Malaysia	29.6	855	0.2	..
Korea	16.4	191,061	11.6	..	Namibia	2.2	10,660	75.2	86.0
Latvia	21.2	629	1.8	16.7	North Macedonia	17.7	1,413	11.2	11.2
Lithuania	24.9	4,520	8.3	8.3	Pakistan	15.1	185	0.1	..
Luxembourg	12.8	2,050	2.9	..	Peru	14.0	52,753	22.6	22.6
Mexico	18.8	225,519	17.5	18.5	Romania	30.0	15,139	6.3	6.3
Netherlands	17.5	1,746,262	191.4	..	Russia	8.9	99,560	5.6	5.6
New Zealand	20.7	65,769	31.1	31.1	Serbia	12.7	432	0.8	0.8
Norway	10.9	43,938	10.9	..	Suriname	0.8	480	12.6	..
Poland	-2.0	40,874	6.8	7.8	Thailand	8.0	40,794	7.3	..
Portugal	12.1	24,524	10.3	..	Ukraine	-1.7	108	0.1	..
Slovak Republic	12.8	13,324	12.6	12.6	Total	11.3	734,823	9.2	..
Slovenia	11.6	3,234	6.0	7.3					
Spain	11.8	133,214	9.5	13.2					
Sweden	..	22,007	4.1	81.9					
Switzerland	12.6	1,018,080	141.1	..					
Turkey	37.3	21,325	3.0	..					
United Kingdom	16.1	3,582,910	123.3	..					
United States	15.6	18,750,788	87.5	147.1					
OECD Total	13.9	32,270,567	60.1	..					

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

Source: OECD Global Pension Statistics; French Asset Management Association; Bank of Japan; Swiss Occupational Pension Supervisory Commission.

Pension Funds in Figures provides a short preview of the characteristics of pension funds in a selection of OECD and non-OECD jurisdictions. This sixth issue shows indicators based on preliminary data for 2019 and gives an early forecast of pension fund assets at end Q1-2020. An Excel file of the underlying data is available at www.oecd.org/daf/pensions/pensionmarkets. This factsheet was made possible by 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 2020 edition of **Pension Markets in Focus** (forthcoming in October). This report will be based on the final data collected for 2019.

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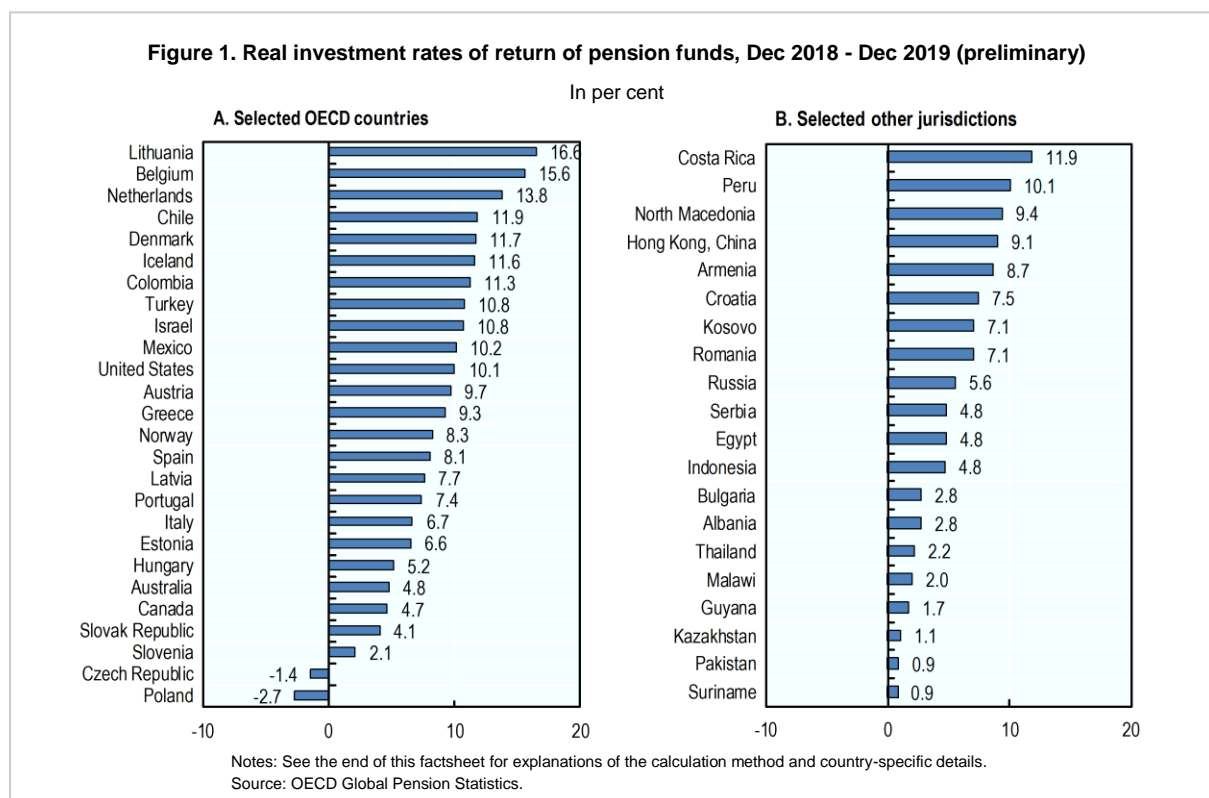
The amount of assets in pension funds soared in 2019, following a decline in 2018, growing by 13.9% in the OECD area and by 11.3% in other reporting jurisdictions. All reporting countries except Poland and Ukraine showed increases. The largest increases occurred in Armenia (58.2%) and Turkey (37.3%), which introduced recently mandatory private pension arrangements (2014 in Armenia) or automatic-enrolment programmes (2017 in Turkey). These plans are in an accrual phase as they gain contributing members while none or few have yet to receive benefits. The Polish Financial Supervision Authority explains that one of the reasons for the decline in pension fund assets was a negative cash flow resulting from gradual transfers of assets of members before retirement to the Social Insurance Institute.

The size of pension funds compared to GDP varied widely at the end of 2019, ranging from 0.1% in Pakistan to 191.4% in the Netherlands. Assets in pension funds exceeded the size of the domestic economy in five countries: Australia (132%), Iceland (167.6%), the Netherlands (191.4%), Switzerland (141.1%) and the United Kingdom (123.3%). By contrast, pension fund assets were below 20% of GDP in 44 out of 66 reporting jurisdictions.

Vehicles other than pension funds may exist in some countries to enable people to build up retirement savings. Examples include provisions in employers’ books (e.g. Austria, Germany, Sweden); pension insurance contracts (e.g. Belgium, Denmark, France, Sweden); and other vehicles offered and managed by banks, investment companies or other entities (e.g. Belgium, Denmark, the United States). More assets were accumulated in these other vehicles than in pension funds in Denmark, France and Latvia for example in 2019. Denmark has the largest amount of pension assets relative to GDP when considering the whole funded private pension system (more than twice the size of GDP). The 2020 edition of *Pension Markets in Focus*, coming out in October, will cover these issues further.

Strong investment returns explain the large growth of assets in 2019

The investment performance of pension funds was strong in 2019. Real investment rates of return of pension funds exceeded 5% in 29 out of 46 jurisdictions in 2019, even exceeding 10% in 13 of them including the United States (10.1%) (Figure 1). Pension funds in Lithuania achieved the highest real investment rates of return in 2019 (16.6%). Overall, pension funds achieved a positive investment performance in almost all reporting jurisdictions in 2019.



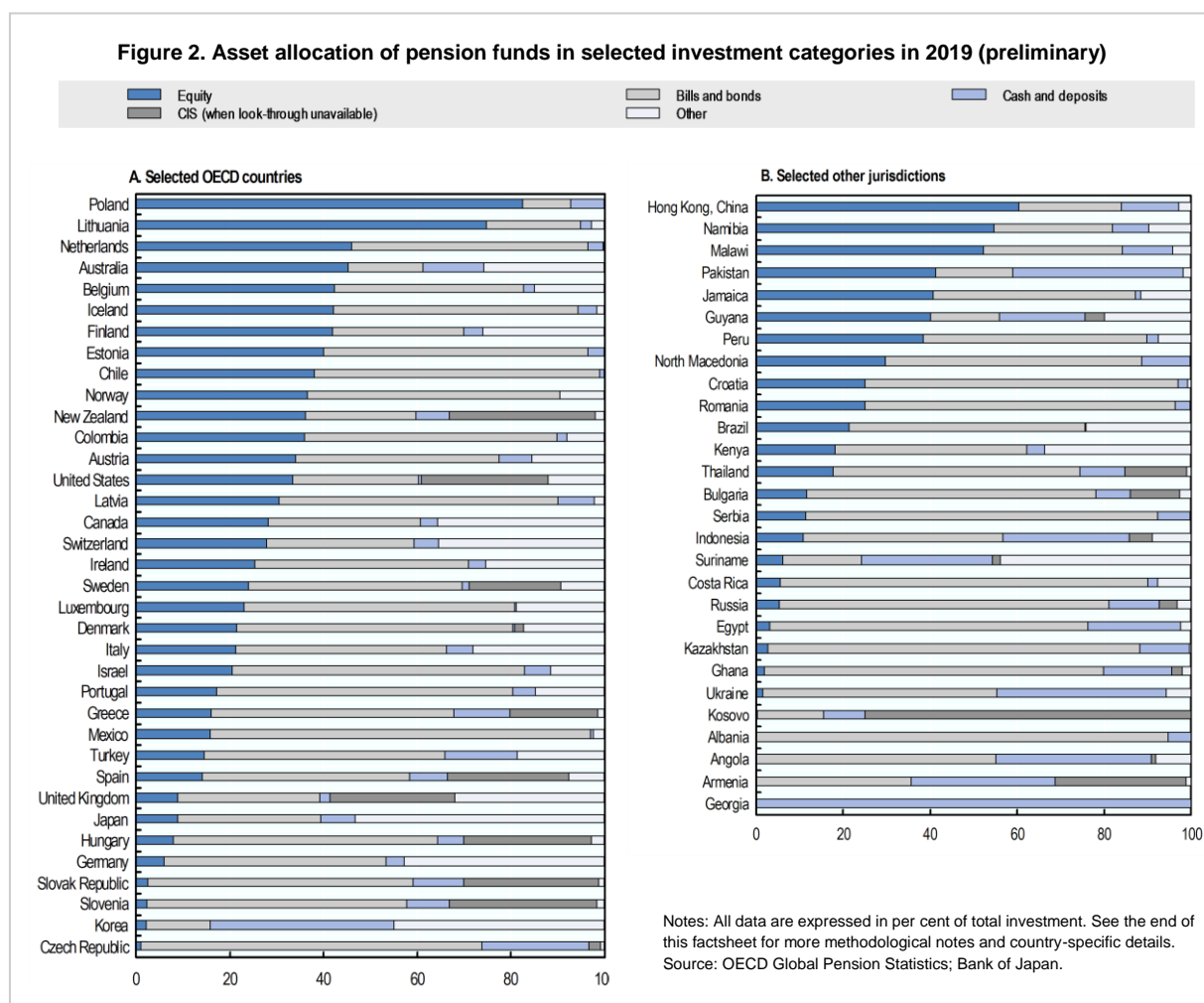
The strong investment performance in 2019 is probably the result of recovering financial markets, bouncing back after heavy losses in the last quarter of 2018. Major stock market indices recorded higher levels at the end of 2019 than at the end of 2018 (e.g. plus 25% for the FTSE 250, plus 26.5% for the DAX and plus 28.9% for the S&P 500 according to the Market Data Center of the Wall Street Journal).

Pension funds in only two countries did not achieve a positive investment performance: the Czech Republic (-1.4%) and Poland (-2.7%). Pension funds in the Czech Republic have a conservative investment strategy that yielded a nominal investment rate of return (1.7%) below inflation (3.2%). The poor performance of Polish domestic equities in 2019 may partly explain the negative performance of Polish pension funds.

Pension funds invested mainly in equities and bonds

Pension funds were mostly invested in equities and bonds at the end of 2019. Pension funds held more 75% of their portfolios in equities and bonds in 16 out of 36 reporting OECD countries and in 17 out of 28 other reporting jurisdictions. Pension funds invested in these instruments directly or indirectly through collective investment schemes (CIS).

As shown in Figure 2, equities represented over 50% of pension fund investments at the end of 2019 in two OECD countries (Lithuania and Poland) and three non-OECD jurisdictions (Hong Kong (China), Malawi and Namibia).



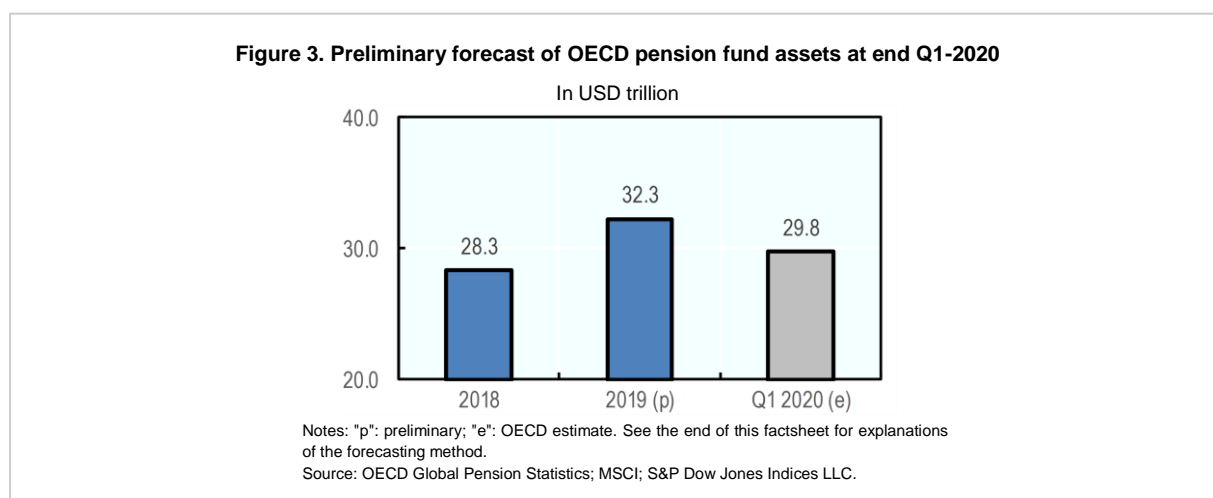
Bonds accounted for more than half of the investments of pension funds in 18 OECD countries, and 16 out of 28 reporting non-OECD jurisdictions. Countries where pension funds invested the most in bonds in 2019 include Albania (94.8%), Costa Rica (84.5%), Kazakhstan (85.5%), Mexico (81.1%) and Serbia (80.9%).

Given the portfolio structure of pension funds, any developments on bonds and equity markets are likely to affect the investment performance of pension funds.

Pension funds in some countries also held a significant proportion of their assets in cash and deposits, such as in the Czech Republic (23%) and Korea (39%).

Some of the 2019 gains may have reversed in Q1 2020

The spread of COVID-19 worldwide and its knock-on effects on financial markets during the first quarter of 2020 are likely to have reversed some of these gains. Early estimates suggest that pension fund assets at the end of Q1 2020 could have dropped to USD 29.8 trillion, down 8% compared to end-2019. (Figure 3).



The drop in pension fund assets is forecast to stem from the decline on equity markets in the first quarter of 2020. Returns, inclusive of dividends and price appreciation, were negative on the MSCI World Index in the first quarter of 2020 (-20%), and between -11% and -24% on the MSCI Index for Australia, Canada, Japan, the Netherlands, Switzerland, the United Kingdom, the United States.

An increase in the price of government bonds that pension funds own could partly offset some of the losses that pension funds experienced on equity markets in Q1 2020. Some Central Banks, such as the Federal Reserve in the United States, cut interest rates in 2020 to support the economy. The fall in interest rates may lead to an increase in the price of government bonds in the portfolios of pension funds as the yields of newly issued bonds decline.

Saving for retirement is for the long haul and financial losses can be recouped over the long term, unless assets are withdrawn prematurely.

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 where assets are accumulated in pension funds, through pension insurance contracts or other vehicles. These plans may be 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 Glossary*, 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 2020 edition of the report *Pension Markets in Focus* (forthcoming). Data for 2019 refer to the end of 2019, except for: Australia and Pakistan where data refer to June 2019; Canada (pension funds) and the United States (individual retirement accounts) where data refer to end Q3-2019; Canada (other than pension funds), Finland, Mexico (occupational plans), Poland (other than pension funds) and Sweden where data refer to 2018. Data on pension funds refer to: mandatory plans in Estonia, earnings-related pension companies and funds in Finland, PERCO plans in France (as no data available yet on the newly created FRPS pension vehicle), Pensionskassen and Pensionsfonds supervised by BaFin in Germany, occupational retirement pension savings in Korea, voluntary plans in Latvia, personal plans in Turkey, mandatory pension funds in Armenia, whole funded pension system and first pillar pension plans for teachers and judiciary in Costa Rica, employer pension funds and financial institution pension funds in Indonesia, private pension schemes registered with the Securities and Exchange Commission of Pakistan, and defined contribution provident funds in Thailand. This note focuses on pension funds (except the last column of 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 amount in December 2018, except for Australia and Pakistan (June 2018). 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-2018 and end-2019. 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 2019. Exchange rates come from the IMF International Financial Statistics database. GDP values come from OECD.Stat and the IMF World Economic Outlook. Data for the United Kingdom are preliminary, come from a new ONS survey (Financial Survey of Pension Schemes) and show assets in occupational pension funds including derivatives contracts with a positive asset value only. In Georgia, mandatory pension schemes, which make up the bulk of pension fund assets, were established in 2019.

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, Israel, Italy, Lithuania, the Netherlands, the Slovak Republic, Slovenia and the United States among OECD countries, and for Croatia, Hong Kong (China) and Russia where values come from the own calculations of national authorities or from other official sources. 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 (extracted from OECD.Stat or IMF's online database) for the same period over which the nominal return is calculated, i.e. between June 2018 and June 2019 for Australia and Pakistan, between December 2018 and September 2019 for Canada, and between December 2018 and December 2019 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 in Israel, contractual pension funds for Italy (and is net of taxes), personal pension plans in Mexico, mutual pension funds for Slovenia, Mandatory Provident Fund (MPF) schemes for Hong Kong (China), and the Pension Fund of the Russian Federation for Russia. In Angola, pension funds achieved a 5.5% nominal investment rate of return in 2019 (real return not available).

Figure 2: 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. The high value for the "Other" category in Japan is mainly driven by outward investments in securities. Data for Mexico refer to personal pension plans only. Data refer to end-2018 for Switzerland and the United Kingdom. Data for Hong Kong (China) cover MPF schemes and MPF-exempted ORSO registered schemes only.

Figure 3: OECD estimate at end Q1-2020 is the aggregate of forecasts of pension fund assets in Australia, Canada, Japan, the Netherlands, Switzerland, the United Kingdom, the United States - which altogether accounted for over 90% of assets in pension funds at end-2019 in the OECD - and a forecast for the 30 remaining OECD countries. These forecasts rely on: a) the amount of assets at end-2019; b) the proportion of pension fund assets invested (directly and indirectly through CIS) in "equities", "bills and bonds" and "cash and deposits", after excluding any other investments; and c) changes in indices during Q1 2020. The calculations are based on the evolution of the MSCI index and an S&P bond index including government bonds (and when possible corporate bonds) during Q1 2020 for each of the seven largest markets in terms of pension fund assets. The MSCI World Index and the S&P Global Developed Sovereign Bond Index are used for the 30 remaining OECD countries, applied to their overall amount of asset at end-2019 according to the simple average of the asset allocation of pension funds in these 30 countries (after excluding any investments other than equities, bills, bonds, cash and deposits). The rate of return of cash and deposits is assumed equal to zero during Q1 2020. Exchange rates were also kept as at end-2019 to forecast the total OECD pension fund assets at end Q1-2020 in USD. These preliminary estimates do not take into account changes in contributions, benefit payments, or early withdrawals from pension funds during Q1 2020, which can all affect the amount of assets.

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