

Investment performance

Key results

The simultaneous fall in bond prices and equity prices led to widespread nominal investment losses in 2022, with the lowest nominal investment rates of return recorded for pension plans in the Netherlands (-21.1%) and the United Kingdom (-18.5%) among reporting countries. High inflation rates added to the problem by leading to negative real investment rates of return in all reporting countries. Over the long-term, the strong and positive gains achieved in previous years cushioned the impact of these negative rates of return in most reporting countries. All reporting public pension reserve funds have also achieved positive investment performance in real terms over the last 15 or 20 years.

Pension plans recorded negative nominal investment rates of return, net of investment expenses, in most OECD countries in 2022. Given their large bond and equity holdings, pension plans were hit by the simultaneous fall in bond and equity prices in 2022. The rise in interest rates lowered the value of bonds in pension investment portfolios. At the same time, equity markets also fell globally, with prices down by 19% for S&P500, by 9% for Nikkei 225 and by 12% for DAX at

Table 3.5).

High inflation rates added to the problem by making nominal losses even larger in real terms. Real investment rates of return were negative for pension plans in all OECD countries and in India and Indonesia. Real investment rates of return were the lowest in some of the countries where inflation surged the most (e.g. Hungary, Latvia and Lithuania with annual inflation rates over 20% in December 2022).

Over a longer term, investment gains in the previous years helped to compensate for the losses in 2022 in many countries. Average annual returns were positive in real terms in 13 out of 32 reporting countries over the last 5 years, in 21 out of 29 reporting countries over the last 10 years, in 16 out of 25 reporting countries over the last 15 years and in 14 out of 17 reporting countries over the last 20 years. Colombia recorded the strongest average annual investment performance in real terms over the last 20 years (4.8%), followed by Canada (4.1%) and Australia (4%). By contrast, Czechia, Estonia and Latvia failed to generate an investment return above inflation over the last 20 years potentially as a result of a relative conservative asset allocation.

If most public pension reserve funds (PPRFs) also recorded a negative investment rate of return in real terms in 2022, their investment performance was positive in real terms over the last 15 or 20 years in all those for which data are available (Table 9.4). Sweden's AP6 and New Zealand Superannuation Fund recorded the strongest average real performance, over 7% per year over a 20-year period, among all reporting PPRFs.

end-2022 compared to end-2021 for example. Beyond equities and bonds, pension plans incurred losses on other financial instruments, such as interest-rate derivatives hedging against declining interest rates (e.g. in the Netherlands and the United Kingdom). The Netherlands and the United Kingdom recorded the lowest nominal investment rates of return among all reporting jurisdictions (-21.1% and -18.5% respectively) (

Definition and measurement

The term "pension plans" refers to plans that individuals access via their employer or a financial institution, and in which they accumulate rights or assets. Assets belong to plan members and finance their own future retirement. These assets may accumulate in pension funds, through pension insurance contracts or in other savings vehicles offered and managed by banks or investment funds. Employers may set up provisions or reserves in their books to finance the retirement benefits of occupational pension plans.

PPRFs are reserves established with the primary goal to support unfunded / pay-as-you-go public pension arrangements.

Real (after inflation) returns are calculated in local currency before tax but after investment management expenses.

The average nominal net investment returns of pension plans are the results of a calculation using a common formula for all the countries except a few ones (e.g. Ireland, Israel) for which values have been provided by the jurisdictions using their own formula or are from national official publications. The common formula corresponds to the ratio between the net investment income at the end of the year and the average level of assets during the year.

For PPRFs, nominal returns come from annual reports or have been provided by the funds directly, using their own formula and methodology.

Table 9.3. Nominal and real geometric average annual investment rates of return of pension plans in 2022 and over the last 5, 10, 15 and 20 years, in percent

	Nominal					Real				
	2022	5-yr annual average	10-yr annual average	15-yr annual average	20-yr annual average	2022	5-yr annual average	10-yr annual average	15-yr annual average	20-yr annual average
Australia	-1.9	6.0	7.9	5.3	6.6	-7.6	3.3	5.4	2.8	4.0
Austria	-10.2	0.8	2.8	2.2	3.2	-18.4	-2.9	0.2	-0.3	0.8
Canada	-3.1	5.0	6.4	5.7	6.3	-8.9	1.7	3.9	3.6	4.1
Chile	3.0	5.7	6.6	5.3	7.0	-8.6	0.1	2.0	1.4	3.1
Colombia	-4.2	5.6	6.4	8.5	9.8	-15.4	0.2	1.4	3.8	4.8
Costa Rica	-7.7	7.0	7.9	7.8	..	-14.4	3.8	5.1	3.7	..
Czechia	0.4	0.9	1.0	1.4	1.9	-13.3	-4.7	-2.4	-1.7	-1.0
Denmark	-14.2	1.9	3.6	4.5	5.2	-21.1	-0.8	1.9	2.6	3.3
Estonia	-9.2	2.3	2.8	1.5	2.8	-22.8	-4.1	-1.0	-2.2	-1.1
Finland	-5.1	4.6	5.5	..	..	-13.1	1.6	3.6	..	..
Germany	-1.2	2.5	3.2	3.4	3.7	-8.6	-0.6	1.2	1.6	1.9
Greece	-8.8	1.5	..	..	..	-14.9	-0.7	..	..	..
Hungary	-7.1	1.2	4.0	..	..	-25.4	-6.3	-0.3	..	..
Iceland	-3.3	8.5	7.8	6.6	8.2	-11.7	3.6	4.2	1.7	3.3
Ireland	-13.6	4.0	..	..	..	-20.2	1.1	..	..	..
Israel	-3.8	5.3	5.7	5.5	..	-8.6	3.5	4.7	3.8	..
Italy	-7.3	0.7	2.1	2.2	2.9	-17.0	-2.5	0.2	0.3	0.9
Latvia	-15.0	-0.3	1.3	1.6	2.5	-29.7	-6.3	-2.2	-1.8	-1.9
Lithuania	-14.7	2.3	3.5	..	..	-30.0	-4.6	-0.5	..	..
Luxembourg	-14.6	-0.6	1.6	1.7	..	-19.0	-3.2	-0.2	-0.2	..
Mexico	-4.1	5.5	5.1	6.0	..	-11.1	0.3	0.5	1.4	..
Netherlands	-21.1	0.8	3.9	4.2	5.3	-28.0	-3.2	1.3	1.8	3.1
Norway	-5.7	3.7	5.3	4.7	5.9	-11.0	0.2	2.4	2.2	3.5
Poland	-16.1	-1.3	..	..	..	-28.2	-7.2	..	..	..
Portugal	-10.5	0.7	2.4	1.6	3.5	-18.3	-1.8	0.8	0.0	1.6
Slovak Republic	-10.6	0.7	1.4	1.1	..	-22.5	-4.4	-1.4	-1.7	..
Slovenia	-7.3	0.7	3.2	4.1	..	-15.9	-2.6	1.2	2.0	..
Spain	-9.0	0.9	2.6	2.3	..	-13.9	-1.8	1.1	0.6	..
Switzerland	-9.5	1.7	3.3	2.6	3.3	-12.0	0.8	2.9	2.3	2.8
Türkiye	49.6	23.6	15.6	14.3	..	-8.9	-3.5	-2.2	-0.3	..
United Kingdom	-18.5	..	..	..	..	-25.4	..	..	..	..
United States	-12.8	2.4	4.0	2.2	3.5	-18.1	-1.4	1.4	-0.1	1.0
India	3.6	..	..	..	..	-2.1	..	..	..	..
Indonesia	5.5	6.4	7.8	..	..	0.0	3.3	3.6	..	..

Note: “..” means not available. The 2022 and the last 5, 10, 15 and 20-year annual averages are calculated over the periods Dec 2021-Dec 2022, Dec 2017-Dec 2022, Dec 2012-Dec 2022, Dec 2007-Dec 2022 and Dec 2002-Dec 2022 respectively, except for Australia (from June to June instead). Additional country specific details are provided in the StatLink.

Source: OECD Global Pension Statistics.

StatLink  <https://stat.link/25dycn>

Table 9.4. Nominal and real geometric average annual investment rates of return of selected public pension reserve funds in 2022 and over the last 5, 10, 15 and 20 years, in percent

Country	Public Pension Reserve Fund	Nominal					Real				
		2022	5-yr annual average	10-yr annual average	15-yr annual average	20-yr annual average	2022	5-yr annual average	10-yr annual average	15-yr annual average	20-yr annual average
Australia	Future Fund	-3.7	7.1	8.9	7.6	..	-10.7	3.9	6.3	4.9	..
Canada	Canada Pension Plan Reserve Fund	1.3	7.9	10.0	8.0	8.7	-2.9	4.6	7.4	5.7	6.5
Canada	Reserve of the Quebec Pension Plan	-5.6	5.8	8.5	..	..	-11.2	2.5	6.0	..	..
Chile	Pension Reserve Fund	-16.0	7.2	7.6	6.2	..	-25.5	1.5	2.9	2.2	..
Costa Rica	Costa Rican Social Security Fund	8.2	..	..	..	..	0.3	..	..	..	..
Finland	Keva's pension liability fund	-7.0	4.3	5.7	4.9	..	-14.8	1.3	3.9	2.9	..
Finland	State Pension Fund	-6.8	4.1	5.3	4.7	5.6	-14.6	1.1	3.4	2.7	3.8
France	Fonds de Réserves pour les Retraites	-10.3	0.1	2.9	1.9	..	-15.3	-2.1	1.5	0.5	..
Japan	Government Pension Investment Fund	1.5	5.2	5.5	4.4	4.3	-1.7	4.1	4.4	3.9	3.9
Korea	Government Employees Pension Fund	-6.0	4.0	..	..	..	-10.5	1.7	..	..	..
Korea	National Pension Fund	-8.2	4.2	4.7	5.1	..	-12.6	1.9	2.9	2.9	..
Luxembourg	Fonds de Compensation	-11.9	2.9	4.3	4.3	..	-16.4	0.2	2.5	2.3	..
Mexico	Labour Fund	8.5	..	..	..	..	0.6	..	..	..	..
New Zealand	New Zealand Superannuation Fund	11.9	8.0	10.8	9.6	9.7	4.3	4.8	8.6	7.2	7.2
Norway	Government Pension Fund – Norway	-4.4	5.8	8.2	6.9	8.0	-9.7	2.3	5.2	4.3	5.6
Poland	Demographic Reserve Fund	1.5	1.0	2.0	2.7	4.5	-13.1	-5.0	-1.3	-0.6	1.3
Portugal	Social Security Financial Stabilisation Fund	-13.0	..	..	..	..	-20.7	..	..	..	..
Spain	Social Security Reserve Fund	-9.4	-2.2	1.1	2.1	2.4	-14.3	-4.7	-0.4	0.4	0.3
Sweden	AP1	-8.6	6.7	8.2	6.3	..	-18.6	2.6	5.7	4.2	..
Sweden	AP2	-6.7	5.1	7.4	5.8	7.5	-16.9	1.1	5.0	3.7	5.6
Sweden	AP3	-5.8	8.1	9.3	6.8	..	-16.1	3.9	6.8	4.7	..
Sweden	AP4	-11.9	6.9	9.2	7.2	8.2	-21.6	2.8	6.7	5.2	6.3
Sweden	AP6	1.9	16.8	13.0	8.7	9.3	-9.3	12.2	10.4	6.6	7.3
Switzerland	AHV Central Compensation Fund	-12.9	0.0	2.5	..	..	-15.3	-0.8	2.1	..	..
United States	Old-Age and Survivors Insurance Trust Fund	2.3	2.6	3.0	3.5	4.0	-3.9	-1.1	0.4	1.2	1.5

Note: “..” means not available. The 2022 and the last 5, 10, 15 and 20-year annual averages are calculated over the periods Dec 2021-Dec 2022, Dec 2017-Dec 2022, Dec 2012-Dec 2022, Dec 2007-Dec 2022 and Dec 2002-Dec 2022 respectively, except for Canada Pension Plan Reserve Fund and Japan's Government Pension Investment Fund (March 2022-March 2023, March 2018-March 2023, March 2013-March 2023, March 2008-March 2023 and March 2003-March 2023) and New Zealand Superannuation Fund (June 2021-June 2022, June 2017-June 2022, June 2012-June 2022 and June 2002-June 2022).

Source: OECD Global Pension Statistics.

StatLink  <https://stat.link/iv2y7z>



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