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Pension funds

Population ageing impacts on interest rates

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Interest rates have been low in recent years. One reason for this is demographics. Pension funds should draw their own conclusions.

Long-term interest rates in Switzerland have fallen dramatically since the early 1990s. At the time, the interest rate for ten-year government bonds was around 7 per cent; by 2020, it had fallen to below minus 1 per cent and has only recently risen slightly into positive territory. Interest rates on low-risk bonds are influenced by a number of factors, the most obvious of which is inflation: While inflation was above 5 per cent in the early 1990s, it was minus 0.8 per cent in 2020. High inflation leads to high interest rates and vice versa. If you subtract inflation from the nominal interest rate, you get the real interest rate. It measures how much purchasing power you effectively gain when you invest money in bonds. This real interest rate has varied considerably over time; since the 1930s, it has fluctuated between zero and 2.5 per cent, but before that it was significantly higher, hovering around 5 per cent. There are international studies that suggest a link between demographics and interest rates.

Capital affects interest rates

Generally speaking, if a country saves and accumulates more and more capital, there will be enough to go around and the 'price' of this capital will dop – i.e. the interest rate will fall. Capital is accumulated, for example, when a country's population moves away from subsistence farming towards employment in industry or the service sector and its average age increases. One of the consequences of this is that more capital is saved for retirement during working life. When you retire, you are essentially sitting on a pile of savings. If a significant portion of this capital is held in bonds out of prudence or for regulatory reasons (e.g. BVV-2 provisions for Swiss pensions), this may have an impact on the overall level of interest rates.

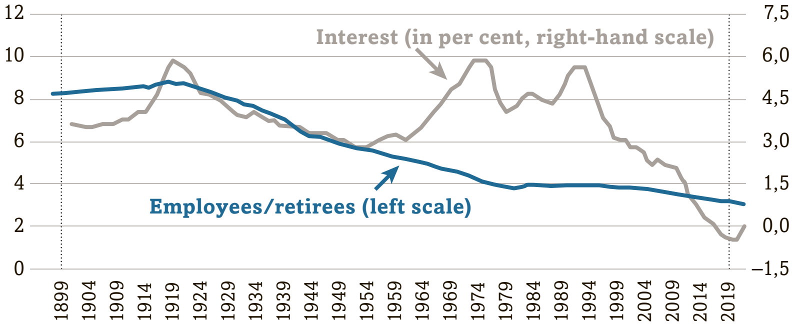
> "Ageing poses many challenges – and also contributes to keep long-term interest rates low".

Bonds may play a less important role in the strategy than they used to.

An example: We assume that the portion of the Swiss population in the age bracket 26 to 65 ("working population") is actively saving. The population over the age of 65 ("pensioners") has accumulated capital to draw on or lives on income from capital. The more retired people there are relative to the working population, the higher the capital stock tends to be and the lower the interest rate can be. This ratio is shown in the graph. Also shown is the interest rate on long-term government bonds – presented as a five-year rolling average to smooth outliers.

Negative trend

Swiss interest rate from 1899 to 2022 and the ratio of employees to pensioners



Sources: Federal Statistical Office, SNB, own calculations

One should not over-interpret such a graph, as interest rates deviated massively to the upside during the inflationary phase of the 1970s and 1980s, for instance. However, both the demographic ratio and the interest rates have shown a negative trend over this long period of more than 120 years. Increased capital accumulation could therefore have a downward effect on interest rates.

Pressure remains

This insight – even if correct – is of only limited use for investing. That is because the potential demographic impact, which is very slow to materialise, is overridden in the short term by other effects such as monetary policy or inflation. Structurally, however, the demographic pressure on (real) interest rates persists due to the ageing of society. This is likely to cause interest rates to move more between zero and 3 per cent than between 3 and 5 per cent. For investors, this may mean that bonds will play a less important role in their strategy than in the past. This restructuring process has been massively accelerated by the negative interest rates in recent years, and, given demographic trends, it is unlikely to be reversed in the long term.

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