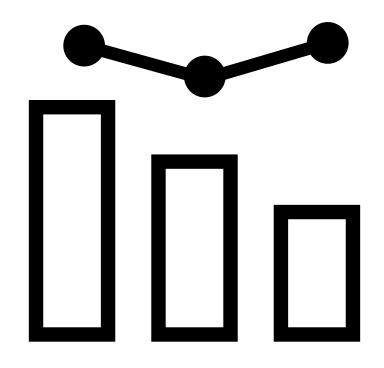
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Market: trends & topics

October 2022

Inflation: a long-term perspective

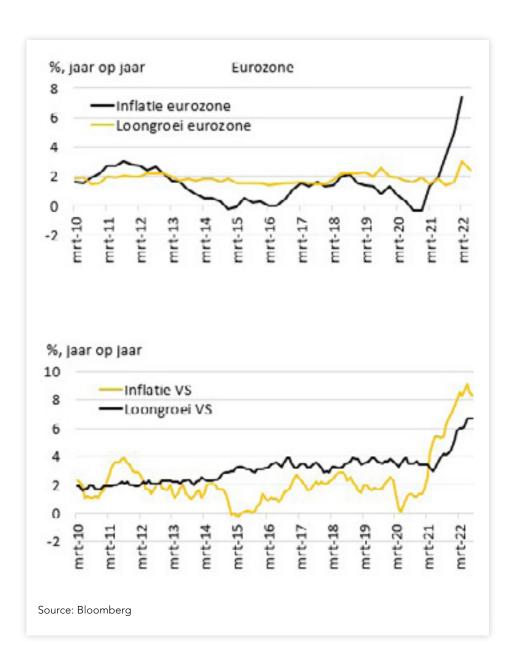
The inflation is still stirring up everyone's feelings, including investors'. Earlier this year, we focused on the inflation outlook for the shorter (2022: the year of turbo-stagflation?) and medium term (What will come after stagflation?). Now we will go into our expectations regarding the inflation in the long term, towards 2030 and beyond.

Demographics as a driving force

A decisive factor – maybe even the most decisive factor in the long run – driving inflation are demographic developments. Economic growth as well as inflationary pressures tend to be higher in times of great population growth, and lower as the population declines. Age distribution also plays a role. Population ageing reduces productivity and, consequently, inflationary pressures. The relationship between age and productivity is characterised by an 'inverted U-shape': productivity is generally the highest in the 40-50 years age group. Accordingly, if the share of 40- to 50-year-olds in the population drops, productivity and inflation will equally decrease.



In terms of total population size, the <u>United Nations</u> believes that the population will increase slightly in Europe and the US until 2030, and decrease again in the years thereafter (until 2050). Meanwhile, the proportion of over-65s in the population is expected to gradually increase, from less than 20% today to over 25% by 2050. Nevertheless, how exactly population ageing impacts inflation is difficult to pinpoint. In principle, the higher the 'old age dependency ratio', the lower inflationary pressures. On the other hand, 'dissaving' by older people needing care and a growing contraction of the job market can in fact fuel inflation. On balance, we assume that for Europe, the deflationary effect of demographic ageing will dominate until 2030-2035, after which inflationary effects will take over.



4 Market: trends & topics | October 2022

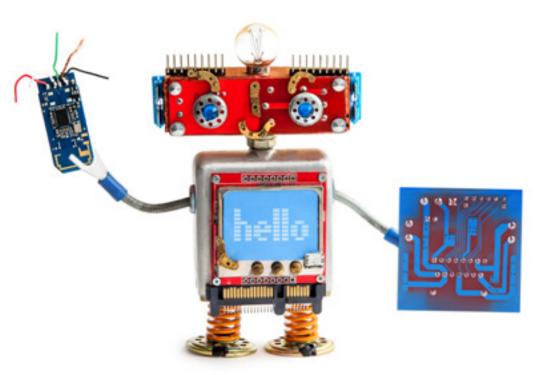
Is Japan our foreland?

One country that has been dealing with the adverse economic impact of demographic ageing and a shrinking population for much longer is Japan. At present, Japan is the most 'ageing' society in the world. By 2040, over a third of Japan's population will be over 65. Japan's high level of population ageing can be attributed to a combination of factors: rising life expectancy, lower birth rates and the virtual absence of immigration. Their effects on the Japanese economy have been clearly visible since the early 1990s. In the decades after World War II, Japan enjoyed a long period of high growth and inflation, but since 1990 both growth and inflation have been hovering around 0-1%. Despite all the measures they have taken, the Japanese government and central bank have been unable to lift economic growth and inflation to a higher level in the past 30 years. Even as inflation in the US and Europe is nearing 10%, inflation in Japan remains limited to 3%.

The question is to what extent Japan's experience with population shrinkage and ageing holds any lessons for us. After all, both in Japan and in Europe the ratio between over-65s and 20- to 64-year-olds is growing, and a decline in population size is equally in store for Europe. However, we should not lose sight of the fact that not only Japan has been facing these trends for much longer than we have, but also in the future Japan's population will continue to decline much faster and its old age dependency ratio will increase more than in Europe. An important difference though is that Europe as well as the US have and will continue to have a positive migration balance, at least according to the United Nations' expectations. For the time being, population shrinkage will therefore remain much more limited here than in Japan, where immigration has traditionally been virtually non-existent. As a result, the effects of demographic trends on economic growth and inflation will also be much less pronounced than in Japan.

Technology and 'de-globalisation' as inflation-inhibiting factors

Besides demographics, the rapid rise of technology also seems to have been an important factor in the development of inflation over the past 30-40 years. Technological innovations have made many production processes more efficient, contributing greatly to higher productivity and economic growth. At the same time, the costs of electronic and digital products and services have kept on falling while, according to 'Moore's Law', the number of components per integrated circuit is doubling every year. As a result, computers for example now have much more computing power than in the 1990s and laptops are getting ever thinner, more powerful and cheaper.



The question is, however, whether technology will continue to be a deflationary factor in the future. Since the 'Covid crisis', but actually even before, the further development of technology is hampered by 'de-globalisation', supply chain disruptions and a scarcity of resources. While these disruptive factors seem at least partly temporary in nature, the trend towards 'de-globalisation' may prove more fundamental in nature. At least until the 2008-2009 credit crisis, globalisation contributed to downward price pressure as products and semi-finished goods were increasingly made where it was cheapest. Since then, a range of factors, including rising nationalism and populism, have contributed to the levelling off of globalisation. The Covid pandemic, as well as the war in Ukraine, have revealed just how fragile international trade chains are, prompting countries to produce more 'in-house'. While we do not believe that the benefits of globalisation have disappeared altogether, we do think that the price-depressing effect of globalisation will be felt less in the future than has been the case in the past few decades, and that the trend towards de-globalisation will in fact be slightly inflationary in the long run.

Climate issues as a driver of inflation?

Aside from demographics and technology, future inflation will also be largely determined by climate change and the policies being pursued to counter its impact. What impact climate change will have on inflation, and when, is highly uncertain and depends largely on whether we will succeed in bringing about the 'orderly transition' underpinning the Paris Agreement, while also limiting global warming to around 2 degrees, or whether we will end up in a scenario of 'disorderly transition' (global warming of around 3 degrees) or even 'failed transition' (global warming of around 4 degrees or more). In every scenario, inflationary pressures are more likely to increase than decrease, but when and by how much varies considerably from one scenario to the next.

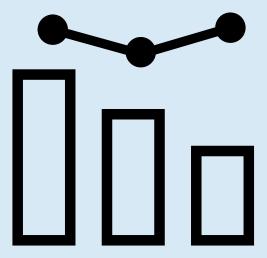
In the scenarios of 'orderly' as well as 'disorderly' transition, inflationary pressures will rise especially in the short term, partly because of large-scale investments by both companies and households for the energy transition, and widespread taxation on carbon emissions ('carbon taxes'). In the longer term, the impact of climate change on inflation will be relatively limited in those scenarios, in part thanks to the relatively low cost of renewable energy sources and because climate risks will remain reasonably manageable by then. In the 'failed transition' scenario, the change in inflation will be limited in the short term, but inflationary pressures will in fact increase in the longer run as fossil fuels become more scarce and, consequently, more expensive and climate risks (floods, draughts, etc.) and associated costs increase.



Pluses and minuses, but overall inflation will probably be higher in the long run than initially expected

Until not too long ago, the structural factors that define long-term inflation trends seemed to point mostly to persistently low levels of inflationary pressure. Demographic factors, particularly demographic ageing and population shrinkage, seemed decisive in that regard. Japan, where ageing and low inflation had been going hand in hand for 30 years, served as an example of what western countries could expect. Aside from modest demographic prospects, technological innovations and globalisation also seemed to be contributors to the deflationary trend rather than to any imminent turnaround in the inflationary climate.

Still, we believe the long-term inflation outlook is somewhat different from a few years ago. While demographic trends have not significantly changed, except for the fact that increased immigration to Europe and the US has somewhat improved the demographic outlook, the trend towards ever growing globalisation seems unlikely to persist into the future, which will have an inhibiting effect on technological innovation and has thus changed from a deflationary factor into an inflationary factor. In addition, the growing urgency of climate change issues has become a factor of increasing importance. In a favourable scenario, where the world manages to keep global warming within bounds, the effect on inflation will mainly play out in the short term, but will be limited in the long term. In a 'failed transition' scenario, the opposite will be true, but no matter what, climate change will probably have an inflationary rather than a deflationary effect.



'Inflation is always and everywhere a monetary phenomenon'...?

All in all, we believe the long-term inflation outlook might be slightly better than initially expected. Previously, we believed that long-term inflationary pressures would stay below 2%, whereas now we expect a 'neutral' inflation of around 2%. Not entirely coincidentally, this is in line with the ECB's adjusted inflation target. Until recently, the ECB strove for an inflation rate 'below but close to 2%', but that target has now been changed to 'around 2%'. While the statement of economist Milton Friedman that 'inflation is always and everywhere a monetary phenomenon' should be taken with a pinch of salt, especially in view of recent experiences, we do believe in essence that central banks (or at any rate the ECB and the Fed) will eventually succeed in bringing inflation down to around 2%.

In the short term, and by that we mean at least the next 12 to 18 months, they will definitely not manage that, and in the medium term too (a horizon of approx. 2 to 5 years) we believe it more likely that inflation will remain above 2% instead of returning to a 'deflation scenario', where this was in fact the most likely 'risk scenario' in our view until the Covid pandemic. Given recent inflation developments and the uncertainty about what factors will influence future inflation and how, it should be noted that, even in the long term, there is a good chance that inflation will not be 'around 2%', but will be much higher or, conversely, lower. In the end only one thing is certain in the long run, as another well-known economist once said: 'in the long run, we are all dead'...



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