Corona crisis has increased the risk of stagnation in the euro area

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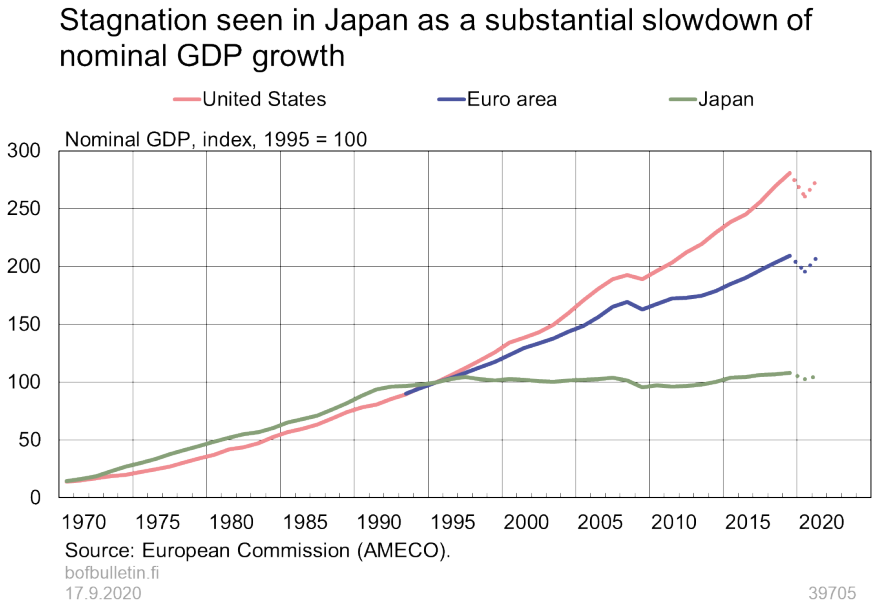
Stagnation is a period of slow economic growth often characterised by low interest rates and low inflation. It is most commonly associated with the development of the Japanese economy since the early 1990s. In the euro area, the corona crisis together with an already ageing population, diminished productivity growth, and, in places, high levels of debt even before the onset of the current crisis may weaken the economy's ability to recover. There is a danger of the economy slipping into an equilibrium of low interest rates and low inflation, i.e. a liquidity trap. There is also a risk of inflation expectations declining. The policy response in the euro area to the economic outlook weakened by the corona crisis has been swift and decisive. Well-targeted policy measures can mitigate the risk of the economy following an adverse path.

Euro area economy so far not on Japan's path

The economic crisis sparked by the coronavirus pandemic has prompted discussion of whether the euro area economy might be on a path similar to Japan's. Similar concerns were raised after the global financial crises of 2008.[1] Stagnation is a period of slow economic growth typically characterised by low interest rates and low inflation.

Stagnation is most commonly associated with the development of the Japanese economy after the early 1990s. In Japan, slow economic growth has been accompanied by low interest rates and very low, and at times even negative, inflation. Such developments are illustrated in Chart 1 (slowdown of nominal growth) and Chart 2 (equilibrium of low inflation and zero interest rates). Chart 1 reveals that nominal GDP growth already petered out in Japan in the early 1990s due to simultaneous slow growth and low inflation. So far, nominal GDP growth in the euro area and the United States has remained markedly higher than in Japan.

Chart 1



Stagnation began in Japan after the economic crisis of the 1990s. In the wake of the crisis, property and share prices underwent a sharp and long-lasting collapse. Asset prices had risen sharply in Japan before the crisis, also bolstered by the deregulation of financial markets. The Japanese economy has suffered from low real and nominal growth for three decades now. Since the crisis, Japanese policymakers have pursued a variety of fiscal and monetary policy measures to stimulate the economy. Yet, in spite of this, economic growth has remained weak and inflation low.[2] The developmentthe Japanese economy has been attributed to population ageing, diminished productivity growth, a

1. See e.g. Duprat, M.-H. (2015) and Summers, L. (2014).

2. In 2012 a more extensive and robust package of monetary and fiscal stimulus, known as Abenomics, was launched in Japan. Although there had been earlier attempts to stimulate the economy, the Abenomics programme launched in 2012 was significantly more extensive and ambitious than previous efforts.

delayed, insufficient and short-lived policy response at the beginning of the crisis, and the weakening of monetary policy, i.e. a liquidity trap.[3]

Certain aspects of the euro area economy are reminiscent of Japan's, but not substantially so. The difference between the paths of the US and Japanese economies appears to be even greater than the difference between the euro area and Japan. The corona crisis has weakened the outlook for growth and inflation again in all three economies, and as the experience of Japan has shown, there may be a heightened risk of the economy falling into stagnation following a major recession.

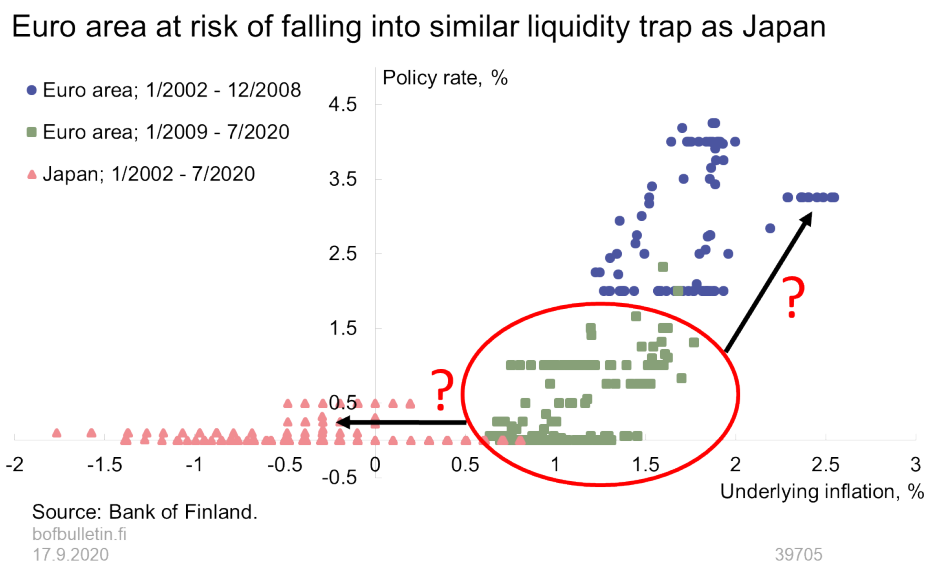
In the euro area, the corona crisis together with an already ageing society, decreased productivity growth, and – in places – high levels of debt even before the onset of the crisis may all diminish the economy's ability to recover. In the United States, the outlook is being buoyed by population demographics more favourable for growth.

Chart 2 illustrates Japan's equilibrium of low inflation and zero interest rates, where the economy has remained since 1999. This sort of equilibrium can be described as a liquidity trap, where monetary accommodation and cutting central bank policy rates to zero have not succeeded in bringing inflation up to target.[4]

For monetary policy, it is important what sort of inflation and interest-rate environment the euro area finds itself in in the years following the corona crisis. Before the 2008 financial crisis, inflation in the euro area remained near target. The main objective of monetary policy in the euro area is to maintain inflation rates below, but close to, 2% over the medium term. It can be observed from Chart 2 that during 2002–2008 monetary policy rates were well above zero, ranging from about 2% to 4.5% (blue dots). In addition, long-term inflation expectations remained stable. This meant that monetary policy could respond to economic shocks and changes in the inflation outlook through standard interest rate policy. When inflation slowed, the central bank had room to lower its main policy rate to stimulate the economy.

3. See e.g. Wakatabe, M. (2012) and Yoshino, N. and Taghizadeh-Hesary, F. (2015).
4. The natural rate of interest and, consequently, central bank policy rates have declined, which has reduced the room for standard monetary policy rate cuts. The phenomenon has been called secular stagnation, Japanification (or Japanisation) and a long-term liquidity trap. The result is that interest rates are at very low levels and are expected to remain so for a long time. See Blanchard and Summers (2020).

Chart 2



Japan's economy, on the other hand, has slipped into an equilibrium where inflation and nominal interest rates are low. Inflation has persistently remained flat, even dipping into negative territory as interest rates have neared zero (pink bars). Inflation expectations have also remained muted. In a situation like this, the central bank cannot guide inflation with standard interest rate policy, and so the Bank of Japan has pursued a variety of non-standard monetary policy measures. However, escaping such an equilibrium is difficult.

Since the financial crisis, the euro area economy has remained in between the two states described above. Underlying inflation has remained low, at about 1% (green dots).

Inflation expectations have also declined, but e.g. market-based long-term (5-year 5-years forward) expectations have in recent years largely remained near or slightly above 1%. The European Central Bank (ECB) has responded to the deteriorating outlook for inflation forcefully, lowering its key interest rates (deposit facility rate negative) and pursuing a variety of non-standard monetary policy measures.

The corona crisis has raised fears of the period of low inflation and low interest rates in the euro area becoming protracted and leading towards a similar liquidity trap as in Japan. Core inflation has remained steadier in the United States, but the corona crisis has weighed on inflation there too, at least temporarily.[5]

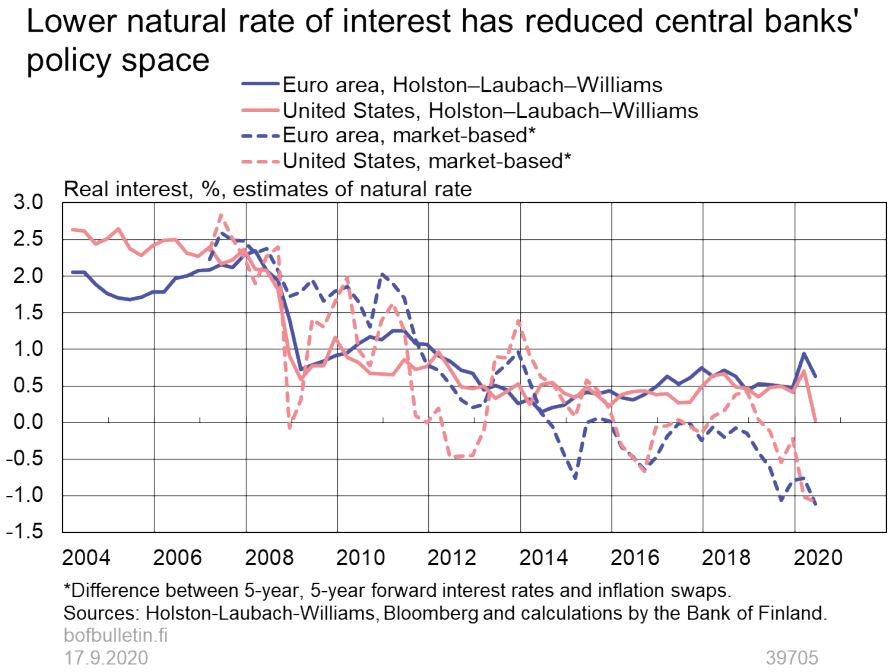
This article examines the drivers of protracted slow economic growth, low inflation and low interest rates and draws comparisons between the situation in the euro area and those in the United States and Japan. In addition, we assess the risk of the corona crisis giving rise to stagnation in the euro area. While the risk of stagnation does seem to have increased in the euro area, economic policy measures can alleviate this risk substantially.

5. 'A fragile recovery from thepandemic crisis has begun' further explores the impact of the corona crisis on inflation. One scenario sees inflation accelerating due to the corona crisis.

Corona crisis may lower the natural rate of interest, further reducing space for central bank interest rate policy

The natural real rate of interest is an important determinant of economic conditions. The natural rate describes the level of interest rates where economic growth persists at its potential level over the medium term and inflation settles at its long-term equilibrium. The natural rate of interest is estimated to have declined in the wake of the global financial crisis (Chart 3). Holston, Laubach and Williams estimate that even before the corona crisis the natural real rate had declined both in the United States and in the euro area, from about 2–3% in the early 2000s to about 0.5%. Market-based real long-term interest rates are consistent with this estimate (Chart 3). During the second quarter of 2020, these stood at about -1% in both the euro area and the United States.

Chart 3



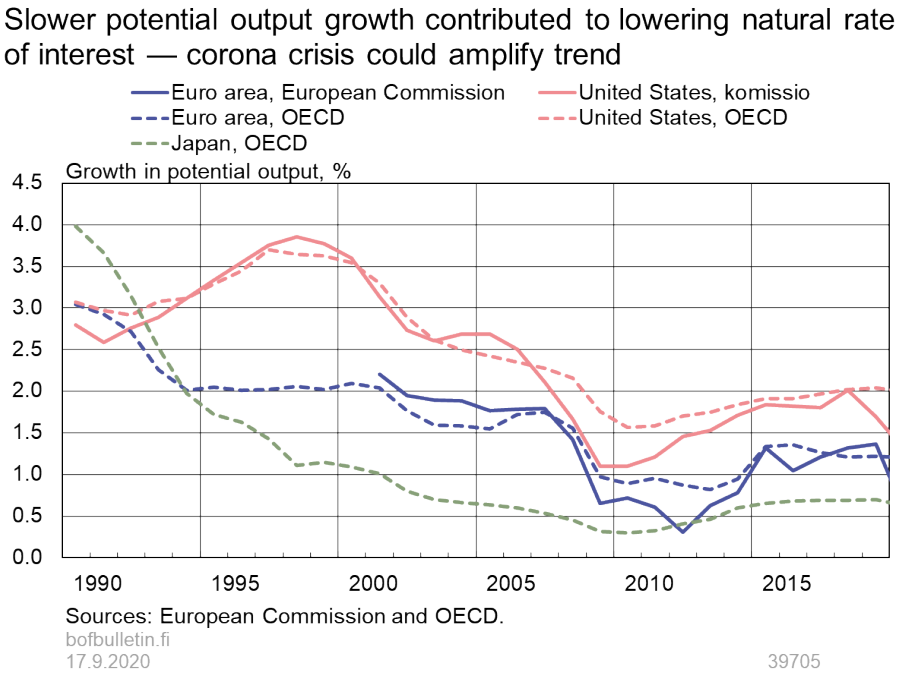
The decline in the natural rate implies that central banks have less room to cut interest rates than before, and indeed, central banks have increasingly operated at the effective lower bound (ELB). This has increased the likelihood of stagnation occurring. In addition, the lower natural rate may amplify downward pressures on inflation expectations, ultimately influencing actual inflation.

The decline in the neutral real interest rate has been ascribed to several factors, of which the most important are the slowing of potential output growth, population ageing and its effects on investment and saving behaviour, higher levels of debt, and a decline in the price of capital goods.[6] Potential output growth in the euro area, Japan and the United

6. Sajedi and Thwaites (2016) show that the fall in the price of investment goods can explain the lower level of investment and the decline in the natural rate of interest. Eggertsson et al. (2019) conduct a broader analysis of

States have all slowed from the early 1990s (Chart 4). In Japan, potential growth is estimated to have slowed to about 1% already during the 1990s. In the United States, the deceleration began in the early 2000s, and in the euro area, potential output growth is estimated to have remained relatively stable from the mid-1990s before declining sharply in the wake of the global financial crisis. Potential growth in the United States before the corona crisis was estimated at about 2%, while in the euro area it was estimated to be slightly above 1.0%, and in Japan over 0.5%. With the corona crisis there is a risk that potential output growth will slow more permanently due to contractions in labour and capital, due to, say, increased long-term unemployment, diminished investment, or business bankruptcies. Furthermore, the corona crisis may weaken productivity growth, which would have an immediate bearing on potential output.

Chart 4



Population ageing and diminishing productivity growth exposed the economy to stagnation even before the coronavirus epidemic

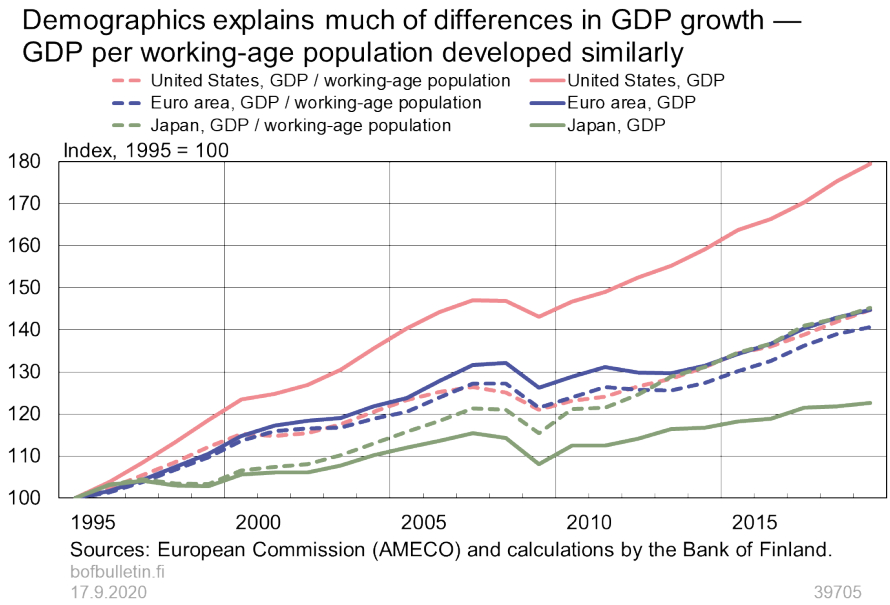
One factor that has slowed potential output growth is demographic transition, with falling fertility rates and longer-life expectancies resulting in population ageing and shrinking working-age populations. In Japan this trend began already in the mid-1990s and has been much stronger than in many other countries. By 2018, the Japanese working-age population (aged 15-64) had shrunk by about 17% compared with 1995. In the United States, the working-age population has increased by 23% during the same period, and in the euro area, by about 3%. Going forward, demographics in the euro area are expected to develop more similarly to Japan's. The working-age population has already begun to shrink in the euro area, and is projected to continue to do so at an

factors that influence the natural real rate.

accelerating pace. The number of 15-64-year-olds in the euro area is contracting at an annual rate of about 0.15%, whereas in the United States the same age group is expanding at approximately the same rate. These differences in demographics are directly reflected in rates of economic growth (Chart 5). The chart reveals that since 1995 GDP has increased by about 80% in the United States, 40% in the euro area, but only by about 20% in Japan. When GDP growth is viewed relative to the growth of the working-age population, the differences between the three economies disappear, and Japan's growth looks similar to that of the euro area and the United States. Thus, a significant part of the weak economic growth experienced by Japan in recent decades is a result of its demographic transition, which began much earlier and more strongly than in other countries. In other words, diminishing growth or even the contraction of the working-age population is depressing output growth, and would do so even if productivity growth remained constant.

There are several channels through which population ageing influences economic growth and the natural rate of interest. A shrinking working-age population by definition reduces the supply of labour and thus dampens potential output growth. Population ageing also lowers aggregate demand, because it increases saving and reduces income. These factors serve as a disincentive for firms to invest. Higher life expectancy increases the need to save, which lowers the equilibrium natural rate of interest.[7] The euro area's muted demographic outlook is believed to have lowered the natural real rate even before the outbreak of the coronavirus epidemic.

Chart 5

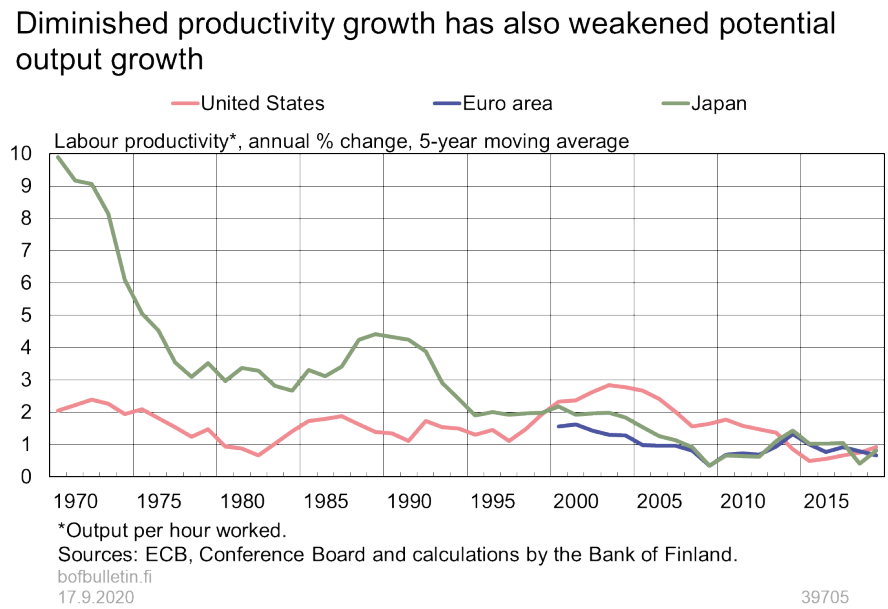


In addition to labour supply developments, potential output growth has been dampened by weak productivity growth. Average productivity growth has declined to under 1.0% in

7. The impact of population ageing on the natural rate of interest has been examined by, among others, Carvalho, Ferrero and Nechio (2016), Gagnon, Johanssen and López-Salido (2016), Eggertsson, Mehrotra and Robbins (2019), as well as Cooley, Henriksen and Nusbaum (2019).

all three economies in recent years, whereas in the early 2000s it was about 1.5% in the euro area, and about 2% in the United States and Japan (Chart 6). The decline in productivity growth is not an issue particular to the euro area, but has been shared across the euro area, the United States and Japan. The difference from the early 2000s is that back then the United States experienced markedly higher productivity growth than the euro area and Japan. Gordon (2015) assesses that recent developments are due to new technologies and innovations having a smaller impact on economic growth. The productivity benefits of information technology in particular are viewed to have declined from the early 2000s and the period before that. In addition, the rise of services as a share of the economy has contributed to the decline in productivity growth, as productivity in services has remained weaker than in manufacturing and information technology.[8] Studies on the Great Recession have also shown that the crisis cast a long shadow on productivity growth, as it reduced firms' R&D efforts and their adoption of new technologies.[9] If the corona crisis proves to have similar adverse long-term effects on productivity-improving investments, productivity growth may decline even further, and persistently so, as a result of the current crisis. On the other hand, if digital technologies see growing rates of adoption and investment due to the crisis, the overall impact of the crisis on productivity growth could in the best case, however unlikely, turn out to be positive. The corona crisis might also push work-life practices and the operating models of businesses towards greater efficiency.[10] The realisation of any such benefits is subject to considerable uncertainty, but where successful the natural rate of interest would also rise and increase the room for interest rate policy.

Chart 6



8. Lane, P (2019).

9. See Anzoategui et al. (2019) and Bianchi et al. (2019) for the United States and Schmöller and Spitzer (2020) for the euro area.

10. See the discussion in the main article about the long-term effects of the corona crisis especially as regards digitalisation and productivity.

Higher debt warranted by the crisis and the need for deleveraging may increase the risk of stagnation

Sharp falls in asset prices and the deleveraging of excessive levels of debt are common features of economic crises. After the economic crisis of Japan in the early 1990s, house prices declined over a protracted 18-year period, falling by a total of 45%. At the same time, the private sector went through a steady process of deleveraging, with private sector debt only beginning to rise again in connection with Abenomics in 2012. Yet deleveraging reduces opportunities for investment and consumption and manifests as weaker economic growth and a lower natural rate of interest. Excessive indebtedness and intensive deleveraging were also features of the 2008 financial crisis. In the United States especially, but, for example, also in Spain, house prices rose sharply before the crisis and collapsed as the crisis unfolded. In many countries the private sector went through a long process of deleveraging. The corona crisis, in turn, is rooted in the outbreak of the epidemic. At the time, the euro area was not experiencing a build-up of debt associated with previous crises, and housing prices were increasing only moderately. Nevertheless, debt has remained relatively high in some areas in recent years, and because of the coronavirus epidemic and the containment measures imposed to control the virus, the public sector and especially a share of non-financial corporations have had to resort to substantial amounts of borrowing to survive through the acute phase of the crisis. This increases the need for deleveraging in the years ahead. Eggertsson, Mehrotra and Robbins (2019) demonstrate that even temporary deleveraging episodes, when required, can dampen the natural rate of interest for a prolonged period. Mian, Straub and Sufi (2020) demonstrate that high levels of public and private sector debt reduce aggregate demand in and of themselves and exert downward pressure on the natural real rate of interest.

In addition to diminished economic fundamentals, there is also a risk of muted inflation expectations

Population ageing and the decline in productivity growth are long-lasting changes in economic fundamentals. These changes have lowered the natural rate of interest and, due to the effective lower bound on interest rates, have reduced the ability of central banks to respond to downturns with standard interest rate policy. The more strongly and frequently the effective lower bound weakens the impact of monetary policy, the more likely it is that inflation will linger below the central bank's objective. This can push the economy into an equilibrium of low inflation and low interest rates.[11] One characteristic of such an equilibrium is inflation expectations declining and remaining muted for a protracted period. In addition to diminished economic fundamentals, inflation expectations can also be pushed down if they become self-fulfilling.[12]

In economic theory, inflation expectations are seen as a principal driver of inflation over the medium term. When firms and households expect inflation to remain muted in the future, firms in competitive markets are reluctant to raise prices and are more flexible in

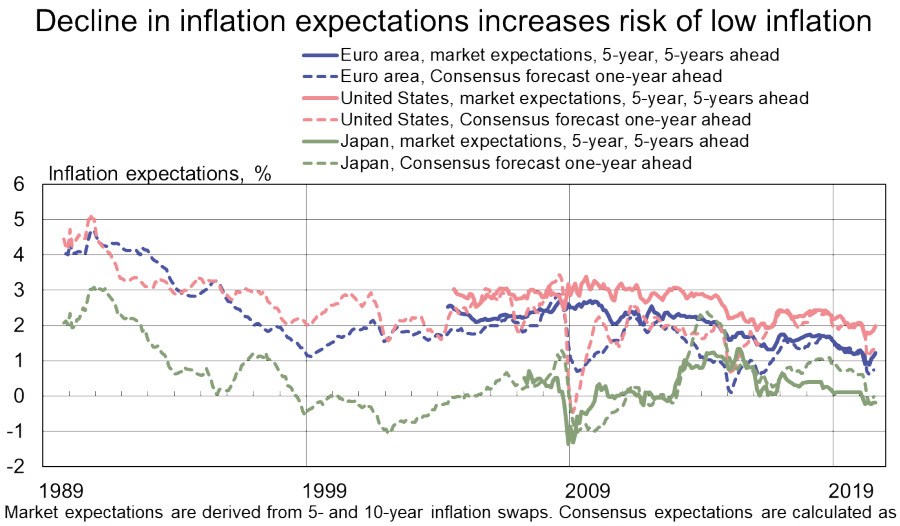
11. See Chart 2 and the related discussion.

12. Cuba-Borda, P. and Singh, S. (2020) compare and analyse these mechanisms which explain lowered inflation expectations.

their margins. The central role of inflation expectations in price formation is highlighted in the New Keynesian Phillips curve, a model central to macroeconomic theory, where actual inflation is seen to be determined by expectations of future inflation, prevailing domestic price pressures, and external price pressures stemming from commodities and other import prices.

Inflation expectations for the euro area, Japan and the United States are illustrated in Chart 7. Inflation expectations in Japan declined markedly in the early 1990s and have remained near zero ever since, even dipping into negative territory.[13] In the euro area, long-term inflation expectations have declined since 2012, similarly to actual inflation. Expectations have remained strictly positive, however, and the euro area has managed to avoid a collapse of inflation expectations similar to Japan in 1999–2012, with Japanese expectations even sinking into negative territory. In the United States, long-term inflation expectations have remained higher than in the euro area, at or slightly above 2%. Diminished inflation expectations are one potential explanation for the protracted period of low inflation in the euro area. The risk is that the corona crisis will amplify the downward pressures being exerted on inflation expectations.

Chart 7



Market expectations are derived from 5- and 10-year inflation swaps. Consensus expectations are calculated as a weighted 12-month moving average based on the current year's and the following year's expectations.
Sources: Bloomberg, Consensus Economics and calculations by the Bank of Finland.
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Benhabib, Schmitt-Grohé and Uribe (2001) examine inflation expectations depressed by self-fulfilling expectations and demonstrate that when the zero lower bound causes nonlinearities in the response of monetary policy, for example by limiting the room for interest rate cuts, the economy can either settle into an equilibrium consistent with the central bank's inflation aim or an equilibrium of zero interest rates and low inflation. In the former equilibrium, inflation expectations are anchored at the central bank's inflation target, and the central bank is able to respond to changes in economic

13. Long-term inflation expectations best describe how inflation expectations are anchored, but due to the availability of data, the chart also depicts the 12-month Consensus forecast, which has been published since the beginning of the 1990s. In fact, over the long term the Consensus forecast appears to have followed a similar path as long-term inflation expectations.

conditions through standard interest rate policy measures. In the latter equilibrium of low inflation and low interest rates, monetary policy only has limited room for manoeuvre. With the corona crisis it is important to ward off declining inflation expectations by actively pursuing non-standard monetary policy measures in order to avoid slipping into an equilibrium of low inflation.

Hills, Nakata and Schmidt (2019) view the decline in inflation expectations as being driven by both the effective lower bound and macroeconomic fundamentals, such as the rate of potential growth and the natural rate of interest. According to them, the decline in inflation expectations can be explained by the fact that the mere possibility of central bank policy rates being constrained by the lower bound creates tail risk for future inflation and depresses inflation expectations. The period of very low interest rates of recent years may have made this possibility all the more real. Given that potential output growth may have slowed in the face of the corona crisis, uncertainty has increased, and the natural rate of interest may have declined, there could be an increased probability of this tail risk being realised.[14] Based on the results of Hills, Nakata and Schmidt (2019) this would manifest as more muted inflation expectations and slower inflation, even if monetary policy were not constrained.

The increased risk of stagnation caused by the corona crisis demands a strong policy response

The current crisis did not originate from problems in the financial sector. It stemmed from the coronavirus pandemic and the lockdown measures needed to contain the spread of the virus. The situation is in many ways different to previous crises, such as the economic crisis of Japan during the 1990s and the 2008 global financial crisis, which were preceded by high levels of borrowing and long-standing imbalances in the economy. Yet, despite being different in nature, the corona crisis may amplify trends in the euro area economy that were long present before the onset of the crisis. As with all major crises, it should be expected that the economy will take a long time to recover to its pre-crisis condition. Because of hysteresis (mechanisms which slow or prevent a system from returning to an initial state), the corona crisis may have a long-lasting or even permanent impact on productivity growth and the labour market. Since the crisis, both public sector and private sector debt have increased, and growing uncertainty surrounding the duration and effects of the crisis could have a lasting impact on firms' willingness to invest. All of these factors may lower the economy's potential output and decrease the natural rate of interest.

The risk of stagnation can be mitigated with powerful, well-targeted, well-timed, and sufficiently long-lasting economic policy measures. Monetary, fiscal and structural policies can all substantially contribute to economic recovery.[15] Supporting economic growth and investment, as well as implementing structural reforms which raise potential output, will lift the natural rate of interest and bolster inflation expectations. The right policy measures can mitigate the long-term effects of the corona crisis, particularly its effect on productivity and employment. Structural measures aimed at boosting

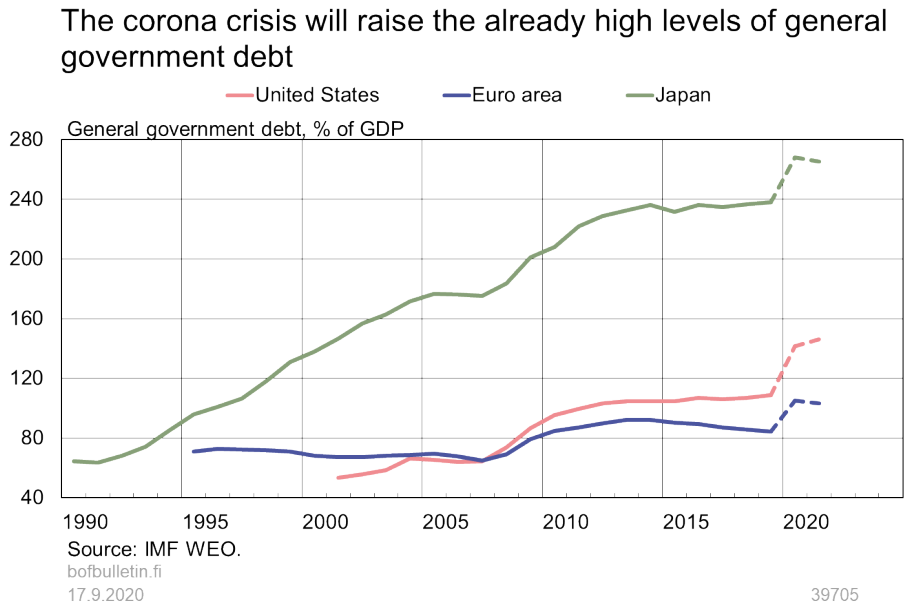
14. See e.g. Fornaro and Wolf (2020).
15. See e.g. Gopinath, G (2020).

employment can also provide relief on issues related to population ageing. At the same time, the ECB's review of its monetary policy framework will assist in confronting the changes in the euro area's economic environment.[16] Monetary policy can also influence inflation expectations directly. The corona crisis has only increased the importance of all of these policy measures.

The powerful policy response will raise levels of public debt this year and expand the balance sheets of central banks (Charts 8 and 9), but it will safeguard the economy's output potential and conditions for recovery. Fiscal policy measures have been deployed to, for example, ensure that jobs are protected and to prevent profitable firms from exiting the market.

Higher levels of public debt will reduce the space for fiscal policy and increase the need to reinforce debt sustainability over the long term, particularly if economic growth remains muted. In Japan, general government debt has increased steadily since the early 1990s. Similarly, general government debt has remained higher in the euro area and the United States since the financial crisis.

Chart 8

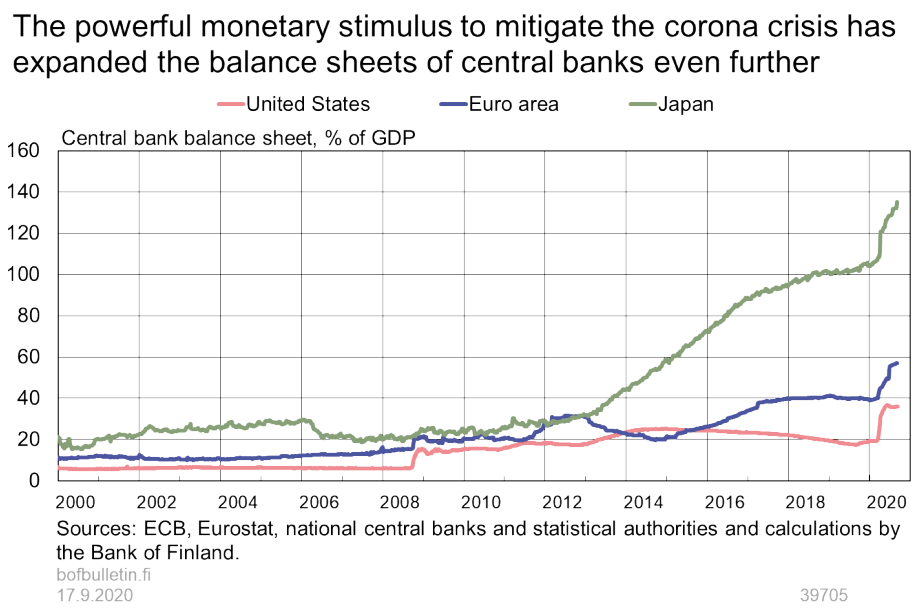


In response to the corona crisis, and with interest rates near the effective lower bound, central banks have increased their use of non-standard monetary policy measures to stimulate the economy and mitigate the risk of a self-fulfilling decline in inflation expectations. The central bank balance sheets of the euro area, Japan, and the United States have all grown as a result of non-standard monetary policy measures, but since 2012 the Bank of Japan's balance sheet growth has been especially rapid. Japan's policy measures have strengthened growth and fuelled inflationary pressures but have not lifted

16. In the United States, the Federal Reserve System has already revised its monetary policy strategy. For more information on the Fed's strategy revision, see A fragile recovery from the pandemic crisis has begun and https://www.federalreserve.gov/ monetarypolicy/review-of-monetary-policy-strategy-tools-and-communications-statement-on-longer-run-goals-monetary-policy-strategy.htm.

the economy out of its equilibrium of weak growth, low interest rates and low inflation. One explanation for Japan's situation is that when the Japanese crisis began in the early 1990s different policy areas were relatively slow to react to the increased risk of stagnation.[17] This slowed the recovery of potential output while also exerting downward pressure on inflation expectations and inflation dynamics.

Chart 9



Active and responsive monetary, fiscal and structural policies all play a key role in warding off stagnation.[18] Since the financial crisis, the euro area and the United States especially have responded more swiftly and decisively to declining growth and falling inflation expectations with economic policy measures than Japan did in the early 1990s. The shock to the global economy caused by the corona crisis has been exceptionally forceful and geographically widespread, and the economic outlook is still subject to considerable uncertainty. The case for swift and coordinated policy action to prevent stagnation has only been highlighted. In the advanced economies, such as the euro area, the policy response to the corona crisis has been powerful and immediate, which has significantly mitigated the risk of adverse developments.

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17. See e.g. Wakatabe, M. (2012).
18. See Draghi's (2020) discussion.

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Tags

low inflation, low productivity growth, low interest rates, COVID-19 crisis