Box 2.1

Recent developments in monetary policies in major advanced economies and their implications

In the wake of the global financial crisis, central banks in major advanced economies cut interest rates aggressively and deployed various unconventional monetary policy tools to support the economy and to fight deflation risks. Among major advanced economies, the US took the lead in returning to a more sustainable recovery path. The improvement in the euro-area economy has also become more entrenched recently. Alongside different degrees of narrowing in output gaps ***(Chart 1a)***, their central banks have started tapering or unwinding some former monetary policy stimuli. This note briefly reviews recent monetary policy developments in major advanced economies and their implications.

In the US, the output gap narrowed to -1% of potential GDP in 2014. With sustained moderate economic growth, output gap closed and hovered around zero in recent years. More impressively, the labour market showed visible improvement. Cumulatively, over 16 million jobs have been added to the economy since end-2009, bringing down the unemployment rate from a peak of 10.0% in October 2009 to 6.7% in December 2013 and further to 4.2% in September 2017. Yet, core inflation fell in recent months and stayed below the US Federal Reserve's (the Fed) inflation target ***(Chart 1b)***.

Chart 1a: Output gaps of major advanced economies are closing, especially in 2016 and 2017

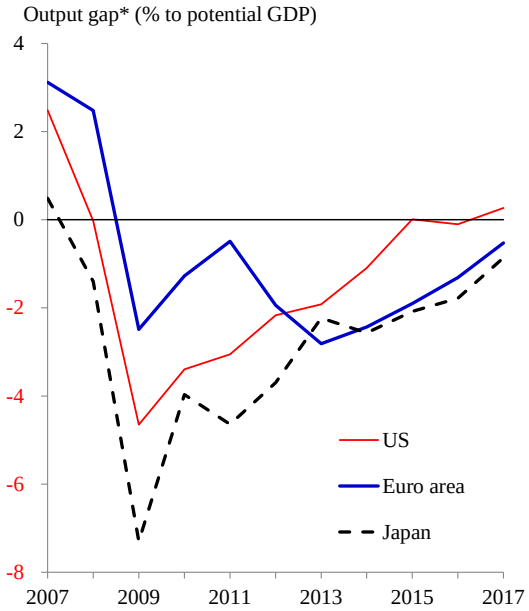
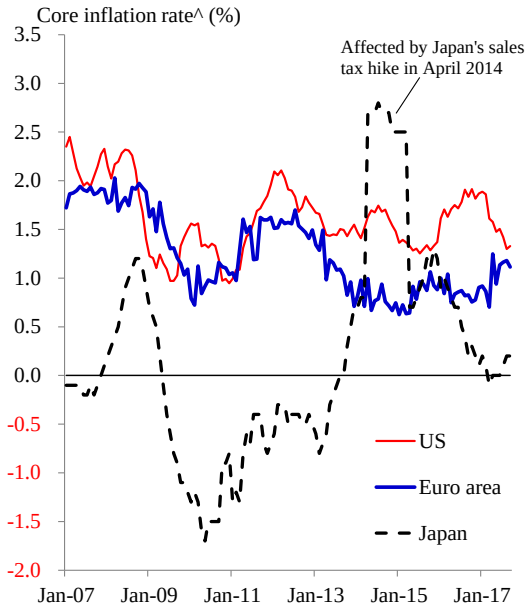


Chart 1b: Inflation remained low but deflation risks had generally receded



Notes: (*) The output gaps (the difference between actual output and potential output) were estimated by the International Monetary Fund (IMF) in its World Economic Outlook Database, October 2017.

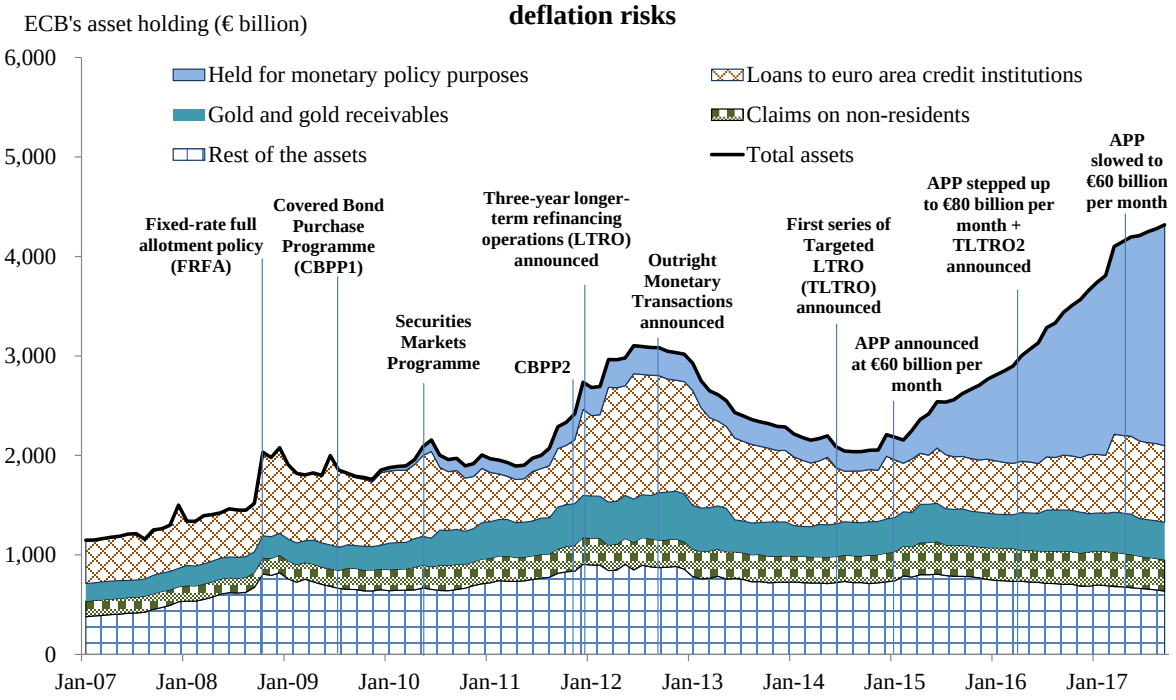
(^) Core inflation rate in the US refers to the year-on-year change in personal consumption expenditure price index excluding food and energy. In Japan, it refers to CPI inflation excluding energy and fresh food. In the euro area, it refers to CPI inflation excluding energy, food, alcohol and tobacco.

Against this backdrop, the Fed led the monetary policy normalisation process, tapering asset purchases during 2014. After concluding its asset purchase program in October 2014, the Fed started to raise interest rates in December 2015, cumulatively four times of 25 basis points each since then. As the gradual interest rate uplift had been well underway, it began scaling back its balance sheet in October 2017, marking another milestone in its monetary policy normalisation. The previous note *"The US Federal Reserve's balance sheet normalisation"* published in the ***Half-yearly Economic Report 2017*** discussed the Fed's plan announced in June and its implications. The current execution plan is the same as the one announced previously.

Box 2.1 (Cont'd)

The recovery in the euro-area economy has been bumpier. The economy relapsed into recession during 2012-2013 amid the European debt crisis. Deflation risks loomed large in 2014. Against this backdrop, the European Central Bank (ECB) successively introduced various monetary accommodation measures (***Chart 2***), eventually putting forward negative interest rate policy in June 2014 and announcing the expanded asset purchase programme (APP) in January 2015. The ECB's asset size "held for monetary policy purposes" swelled quickly since 2015.

Chart 2 : The ECB has launched a wide range of measures to fight against deflation risks



Sources: The ECB (consolidated balance sheet) and Bloomberg.

In recent quarters, economic recovery in the euro area has become more entrenched, with widespread improvement in the region. Consumer price inflation, though still below ECB's target, stayed positive since June 2016 and went up generally, pointing to largely receded deflation risks. As a result, the ECB moderated the net asset purchases under the APP to €60 billion per month from April 2017. In October 2017, the ECB announced to continue the APP at least until the end of September 2018, but the monthly pace of the net asset purchases will be moderated further to €30 billion from January 2018.

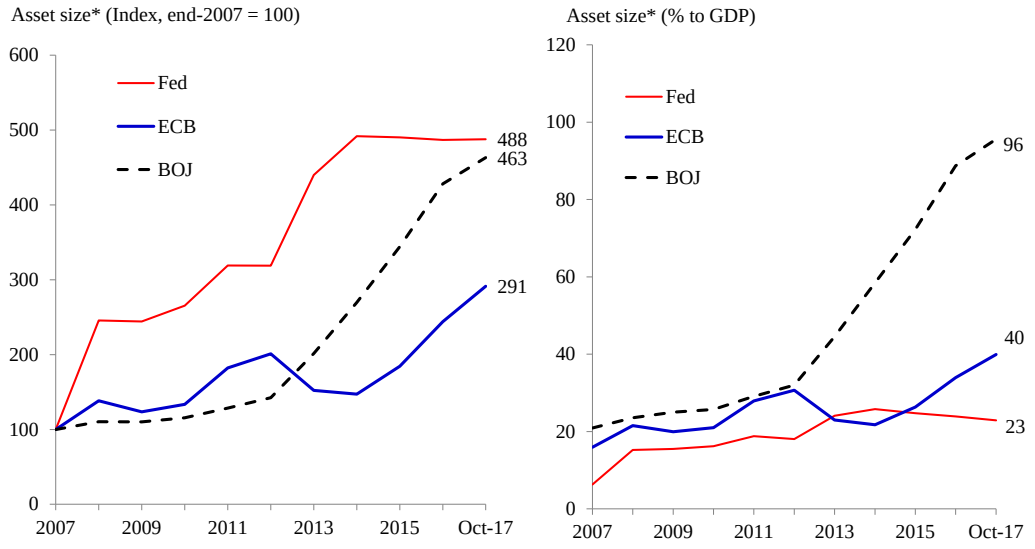
These two central banks are not alone among major advanced economies in reducing former monetary stimuli. The Bank of Canada has raised interest rates twice since July 2017, its first set of moves in seven years. In the UK, the Bank of England (BOE) raised its Bank Rate by 25 basis points to 0.50% in its November 2017 meeting, the first interest rate increase since 2007. This came notwithstanding persistent uncertainties from the ongoing Brexit-related negotiations, as recent inflation indicators overshot the BOE's target and unemployment rate fell to the lowest in decades.

Box 2.1 (Cont'd)

Comparatively, the Bank of Japan (BOJ) took a more cautious approach, as recent economic improvement has yet to gain a firm foothold and inflation continued to stay well below target. At the end of October 2017, the BOJ left short-term interest rate target unchanged at -0.1%, and kept 10-year Japanese Government Bond yield target unchanged at more or less zero under the "yield curve control", thereby sticking to its ultra-loose policy stance. On asset purchase, the accompanying statement indicated that it would be maintained more or less at an annual pace of 80 trillion yen, though the actual pace of balance sheet expansion appeared somewhat slower than that in the recent past(1).

In sum, most central banks in major advanced economies have entered a phase of reducing or unwinding former monetary stimuli. These unconventional monetary policies held their historical significance, by bringing down government bond yields(2) and borrowing costs to stimulate demand, and by creating a more favourable economic environment for proceeding structural reforms. Yet, the exact effects of these unconventional tools in boosting real output are hard to quantify(3), and whether they have increased asset market bubble risks is still subject to debate. In any case, the marginal benefits of these monetary stimuli should have diminished, given that policy rates were already extremely low, and balance sheets of many major central banks have ballooned to unprecedented scale ***(Chart 3).*** Some analysts even worried that the purchase of government bonds by some central banks are approaching upper limits.

Chart 3: Balance sheets of many major central banks have ballooned to unprecedented scale



Sources: CEIC, the Fed, the ECB (consolidated balance sheet) and the BOJ.

Note: (*) The asset sizes of the Fed, ECB and BOJ are denominated in their own currencies. In the case of October 2017, the asset sizes were based on information available as of late October 2017, and the corresponding percentages to GDP were computed by using seasonally-adjusted annualised nominal GDP for the US in the third quarter of 2017, and using the sums of nominal GDP from the third quarter of 2016 to the second quarter of 2017 in the cases of the euro area and Japan.

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(1) On BOJ's balance sheet, asset holding categorised as "Japanese Government Securities: Bonds" amounted to 408.9 trillion yen as of 20 October 2017, around 63 trillion yen higher than that of 345.6 trillion yen as of 20 October 2016. This calculation does not take "treasury discount bills" into account.

(2) Andrade, Breckenfelder, De Fiore, Karadi and Tristani (2016), "The ECB's asset purchase programme: an early assessment", ECB working paper, September, summarised evidences of quantitative easing programmes' impacts on 10-year government bond yields there by different researchers.

(3) Borio, Zabai (2016), "Unconventional monetary policies: a re-appraisal", Bank for International Settlements Working Papers No 570, July, outlined the debate on large-scale asset purchases' impacts on output and inflation by different researchers.

Box 2.1 (Cont'd)

Moreover, as reckoned by the IMF in its Global Financial Stability Report in October 2017[(4)], monetary accommodation by the major central banks, if prolonged, could encourage higher leverage or additional risk taking in search of higher yields, in essence building up higher financial risks for the medium term. The impact could spread beyond advanced economies through capital flows. For example, the IMF's model estimated that the US monetary policy accommodation was the dominant driver of portfolio inflows to emerging markets since 2010, and unwinding of these stimuli could reduce the flows in the years to come[(4)]. In an adverse scenario where capital flows reverse abruptly, emerging market economies with weaker fundamentals could face pressure. Moreover, market concerns about tightening global financial conditions, if heightened, could possibly translate into a re-pricing of risks and asset prices gyrations, undermining the ongoing global economic recovery.

Thus far, the impacts of tapering monetary stimuli on global economic growth have been muted. In part, these actions have taken place at times of strength, where major advanced economies are in synchronised improvement. Moreover, monetary policy normalisation in these economies are widely anticipated to take place only at a gradual pace. In the US, for example, the amount of securities that would be rolled off in the first twelve months has been capped around 7% of the Fed's total securities holdings as of end-September 2017 according to the announced plan. The policy statement in November 2017 indicated that interest rate hikes in the period ahead will remain gradual. In the euro area, the ECB in its policy statement in October 2017 stated that policy rates would remain at their present levels for an extended period of time, well past the horizon of the net asset purchases. Moreover, the principal payments from maturing securities purchased under the APP would be reinvested for an extended period of time after the end of its net asset purchases.

Yet, with possible policy actions by major central banks, the global monetary environment has turned more complicated and could change quickly. From a risk management perspective, it is important to bear in mind that the paces of monetary normalisation in major advanced economies are not on a pre-set course. Any unexpected actions could possibly tip off a less benign scenario. Moreover, under the Linked Exchange Rate System, Hong Kong's interest rates will eventually rise alongside the US counterpart if US rate hikes continue. Hence, although Hong Kong has a sound financial system and strong fundamentals to navigate the ups and downs of the global economy, the Government will continue to closely monitor the global monetary developments and their possible ramifications on the local economy.

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(4) Global Financial Stability Report October 2017 published by the IMF, Link: https://www.imf.org/en/Publications/GFSR/Issues/2017/09/27/global-financial-stability-report-october-2017. The IMF's model estimated the impacts of four factors on cumulative portfolio flows to emerging market since 2010, including the change in assets on the Fed's balance sheet size, market expectations of federal funds rates, global risk appetite and emerging market domestic factors. It showed that the former two measuring US monetary policy accommodation were the key drivers during the period.