

CENTRAL BANK MONITORING – DECEMBER

Monetary and Statistics Department
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In this issue

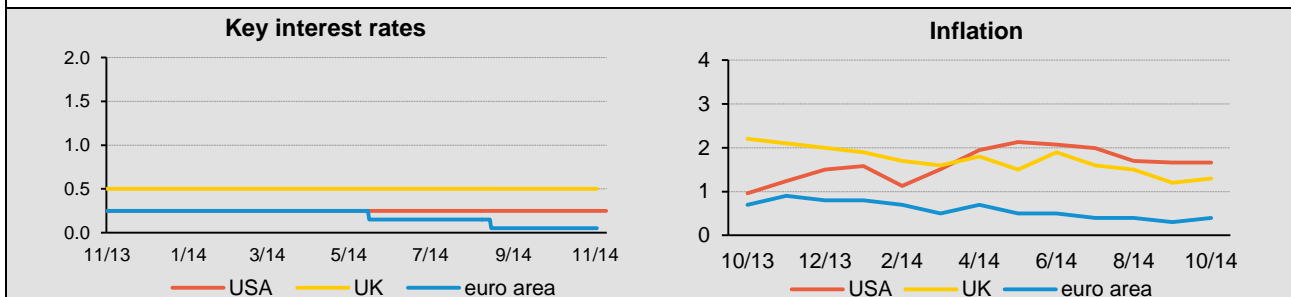
The central banks under review have shown two different monetary policy tendencies in recent months. On the one hand, the Federal Reserve and the Bank of England, which have long been using strongly expansionary policy to deal with the recession, are gradually exiting from unconventional instruments (the Fed ended its asset purchase programme in October) and are preparing procedures for a return to conventional monetary policy. On the other hand, some other central banks that have hesitated to ease monetary conditions in the past are now facing very low or even negative inflation and are taking various additional steps in response. The ECB launched an asset-backed securities purchase programme and a third covered bond purchase programme. It also conducted its first targeted longer-term refinancing operation. The Riksbank lowered its rate to zero in October and said it was ready to use other instruments if needed. The NBP is also facing subdued inflation. It lowered its interest rate by 50 bp at its October meeting. The current Spotlight focuses on inequality in the distribution of wealth and income in society, on whether and to what extent central banks contribute to this inequality and, conversely, on how economic inequality affects monetary policy. In our Selected Speech, the President of the Federal Reserve Bank of Chicago Charles L. Evans warns against prematurely tightening monetary policy at the zero lower bound.

1. LATEST MONETARY POLICY DEVELOPMENTS AT SELECTED CENTRAL BANKS

Key central banks of the Euro-Atlantic area

	<u>Euro area (ECB)</u>	<u>USA (Fed)</u>	<u>United Kingdom (BoE)</u>
Inflation target	< 2% ¹	< 2% ²	2%
MP meetings (rate changes)	2 Oct (0.00) 6 Nov (0.00) 4 Dec (0.00)	16–17 Sep (0.00) 28–29 Oct (0.00)	8–9 Oct (0.00) 5–6 Nov (0.00) 3–4 Dec (0.00)
Current basic rate	0.05%	0–0.25%	0.50%
Latest inflation	0.3% (Nov 2014) ³	1.7% (Oct 2014)	1.3% (Oct 2014)
Expected MP meetings	8 Jan 5 Feb 5 Mar	16–17 Dec 27–28 Jan 17–18 Mar	7–8 Jan 4–5 Feb 4–5 Mar
Other expected events	5 Mar: publication of forecast	15 Jan: publication of Beige Book	11 Feb: publication of Inflation Report
Expected rate movements⁴	→	→	↑

¹ ECB definition of price stability; ² January 2012 definition of inflation target; ³ flash estimate; ⁴ direction of expected change in rates in coming quarter taken from Consensus Forecast survey.



The **ECB** kept its interest rates unchanged and started using unconventional instruments announced in September to further ease the monetary conditions (see *News*). The outlooks for growth and inflation were revised downwards: annual real GDP is expected to increase by 0.8% in 2014, 1.0% in 2015 and 1.5% in 2016. Inflation will reach only 0.5% this year and is foreseen to rise slightly to 0.7% in 2015 and 1.3% in 2016. Early next year the ECB will reassess the situation. Should there be risks of too prolonged a period of low inflation, the Governing Council remains unanimous in its commitment to using additional instruments. This would imply altering the size, pace and composition of its instruments.

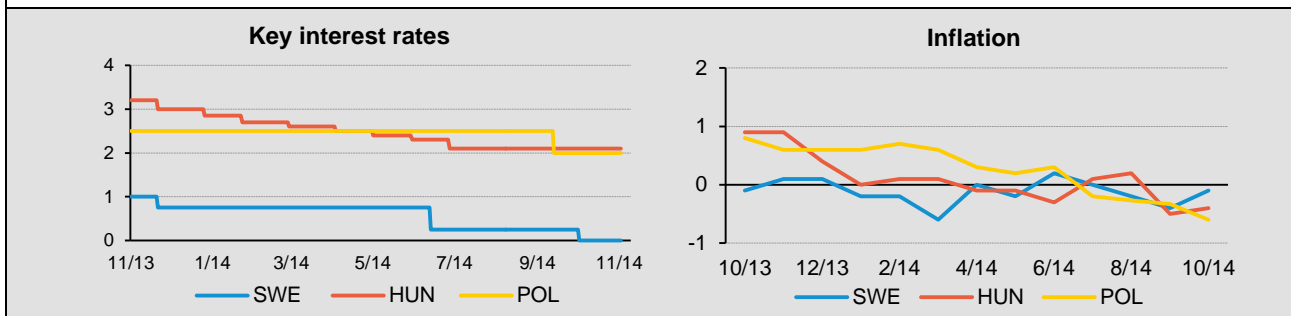
As expected, and in line with its previous communications, the **Fed** decided at its October meeting to conclude its asset purchase programme (QE3). However, it will continue to reinvest principal payments from its holdings of agency debt and agency mortgage-backed securities. Maturing Treasury securities will be rolled over. Interest rates remain very low. Thanks to solid job gains, underutilisation of labour resources is gradually diminishing and the unemployment rate is falling. Household consumption rose slightly and business investment advanced. The FOMC currently anticipates that, even after employment and inflation are near the Fed's objectives, economic conditions may, for some time, warrant keeping the target federal funds rate below levels the Committee views as normal in the longer run.

The **BoE** left its key interest rate at 0.50%, although two MPC members voted for an increase in November. The stock of purchased assets is unchanged. The BoE also decided to extend its [Funding for Lending Scheme](#) for small and medium-sized enterprises into 2015. Domestic demand growth remains robust amid a continuing decline in unemployment. Economic growth is estimated to reach 3.5% this year and slow slightly in the next two years. Inflation dropped below the 2% target due chiefly to low food, energy and imported goods prices. It is likely to fall below 1% over the next six months.

Selected central banks of inflation-targeting EU countries

	Sweden (Riksbank)	Hungary (MNB)	Poland (NBP)
Inflation target	2%	3%	2.5%
MP meetings (rate changes)	27 Oct (-0.25)	23 Sep (0.00) 28 Oct (0.00) 25 Nov (0.00)	7–8 Oct (-0.50) 4–5 Nov (0.00) 2–3 Dec (0.00)
Current basic rate	0%	2.10%	2.00%
Latest inflation	-0.1% (Oct 2014)	-0.4% (Oct 2014)	-0.6% (Oct 2014)
Expected MP meetings	15 Dec	16 Dec 27 Jan 24 Feb	13–14 Jan 3–4 Feb 3–4 Mar
Other expected events	16 Dec: publication of Monetary Policy Report	18 Dec: publication of Quarterly Report on Inflation	mid-Mar: publication of Inflation Report
Expected rate movements¹	→	→	→

¹ Direction of expected change in rates in coming quarter taken from Consensus Forecast survey.



Although the Swedish economy is relatively strong, too low current inflation and a decline in the inflation outlook caused the **Riksbank** to cut its main monetary policy interest rates to zero and the deposit rate to -0.75%. The Riksbank stated that the repo rate would remain at zero until inflation clearly picks up and said it was ready to use additional instruments to ease the monetary conditions if necessary. According to the current forecast, the repo rate is expected to start rising gradually in mid-2016 and reach 1.75 pp towards the end of 2017. According to the Riksbank's forecast, inflation will return to the target in 2016.

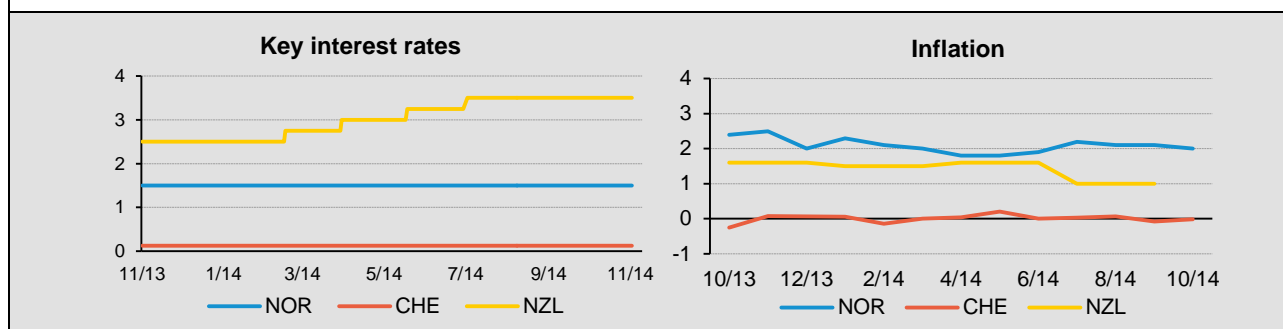
The **MNB** left its monetary policy interest rate unchanged at 2.10% in the past quarter. The return of GDP to its potential will be slow according to the MNB, as capacity is not fully utilised. Domestic demand is rising, but exports are recovering only gradually. The MNB expects a continuing recovery in investment owing to the increasing use of EU funding and the easing in credit constraints fostered by the MNB's Funding for Growth Scheme. Unemployment in Hungary is still falling, but remains above the natural rate. After swinging briefly just above zero, inflation has returned to slightly negative levels. The MNB expects it to return to the target at the end of the forecast horizon provided that the monetary conditions remain easy.

The **NBP** lowered its monetary policy rate by 0.50 pp to 2% in October but did not ease the monetary conditions in the following months. Inflation dropped to -0.6% in October and core inflation fell as well, confirming the absence of demand pressures in the economy. Producer prices continue to fall. In addition, inflation expectations of enterprises and households are very low. GDP growth decreased slightly to 3.3% in Q3. Stable growth in consumption was accompanied by some acceleration in investment growth, but the contribution of net exports stayed negative. The NBP Council stated in December that if there was a further slowdown in economic activity, it did not rule out further adjustment of monetary policy.

Other selected inflation-targeting countries

	Norway (NB)	Switzerland (SNB)	New Zealand (RBNZ)
Inflation target	2.5%	0-2 %	2%
MP meetings (rate changes)	18 Sep (0.00) 23 Oct (0.00)	18 Sep (0.00)	11 Sep (0.00) 30 Oct (0.00)
Current basic rate	1.50%	0.00–0.25% ¹	3.50%
Latest inflation	2.0% (Oct 2014)	0.0% (Oct 2014)	1% (2014 Q3)
Expected MP meetings	11 Dec	11 Dec	11 Dec 29 Jan
Other expected events	18 Sep: publication of Monetary Policy Report	17 Dec: publication of Monetary Policy Report	11 Dec: publication of Monetary Policy Statement
Expected rate movements²	→	→	↑

¹ Chart displays centre of band; ² direction of expected change in rates in coming quarter taken from Consensus Forecast survey or, in the case of New Zealand, from RBNZ survey.



New information suggests that inflation and growth are broadly in line with the September projections. The **NB** therefore left its monetary policy interest rate unchanged at 1.50%. Commercial banks have lowered mortgage lending rates, and interest margins on loans to households and corporations have decreased overall. The unemployment rate is stable and inflation is fluctuating around 2%, i.e. around the inflation target. The NB expects the monetary policy rate to be stable until the end of 2015 and then gradually increase. The [Financial Stability Report](#) included an analysis in which the authors conclude that a build-up of capital buffers will improve banks' ability to cope with large loan losses without a substantial reduction in bank lending. The adequacy of the new liquidity and capital requirements in Norway has thus been confirmed to some extent.

The **SNB** left rates in the lower part of the 0–0.25% target range and is sticking to its commitment to enforce a minimum exchange rate of CHF 1.20 to the euro. This exchange rate commitment remains the key instrument to avoid an undesirable tightening of monetary conditions. However, the Swiss franc is still high according to the SNB. The inflation outlook for 2016 decreased significantly. According to the new forecast, inflation will be just 0.1% in 2014 (the same as in the previous forecast). In 2015 the price level will rise by only 0.2% (down by 0.1 pp from the previous outlook). The SNB expects inflation at 0.5% in 2016, 0.4 pp lower than in the previous forecast. Turning to GDP growth, the SNB puts this year's growth rate at 1.5%, 0.5 pp lower compared to the previous outlook.

After a series of interest rate increases in the previous quarter, the **RBNZ** left its key interest rate unchanged at 3.5%. The RBNZ expects the economy to grow by 3.7% over 2014. This is due to several factors, including strong construction activity, household consumption and investment. This is leading to higher production capacity utilisation. The New Zealand dollar seems overvalued at present and should appreciate. Governor Graeme Wheeler considers the exchange rate level to be unsustainable and unjustified and even declared publicly that exchange rate interventions are being considered (more details [here](#)).

2. NEWS

ECB publishes details of measures announced in September

The European Central Bank published details of the programmes it decided to introduce in September. A new [Covered Bond Purchase Programme](#) (CBPP3, the third such programme) began in mid-October and an [Asset-Backed Securities Purchase Programme](#) (ABSPP) started in November. [Four asset managers](#) were appointed to conduct the ABSPP. Both programmes are supposed to last for at least two years. In September, the ECB conducted its first [targeted longer-term refinancing operation](#) (TLTRO), in which it allotted EUR 82.6 billion to 255 counterparties conditional on their lending to the private sector. A further seven TLTROs are to be conducted by June 2016. The next one is scheduled for December. ECB President Mario Draghi said the three measures would have a sizeable impact on the Eurosystem's balance sheet.

ECB assumes responsibility for euro area banking supervision

A significant step in creating the European banking union was made in November when the ECB assumed responsibility for [euro area banking supervision](#). The ECB now directly supervises significant financial institutions ([120 institutions](#) are currently on the list). At the same time, the supervisory procedures and standards of the national supervisory authorities were unified across the euro area. Details of this Single Supervisory Mechanism were published in a [Guide to banking supervision](#). The handover of responsibility was made after the completion of a [comprehensive assessment](#) of the 130 largest banks. This exercise consisted of an asset quality review and stress tests aimed at identifying problems, enhancing the transparency of banks and building confidence in the financial sector.

ECB Governing Council to be subject to voting rotation from January 2015

As from 1 January 2015 the Governing Council of the ECB will vote in variable composition. The Council of the European Union decided back in 2003 to introduce a voting rotation system when the number of governors exceeded 18. That will be the case when Lithuania adopts the euro. The rotation of voting rights involves creating two groups of countries depending on the size of their economies and their financial sectors. The five countries in the first group (currently Germany, France, Italy, Spain and the Netherlands) share four voting rights, which means one of them does not vote. The second group consists of 14 other countries sharing 11 voting rights (i.e. three governors do not vote). [The actual configuration of the voting](#) was decided by means of a draw.

Fed announces new policy normalization principles and plans

The Fed published a new statement on its normalization plans in mid-September. All FOMC participants but one agreed on the key elements of the approach. The main principles are as follows:

- When economic conditions and the economic outlook warrant a less accommodative monetary policy, the FOMC will raise its target range for the federal funds rate. The federal funds rate will be moved into the target range primarily by adjusting the interest rate on excess reserve balances. An overnight reverse repurchase agreement facility will serve as supplementary tool, although it will be used only to the extent necessary and will be phased out when no longer needed.
- Securities holdings will be reduced in a gradual and predictable manner. The FOMC expects to cease or commence phasing out reinvestments after it begins increasing the target range for the federal funds rate; the timing will depend on economic and financial conditions. The FOMC currently does not anticipate selling agency mortgage-

backed securities, although limited sales might be warranted; the timing and pace of any sales would be communicated to the public in advance.

- In the longer run, the Fed should hold no more securities than necessary to implement monetary policy effectively; it should hold primarily Treasury securities, thereby minimising the effect on the allocation of credit across sectors of the economy.

The Fed decided to conclude its asset purchase programme in October and is maintaining its policy of reinvesting principal payments so as to keep the holdings of longer-term securities at sizeable levels. [Charles I. Plosser](#), President of the Federal Reserve Bank of Philadelphia and currently an FOMC participant, is optimistic about the economic situation and suggests that the FOMC's forward guidance should now be adjusted. On the other hand, [Charles L. Evans](#), President of the Federal Reserve in Chicago, warns against a premature exit from the unconventional measures. The views of the latter, who will participate in monetary policy decision-making next year, are outlined in our *Selected Speech*.

[MNB decides to continue Funding for Growth Scheme...](#)

The MNB's Funding for Growth Scheme, which was announced back in April 2013, exceeded HUF 700 billion in September, almost reaching its total capacity. The scheme, aimed at supporting small and medium-sized enterprises in accessing loans, was extended by the MNB. A total of HUF 500 billion is available in the second phase. This amount may be raised to HUF 2,000 billion by the Monetary Council.

[...and provides foreign currency to banking sector](#)

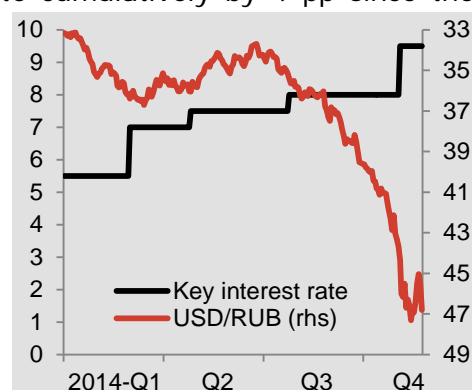
The MNB is providing the necessary amount of foreign currency from its foreign exchange reserves to Hungarian banks to phase out households' FX loans. The main aim of this programme is to ensure that the exchange rate of the Hungarian forint is not affected. Large-scale conversion of the FX loans into forints would put pressure on the Hungarian currency, imperilling the stability of the entire financial system.

[BoJ expands quantitative and qualitative monetary easing](#)

Quantitative and qualitative easing will step up in Japan following the Bank of Japan's October decision – reached by a 5–4 majority vote – to increase the monetary base at an annual pace of about JPY 80 trillion (an addition of about JPY 10–20 trillion compared with the past). The BoJ will increase mainly its purchases of government bonds (JGBs) and the average remaining maturity will be extended to about 7–10 years.

[Bank of Russia abolishes exchange rate band](#)

The Central Bank of the Russian Federation (CBRF) significantly raised its key interest rate to 9.5% at the end of October. It has thus increased the rate cumulatively by 4 pp since the beginning of this year. In November, the CBRF decided to abolish the exchange rate policy mechanism by cancelling the permissible range of the dual-currency basket band and regular interventions outside the band. The band has been gradually moved towards weaker values during the year and has also been widened slightly. In October, the CBRF sold more than USD 27 billion in the market. In spite of this, the rouble has dropped sharply in value. The extraordinarily difficult situation for Russian monetary policy is due above all to a considerable fall in oil prices and tougher sanctions imposed on Russian companies. The weak rouble and import restrictions are accelerating



consumer price growth. According to the CBRF's estimates, inflation will remain above 8% in the first quarter 2015, i.e. well above its target of 4%. Moreover, the CBRF is afraid of a persistent increase in inflation expectations. Economic activity is subdued – the annual GDP growth rate in the third quarter was 0.2%.

25 years of inflation targeting in New Zealand

On the 25th anniversary of the introduction of inflation targeting in New Zealand, Reserve Bank Governor Graeme Wheeler took stock of the experience with this monetary policy regime. The RBNZ was the first central bank in the world to formally adopt inflation targeting and it soon achieved price stability and anchored inflation expectations. The RBNZ's monetary policy successfully weathered the economic and financial crisis, which, however, revealed the need for sound prudential policies. One of the challenges for the future is to explore the nature of the interactions of monetary and macro-prudential policies.

3. SPOTLIGHT: MONETARY POLICY AND ECONOMIC INEQUALITY

Economic inequality is rising considerably amid increasing criticism that monetary policy is contributing significantly to the widening gap between rich and poor, recently above all through sustained low interest rates and quantitative easing. Although monetary policy instruments do have distributional effects on society, they should be evaluated in the broader context of the macroeconomic results they achieve. Had central banks not embarked on an emphatic easing of the monetary conditions, worse economic results – especially rising unemployment – would have had a negative impact on the lives of everybody, and in particular on socially weaker groups. Income inequality has also been drawing attention from central banks because it affects the transmission mechanism and can have repercussions for financial stability. However, governments have the main say as regards the degree of inequality in society. They are not bound by a narrowly defined target and have a broad range of instruments for this task.

Economic inequality has widened considerably over the last three decades. The global financial and economic crisis further depressed both wage and capital income. Although governments have managed to moderate its consequences in the shape of wider inequality by paying out benefits and allowances, the issue of unequal distribution of assets and income is stirring up a heated debate. Not surprisingly, therefore, economic inequality has recently been discussed in many forums. Much attention was paid to this issue at this year's annual meeting of the IMF and the World Bank. There is increasing criticism that monetary policy is contributing significantly to widening inequality in society through sustained extremely low interest rates and in particular through unconventional monetary policy instruments.

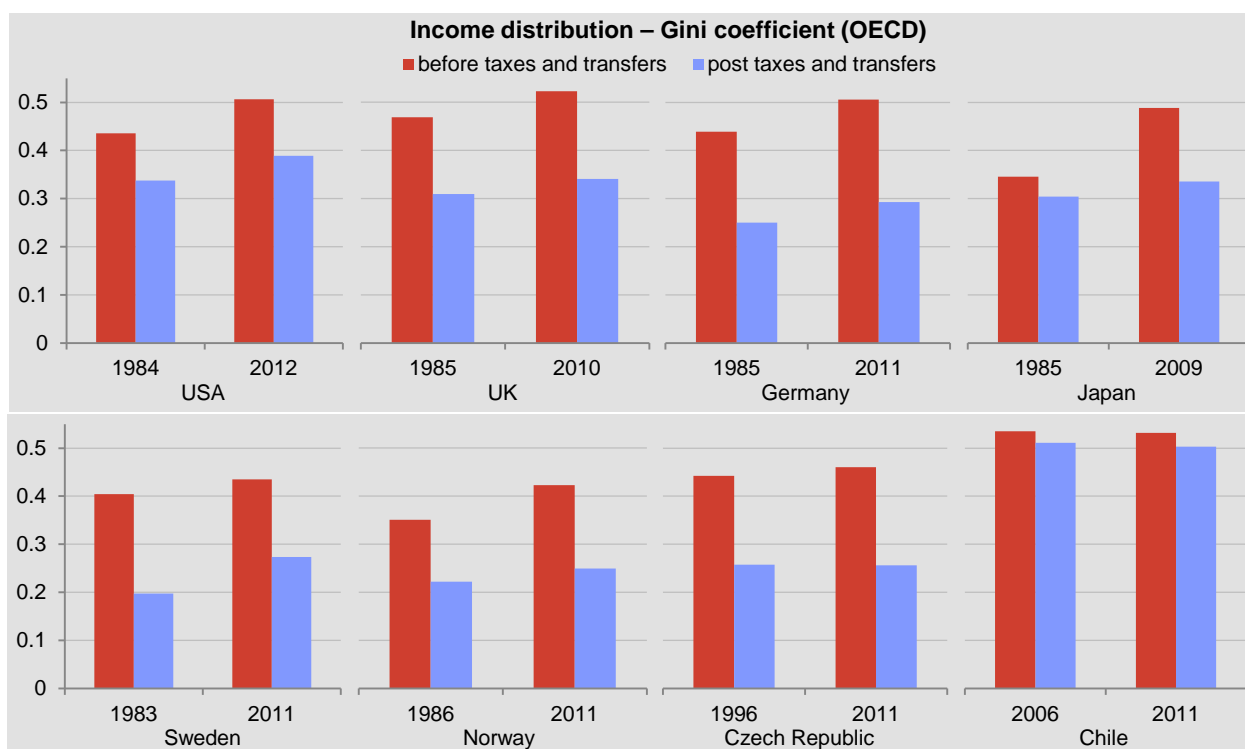
The rich get richer and the poor get poorer

Economic inequality in itself is not necessarily a bad thing. Higher remuneration can be a result of hard work, the right attitude, a willingness to take risks, creativity, personal development and other factors that a person can influence themselves. This has a motivating effect on most people. A large part of inequality is a natural result of age. Young people usually have below-average income and low or even negative wealth (their debt exceeds their assets). People aged around 50 have the highest income and wealth on average, and their income then falls as they grow older, especially after retirement. A person's economic situation is also largely determined by their family background, which affects their potential in terms of access to education, career in a family business and related benefits, and economic gains in the form of inheritances and so on.

Full equality (which many centrally planned economies officially neared) is usually demotivating and leads to inefficiency. However, the opposite extreme can also have adverse effects on the economy. Significant inequality triggers many social problems and can result in social unrest with far-reaching consequences. Determining the "right" degree of inequality is entirely subjective and a purely political task. All countries grapple with the issue of economic justice. They can influence it using redistribution policies, and in particular by configuring the tax system and the system of benefits, social contributions, pensions and other transfers. Besides intra-state inequality, inequality between countries on the global scale is also significant, although unlike the former it seems to have decreased in recent years.

The degree of economic inequality is usually estimated on survey or questionnaire data using the Gini coefficient. This coefficient can take values ranging from zero to one, with higher values implying higher inequality. It is most often used to measure the equality of wealth and

income distribution.¹ In the case of income, pre-tax or after-tax income can be monitored together with social contributions received, which reflect the redistribution effect of government policies. This effect is particularly pronounced in Scandinavian countries, which belong to states with the highest degree of after-tax equality. By contrast, OECD data show that Chile and Mexico have high inequality. However, a significant widening of the gap between rich and poor has been visible in most monitored economies in recent decades.



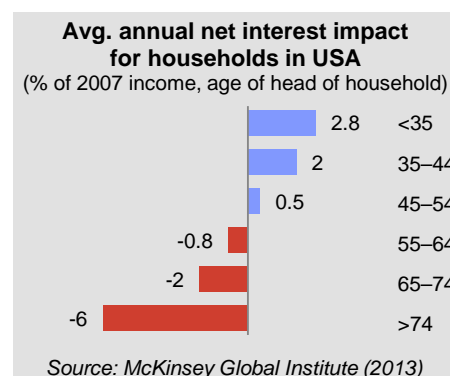
The distributional effects of monetary policy

Central banks have recently faced criticism that they are significantly contributing to the rise in economic inequality, doing so primarily by maintaining near-zero rates for an exceptionally long time and making massive purchases of securities.

By definition, monetary policy has distributional effects on society. In normal times, however, these effects balance out over the business cycle. An interest rate cut benefits borrowers, while an interest rate hike will help savers. Low interest rates usually boost asset price growth, thereby increasing the wealth of asset owners. Appreciation or depreciation of the domestic currency has impacts on investors and borrowers in foreign currency (as a result of exchange rate policy, interest rate changes or other factors). Asset purchase programmes have pushed down bond yields and pushed up bond prices, indirectly fostering a rise in stock prices. The first-round effects of quantitative easing (QE) therefore depend mainly on who holds the assets whose prices have changed. Stock owners are usually from wealthier households. Inequality may also widen on account of high inflation, which generally has stronger impacts on socially weaker households, as they tend to hold a larger proportion of their assets in money. Moreover, their income is usually more sensitive to the business cycle, as they tend to be laid off first or have their wages cut first when labour demand falls.

¹ A Gini coefficient of zero means absolute equality, with all members of society being equal. In the opposite situation, where a small number of members of a group have far more than the rest, the coefficient is close to one in a large sample. If wealth is negative (debt exceeds assets), the coefficient may take negative values.

A McKinsey study estimates that the effect of low interest rates on the net interest income of households in the USA, the UK and the euro area in 2007–2012 was markedly negative in all three cases.² According to the authors, the smaller decrease in the UK and the euro area than in the USA was due to a larger proportion of variable-rate mortgages (around 70% in the UK), which enable a faster pass-through to loan repayments, compared to the USA (where the share of variable-rate mortgages is 20%). The impacts vary considerably across age groups: younger households have benefited from the lower rates (primarily in the form of a lower cost of debt), while older households have lost income.



American economist Olivier Coibion and his colleagues assert that contractionary monetary policy in the USA has increased inequality, whereas expansionary monetary policy has reduced it. In addition, they point out that the effects may be much more pronounced at zero interest rates when a further easing of the monetary conditions is needed but cannot be executed. In such cases, the situation is akin to a prolonged economic shock in the form of excessively tight monetary policy. Furthermore, the authors describe five channels through which monetary policy affects inequality. Three channels increase inequality when rates decline, while the opposite holds true for the other two.³

Few academic studies assess the impacts of unconventional monetary policy instruments on economic inequality. Saiki and Frost⁴ analysed these impacts in Japan, which has extensive experience with unconventional monetary policy. They conclude that QE significantly increased inequality, largely through the portfolio channel (because of a rise in asset prices stemming from the purchases, which benefited stock owners, i.e. usually the wealthy segment of the population). According to their observations, moreover, inequality was widened by some structural reforms, so such reforms could also play a role in reducing it.

In the **USA** inequality is high and increasing over time, and so is dissatisfaction with this trend, as evidenced, for example, by the Occupy Wall Street movement. The Fed, whose QE is classified by some commentators as a policy based on creating economic benefits for the rich which only indirectly generate benefits for society as a whole, including the poor (trickle-down economics), has often come under criticism. This issue is attracting a lot of attention in the USA. For example, a conference on inequality of economic opportunity was held at the Boston Fed in October. As Fed Chair Janet L. Yellen remarked, widening inequality might not be as great a concern if living standards improve for most households. That was the case in the 1990s. At other times, wealth and income have grown for those at the top and stagnated or fallen for others. And at still other times, income has fallen in all groups, but by far the most in the poorest groups. Growing inequality is particularly painful in such cases.

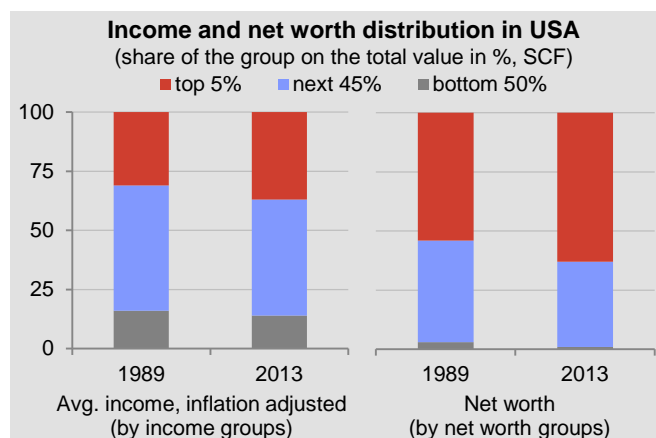
² The impact was USD 360 billion for the USA, USD 110 billion for the UK and USD 160 billion for the euro area (converted at constant 2012 exchange rates). McKinsey Global Institute: "QE and ultra-low interest rates: Distributional effects and risks", November 2013.

³ The channels are as follows: (1) heterogeneity in income sources, (2) financial market segmentation, (3) portfolio effects, (4) heterogeneity in labour income responses, and (5) households' net worth. The study uses data for 1980–2008 and includes data on income, not on wealth. Therefore, it does not discuss the effects of the asset purchase programme executed by the Fed in recent years.

Olivier Coibion et al.: "Innocent bystanders? Monetary policy and inequality in the U.S.", NBER Working Paper 18170, June 2012.

⁴ Ayako Saiki and Jon Frost: "How does unconventional monetary policy affect inequality? Evidence from Japan", DNB Working Paper No. 423, May 2014.

The Fed has at its disposal fairly detailed data from the Survey of Consumer Finances, which it has conducted every three years since 1983 (and since 1989 in its current form). The results reveal that the upper 5% of the population holds almost two-thirds of all wealth. By contrast, the bottom half of the population owns just 2% of total assets. Moreover, a large proportion of the wealth in poorer households is housing wealth, and the financial crisis pushed down house prices, so the wealth of many households fell below their debt. A lower – but still very significant and increasing – degree of inequality is visible for income. Although it narrowed slightly in 2007–2010 owing to a drop in income on financial assets (held mostly by the rich), it subsequently widened again to pre-crisis levels.



A heated debate of the impacts of monetary policy on various groups in the population has also started in the **UK**. The Bank of England points out a crucial difference in the transmission of the monetary policy interest rate and QE: whereas a rate change acts largely by affecting short-term market interest rates, an asset purchase programme acts largely through long-term yields, as the bulk of the gilts purchased have maturities of between 5 and 25 years. While the interest income of most households is linked to short-term rates, savings in pension funds are linked to long-term rates. Asset purchases have boosted the financial wealth of households, but holdings are heavily skewed, with the top 5% of households holding 40% of these assets. On the other hand, QE probably dampened the fall in house prices, which represent the bulk of the assets of the less wealthy segment of the population.

The BoE estimates that the interest income of households fell by around GBP 70 billion owing to rate cuts implemented between September 2008 and April 2012. By contrast, households saved around GBP 100 billion on loan repayments. According to the BoE, the difference (a total saving of GBP 30 billion for households) was probably borne by the banking sector, or rather its shareholders in the form of lower dividends.

The BoE has had to explain the impacts of QE on pensions in particular detail. According to recent estimates, around 20% of Britons have reached retirement age. Pension funds are based on two main concepts – defined benefit schemes (roughly 60% of the total volume) and defined contribution schemes. In the latter, the participant “exchanges” at a certain moment in time the value of their portfolio for an annual pension, which is derived from the value of the portfolio and the market interest rate. QE has influenced both components, reducing the yield but increasing the value of the entire portfolio. However, UK equity prices fell sharply, especially at the start of the crisis, and this significantly lowered the value of portfolios, which consisted mainly of shares. Many people thus found themselves with much lower pensions than they had been expecting. On the other hand, data on real consumption growth by age category show that people over 65 years of age were the only group to maintain positive consumption growth during the crisis.⁵

The **European Central Bank** also examines the distribution of wealth and income in society. Its analysis is based on the Household Finance and Consumption Survey, which was first conducted in 2010. According to the ECB analysis, wealthier households saw the largest

⁵ A chart showing consumption growth in different age categories, illustrative examples of the impacts of QE on various pension schemes and other details are available in the Bank of England document “The distributional effects of asset purchases”, July 2012.

decline in asset value between 2008 and 2013. In the same period, the effect on the consumption of low-income households was multiplied by a stronger response to wealth shocks. The ECB also monitors the ratio of debt repayments to total household income as an estimate of the financial pressure on households. Although households with variable-rate mortgages benefited from low interest rates, the impact on this indicator was offset by the fact that poorer households were much harder hit by rising unemployment.

Implications for central banks

The distribution of income and wealth has implications for monetary policy, as it significantly affects the transmission mechanism. The effectiveness of an interest rate change depends on the financial position of each household (low-income households react differently than high-income ones), so the total response in the economy will depend of the distribution of assets and debt in society, especially at times of crisis, when economic shocks are particularly large and their impacts unevenly distributed. Inequality can also have marked implications for financial stability.

To sum up, the effects of monetary policy changes on economic inequality are not clear-cut, as they act through different channels with different results and usually balance out over the business cycle. Although low interest rates and unconventional monetary policy may have contributed to widening the gap between rich and poor, if the monetary conditions had not been eased the situation today would be worse for everybody – economic growth would be lower and unemployment higher and many firms would have gone out of business. This in turn would have adversely affected both borrowers and lenders, whether rich or poor. The impacts of monetary policy on the distribution of income and wealth in society must therefore be evaluated in a comprehensive manner, in the context of the macroeconomic results achieved and other effects observed in the long term. In first place, monetary policy should pursue its macroeconomic objectives, and central banks have quite narrowly defined instruments for achieving those objectives. Governments have the main say as regards the degree of inequality in society and have a broad range of instruments for this task.

4. SELECTED SPEECH: PATIENCE IS A VIRTUE WHEN NORMALIZING MONETARY POLICY

At the Peterson Institute's Conference on Labour Market Slack in Washington, D.C., in September, the President of the Federal Reserve Bank of Chicago Charles L. Evans gave a [speech](#) on the exit from the Fed's current unconventional monetary policies.

Five long years have passed since the trough of the Great Recession, in mid-2009, when the unemployment rate stood at an extreme 10% and inflation was negative, well below the target. The Fed responded quickly by turning to unconventional measures, such as large-scale asset purchases and forward guidance about keeping the federal funds rate at the zero lower bound (ZLB). These efforts have helped the economy make progress towards growth and have put both variables targeted by the Fed – employment and inflation – back on the right track.

Employment and inflation are still below target on the same side from the monetary policy stance point of view. However, Evans points out that this situation will not last forever. When a conflict of goals emerges, the FOMC should follow a “balanced approach”. According to Evans, the Fed should focus on both the likelihood and the costs of missing those goals. This is even more important at the ZLB. A premature rise of the federal funds rate presents a paramount risk for the economy. The Fed should be confident that the exit from the ZLB will not dampen the economy and rates will not have to be backtracked after the decision is made. According to most members of the FOMC, the unemployment rate will return to its long-run neutral level by the end of 2016 and inflation will still be below the target in the range of 1.75%–2.00%. Evans also believes that employment will return to the target faster than inflation.

Getting back to normal from unconventional monetary policy will be a new experience for the Fed. Mechanical alignment to historical norms is simply not possible. The main motivation for returning to the fed funds rate – the first-best monetary policy tool – must be to achieve both of the Fed's dual mandate goals as efficaciously as possible given current and prospective economic conditions. Evans suggests that the path of rate increases should be kept relatively shallow for some time. This approach will allow the Fed time to assess how the economy is performing under less accommodative financial conditions.

To support his view that the Fed should err on the side of patience in ending its unconventional monetary policy, Evans quotes several examples from the past. First, he comments on the experience of the Great Depression in the 1930s. In response to the growth that occurred after devaluation, the Fed tightened monetary policy and sent the economy back into recession and deflation. His second example concerns the Japanese experience over the past 20 years. Monetary policy reversed course prematurely in the early 2000s as the inflation rate inched above zero, and new deflationary pressures were activated. The BoJ repeated this experience later in the decade. The final example comes from Europe. In 2011, the ECB tightened its policy after judging that the eurozone economy was emerging from recession and inflation was at risk of rising persistently above target. Today, the eurozone faces continued economic weakness and a risk of falling back into deflation, with current inflation only just above zero.

At the end of his speech, Evans comments on the costs of overshooting the inflation target and the influence of inflation expectations. He notes that the 2% inflation target is symmetric. According to Evans, the costs of running moderately above target for some time are much smaller than the costs of falling back into the ZLB. Evans also sees the risk of a future rapid take-off in inflation as small, as no jump in inflation expectations is visible at the moment. On the contrary, expectations have been quite stable. The question is whether inflation expectations play such an important role as generally assumed: despite positive expectations inflation has stayed below the expected level for quite some time in the USA and Japan, for example.

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