

CENTRAL BANK MONITORING – DECEMBER

Monetary and Statistics Department
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In this issue

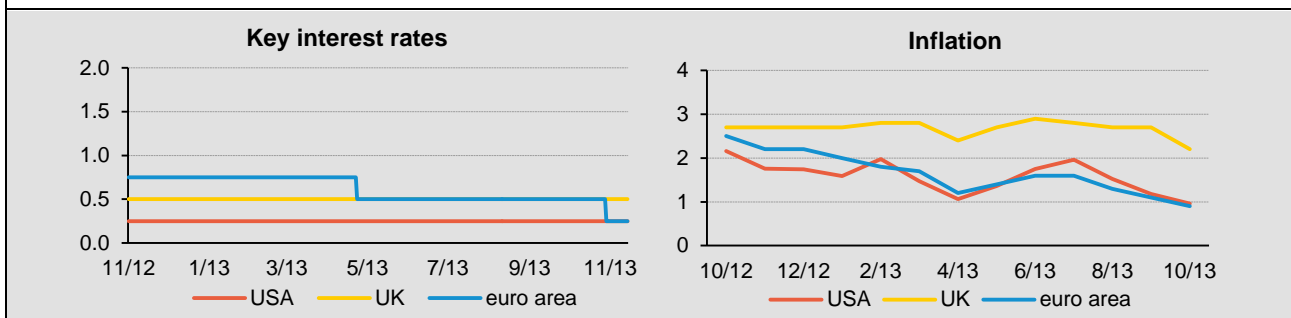
Macroeconomic developments in the USA lagged behind expectations and the euro area data confirmed the fragility of the euro area economy recovery. The ECB surprisingly lowered interest rates in November. The financial markets are concentrating on information regarding the potential tapering of quantitative easing by the US central bank. However, the tone of incoming FOMC Chairwoman Janet L. Yellen's presentation before the Senate Banking Committee was "dovish". The Hungarian central bank continued lowering its rates in line with financial market expectations. The monetary policy rates of the other central banks under review remained unchanged. The current Spotlight focuses on inflation expectations and their role in central bank monetary policy. Our Selected Speech is by Peter Praet from the ECB, who deals with the heterogeneity of households' responses to changes in monetary policy settings.

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) 7 Nov (-0.25) 5 Dec (0.00)	17–18 Sep (0.00) 29–30 Oct (0.00)	9–10 Oct (0.00) 6–7 Nov (0.00) 4–5 Dec (0.00)
Current basic rate	0.25%	0–0.25%	0.50%
Latest inflation	0.9% (Nov 2013) ³	1.0% (Oct 2013)	2.2% (Oct 2013)
Expected MP meetings	9 Jan 6 Feb 6 Mar	17–18 Dec 28–29 Jan	8–9 Jan 5–6 Feb 5–6 Mar
Other expected events	6 Mar: publication of forecast	Jan: publication of Beige Book	12 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** lowered its key interest rate by 0.25 pp to 0.25% in November. The deposit rate remains at 0%. The ECB confirmed its forward guidance of July 2013 (i.e. interest rates will remain at present or lower levels for an extended period) and stated that it would consider using all available monetary policy instruments if necessary. Fixed rate refinancing operations with full allotment will be conducted at least until July 2015. After rising by 0.3% quarter on quarter in Q2, real GDP growth slowed to 0.1% in Q3. The ECB's current forecast expects GDP to decline by 0.4% in 2013 and to increase by 1.1% in 2014. Inflation is forecasted at 1.4% in 2013 and 1.1% in 2014. According to the ECB, medium-term inflation expectations remain firmly anchored and inflationary pressures are subdued.

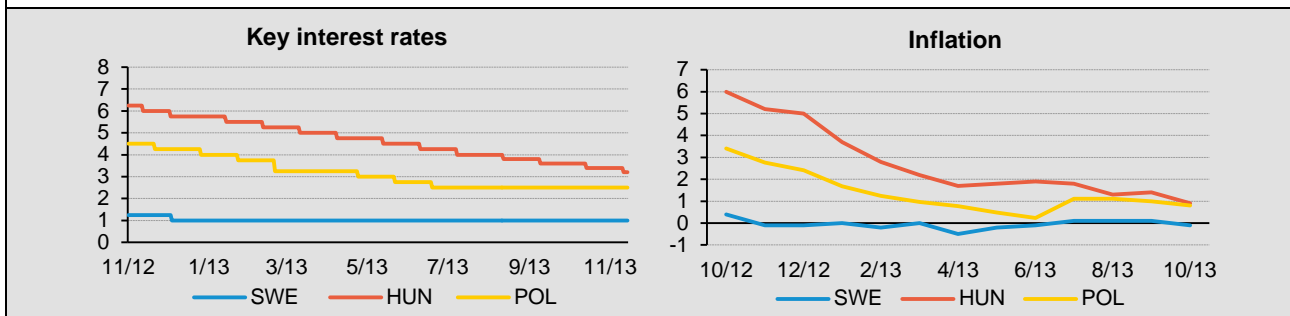
The **Fed** left its key interest rate unchanged and confirmed its commitment to keep rates at the current level at least as long as the unemployment rate remains above 6.5%, the inflation outlook remains no more than 0.5 pp above the longer-run goal, and longer-term inflation expectations are well anchored. The Fed is continuing to purchase securities at a pace of USD 85 billion per month. Although financial market participants were speculating about a tapering of QE3, which increased interest rate volatility, the Fed has not yet confirmed any tapering and has made it conditional on more evidence of a recovery. The unemployment rate remains elevated at 7.2%.

The **BoE** left its key interest rate at 0.50% and also maintained the size of its Asset Purchase Programme. The forward guidance remains unchanged – the BoE's rate will not be raised while the unemployment rate remains above 7%. A recovery appears to be taking hold in the UK. GDP growth was 0.8% in Q3 and slightly higher growth is expected in Q4. Inflation dropped to 2.2% in October, approaching the central bank's 2% target. The BoE assesses the decline in household client interest rates as favourable.

Selected central banks of inflation-targeting EU countries

	Sweden (Riksbank)	Hungary (MNB)	Poland (NBP)
Inflation target	2%	3%	2.5%
MP meetings (rate changes)	23 Oct (0.00)	24 Sep (-0.20) 29 Oct (-0.20) 26 Nov (-0.20)	1–2 Oct (0.00) 5–6 Nov (0.00) 3–4 Dec (0.00)
Current basic rate	1.00%	3.20%	2.50%
Latest inflation	-0.1% (Oct 2013)	0.9% (Oct 2013)	0.8% (Oct 2013)
Expected MP meetings	16 Dec 12 Feb	19 Dec	7–8 Jan 4–5 Feb 4–5 Mar
Other expected events	24 Oct: publication of Monetary Policy Report	25 Sep: publication of Quarterly Report on Inflation	Mid-March: publication of Inflation Report
Expected rate movements¹	→	↓	→

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



The **Riksbank** left its key interest rate unchanged at 1% and still does not expect to raise it until the end of 2014. Inflation is low and the Riksbank expects it to increase only very slowly and attain the 2% target in 2015. The Swedish economy is showing further signs of gradual recovery, including improving labour market conditions and rising sentiment among households and companies. Low interest rates and an expansionary fiscal policy are creating the conditions for higher household consumption in the coming quarters. Economic growth in Sweden will thus gradually rise, leading to a fall in unemployment and a rise in employment.

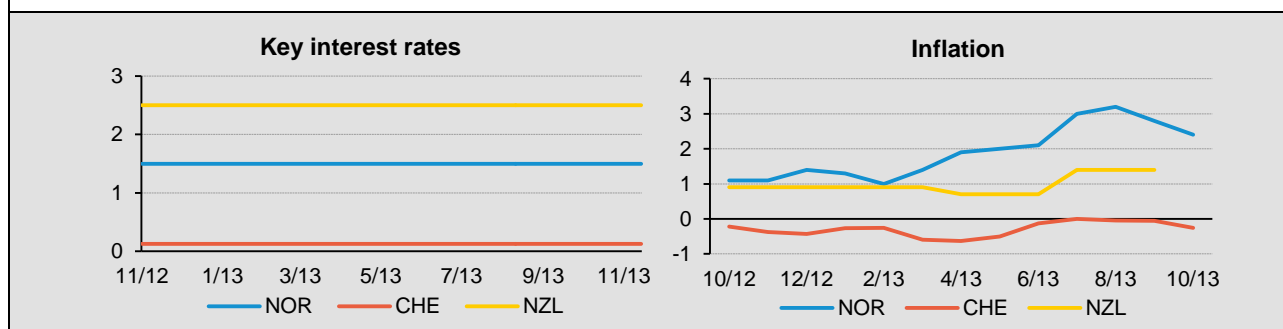
Once again, the **MNB** lowered its monetary policy rate three times in the last quarter, on each occasion by 0.20 pp, i.e. by a total of 0.60 pp to 3.20%. Inflation continued to fall in October, staying at historical lows. The MNB believes that low inflation will help anchor inflation expectations. Subdued wage dynamics suggest that companies are adjusting to higher production costs mainly through the labour market. The recovery in domestic demand is weak. The MNB expects exports to grow in line with a pick-up in external demand starting from the end of this year.

The **NBP** left its monetary policy rate unchanged at 2.50%. The inflation rate dropped from 1% in September to 0.8% in October and is thus still well below the inflation target of 2.5%. The NBP expects inflationary pressures to remain subdued in the coming quarters, although the Q3 data point to a gradual economic recovery and rising domestic demand driven by consumption and investment. In addition, Q3 saw a small decline in unemployment and an increase in wage growth. However, industrial output, construction output and retail sales rose more slowly in October than in previous months.

Other selected inflation-targeting countries

	Norway (NB)	Switzerland (SNB)	New Zealand (RBNZ)
Inflation target	2.5%	0–2%	2%
MP meetings (rate changes)	19 Sep (0.00) 5 Dec (0.00)	19 Sep (0.00)	12 Sep (0.00) 31 Oct (0.00)
Current basic rate	1.50%	0–0.25% ¹	2.50%
Latest inflation	2.4% (Oct 2013)	-0.3% (Oct 2013)	1.4% (2013 Q3)
Expected MP meetings	27 Mar	20 Mar	12 Dec 30 Jan
Other expected events	27 Mar: publication of Monetary Policy Report	19 Dec: publication of Monetary Policy Report	12 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.



Norges Bank left its key policy rate unchanged at 1.5%. It expects the rate to remain at this level until summer 2015 and rise slowly thereafter. Inflation has been lower than expected in the past two months. Growth prospects for the Norwegian economy have weakened somewhat, but growth is still expected to edge up. The central bank issued advice to the Ministry of Finance on the countercyclical capital buffer, which should increase banks' resilience to future loan losses (more information [here](#)).

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/EUR. The inflation outlook saw just a slight upward change compared to the June meeting. The inflation rate will thus reach -0.2% in 2013 and 0.3% in 2014. In 2015, the price level will increase by 0.7%. There are no signs of inflation risks in the Swiss economy according to the SNB. Because of the unexpected GDP growth in Q2, the SNB has now revised its 2013 growth forecast upwards to 1.5–2.0% (up by 0.5 pp compared to the previous forecast). Although the risks of imbalances on the mortgage and real estate markets persist, both segments saw lower growth rates in 2013 H1. The SNB is closely monitoring the above risks.

The **RBNZ** left its key rate unchanged at 2.50% but expects it to rise in 2014. Inflation has increased and was back within the central bank's target band in October. Growth in the New Zealand economy is picking up; the economy grew by 3% in the year to September. The RBNZ has responded to high house price inflation with macroprudential tools, specifically by restricting new residential mortgage lending at loan-to-value ratios (LVRs) of over 80% (more information [here](#) and [here](#)). This measure took effect on 1 October 2013 and is aimed at reducing mortgage lending and thereby curbing excessively high house price inflation. The first published results show that mortgage lending at LVRs above 80% fell during October (more information [here](#)).

2. NEWS

[Swap agreements of six central banks converted to standing arrangements](#)

Six leading central banks agreed to convert their existing temporary liquidity swap arrangements to standing arrangements. The bilateral agreements, designed in 2008 to provide US dollar liquidity and since 2009 to ease strains in financial markets also in the currencies of the other relevant central banks, had repeatedly been extended. The parties to the arrangements are the Federal Reserve, the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank and the Swiss National Bank.

[Bank of England makes changes to Sterling Monetary Framework](#)

The Bank of England announced changes to its approach to providing liquidity insurance to the banking system. The changes are designed to increase the availability and flexibility of liquidity insurance, by providing liquidity at longer maturities, against a wider range of collateral, at lower cost and with greater predictability of access. The changes will take effect in 2014. Current use of the facilities is limited as the BoE's asset purchases and the Funding for Lending Scheme (FLS) provide banks with a huge amount of liquidity. The BoE also decided that as regards the [FLS](#), as from February 2014 it will no longer generate any additional borrowing allowances for household lending and will focus solely on business lending, mainly to small and medium-sized enterprises.

[Norges Bank launches research project on flexible inflation targeting](#)

Norwegian central bank governor Øystein Olsen announced the launch of a research project called "Flexible inflation targeting: challenges and possibilities". The research work will focus on small open economies and specific limitations in their conduct of monetary policy and will discuss how monetary policy should respond to changes in the terms of trade. The project will cover issues of financial stability from the monetary policy viewpoint, financial crises, supply-side shocks and monetary policy communication.

[ECB prepares for its new role in financial supervision](#)

The euro area continues to develop its banking union. The regulation on the Single Supervisory Mechanism (SSM) entered into force in November. The European Central Bank will take on responsibility for the direct supervision of significant credit institutions in November 2014. The ECB expects to supervise around 130 credit institutions, representing almost 85% of total banking assets in the euro area.

[Riksbank publishes document to mark 20 years of inflation targeting](#)

The Riksbank published a special issue of its Economic Review containing papers discussed at an international conference organised in June to mark 20 years of inflation targeting in Sweden. The document outlines experiences with this monetary policy regime and summarises discussions about communication and forward guidance by central banks, the effects of financial imbalances and new macroprudential tools, and the effects of banking globalisation on monetary policy autonomy.

[New Fed and Bol governors](#)

After Fed chair Ben Bernanke's mandate terminates at the end of January, his colleague from the FOMC Janet L. Yellen will head the institution. The current vice-chair of the FOMC was nominated by President Obama at beginning of October and her nomination was approved by the Senate in November.

The Bank of Israel also has new governor, Karnit Flug, who previously served as its deputy governor.

3. SPOTLIGHT: INFLATION EXPECTATIONS

Inflation expectations play a key role in monetary policy since they can significantly affect the actual subsequent evolution of the price level and in the long run they testify to the central bank's credibility. In some countries, the level of inflation expectations can be derived from the market values of inflation-linked financial instruments, but direct surveys of the opinions of households, corporations and economic experts are frequently used. At the turn of the millennium, expected inflation in many advanced economies decreased and became anchored, thanks largely to the setting of inflation targets. Short-term inflation expectations in many economies responded strongly to the pre-crisis rise in global commodity prices and later fell sharply following the collapse of Lehman Brothers. In recent years, they have stabilised again and below-average inflation is expected in many countries this year. Deflationary expectations have long been prevalent in Japan, but this year's figures suggest a sharp change in perceptions of future inflation in response to measures taken to tame deflation.

Economic agents' expectations regarding the future price level are a key factor affecting that level. The power of thinking can be truly great and expectations can thus be self-fulfilling. That is to say, if people believe in a particular level of inflation, they will take it into account in their decisions – in their wage and price bargaining and via their investment contracts. Inflation expectations testify in large measure to the credibility of the central bank. This is especially true of long-term expectations, which are less affected by current price shocks. Expectations tend to be better anchored in countries with a specific numerical target for inflation or a definition of price stability. If the central bank is credible, market participants believe that it will hit its target and this target becomes their outlook. This can help the central bank to overcome temporary inflation shocks without the need for a significant monetary policy response. Inflation expectations are also a significant indicator of inflationary/deflationary risks.

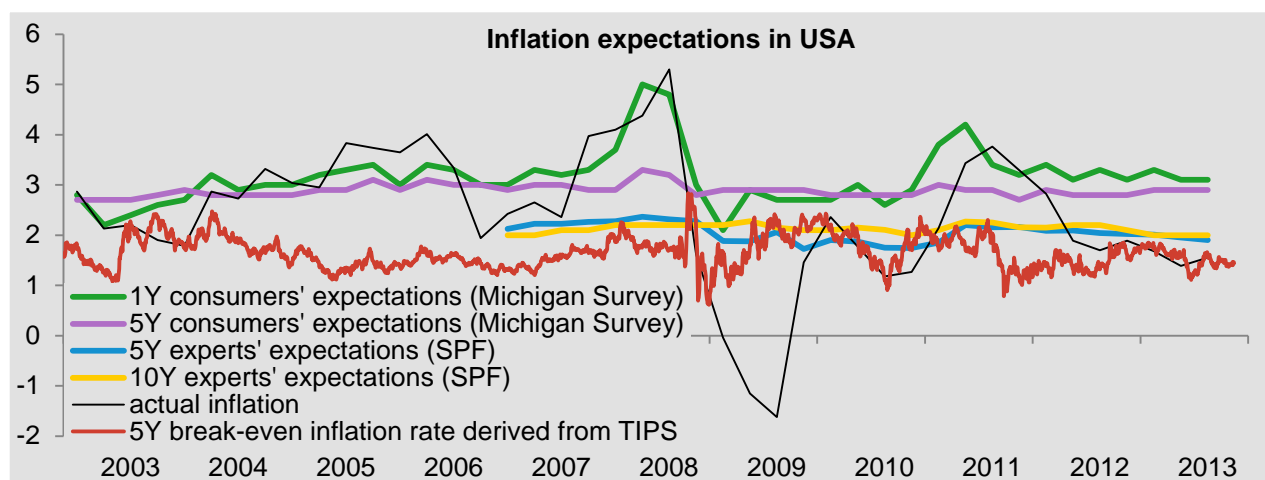
In practice, central banks get an idea about inflation expectations from two main sources: from inflation-indexed financial instruments (in countries where such instruments are available) or from surveys of households, corporations or financial analysts.

To **derive** inflation expectations from **developments on markets in financial instruments**, government bonds and interest rate swaps are mostly used. The yield spread between classic government bonds and inflation-linked ("inflation-proof") bonds with the same maturity – known as the break-even inflation rate – can only be derived on markets that are sufficiently deep and liquid. These include the markets of the USA (Treasury Inflation Protected Securities, TIPS) and the UK (index-linked gilts), which have a long tradition of inflation-proof bonds. Data on interest rates from inflation-linked swaps, which are particularly prevalent in the euro area, can also be used. Inflation-linked swaps are contracts which involve an exchange of a fixed payment for realised inflation over a predetermined horizon. The fixed swap rate thus provides a direct reading of the market's expected inflation rate.

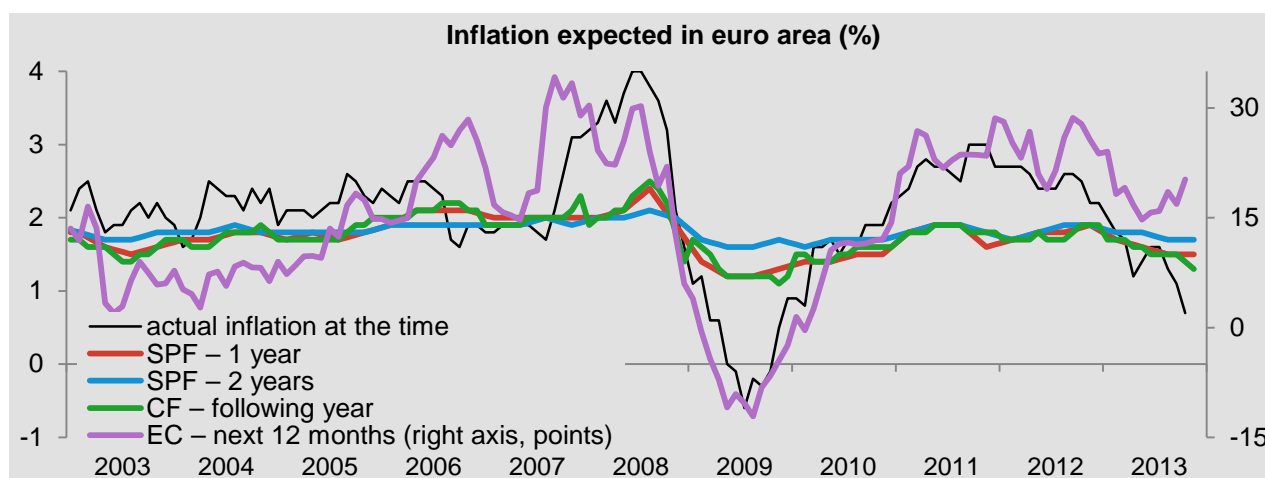
However, a large measure of caution is needed when interpreting indicators based on financial instruments, as these market instruments contain inflation risk premia (compensation for the risks surrounding baseline inflation expectations), which are unobservable and time-varying. Inflation-indexed bond markets are often less liquid than classic bond markets, and inflation-indexed bond yields can be affected disproportionately to classic bond yields in situations of increased market stress. Yields can also be affected by institutional factors, as pension companies and insurance companies, for example, can have a strong inclination towards inflation-linked bonds, thereby affecting the premia.

Data based on surveys of households, corporations or economic analysts offer another view of inflation expectations. Given the frequent occurrence of extreme responses, the median is usually used. Greater heterogeneity of the responses indicates greater uncertainty in the inflation outlook. Most inflation expectations surveys are conducted at national level and, not

surprisingly, are commissioned mainly by central banks. A distortion is usually seen for households, since their perceptions are strongly affected by prices of the most frequently purchased goods and services (e.g. food and petrol). Some economic agents may base their views of future inflation on historical experience, in which case inflation expectations are more backward-looking and persistent. Conversely, if the central bank's credibility is high the expectations tend to be anchored by the central bank's target. A disadvantage of survey data is their lower frequency (usually quarterly or monthly). Surveys can take a qualitative form (inflation will increase, remain the same or decrease), the respondents may be offered ranges for the expected inflation rate or asked to provide a specific figure for their forecast (usually in the case of firms or experts).

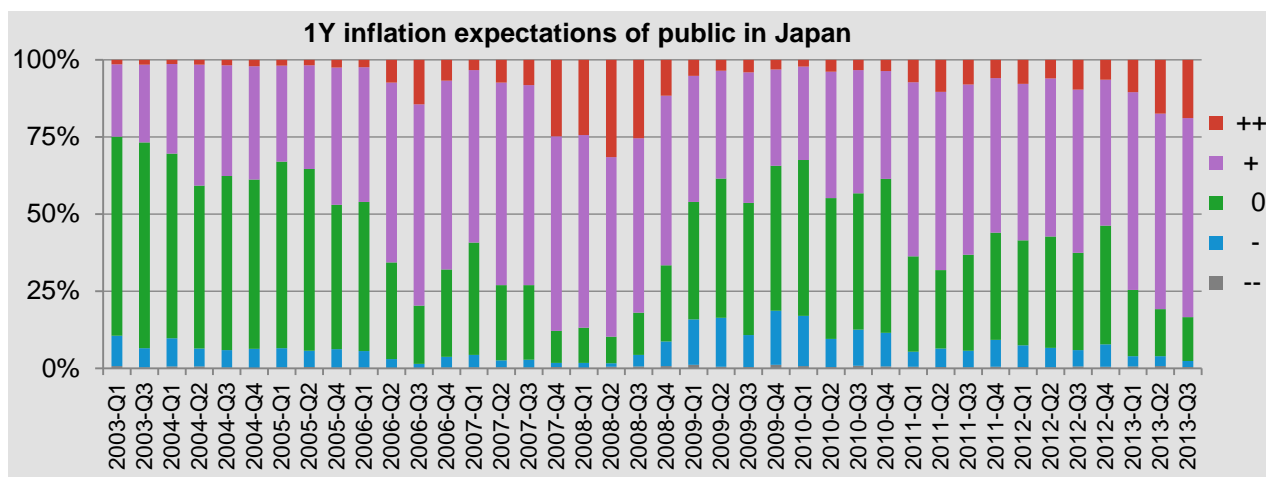


In the USA, the University of Michigan conducts a monthly phone survey of a random sample of around 500 consumers. The respondents are asked, among other things, whether they believe prices will go up, go down or stay where they are now during the next 12 months/5 years and by what per cent they expect prices to go up. The average, median, quartiles and variance are published based on the responses. As from next year the Fed's New York branch will provide an alternative to these data in the form of a [new survey](#) of consumers' opinions. The Philadelphia branch of the Fed conducts a quarterly survey of professional forecasters (SPF) with approximately 40 respondents.



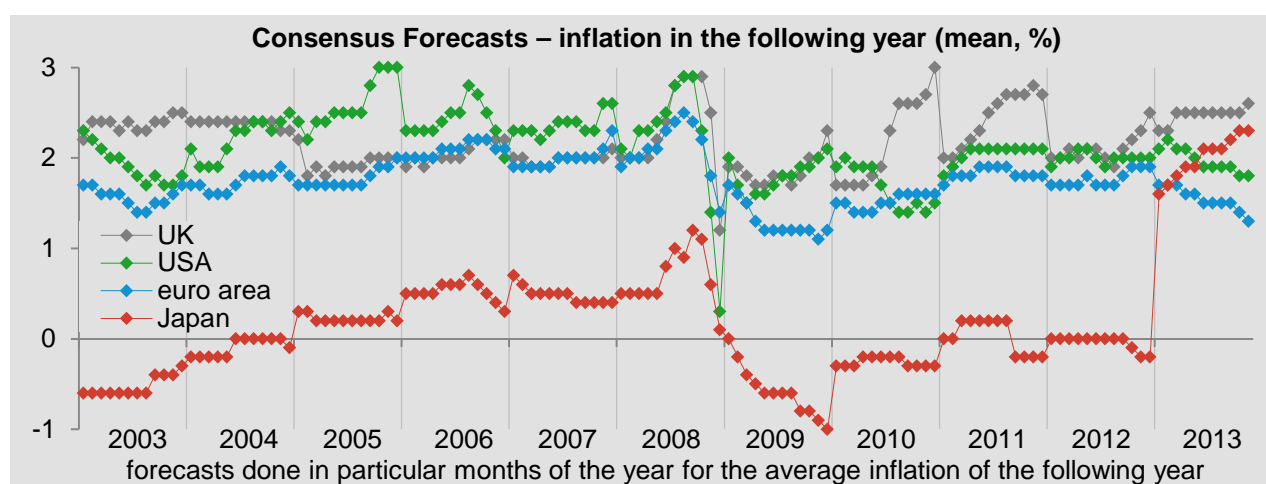
The European Commission organises a large survey addressing nearly 40,000 consumers from all EU countries every month. Additional information is available on those consumers (age, gender, education, occupation), which can be used to classify the answers. The respondents qualitatively assess how consumer prices will develop in the next 12 months by comparison

with the past 12 months and choose from the following answers: they will increase more rapidly (PP), increase at the same rate (P), increase at a slower rate (E), stay about the same (M), fall (MM), don't know (N). The answers are used to calculate a balance statistic in the form $PP + P/2 - M/2 - MM$.



The Bank of Japan is also interested in households' view of future inflation. It, too, asks for a qualitative comparison, with five choices: prices will go down significantly (--), will go down slightly (-), will remain almost unchanged (0), will go up slightly (+), will go up significantly (++). The results reveal that large proportion of Japanese people have long been convinced that prices will remain almost unchanged or will go down; a full 75% of respondents believed so at the start of 2003. The proportion of these "deflationary" responses fell during the pre-crisis global rise in prices but rose sharply again during the crisis. The 2013 results can be interpreted as rising inflation expectations influenced by strong anti-deflation measures.

Central banks also have access to surveys conducted in multiple countries, enabling **international comparisons** to be made. In addition to the Commission's survey, these include the IFO World Economic Survey, the Blue Chip Economic Indicators and the Consensus Forecasts, which process data from several thousand experts from more than 85 countries.



As in the case of national inflation expectations indicators, the Consensus Forecasts data show an effect of the pre-crisis increase in global commodity prices and a subsequent fall in inflation expectations connected with the financial and economic crisis. After the massive quantitative easing was commenced, there were concerns that it would lead to extremely high inflation, but those concerns were not reflected in inflation expectations. Although inflation expectations

have been relatively stable in most of the monitored countries in recent years, the differences between countries gradually widened in 2013. Inflation expected in the UK next year is slightly increasing, probably due to the overshooting of the inflation target in recent years, whereas a decline is apparent in the euro area this year, reflecting the subdued economic growth and the hitting of the conventional limits for monetary policy easing. The survey results may be encouraging for Japan, where the new economic policies of Prime Minister Shinzo Abe and Bank of Japan Governor Haruhiko Kuroda have significantly increased the figures given by experts, whose inflation expectations have gone slightly over the Bank of Japan's 2% target.

While short-term inflation expectations may reflect current risks and perceptions of price shocks, long-term expectations are of special importance for monetary policy. They remain stable for the three major central banks. Given the importance of well-anchored expectations, the continuation of very easy monetary policy by the Fed, the BoE and the ECB is conditional on maintaining confidence in future inflation close to the declared targets. Inflation expectations thus provide a useful additional source of information for central bank decision-making.

Selected surveys, horizon, frequency	Respondents	Long-term av.	2008 Q1–Q3	2009 Q1	2013
USA					
Michigan Survey of Consumer Attitudes		(since 2000)			
- 1Y (M)	approx. 600 consumers	3.0%	4.5%	2.1%	3.2%
- 5Y (M)		2.9%	3.1%	2.9%	2.9%
Survey of Professional Forecasters		(since 2007)			
- 5Y (Q)	approx. 40 experts	2.1%	2.3%	1.9%	2.0%
- 10Y (Q)		2.1%	2.2%	2.2%	2.0%
United Kingdom					
GfK/NOP		(since 2000)			
- 1Y (Q)	2,000 consumers	2.8%	4.0%	2.1%	3.5%
Euro area					
Survey of Professional Forecasters		(since 2000)			
- 1Y (Q)	approx. 60 experts	1.7%	2.2%	1.4%	1.5%
- 2Y (Q)		1.8%	2.0%	1.7%	1.7%
- 5Y (Q)		1.9%	2.0%	1.9%	2.0%
Sweden					
Economic tendency survey		(since 2000)			
- households 1Y (M)	1,500	2.1%	3.0%	1.4%	1.4%
- corporations 1Y (Q)	6,000	1.5%	2.6%	0.2%	0.9%
Prospera survey					
- 1Y (M)	55 organisations	1.9%	3.0%	1.1%	1.0%
- 2Y (M)		1.5%	2.8%	1.6%	1.4%
- 5Y (M)		2.8%	2.6%	2.3%	1.9%
Hungary					
- calculations based on Commission data		(since 2004)			
		6.4%	8.0%	8.0%	5.5%
Poland					
NBP Macroeconomic Survey (M)	approx. 1,000 individuals	(since 2002)			
		2.6%	4.7%	3.5%	1.1%
Norway					
Survey of firms, experts and academics					
- 2Y (Q)		-	2.9%	2.4%	2.1%
- 5Y (Q)		-	2.6%	2.7%	2.5%
RBNZ					
Survey of households – 1Y (Q)		(since 1995)			
		3.4%	4.0%	4.0%	2.9%
Israel					
Exp. of banks and economic consultants (M)		(since 2000)			
		2.3%	2.9%	0.5%	1.9%

4. SELECTED SPEECH: HOUSEHOLD HETEROGENEITY AND THE TRANSMISSION MECHANISM

Peter Praet, a member of the Executive Board of the European Central Bank, delivered a [speech](#) at the ECB Conference on Household Finance and Consumption on 17 October addressing the impacts of unequal distribution of household income and wealth on the transmission of monetary policy interest rates to the economy.

The speech summarises research presented at the above conference and considers the implications of household heterogeneity for the effectiveness of monetary policy measures. The long-lasting economic crisis has shown that different households react to economic shocks differently, depending on their income, wealth (primarily its liquid part) and indebtedness and the phase of their life cycle. The basic observation is that wealthy and high-income households with a sufficient share of liquid assets are able to smooth consumption, i.e. to save in good times and to consume their savings in bad times. On the other hand, poor and low-income households are not able to generate savings and their consumption is highly correlated with income. The most important factors also include the liquidity of the assets that make up households' wealth; for example, real estate often cannot easily be used as a source of cash flow to smooth consumption. Statistics show that the median household holds only around 19% of its annual income in liquid assets. Financial products which allow for extraction of liquidity from illiquid assets (such as "home-equity loans", which are common in the USA) are seldom used in Europe.

Another crucial variable determining households' reaction to shocks, according to Praet, is their indebtedness and their ability to repay loans and save. The recent crisis manifested through a series of negative shocks of various types and raised the importance of precautionary motives in household financial planning. As a result, already indebted households strived to repay their loans and reduce their leverage, thereby decreasing consumption more than proportionally to the fall in their income. Those households which maintained sufficient income increased their savings at the expense of reducing excessive consumption (the ratio of households which are able to save ranges from 20% to 50% across the euro area countries). In sum, the recent crisis was accompanied by a marked increase in the savings rate, which was more significant and persistent than those in previous crisis episodes.

Considering the impact of monetary policy, an important factor is the share of households with a mortgage loan on their main residential property, which varies across the euro area countries from 9% in Italy and Slovakia to more than 80% in Luxembourg. This is because monetary policy influences mortgage holders directly; lower interest rates reduce interest payments and thus increase disposable income. This is also related to average mortgage rate fixation periods, which also vary greatly across euro area countries. To sum up, monetary policy is likely to have the largest impact on relatively poor or indebted households, or those which hold their wealth exclusively in illiquid assets such as real estate. Similarly, fiscal expansion will be most effective when targeting low-income households, which are not able to save the additional income and instead increase their consumption.

When estimating the impact of monetary policy, it is important to know the distribution of households' wealth (and its liquidity) and income. According to Praet, it is insufficient to work with mean values. This is identified as a major shortcoming of the current practice of using DSGE models based on the concept of a representative agent whose behaviour is governed by only few ad-hoc calibrated parameters. Peter Praet closes by observing that during the recent crisis households reacted differently than before to interest rate, income and wealth shocks, and household heterogeneity may be the key to understanding these different reactions.

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