CENTRAL BANKS

Financial conditions in the euro area, monitoring based on a synthetic indicator

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Financial conditions in the euro area are a key element which the ECB monitors to gauge how monetary policy set in train is affecting market conditions and its transmission to the real economy. In the fledgling recovery phase which the euro area's economy is going through, it is vital for the ECB to ensure that particularly loose financial conditions are maintained to make certain that the recovery culminates without any bumps along the way.

Background: an "unwarranted" tightening of financial conditions.

As was outlined in a previous note (see[1]), since mid-2014 the European Central Bank (ECB) has been implementing a series of measures to tackle different kinds of contingencies[2] that jeopardise the euro area's recovery, and therefore achievement of the central bank's target. This note focusses on the "unwarranted" tightening of financial conditions where the term "unwarranted" alludes to the degree of loosening required given the cyclical conditions in the economy. This makes it clear that this is an aspect of particular concern to the ECB, as the current context of brittleness in the recovery calls for very loose conditions to be maintained where interest rate rises in other jurisdictions could result in pulling euro area interest rates up also.

To this end, an indicator has been constructed using several different variables to give us some kind of pointer of the direction which financial conditions in the euro area are taking. Such an indicator will enable us to draw conclusions about whether or not the ECB needs to implement new measures or, when the time is right, consider withdrawing them.

Focussing on the most recent period, since mid-2014 the ECB has implemented measures aimed at: i) additional loosening of already moderately loose financial conditions in the euro area, and ii) reinforcing its commitment to maintaining this highly accommodative tone for a long time. In particular, during this period the ECB announced successive measures: i) cutting the official interest rate to a historic low of 0.05%; ii) dropping the deposit facility rate down into negative territory (for the first time in its history) to -0.20% and, iii) extending the injection of liquidity via Fixed Rate and Full Allotment or FRFA tenders.

Financial conditions, which had already been held loose in previous years, were loosened notably from mid-2014 and towards the first half of 2015, but in the third quarter of 2015 some tightening has been observed. This tightening mainly arose from the appreciation of the euro exchange rate, as well as rising real interest rates. In a bid to contain this, and having stated at the October monetary policy meeting that it was looking into the possibility of further measures again, the ECB implemented additional measures at its last policy meeting, that was held on 3 December. The ECB decided to: i) cut the deposit facility rate by 10bp, leaving it at -0.30%; ii) extend its asset purchase programme (APP) to at least March 2017; iii) broaden the range of assets purchased under the APP (regional and local governments), and, in an environment in which the

[1] Inflation expectations in the euro area, monitoring based on synthetic indicators (see)

[2] In a speech on 24 April 2014 (see), ECB president Mario Draghi clarified the ECB's response function by pointing out three contingencies which the central bank should act against and the kinds of tools that would be used to deal with each of them.

central bank intends to make clear its commitment to maintaining an accommodative monetary policy for a long time, it bolstered its forward guidance by announcing iv) the reinvestment of the principal of securities acquired under the asset purchase programme as they fall due and for as long as necessary, and finally, v) that it would extend FRFA to December 2017.

The indicator: synthetic indicator for monitoring financial conditions

In this note, we focus on analysing developments in financial conditions by constructing an indicator that enables us to anticipate a shift in monetary policy orientation. A rise in real interest rates or an appreciation of the euro would have a negative impact on aggregate demand. Therefore a tightening of financial conditions could prompt the central bank to implement measures aimed at making its monetary policy more flexible. On the other hand, a fall in real interest rates or a depreciation of the euro would have the opposite effect and would lead to more restrictive monetary policy being implemented.

Since the onset of the financial crisis, euro area **interest rates**, particularly at the short end, have been influenced by very accommodative monetary policy (with the benchmark rate at a historic low and substantial liquidity injections into the system). However, in mid-2013 short-term rates flipped up significantly, due to the possibility of an exit from quantitative easing (QE3) by the Federal Reserve earlier than the market had been counting on (the 'taper tantrum'), as well as the reduction in excess liquidity that was caused by the repayment to the ECB of loans that had been taken out by euro area commercial banks in December 2011 and February 2012.

With respect to the **exchange rate**, throughout the entire crisis and until the ECB announced that it was mulling the implementation of an asset purchase programme (APP) in January 2015, the euro stayed above USD1.30 on average. In this context, the central bank has continued to make the point in the message it conveys that this variable does not fall within its set of objectives, although it has recognised that it is a key factor, given its significant impact on price stability and growth.

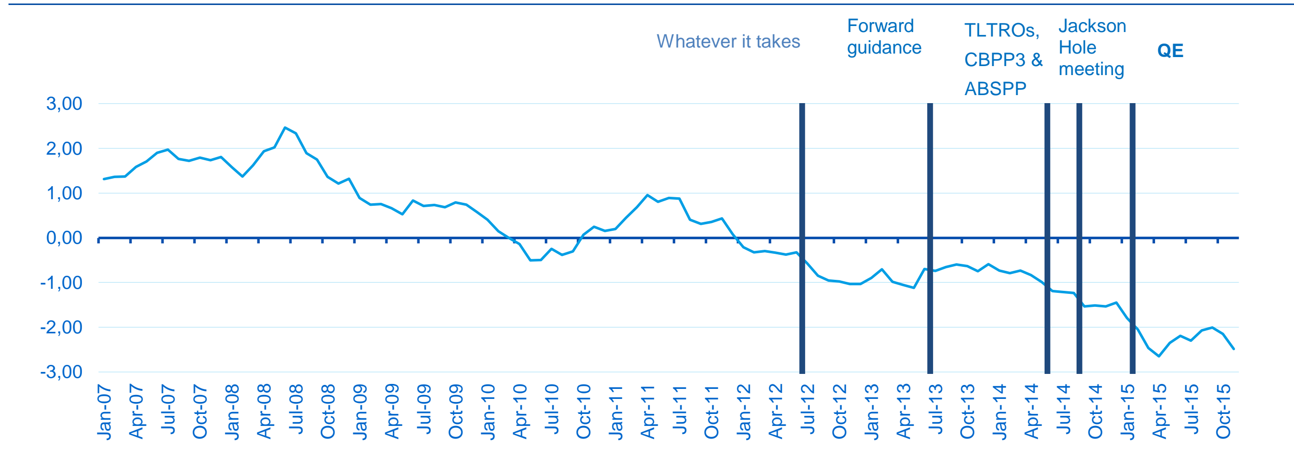
What does this indicator show? From mid-2014, financial conditions began to ease through both channels, as the ECB implemented measures to head off the tightening that was occurring. On the exchange rate side, the euro started on a path of depreciation from a level of over USD1.38, which factored in an expected monetary policy divergence between the United States and the euro area (tapering in the United States and further measures by the ECB). The suggestion that an asset purchase programme might be carried out and the subsequent announcement to this effect (more decisive than expected) contributed to a further loosening (taking the indicator to -3 standard deviations), via both the euro's dollar exchange rate (which reached USD1.05), and interest rates (with a large proportion of European bond rates in negative terrain, above all in the core countries, and periphery country risk premiums at significantly low levels).

The third quarter of 2015 was marked by rising interest rates, above all at the long end, following an improvement in expectations within the euro area and after a large part of the initial effect of the APP had worn off. The narrowing of the growth differential between the euro area and the United States expected by the markets, as well as the delay to the Fed's lift-off and greater global risk aversion, saw the euro's dollar rate spike back to USD1.15, which led the synthetic indicator to show levels of close to -2 standard deviations.

In November, increased expectations of additional measures by the ECB (which have been partly confirmed, after its last meeting) contributed to real interest rates coming down and the depreciation of the euro, which

were reflected in a certain easing of the synthetic indicator. Nonetheless, the measures taken by the ECB in December disappointed a market that had been expecting more and firmer measures, and over the past few weeks there has been something of a tightening of conditions[3] due to the euro's appreciation and an upturn in interest rates. On the other hand, the Fed's rate hike is a very important factor to monitor because it could pull euro area interest rates up in the coming months.

Figure 1
Synthetic indicator to monitor financial conditions
Standard deviations from the mean



Source: Bloomberg and BBVA Research

[3] Such tightening is not observable in the indicator, since it is monthly.

Annex: Construction of the indicator

These indicators are constructed using principal component analysis, which is a statistical method which examines the factors responsible for the co-movement of several variables. We assume that there is a principal factor that influences co-movement of this kind, and an index is created by extracting this factor (the first principal component).

To combine these different variables, a Z-score is calculated for each one, and then the first principal component of these Z-scores (data from June 2007 for all the variables).

Variables included in the indicator:

- Euro: The Nominal Effective Exchange Rate (NEER, monthly data)
- Short-term interest rates: EUR 1y1y forward OIS (monthly data)
- Real interest rates: measured as the euro area’s five-year swap in real terms (monthly data)
- Risk premium of periphery countries: spread between the 10-year bond rate for Spain, Italy, Ireland and Portugal (weighted averages of 35%, 35%, 20% and 20% respectively) vs. the German Bund rate (monthly data)

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