

# What options for the European Central Bank?

By [Paul Hubert](#)

All eyes are now on the ECB, whose recent statements indicate that it is concerned about the risk of deflation in the euro zone. The further downturn in inflation in May to 0.5% year on year is a reminder that this risk [is increasing](#). This could lead the ECB to take action at the monthly meeting of the Board of Governors being held today, or in the months to come. This post provides a brief summary of the possible options available to the ECB.

1. To lower the key interest rate (main refinancing operations rate, the MRO rate), which is currently 0.25%. The consensus in the financial markets is for a reduction of around 10 to 15 percentage points, which would further cut financing costs for banks that are still dependent on ECB liquidity. However, this would have a marginal impact on the rates of refinancing operations (MRO and long-term refinancing operations, or LTRO), which would not have much influence on financing conditions and thus not much benefit for Spanish and Italian banks (the main users of this option).

2. To lower the deposit facility rate from zero to a negative rate (again by 10 to 15 percentage points). This option has been largely anticipated by the financial markets. A negative interest rate on deposits should also be accompanied by a change in the policy on the ECB's excess reserves by capping the amount of commercial banks' excess reserves on the ECB's balance sheet or by applying the same negative rate to excess reserves. Otherwise the banks would simply transfer their funds from deposit accounts to excess reserves. A combination of these two policies should lead to a lower Euro OverNight Index Average (EONIA) rate of between zero and 0.05%. The

incentive for banks to keep their cash at the ECB would thus be reduced, thereby stimulating the distribution of credit to the non-financial sector.

3. An extension of the policy of providing liquidity in unlimited amounts at a fixed rate (fixed-rate full allotment) from mid-2015 to late 2015 or even mid-2016 is considered by most to be an easy and quick option that would provide additional assurance on the markets before the LTRO deadlines in early 2015. This kind of measure would ensure the liquidity of the banking system but its impact on activity and inflation could be limited, in so far as the banks would prefer to place their cash with the central bank.

4. An ECB announcement of the end of sterilization through the Securities Markets Programme (SMP), a programme for purchasing the sovereign bonds of euro zone countries in difficulty. The markets seem divided on this issue. The ECB has not managed to attract sufficient demand to completely sterilize this operation in the last eight weeks. This would add 164.5 bn euros (the SMP target amount) of liquidity to the system and take the EONIA rate to zero or even into negative territory, and could reduce the volatility that has appeared in recent months. This measure would therefore also cut the interbank refinancing rate, which would more or less amount to the first option.

5. A conditional and targeted LTRO programme could see the light of day. This would consist of copying the Funding for Lending Scheme (FLS) set up by the Bank of England, in which cheap financing is arranged for banks in exchange for granting new loans to the real economy. However, it would take time to implement this, and even more before there is any real impact on the economy. It would nevertheless probably be the most effective way to stimulate activity, because it would go beyond interbank operations in influencing refinancing conditions.

In any event, the economic situation in the euro zone for both the business outlook as well as for the situation on the labour market calls for a strong response from the ECB so as to ensure that the euro zone does not incur deflation. The effect of the signal may be just as important as the measure actually implemented by the ECB. By demonstrating in today's meeting that it is active, the ECB would show its determination to fight against the risk of deflation, which could at least change agents' expectations. While any action by the ECB would be welcome, it is still the case that the current economic situation is also the result of the restrictive fiscal policies that have hit activity (see [here](#)).

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## The ECB – or how to become less conventional

By [Jérôme Creel](#) and [Paul Hubert](#)

The gloomy economic situation in the euro zone and the deflationary risks it is facing are leading the members of the European Central Bank (ECB) to consider a new round of quantitative easing, as can be seen in [recent statements by German, Slovakian and European central bankers](#). What might this involve, and could these measures be effective in boosting the euro zone economy?

Quantitative easing (QE) includes several different types of unconventional monetary policy. To define them, it is necessary to start by characterizing conventional monetary policy.

*Conventional* monetary policy involves changing the key interest rate (the rate for so-called medium-term refinancing

operations) by what are called open market operations so as to influence financing conditions. These operations can change the size of the central bank's balance sheet, including by means of money creation. So there is a stumbling block in distinguishing between conventional and unconventional policy: increasing the size of the central bank's balance sheet is not sufficient in itself to characterize an unconventional policy.

In contrast, strictly speaking an unconventional quantitative easing policy gives rise to an increase in the size of the central bank's balance sheet but without any immediate additional money creation: the extra liquidity provided by the central bank to the commercial banks serves to increase their reserves with the central bank, so long as these reserves are ultimately used for the subsequent acquisition of securities or to grant loans. These reserves, which are the commercial banks' safe assets, help to consolidate their balance sheets: risky assets decrease in proportion, while safe assets increase.

Another type of unconventional monetary policy, qualitative easing, consists of modifying the structure of the central bank's balance sheet, usually on the assets side, but without changing the size of the balance sheet. This may mean that the central bank purchases riskier securities (not AAA rated) to the detriment of safer securities (AAA). In doing this, the central bank reduces the amount of risk on the balance sheets of the banks from which it has acquired these higher-risk securities.

A final type of unconventional monetary policy involves conducting an easing policy that is both qualitative and quantitative: credit easing, *i.e.*, the size of the balance sheet of the central bank and the resulting risk increase in concert.

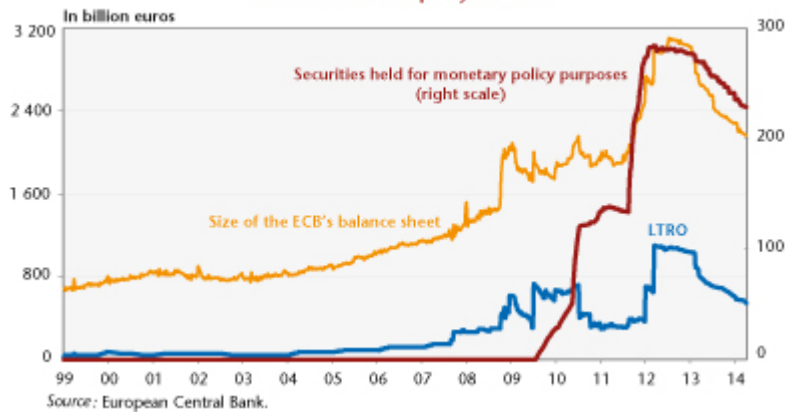
Unconventional monetary policies that are often attributed to the ECB include operations to provide long-term liquidity (3

years) at low interest rates, as was done in November 2011 and February 2012, and which were described as very long-term refinancing operations (VLTRO). But were these really unconventional large-scale operations? On the one hand, these operations involved not trillions of euros but an amount closer to 500 billion, which is not negligible after correcting for bank repayments to the ECB. On the other, the LTRO operations are part of the ECB's conventional policy arsenal. Finally, these operations were partially sterilized: the loans granted by the ECB to the commercial banks were offset by sales of securities by the ECB, thereby altering the structure of its assets. So we can conclude that the VLTRO operations were in part "conventional" and in part "unconventional".

The situation is different for the Securities Market Programme mechanism, which consisted, on the part of the ECB, of purchasing government debt on the secondary markets during the sovereign debt crisis. This mechanism led to increasing the size of the ECB's balance sheet, but also the risk involved: the policy of credit easing has indeed been an unconventional policy.

Given the different definitions of unconventional policy in current use, it is helpful to recall that the ECB explicitly indicates the amounts it has agreed within the framework that it sets for its unconventional policies, which are called Securities held for monetary policy purposes. These amounts are graphed in the figure below. They show the frequency and magnitude of the monetary activities that the ECB itself defines as unconventional.

Figure. Size of the ECB's balance sheet and values of its unconventional policy measures



The three different measures shown in the figure (size of the ECB's balance sheet, LTRO amounts, and amounts of Securities held for monetary policy purposes) are expressed in billions of euros. The first two went up in the fourth quarter of 2008 after the bankruptcy of Lehman Brothers, whereas the third measure of unconventional policy started only in June 2009. We then see a new joint deepening of these measures at end 2011. Following this episode, the amount of LTRO operations came to 1090 billion euros, which represented about 50% of euro zone GDP (2,300 billion euros), i.e., about one-third of the ECB's balance sheet, while the amount of Securities held for monetary policy purposes was only 280 billion euros, or 13% of euro zone GDP, about a quarter of the LTRO operations. It is interesting to note that the ECB's monetary policy, which depends on the banks' demand for liquidity, changed in 2013. One can interpret the reduction in the balance sheet size as a sign of a less expansionary policy or as a reduction in the demand for liquidity from the banks. In the first case, this would indicate that the strategy for ending the monetary easing policy probably came too early in terms of the European economy – hence the recently evoked recourse to new unconventional measures.

Until then, these measures had been formally introduced to restore the channels for transmitting the ECB's monetary policy to the real economy, channels that in some euro zone countries have been scrambled by the financial crisis and the

euro zone crisis. The way to restore these channels was to inject liquidity into the economy and to increase the reserves of the banking sector in order to encourage banks to start lending again. Another objective of these policies was to send a signal to investors about the central bank's ability to ensure the stability and sustainability of the euro zone, as reflected in Mario Draghi's famous "whatever it takes" [\[1\]](#) statement on 26 July 2012.

In a recent working paper with Mathilde Viennot, we consider the effectiveness of conventional and unconventional policies during the financial crisis. We estimate how much the conventional instrument and the purchases of securities held for monetary policy purposes under the ECB's unconventional policies have affected interest rates and the volumes of new loans granted in various markets: loans to non-financial corporations, to households and on the sovereign debt market, the money market and the deposit market.

We show that unconventional policies have helped to reduce interest rates on the money market, on the government securities market and on loans to non-financial companies. These policies have not, however, affected the volume of loans granted. At the same time, it turns out that the conventional instrument, whose lack of effectiveness was one of the justifications for implementing unconventional measures, had the expected impact on almost all the markets surveyed, and more so in the southern euro zone countries than in the northern ones on the market for 6-month sovereign debt and for real estate loans to consumers.

So it seems that unconventional policies have had a direct impact on the sovereign debt market as well as indirect effects, helping to restore the effectiveness of the conventional instrument on other markets. One of the reasons that helps to explain the weak impact of both instruments on the volumes of loans granted is the need facing the commercial banks [\[2\]](#) to shed debt and reduce the size of their balance

sheets by adjusting their portfolio of risk-weighted assets, which has pushed them to increase their reserves rather than to play their intermediation role and to demand relatively higher compensation for each exposure taken.

Though legitimate, this behaviour is affecting the transmission of monetary policy: interest rates fall but lending doesn't restart. It thus seems important that monetary policy is not based exclusively on the banking sector. If there is a new round of unconventional operations, it should be focused directly on the acquisition of sovereign or corporate debt in order to bypass the banking sector. This workaround would undoubtedly lead to amplifying the transmission of monetary policy to the real economy. And it would be welcomed for helping to avoid the risk of deflation in the euro zone.[\[3\]](#)

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[\[1\]](#) "The ECB is ready to do whatever it takes to preserve the euro. And believe me, it will be enough."

[\[2\]](#) The reasoning behind unloading debt also applies to their customers: the non-financial agents.

[\[3\]](#) See the [post](#) by Christophe Blot on this subject as well as the recent [Council of Economic Analysis \(CAE\) report](#) by Agnès Bénassy-Quéré, Pierre-Olivier Gourinchas, Philippe Martin and Guillaume Plantin.

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# Does financial instability really undermine economic performance?

By [Jérôme Creel](#), [Paul Hubert](#) and Fabien Labondance

What relationship can be established between the degree to which an economy is financialized (understood as the ratio of credit to the private sector over GDP), financial instability and economic performance (usually GDP per capita) in the European Union (EU)? [A recent working paper \[1\]](#) attempts to provide a few answers to this question.

Two major competing approaches can be found in the economic literature. On the one hand, an approach inherited from Schumpeter emphasizes the need for entrepreneurs to access sources of credit to finance their innovations. The financial sector is thus seen as a prerequisite to innovative activity and a facilitator of economic performance. On the other hand, financial development can be viewed instead as the result or consequence of economic development. Development implies increased demand for financial services on the part of households and businesses. There is therefore a source of endogeneity in the relationship between financial development and economic growth, as one is likely to lead to the other, and vice versa.

Until recently, analytical studies that attempted to disentangle and quantify these causalities showed a positive significant link between an economy's financial depth and its economic performance ([Ang, 2008](#)). However, the onset of the international financial crisis led to nuancing these conclusions. In particular, [Arcand et al. \(2012\)](#) showed that beyond a certain level the impact of increased financialization becomes negative [\[2\]](#). The relationship

between financialization and economic performance can be represented by a bell curve: positive at the beginning and then, from a level of 80%-100% for the private credit to GDP ratio, fading to zero or turning negative.

Unlike other works that include both developed and emerging or developing countries, our study focuses on the EU Member States from 1998 to 2011. The advantage of this sample is that we include only economies whose financial systems are developed or at least in advanced stages of development [\[3\]](#). Moreover, it is a relatively homogeneous political space that permits the establishment of common financial regulations. We adopt the methodology of [Beck & Levine \(2004\)](#) who, using a panel and instrumental variables, are able to resolve the endogeneity issues discussed above. Economic performance is explained by the usual variables in endogenous growth theory, namely initial GDP per capita, the accumulation of human capital over the average years of education, government expenditure, trade openness and inflation. In addition, we include the aforementioned financialization variables. We show that, contrary to the usual results in the literature, an economy's financial depth does not have a positive impact on economic performance as measured by GDP per capita, household consumption, business investment or disposable income. In most cases, the effect of financialization is not different from zero, and when it is, the coefficient is negative. It is therefore difficult to argue that financial and economic development go hand in hand in these economies!

In addition, we included in these estimates different variables quantifying financial instability so as to check whether the results set out above might be due simply to the effects of the crisis. These financial instability variables (Z-score [\[4\]](#), [CISS\[5\]](#), bad debt rate, the volatility of stock market indices and an index reflecting the microeconomic characteristics of Europe's banks) usually seem to have a significant *negative* impact on economic performance. At the

same time, the variables measuring the *degree* of an economy's financialization show no obvious effects on performance.

These various findings suggest that it is certainly unrealistic to expect a positive impact of any further increase in the degree of financialization of Europe's economies. It is likely that the European banking and financial systems have reached a critical size beyond which no improvement in economic performance can be expected. Instead, there are likely to be negative effects due to the financial instability arising out of a financial sector that has grown overly large and whose innovations are insufficiently or poorly regulated.

The findings of this study suggest several policy recommendations. The argument of the banking lobbies that regulating bank size would have a negative impact on growth finds absolutely no support in our results—quite the contrary. Furthermore, we show that financial instability is costly. It is important to prevent it. This undoubtedly requires developing a better definition of micro- and macro-prudential standards, together with effective supervision of Europe's banks. Will the forthcoming banking union help in this regard? There are many sceptics, including the economists of [Bruegel](#), the [Financial Times](#) and the [OFCE](#).

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[\[1\]](#) Creel, Jérôme, Paul Hubert and Fabien Labondance, “Financial stability and economic performance”, *Document de travail de l'OFCE*, 2013-24. This study was supported by funding from the European Union Seventh Framework Program (FP7/2007-2013) under grant agreement no. 266800 (FESSUD).

[\[2\]](#) We consider this work in an earlier [post](#).

[\[3\]](#) In addition to the ratio of private sector credit to GDP, the depth of financialization is also indicated by the turnover ratio, which measures the degree of liquidity of financial markets, measured as the ratio of the total value of shares traded to total capitalization.

[\[4\]](#) Index measuring the stability of banks based on their profitability, their capital ratio and the volatility of their net income.

[\[5\]](#) Index of systemic risk calculated by the ECB and including five components of the financial system: the banking sector, non-bank financial institutions, money markets, securities markets (stocks and bonds) and foreign exchange markets.

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## The chiaroscuro of the ECB's "forward guidance" \*

By [Paul Hubert](#) and Fabien Labondance

"The Governing Council expects the key interest rates to remain at present or lower levels for an extended period of time." With this pronouncement on 4 July 2013 at the press conference following the monthly meeting of the European Central Bank Board of Governors, Mario Draghi initiated the adoption by the ECB of a new communication strategy called "forward guidance". Since then these words have always been included in his speech following announcements of the ECB's monetary policy, and he has repeated them again [today \[1\]](#). What should we expect? Forward guidance has recently been adopted by several central banks, but the methods chosen by

the ECB differ and indicate that this measure will have only limited effectiveness in the euro zone.

Communication has become an integral part of the conduct of monetary policy since interest rates have been kept at a minimum level. More specifically, forward guidance consists of announcing and making a commitment to the future path of key interest rates. By doing this, the central banks want to increase the transparency of their activities and anchor expectations. The aim is to clarify both their strategy and their predictions about trends in the economy. In the present case, the central banks want to affirm their desire not to raise interest rates in the near future. They also hope to influence private expectations about short-term rates, and thus long-term rates, in order to strengthen the transmission of monetary policy, and thus support the economy.

### **From the theory...**

The promoters of the forward guidance strategy, foremost among them Eggertsson and Woodford (2003), suggest that monetary policy can be made more effective by adopting a policy of stable interest rates that is well known in advance. This proposal is justified by the fact that demand for credit is highly dependent on expectations of long-term interest rates, which depend on expectations of short-term rates. Hence, by announcing the future levels of interest rates in advance, the central bank declares its intentions and dispels any uncertainty about its future decisions. This strategy is especially relevant in a situation of a liquidity trap, when nominal interest rates are close to zero, as is the case today. The traditional tool of central banks is then constraint, as nominal interest rates cannot be negative. Central banks can thus no longer influence the cost of the loans granted, but they can on the other hand influence volumes through unconventional measures [\[2\]](#). The channel of expectations and the transmission of signals to private agents then become paramount and complement quantitative easing.

It is important to note that the effect of forward guidance on long-term rates and thus on the economy passes through the term structure of the interest rates. Several theories attempt to explain how rates vary in accordance with the term. The term structure of interest rates can be considered from the viewpoint of the theory of expectations, which assumes that long-term rates reflect a combination of expected future short-term rates, and thus that the different maturities are perfect substitutes. For its part, the theory of a liquidity premium implies that long-term interest rates include a premium linked to the existence of one or more long-term risks. Finally, another theory is based on the assumption of market segmentation and stipulates that financial instruments with different maturities cannot easily be substituted and that their prices move independently. If investors wish to hold liquid assets, they will prefer short-term instruments over long-term ones, and their prices will vary in opposite directions. Only in the case of the first two theories will forward guidance have the desired effect on long-term rates.

### **...to the practice**

This kind of strategy had already been implemented by some central banks even before the 2008 financial crisis, in particular in New Zealand since 1997, in Norway since 2005, and in Sweden since 2007. The United States also implemented this communication strategy several times when rates were very low. The Federal Open Market Committee (FOMC) implicitly introduced forward guidance in its communications in August 2003. At a time when its target rate was at a historic low, the FOMC stated that “...policy accommodation can be maintained for a considerable period”. This terminology, specific to forward guidance, remained in FOMC communiqués until the end of 2005. It reappeared in December 2008, and in greater detail in August 2011, when Ben Bernanke, chairman of the US Federal Reserve (or the “Fed”), announced that economic conditions warranted maintaining the federal funds rate at a low level

until at least mid-2013. Since then, the announcement on 13 September 2012 that the Fed will not raise its rates before mid-2015 continues this same strategy.

To understand what impact the ECB's forward guidance might have, it is important to distinguish two types of forward guidance: one for which the action of the central bank is subject to a time period, and another which depends on economic variables, including thresholds that trigger an action on the bank's part. In the case of the Fed, the first statements mentioned above refer to a period of time, but since December 2012 it has conditioned its commitment to future rate changes on cyclical thresholds that act as triggers. The Fed has also announced that "this exceptionally low range for the [Fed Funds](#) rate will be appropriate at least as long as the unemployment rate remains above 6-1/2 percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored". The arrival of new FOMC members in January 2014 could, however, change the timing of the next monetary tightening. Likewise, in August 2013 Mark Carney, Governor of the Bank of England (BoE), set out a forward guidance strategy indicating his intention not to raise rates so long as the unemployment rate had not fallen below 7%. This commitment is nevertheless conditional on containing inflation, on stable inflation expectations and on the neutral impact of this commitment on financial stability.

There is a major disadvantage to conditioning forward guidance on a time period, as has been adopted by the ECB (and as will be described later): changes in economic conditions over the time period in question could render the commitment obsolete. The announcement thus has very little credibility. Conditioning forward guidance on thresholds for economic variables does not have this drawback. One criterion for the credibility of commitments conditioned on thresholds is,

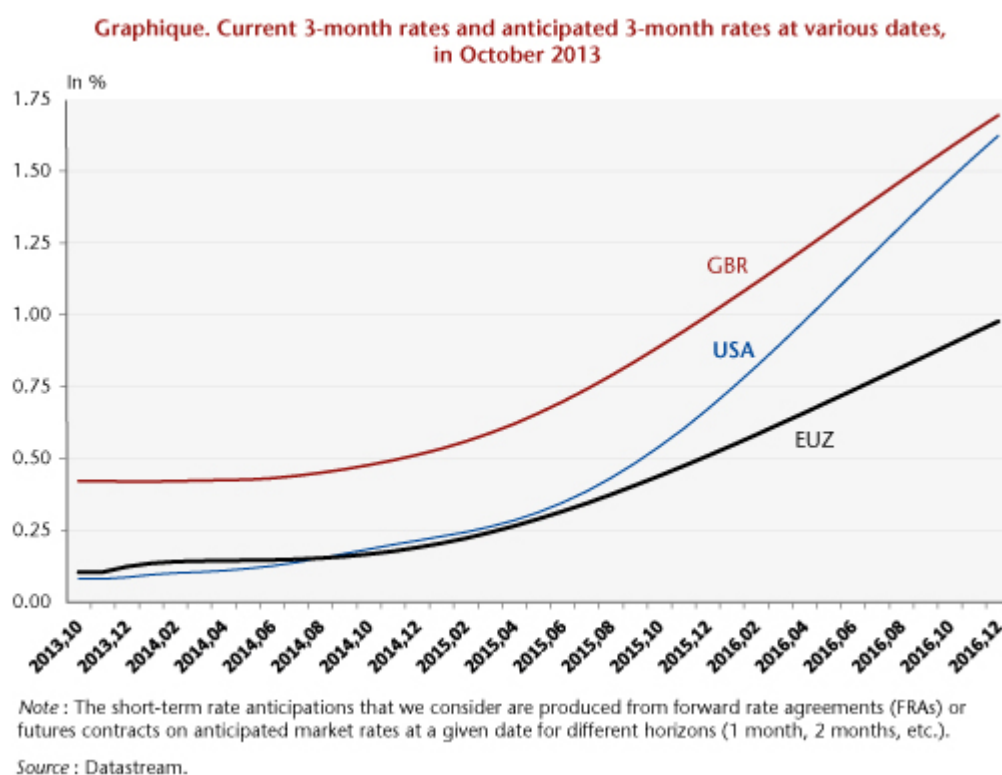
however, that the underlying variables chosen are observable (GDP rather than output gap) and that they do not suffer from measurement errors (inflation rather than inflation expectations), so that private agents can assess whether the central bank is acting in accordance with its commitments. Then and only then will the agents have confidence in the declarations and will the central bank be in a position to influence expectations of long-term rates. The relative advantages and disadvantages of the two types of forward guidance explain why the Fed switched from one to the other and why the BoE has also made  $\pi$  a commitment linked to thresholds.

The establishment of forward guidance conditioned on a threshold for a macroeconomic variable may, however, contribute to muddying the waters on the ranking of the central bank's objectives. If several variables are targeted simultaneously and they begin to diverge, what will the bank decide? The Fed does not prioritize its objectives. As the economy emerges from crisis it is quite possible that the Fed may decide to ensure the strength of GDP, or to lower unemployment rather than inflation. For its part, the BoE follows a strategy of inflation targeting. It has therefore defined conditions ("knockouts") on inflation, inflation expectations and financial stability, which, when they are not met, will lead to an end to forward guidance and therefore to any commitment to keep rates unchanged. The hierarchy of objectives would thus be well respected and the BoE's credibility maintained.

How effective can forward guidance be? Kool and Thornton (2012) express serious doubts as to the results obtained through forward guidance. They assess the predictability of short-term and long-term rates in countries where this strategy has been adopted and show that forward guidance improves the ability of private agents to forecast future short-term rates only for periods of under one year, without



improving the predictability of rates in the longer term. The chart below shows the expectations of 3-month rates by the financial markets in October 2013 for the coming months. Since benchmark rates change by a minimum of 0.25%, this figure indicates that no change in rates is expected for the time being, apart perhaps from the United States for the one-year horizon.



## The timid adoption by the ECB

With regard to the ECB, which for its part sets a hierarchy of goals by giving priority to inflation, the introduction of forward guidance constitutes a conditional commitment to a period of time (“... for an extended period of time”) without any reference to thresholds. From this point of view, it goes against the current of the Fed and the BoE, which adopted conditional commitments to numerical thresholds. For the record, prior to July 4<sup>th</sup> the ECB gave clues to its decision in the following month in the form of expressions that were easily recognizable to observers. Thus, the insertion of the

word “vigilance” in the ECB President’s speech at his press conference announced a probable tightening of monetary policy [\[3\]](#). By adding forward guidance to its basket of tools, the ECB wants to be less enigmatic. In particular, it seems that it wanted to respond to concerns over a possible rise in interest rates.

However, Benoit Coeuré, a member of the ECB Executive Board, said that this strategy does not call into question the rule, repeated many times at press conferences, that the ECB will never commit to future policies (“no pre-commitment rule”) and that forward guidance is to be re-evaluated at each meeting of the Board of Governors. Jens Weidmann, a member of the ECB’s monetary policy committee as president of the Bundesbank, confirmed that the ECB’s forward guidance “is not an absolute advanced commitment of the interest rate path”, while Vitor Constancio, ECB Vice-President, added an extra dose of confusion by saying that the ECB’s forward guidance “is in line with our policy framework as it does not refer to any date or period of time but is instead totally conditional on developments in inflation prospects, in the economy and in money and credit aggregates – the pillars of our monetary strategy”.

So how effective can a policy be that is poorly defined, that does not seem to have a consensus within the ECB Governing Council, and whose key to success – the credibility of the commitment – is openly questioned? Not very effective.

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\* This text draws on a study, “Politique monétaire: est-ce le début de la fin?” [“Monetary policy: Is it the beginning of the end?”], forthcoming in [The OFCE outlook for the global economy in 2013-2014 \[in French\]](#).

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[1] Today’s 25-basis point cut in the benchmark rate is consistent with the ECB’s strategy of forward guidance.

[2] Unconventional measures refer to monetary policy practices that are not classified as traditional policy (*i.e.* changes in interest rates). These are measures that result in a change in the content or magnitude of the central bank balance sheet through purchases of government or private securities, which is generally referred to as “quantitative easing”.

[3] Rosa and Verga (2007) offer a description of these expressions.

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# Does too much finance kill growth?

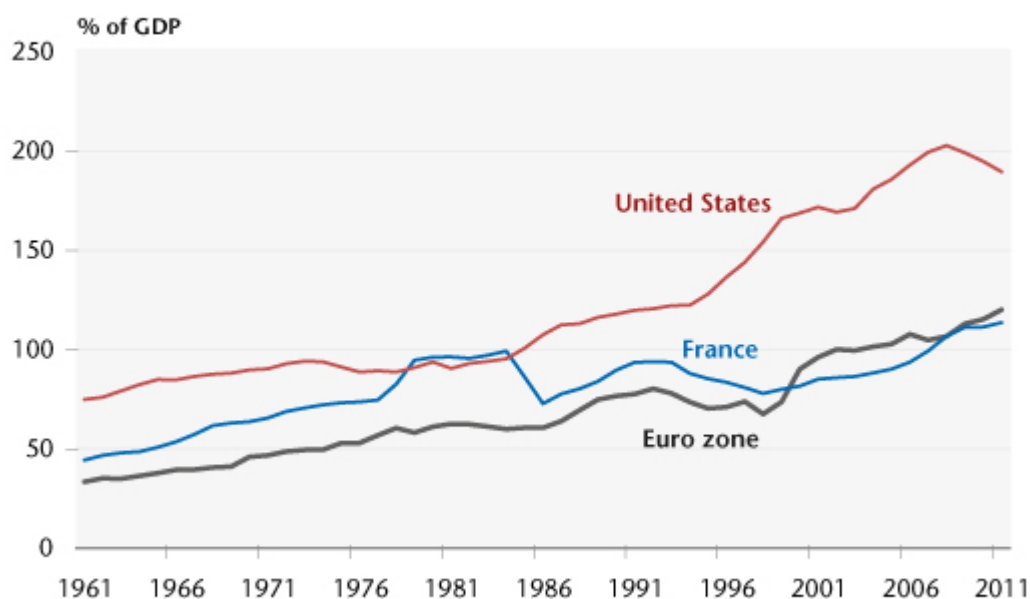
By [Jérôme Creel](#), [Paul Hubert](#) and Fabien Labondance

Is there an optimal level of financialization in an economy?

An [IMF](#) working paper written by Arcand, Berkes and Panizza (2012) focuses on this issue and attempts to assess this level empirically. The paper highlights the negative effects caused by excessive financialization.

Financialization refers to the role played by financial services in an economy, and therefore the level of indebtedness of economic agents. The indicator of the level of financialization is conventionally measured by calculating the ratio of private sector credit to GDP. Until the early 2000s, this indicator took into account only the loans granted by deposit banks, but the development of shadow banking ([Bakk-Simon et al., 2012](#)) has been based on the credit granted by all financial institutions. This indicator helps us to understand financial intermediation ([Beck et al., 1999](#)) [1]. The graph below shows how financialization has evolved in the euro zone, France and the United States since the 1960s. The level has more than doubled in these three economies. Before the outbreak of the subprime crisis in the summer of 2007, loans to the private sector exceeded 100% of GDP in the euro zone and 200% in the United States.

**Figure. Credit granted to the private sector by banks and other financial institutions**



Source : World Bank.

Arcand, Berkes and Panizza (2012) examined the extent to which the increasingly predominant role played by finance has an impact on economic growth. To understand the importance of this paper, it is useful to recall the existing differences in the findings of the empirical literature. On the one hand, until recently the most prolific literature highlighted a positive causal relationship between financial development and economic growth ([Rajan and Zingales, 1998](#), and [Levine, 2005](#)): the financial sector acts as a lubricant for the economy, ensuring a smoother allocation of resources and the emergence of innovative firms. These lessons were derived from models of growth (especially endogenous) and have been confirmed by international comparisons, in particular with regard to developing countries with small financial sectors.

Some more skeptical authors believe that the link between finance and economic growth is exaggerated ([Rodrik and Subramanian, 2009](#)). [De Gregorio and Guidotti \(1995\)](#) argue that the link is tenuous or even non-existent in the developed countries and suggest that once a certain level of economic wealth has been reached, the financial sector makes only a marginal contribution to the efficiency of investment. It abandons its role as a facilitator of economic growth in order to focus on its own growth ([Beck, 2012](#)). This generates major banking and financial groups that are “too big to fail”, enabling these entities to take excessive risks since they know they are covered by the public authorities. Their fragility is then rapidly transmitted to other corporations and to the economy as a whole. The subprime crisis clearly showed the power and magnitude of the effects of correlation and contagion.

In an attempt to reconcile these two schools of thought, a nonlinear relationship between financialization and economic growth has been posited by a number of studies, including in particular the Arcand, Berkes and Panizza (2012) study. Using a dynamic panel methodology, they explain per capita GDP

growth by means of the usual variables of endogenous growth theory (*i.e.* the initial GDP per capita, the accumulation of human capital over the average years of education, government spending, trade openness and inflation) and then add to their model credit to the private sector and the square of this same variable in order to take account of potential non-linearity. They are thus able to show that:

1. The relationship between economic growth and private sector credit is positive;
2. The relationship between economic growth and the square of private sector credit (that is to say, the effect of credit to the private sector when it is at a high level) is negative;
3. Taken together, these two factors indicate a concave relationship – a bell curve – between economic growth and credit to the private sector.

The relationship between finance and growth is thus positive up to a certain level of financialization, and beyond this threshold the effects of financialization gradually start to become negative. According to the different specifications estimated by Arcand, Berkes and Panizza (2012), this threshold (as a percentage of GDP) lies between 80% and 100% of the level of loans to the private sector. [2]

While the level of financialization in the developed economies is above these thresholds, these conclusions point to the marginal gain in efficiency that financialization can have on an economy and the need to control its development. Furthermore, the argument of various banking lobbies, *i.e.* that regulating the size and growth of the financial sector would negatively impact the growth of the economies in question, is not supported by the data in the case of the developed countries.

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[1] While this indicator may seem succinct as it does not take account of disintermediation, its use is justified by its availability at international level, which allows comparisons. Furthermore, more extensive lessons could be drawn with a protean indicator of financialization.

[2] [Cecchetti and Kharroubi \(2012\)](#) clarify that these thresholds should not be viewed as targets, but more like “extrema” that should be reached only in times of crisis. In “normal” times, it would be better that debt levels are lower so as to give the economies some maneuvering room in times of crisis.

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## What monetary policy for the ECB in 2013?

By Paul Hubert

After the monthly meeting of the Board of Governors of the European Central Bank on 7 February 2013, the ECB decided to hold its key interest rate at 0.75%. The analysis of the economic situation by Mario Draghi made □□during the press conference afterwards pointed to contrasting developments justifying the status quo. In a recent study, we showed that the inflation forecasts of the ECB can shed new light on future trends in interest rates.

The status quo can be explained by a number of mutually offsetting factors. The banks have started to repay some of

the cash obtained through the LTRO facility (140 billion euros out of 489 billion), which reflects an improvement in their financial position, while at the same time lending to non-financial firms is continuing to contract (-1.3% in December 2012) and consumer loans are still at very low levels.

From a macroeconomic viewpoint, the situation in the euro zone is not giving clear signals about future monetary policy: after shrinking by 0.2% in the second quarter of 2012, real GDP in the euro zone fell another 0.1% in the third quarter, while inflation, as measured on an annual basis, decreased from 2.6% in August 2012 to 2% in January 2013 and is expected to drop below the 2% mark in the coming months based on the figures for GDP growth and for current and anticipated oil prices.

Furthermore, the inflation expectations of private agents, as measured by the *Survey of Professional Forecasters*, remain firmly anchored around the ECB's inflation target. In the fourth quarter of 2012, expectations were for 1.9% inflation for the years 2013 and 2014. Given that the target of "below but close to 2%" has now been reached, and with a euro zone in recession and unemployment at record levels, the ECB could give a boost to real activity. However, it anticipates that economic activity should gradually pick up in the second half of 2013, partly due to the accommodative monetary policy being followed today.

Given expectations, and in light of the historically low levels of key interest rates and the lag in the transmission of monetary policy to the real economy [\[1\]](#), a future rate cut seems very unlikely. One final element is sending out mixed messages: the recent rise of the euro – though it is still far from record levels – could nip in the bud the weak economic recovery that is underway, and could in the eyes of some justify support for export sectors [\[2\]](#).

In a recent [OFCE working paper](#) (No. 2013-04), we discuss how



the ECB could use its inflation forecasts to improve the implementation of its monetary policy. We propose a new element to shed light on future developments in interest rates, based on the macroeconomic projections published quarterly by the ECB. In this study on the effects of the publication of the ECB's inflation forecasts on the inflation expectations of private agents, we show that a 1 percentage point reduction in the ECB's inflation projections is associated with a key interest rate cut by the ECB of 1.2 percentage points in the next two quarters. We conclude that the ECB's inflation forecasts are a tool that helps to better understand current monetary policy decisions and to anticipate future decisions.

The latest inflation projections, published in December 2012, were 1.6% and 1.4% for the years 2013 and 2014, respectively. The publication on March 7<sup>th</sup> of new projections could provide a further indication of the direction monetary policy is likely to take in 2013.

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[\[1\]](#) On average, a change in the key rates is estimated to have an impact on inflation after 12 months and on GDP after 18 months.

[\[2\]](#) Remember, however, that about 64% of trade in the euro zone is conducted with euro zone partners, and thus is independent of fluctuations in exchange rates.