BBVA | RESEARCH

Economic Outlook

Global

Fourth Quarter 2012
Economic Analysis

- **Bold actions by central banks make tail-risk scenarios less likely.** Challenges remain for policy makers to avoid setbacks.
- **In quest of stability in the eurozone: "whatever it takes."** The ECB has stepped in with a new bond-purchase programme (OMT) to dispel euro break-up fears.
- **The Fed will act "as long as needed" to promote a stronger recovery,** given downside risks such as fiscal inaction.
- **Quantitative easing and emerging markets.** Its effects will depend on how local policy makers respond.

Index

1. Editorial: bold actions by central banks make tail-risk scenarios less likely 3

Box 1. Financial conditions and economic prospects 7

2. In quest of stability in the eurozone: “whatever it takes” 9

3. The Fed will act “as long as needed” to promote a stronger recovery 12

Box 2: The Fed provides an insurance policy dispelling uncertainties over growth 15

Box 3. The impact of QE in emerging markets: when economic success results in challenges for policy makers 17

4. Tables 20

Closing date: November 2, 2012

1. Editorial: bold actions by central banks make tail-risk scenarios less likely

Bold actions by central banks have clarified the global economic outlook but challenges remain for policy makers to avoid setbacks

The world economy is expected to continue its soft recovery with a GDP growth rate of 3.5% in 2013 *(3.2% in 2012, 4.1% on average in 2010-12).* ***It is supported by lower risk aversion, following the influential decisions taken by central banks, especially the ECB.*** *However, three factors stand out among those that could make this outlook deteriorate significantly: first and foremost, troubles in Europe, if the euro break-up fears that loomed large during the first half of the year among market participants resurface; second, in the US, the still-hanging threat of the so-called fiscal cliff, i.e., a spending-cut and tax-hike package worth 4% of GDP due to come into effect at the beginning of 2013 that would push the US economy back into recession; third, a severe slowdown in the emerging economies, in particular in China and some commodity-oriented economies, if Chinese appetite for raw materials decreased.*

Central bankers to the rescue; other policy makers should follow suit

Against a backdrop of high uncertainty and threats to the world economy, over the past months authorities across the world – in particular central bankers in the eurozone and the US – have taken significant steps forward. **Those bold measures have spared the world economy from a systemic event that would have been comparable with the financial developments of late 2008.** Both central banks have built a bridge to a new institutional environment in the case of Europe, and to a new fiscal pact in the US; these actions have paved the way for other policy makers to use their room for manoeuvre. However, the FED's actions are more open-ended than the ECB's due to different conditionality: strict fiscal fulfilment is compulsory in Europe, whereas labour market improvement is the objective in the US.

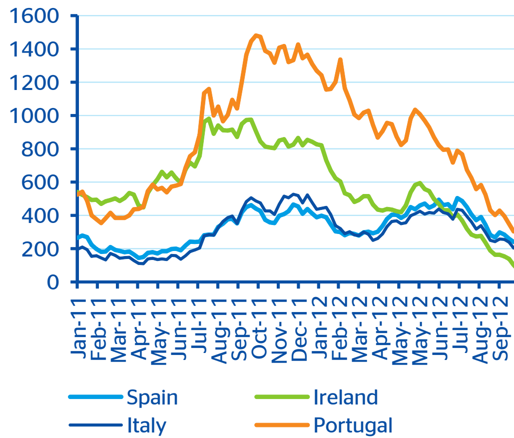
"... whatever it takes..."

In our **view, when the European Central Bank (ECB) President Mario Draghi announced the implementation of a new bond-purchase programme (Outright Monetary Transactions, or OMT) in late July, the institution took a decisive step to put an end to the debt crisis in Europe.** Under certain conditions (see our September ECB Watch for further details), the ECB could intervene in the secondary sovereign-debt markets. The ECB's move came after a eurozone summit in June where leaders reached some agreements to reinforce the currency union: a broad roadmap towards a single banking supervision, far-reaching plans covering fiscal issues and growth-supporting measures. The rationale behind the Draghi announcement is clear. Yields on some peripheral bonds are elevated because markets are partly pricing in eurozone break-up fears, compromising the ECB's mandate amid a severe financial fragmentation. Since that is "unacceptable," the ECB has committed itself to buy unlimited quantities of sovereign bonds of those countries that seek financial aid from Europe's funds (European Financial Stability Fund & European Stability Mechanism) with "strict and effective conditionality." **The existence of a lender of last resort under fiscal conditionality dispels fears of the reversibility of the euro in its current configuration.**

Under extreme market pressure and looming euro break-up fears, some action from European leaders and the ECB had long been expected. However, **the ECB move was more decisive than anticipated.** The OMT programme makes the ECB a credible backstop. As a consequence break-up fears are not justified and will continue to be so as long as this process continues.

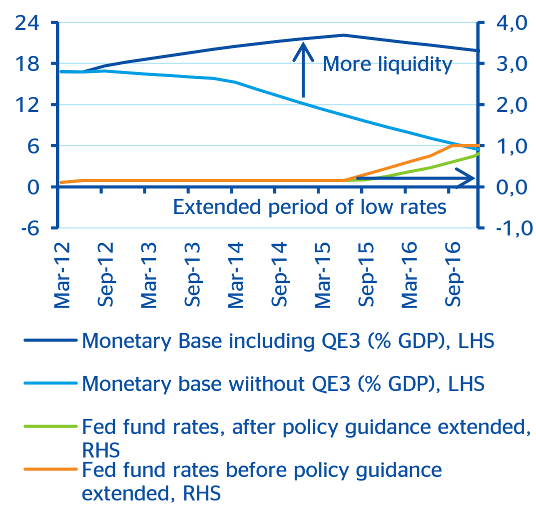
Tensions in financial markets have eased significantly since June (see Chart 1) and, in our view, the maintenance of this situation in spite of recent adverse market events is proof of its capacity to dispel doubts.

Chart 1
Financial Stress Index for eurozone countries[1]



Source: BBVA Research

Chart 2
QE3 and extended policy guidance



Source: BBVA Rresearch

Other elements have recently reinforced the currency union in Europe. First, **the permanent fund that will deal with any new bailout in the eurozone (the ESM) has been put in place,** after the German Constitutional Court backed Germany's involvement. Second, **the process for achieving a banking union in Europe (as set last June at a Eurogroup meeting) continues moving forward, although grinding slowly.** The implementation of a full banking union consists of four different elements: joint supervision, common regulation, a common body for banking resolution and a pan-European deposit-guarantee scheme. Given the scale of the task ahead, the full implementation is likely to be a long-lasting process. Yet European leaders agreed to set a calendar for banking supervision by January and more details are due to be agreed on at the Eurogroup meeting in December. In June they had agreed on direct banking recapitalization from the ESM, something that we deemed key in order to eliminate the risk emerging from the sovereign-banking feedback loop. However, there are other ways to reach the overriding goal of preventing regulatory ring-fencing and the goal of breaking the sovereign and bank risk that can be also explored. Certainly, the banking-union project needs to move forward fast.

At the end of the process, we think the eurozone will eventually come up with a full package that will reinforce its governance. As we have long argued, it should comprise a banking union, a fiscal union and a lender of last resort to prevent fragmentation. Progress has been made on all of these fronts. Probably that progress has not been ambitious enough to revert the current dynamic quickly. Yet, policy makers seem committed enough to the process and we think the worst of the crisis may, at last, be over. In the short term, the ECB's programme and the ESM support under fiscal conditionality creates a benchmark to deal with difficult funding situations in peripheral countries, allowing them to keep market access. At the same time, the proper implementation of the banking-union plans and further definition of the fiscal-union design will be a key factor to the long-term sustainability of the eurozone.

1: The BBVA Research Financial Stress Index (FSI) is a synthetic indicator that summarizes movements of: risk measures (5-year CDS, CDS of non-financial corporations and financial debt), volatility (stocks, interest rates and exchange rates) and liquidity stress (spread between interbank rate and free-risk asset at 3-months term).

"... as long as needed..."

With the US economy growing at low rates, the unemployment rate remaining persistently high and amid huge uncertainty in Europe, a pre-electoral gridlock over how to bring the whopping US deficit down was the last thing the US economy was in need of. Against this backdrop, the Fed did not hesitate. First, and in accordance with its "forward-guidance policy," the Fed announced that it intends to keep rates at its current low levels at least until mid-2015. Second, the Fed announced a new round of quantitative easing (QE) to support growth and employment recovery.

This further monetary loosening will be different from previous rounds. First, the Fed will purchase mortgage-backed securities (MBS) rather than Treasuries in an attempt to improve financial conditions for households. Second, the Fed will continue with this policy for a considerable period of time, even after the recovery strengthens and the labour market improves substantially; i.e., it will not give up buying MBS when growth starts picking up (see our US Fed Watch for further details).

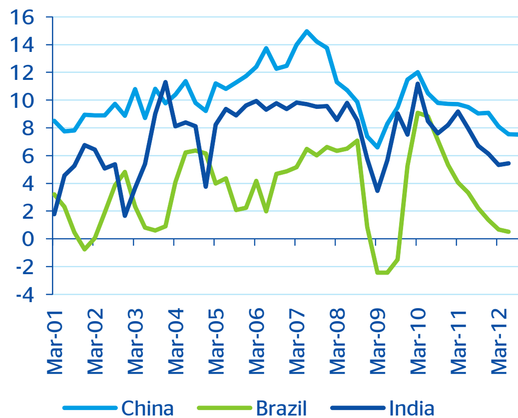
In our view, by embarking on QE3 and extending policy guidance, the Fed is buying insurance against the "fiscal cliff," but it is not a silver bullet if not accompanied by fiscal actions. In our baseline scenario, an agreement will be reached to avoid the complete package of automatic spending cuts and tax hikes from taking place. Yet we also expect some form of fiscal consolidation that will drag the economy down. With QE3 and policy guidance, the Fed does its part to give the economy the boost it needs to avoid slipping back into recession in 2013. In fact, according to our estimates, monetary loosening could contribute just a few tenths of a percentage point (pp) to GDP growth in 2013, but from 2014 onwards the effect will be more substantial. Regarding inflation, the impact will be small and delayed (see chapter 3 of this report). However, it seems to us that the FED's tolerance to higher inflation will depend on growth and labour market improvement.

The potential effects of QE3 are not restricted to the US economy. As previous programmes showed, they prompt inflows to emerging economies, decreasing risk premia, and lowering funding costs in those countries, boosting the availability of credit, their growth rates and also their inflation. Our estimates show that QE3 (plus the Draghi effect) could have a lower impact than QE1 due to comparative evolution of risk premium and capital inflows in the emerging economies. In any case, that will depend on domestic-policy response to capital inflows (see chapter 3).

Central bankers' responses are not enough to bring the global economy back to a firm expansion

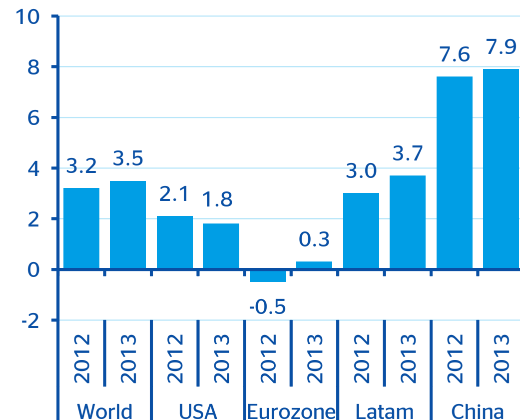
The world economy may have avoided decelerating to the slowest growth in the last 30 years (apart from the 2009 great recession) but the low growth environment continues. The advanced economies have been losing momentum since 2011 as one should expect given the current deleveraging environment. More recently the emerging economies have been hit too. In this regard, the trade channel has been intense in bringing exports and GDP growth down (see chart 3). Certainly that is the case in the three largest emerging economies. Brazil's economy almost stalled in the first half of the year; India's GDP grew by 5.3 and 5.5% y/y in the first and second quarter, respectively, the slowest pace since the beginning of 2009; and in the third quarter of the year the Chinese economy slowed to a rate of 7.4%, the lowest growth rate since 2009 although the most recent data points to a bottoming-out.

Chart 3
Emerging economies: GDP growth rate (% y-o-y)



Source: BBVA Research and Haver

Chart 4
GDP growth rate



Source: BBVA and Haver

However, **the actions that have been taken by central banks in the US and in the eurozone are partly dispelling some doubts and improving the outlook.** Under our baseline scenario, growth in the eurozone is likely to gain momentum entering 2013. Although the eurozone's GDP will decrease in 2012 (-0.5%), it will rebound slightly in 2013 (+0.3%). In the US, we have maintained our forecasts: growth will remain at around 2% in 2012 and 2013. The main downward revision in our October scenario corresponds to China (by -0.2 pp in 2012 and -0.4 pp in 2013), although its growth rate will remain close to 8% both years due to expected policy stimulus to compensate partially the slowdown it is experiencing. Other emerging economies will make up for this slack: the outlook for growth in Latin America is revised slightly upwards in 2013, when the region will grow by 3.7%, up from a 3% growth rate in 2012.

All in all, **the world economy is expected to continue undergoing a soft recovery with a GDP growth between 3% and 3.5%. Yet this scenario relies on several key assumptions,** in particular on whether European policy makers will deliver on their commitments. First, **this scenario assumes that the recent wrangling over financial supervision does not substantially affect June's agreements,** so the vicious link between sovereign and bank risk is broken and the monetary policy transmission, which in the eurozone is conducted mainly by banks, works again. Second, **we assume that the mechanism in place to eliminate the "convertibility risks" is activated in full if needed.** This will keep yields in peripheral economies contained, but substantial reductions will happen at the same time as Europe progresses in its new institutional arrangement and the commitments are fulfilled. **The ESM/ECB's intervention could be enough to bring Spanish and Italian yields back to levels consistent with the mid-term sustainability of the public debt,** and to levels that will make reforms have a long-lasting impact. This implies that both countries retain market access and investment-grade ratings and deliver on their fiscal commitments or are granted extensions to meet them (ideally in terms of their structural fiscal balances). On this issue, it should be considered the risk from negative feedback loops between fiscal adjustment and economic growth and also the possibility that negative fiscal multipliers may be higher than previously expected, at least in the short-term. Finally, in this scenario, Greece will continue being part of the euro, which will, in turn, require further support from Europe by additional funding and/or a longer period to fulfil fiscal conditionality. Based on past experience, too many things could still go wrong, but policy makers tend to find solutions to Europe's problems when crunch time approaches.

Box 1. Financial conditions and economic prospects

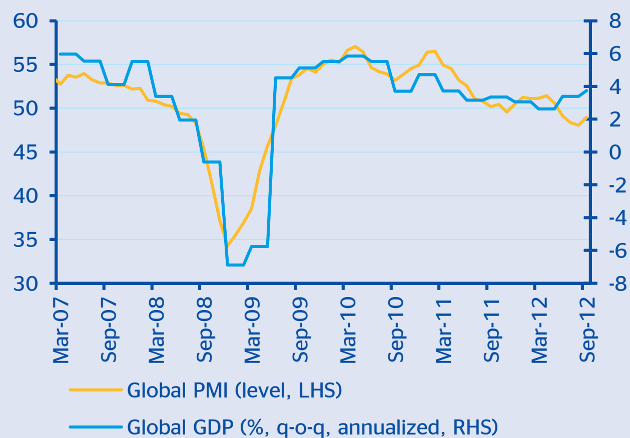
2012 started off poorly, with a slowdown in global economic activity and its prospects. However, recent data show signs of improvement. The question now is whether these improved economic prospects are sustainable, at least in the short term.

Empirically, **manufacturing sentiment measured by indicators such as the PMI[2] shows a close relationship to actual behaviour by economic activity** as measured by the industrial production index (IPI) or GDP growth. Indeed, dynamic correlations between the PMI and IPI or GDP growth are high, above 0.7 between global GDP and the PMI, (see Chart 5). Accordingly, the closer the relationship between the qualitative activity metric and actual performance, the greater the relevance of the qualitative indicator given the smaller time lag between its publication and the release of the benchmark. To illustrate, the October PMI is due out on 1 December, whereas the October IPI will not be available until the end of December.

At the same time, financial markets are showing less volatility, lower credit-risk spreads and less liquidity squeeze. The latest Financial Stress Indexes (FSI) for the US and the eurozone (updated using data available up to the last week of October) developed by BBVA[3], indicate lower stress than in prior periods, with levels beginning to moderate since the end of July. This was due to the response by central banks in both Europe and the US this summer to the situation in the eurozone[4].

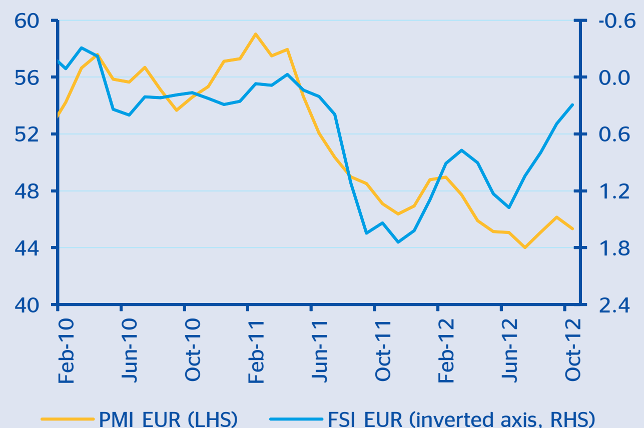
In recent times, financial market stress seems to have emerged as a key determinant of global economic scenarios, as it reflects the ease of access of economic agents to finance their expenditure and investment decisions. This has become extremely important since access to credit has increasingly become a significant constraint in many economies. Tensions must ease for real activity to improve. We can therefore reasonably expect some type of quantitative relationship to exist that reflects the co-movement between financial conditions and economic prospects[5] (Chart 6).

Chart 5
Dynamic correlations between the PMI and global GDP



Source: BBVA Research, Markit Economics and IMF

Chart 6
Eurozone: Financial stress (FSI) and business conditions (PMI)



Source: BBVA Research and Markit Economics

2: Purchasing Manager Index (PMI): an indicator produced by Markit Economics that measures a country's situation based on monthly responses to a survey by executives of leading manufacturing firms of that country (another in-house panel is used in the case of services). The index is weighted with data on new orders (30%), output (25%), employment (20%), suppliers' delivery times (15%) and stocks of purchases (10%). An index reading above 50 indicates expansion and below 50 contraction, whereas a level before 42 indicates recession.
3: The BBVA Research Financial Stress index (FSI) factors in credit risk (5-year sovereign CDS, non-financial CDS and financial CDS), volatility (equity, interest rate and exchange rate) and liquidity tension (interbank rate spread and the 3-month risk-free rate) measures. For more details, see: http://www.bbvaresearch.com/KETD/fbin/mult/111006_Observatorio_economico_escenarios_ec_tcm346-270914.pdf?ts=24102012.
4: "…the ECB is ready to do whatever it takes to preserve the euro" according to statements by M. Draghi on 26 July 2012.
5: The static correlation between the two series shows an inverse sign and high level (-0.71 in the eurozone and -0.64 in the US).

To gauge this, we assess whether there is a statistical relationship between the variable used to reflect financial stress (our FSI for the US and the eurozone) and the variable that indicates real activity (the PMIs for both economies). The causality test is from C. Granger (1969)6, who proposes the null hypothesis if the inclusion of a given variable and its lagged values improves the overall explanatory power of the other variable.

Once the PMI and FSI are stationary time series, to test the null hypothesis that FSI Granger-causes the PMI in each region, we compare the overall explanatory power (F-test) of the following regression (excluding the FSI):

$$PMI_t = \alpha_0 + \alpha_1 PMI_{t-1} + \alpha_2 PMI_{t-2} + \ldots + \alpha_m PMI_{t-m} + \varepsilon_t \qquad (1)$$

to the following equation (which includes the financial stress indicator):

$$PMI_t = \alpha_0 + \alpha_1 PMI_{t-1} + \alpha_2 PMI_{t-2} + \ldots + \alpha_m PMI_{t-m} + \beta_p ITF_{t-p} + \beta_q ITF_{t-q} + \varepsilon_t \qquad (2)$$

The null hypothesis that the FSI causes the PMI is accepted if and only if the lagged values of the FSI are statistically significant as a whole. In this case this "causality" refers only to the ability to statistically improve the forecast of the variable representing economic conditions with the variable indicating financial stress.

Table 1 **shows that in all cases except for the US, with a single lag, we can reject the null hypothesis that the FSI does not cause the PMI with an acceptable level of confidence.** The comparison shows that the FSI of each region Granger-causes the region's PMI, but not vice versa. **These results lead us to affirm that the recent improvements in financial stress indicators bode well for an improved outlook for economic conditions in the US and the eurozone.**

Table 1
U.S. and EMU: contrasting results of Granger. ITF and PMI

	Null: FSI does NOT cause PMI				Null: PMI does NOT cause FSI			
	Eurozone		US		Eurozone		US	
	F-Stats	Prob	F-Stats	Prob	F-Stats	Prob	F-Stats	Prob
Lag 1	2.5	0.12	0.5	0.47	0.2	0.63	0.0	0.97
Lag 2	2.9	0.06	5.8	0.00	1.9	0.16	1.3	0.27
Lag 3	2.2	0.10	3.5	0.02	1.9	0.13	1.6	0.20
Lag 4	1.8	0.14	3.6	0.01	2.1	0.09	0.7	0.61

■ Do not reject the null hypothesis ■ Null hypothesis is rejected
Source: BBVA Research

Lastly, we resolve the doubt surrounding the FSI's ability to predict real economic conditions using the same technique for each region given the high (inverse) correlation between the two series previously mentioned: -0.7 in the euro area and -0.6 in the US.

Table 2
U.S. and EMU: contrasting results of Granger. ITF and GDP

	Null: FSI does NOT cause GDP				Null: GDP does NOT cause FSI			
	Eurozone		US		Eurozone		US	
	F-Stats	Prob	F-Stats	Prob	F-Stats	Prob	F-Stats	Prob
Lag 1	10.0	0.00	4.9	0.03	1.42	0.24	0.1	0.80
Lag 2	5.1	0.01	4.1	0.02	0.22	0.80	1.0	0.39
Lag 3	3.6	0.02	2.9	0.04	1.40	0.25	3.8	0.01
Lag 4	3.7	0.01	0.9	0.46	1.02	0.40	2.6	0.04

■ Do not reject the null hypothesis ■ Null hypothesis is rejected
Source: BBVA Research

From the results, we can conclude that the BBVA Research Financial Stress Index (FSI) Granger-causes real economic conditions in the two areas, but not vice versa.

In summary, **financial market stress has not only become a key determinant of the global economic scenario, but also a leading economic indicator in the very short term.**

6: Granger, C. W. J. (1969). "Investigating Causal Relations by Econometric Models and Cross-spectral Methods". Econometrica 37 (3): 424-438

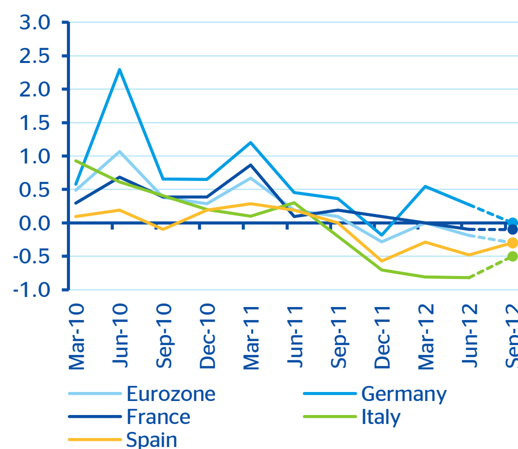
2. In quest of stability in the eurozone: "whatever it takes"

The eurozone slipped backed into recession, dragged mainly by the periphery

In the second quarter of 2012, the eurozone's economy shrank by 0.2%, q/q, following a virtual stagnation in the first quarter. Behind that weak performance lay the sluggish domestic demand, in particular investment (-0.8% q/q in Q2, following a decrease of 1.3% in Q1), while exports remained resilient (+1.2% q/q in Q2, up from 0.7% in Q1).

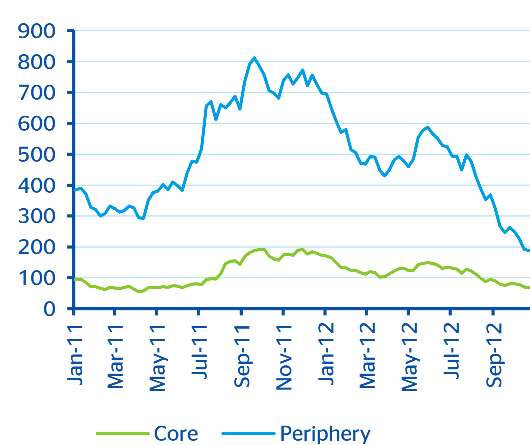
The weak growth momentum has spread throughout the area over the past few months. In the eurozone's periphery, GDP had been contracting for several quarters and the recession shows no sign of easing. The GDP has decreased by 0.6%, 0.8% and 0.4% each quarter (on average) over the last year in Italy, Portugal and Spain, respectively. Yet the rest of the eurozone has also been hit, although to a lesser extent. Germany's growth slowed to 0.3% q/q in Q2 (we expected a growth rate of 0% in Q3) on account of weakening exports, whereas France's GDP has virtually remained stagnate since the end of 2011. According to our estimates, **during the third quarter** the eurozone continued losing momentum (see Chart 7), and **its GDP is likely to have dropped further** (-0.3%), although **over the last two months some indicators have pointed to a bottoming-out,** in particular in central Europe.

Chart 7
Eurozone: GDP growth (% q/q)



Source: Eurostat, BBVA Research

Chart 8
BBVA financial stress index (core and periphery)



Source: BBVA Research, Bloomberg and Haver

After reaching new heights in Q2, financial tensions have eased thanks to policy intervention

With economic activity losing momentum and hitting core countries in the eurozone and increasing euro break-up fears and market and political pressure, **the eurozone policy makers have taken key steps to ease financial tensions** that reached their heights in the second quarter of 2012. On the one hand, the new permanent stability fund (the European Stability Mechanism, ESM) is fully operative, once all political hurdles were cleared, in particular, after it was granted support from the German Constitutional Court. The ESM will deal with possible bailouts any country may require.

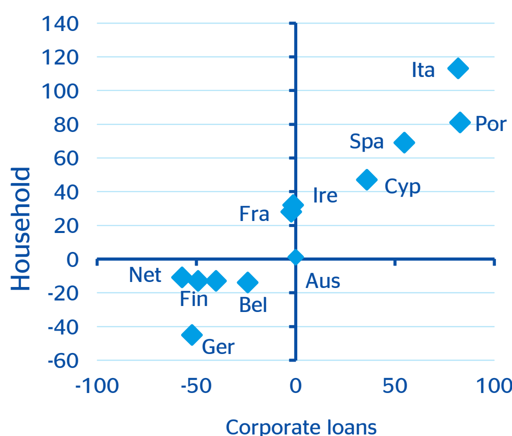
On the other hand, at its June and October summits, **the Eurogroup decided to take steps towards banking union.** At first, the European leaders agreed on direct banking recapitalization from the ESM which, in turn, would have broken the sovereign-banking feedback loop affecting

those countries with weak financial sectors, in particular, Ireland and Spain. However, some countries have recently raised doubts about its implementation. At their meetings, the eurozone leaders agreed that direct recapitalization from the ESM will take place when the new single banking supervision mechanism is fully implemented. An implementation schedule is to be set by January, so that the new supervision body will be operative by the end of 2013.

There are other issues that will have to be addressed in coming months: the roadmap to the banking union, the integrated budgetary framework (fiscal union) and the integrated economic-policy framework (i.e., economic union). Support for the banking union in Europe is clear, but there is still a lively ongoing debate on the extent and pace of integration. Of the four areas of potential further integration (joint supervision, common regulation, a common body for banking resolution and a pan-European deposit-guarantee scheme), **discussions about the new banking supervision mechanism are well advanced.** It has already been decided that the ECB will play a key role in supervision, although a consensus on how to dovetail its central position with the role of national supervisors has not been agreed. Other issues are still open, such as the representation and voting power of non-eurozone countries, the accountability of the ECB to European institutions as part of the supervision mechanism, and the final status of the European Banking Authority. Agreements on resolution and a common deposit-guarantee scheme have not been reached and discussions clearly lie ahead.

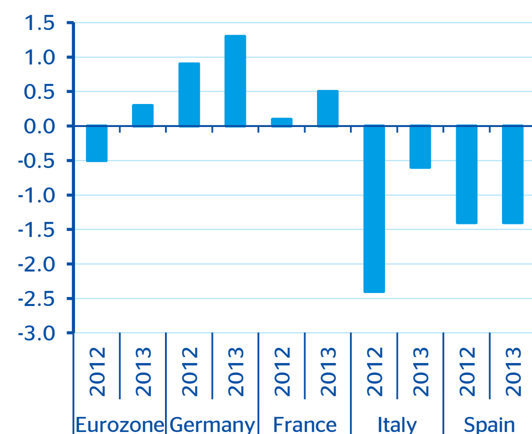
On the fiscal front, European leaders supported the reinforcement of the fiscal union but continue wrangling over how to achieve it. In particular, there is no agreement about two key issues: debt mutualisation (common eurobills or a debt redemption fund), which is strongly opposed by Germany, and the reinforcement of the European Commission's powers so it is able to control national budgets effectively, an idea strongly backed by Germany (and by the ECB), but which could be opposed by other countries, especially France. **The process lags behind expectations, and it is clear that in recent months advances in integration have been mostly focused on the banking side.**

Chart 9
Change in interest rates on new bank loans (basis points, December 2010 - July 212)



Source: BBVA Research, ECB and IMF

Chart 10
Eurozone: GDP forecast (%)



Source: BBVA Research

The ECB has stepped in with a new bond-purchase programme (OMT) to dispel euro break-up fears

Among all measures that have been taken over the last three months, the implementation of the OMT programme by the ECB is full of potential to make a real difference. The ECB will intervene in debt markets to buy unlimited quantities of sovereign bonds of those countries that seek financial aid from the ESM (see our September ECB Watch for further details and section 1 of this report for our assessment). That is the ECB's response to euro break-up fears and fragmentation

in the eurozone financial market (see chart 8). Signs of that fragmentation had emerged before concerns about the eurozone configuration increased. That fragmentation leads, for example, to widening sovereign-bond spreads, increasing debtor/creditor positions in the eurozone's TARGET system and uneven rates on household and firm lending across the eurozone (see chart 9).

All the measures that have been implemented (and most crucially, this OMT programme) have helped ease tensions in the eurozone (see chart 8). However, this new programme has several implementation risks and therefore not all uncertainties have been dispelled. For example, it is not clear what would happen if a country whose bonds are being purchased by the ECB failed to comply with the attached conditionality. The ECB president has said that the central bank would stop its purchases, but that would probably trigger fresh doubts over the reversibility of the euro. This is a key factor, since some countries in the eurozone's periphery are not likely to comply with their current fiscal targets, in an environment of further economic weakness. That is the case for Spain. The Spanish government is committed to a deficit reduction of 1.8 pp in 2012 and 1.3 pp in 2013 (excluding banking aid). Our scenario envisages that despite the huge effort, unless new fiscal measures are taken, Spain will miss these targets. Furthermore, if new fiscal-consolidation plans are implemented in the periphery, recession may deepen and, if fiscal multipliers were larger than expected, fiscal targets may be even more difficult to meet.

Europe faces a sluggish recovery ahead with downward risks

The ECB move may have a key role in putting an end to the cycle of downward revisions to GDP growth in the eurozone. In fact, **we maintain our forecast for the whole area in 2013** in spite of the downward revision for 2012. In 2012, the eurozone's economy will shrink by 0.5% but will gain momentum in 2013 when the GDP will expand slightly (by 0.3%). Nonetheless, growth in Europe will be heterogeneous (see Chart 10). The periphery will remain in recession; Italy's and Spain's GDP will decrease by 0.6% and 1.4% in 2013, respectively, whereas some core countries will see low growth. All in all, the whole area will benefit from more supportive financial conditions, thanks to loose monetary policy and lower risk premia. Additionally, the current fiscal targets for peripheral countries could be eased to avoid an additional deterioration in growth. However, **risks are tilted to the downside considering the implementation risks of the OMT, further fiscal-consolidation plans that may be implemented (or frontloaded), or aggravation of the situation in Greece, with potential contagion effects to the rest of the area.**

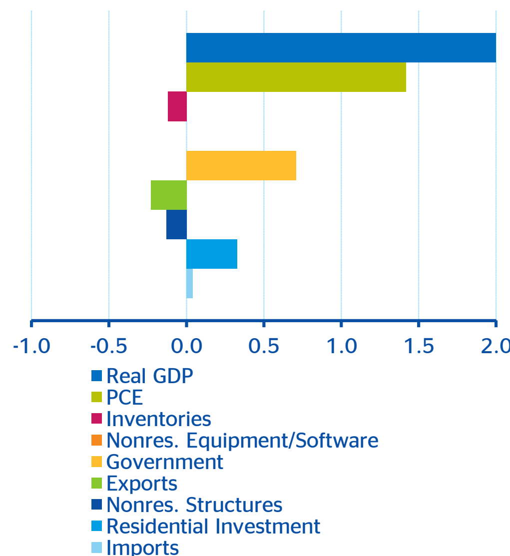
3. The Fed will act "as long as needed" to promote a stronger recovery

The US economy is facing downside risks such as fiscal inaction and uncertainty about the situation in Europe

The US economy continues on the road to recovery, yet still fragile due to risk factors that may derail it. The first estimate of GDP growth in 3Q12 was 2%, on an annualised quarterly basis (Chart 11), higher than in the previous quarter and above the consensus expectation. Nevertheless, such growth rates appear to be insufficient to prompt significant decreases in the unemployment rate. The principal contributors to GDP growth in 3Q12 were private consumption and public spending. Hence, the largest upside surprise was public spending (up 3.7% for the first time in more than two years), driven by an increase in public employment in the third quarter[7] and by a substantial increase in defence spending.

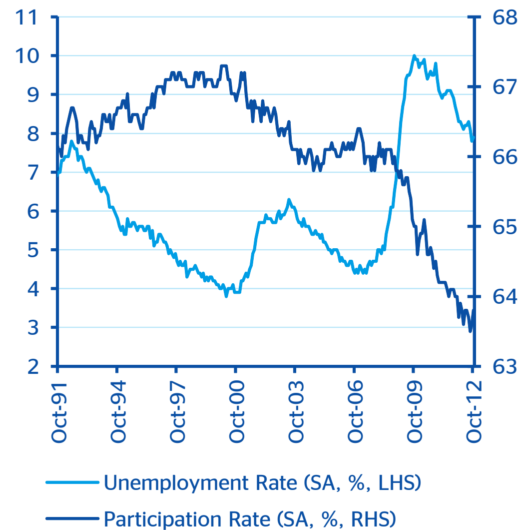
In any event, **the labour market continues to be the primary focus, since it is the main determinant of household income and, therefore, of household consumption and investment decisions.** In Q3, consumption increased by 2% (up 0.5pp from the previous quarter) and reflected greater confidence in the economic recovery, in spite of a weak labour market (although the unemployment rate fell to 7.9% in October). Thus, the fact that the unemployment rate continues to fall even in a climate of sluggish economic growth constitutes troubling evidence that **sections of the working-age population are withdrawing from the labour market** (see Chart 12).

Chart 11
US: Contributions to 3Q12 growth, pp (seasonally adjusted, q-o-q annualized)



Source: Bureau of Economic Analysis and BBVA Research

Chart 12
US: Labour market: Rates of Unemployment and of Labour Participation



Source: Bureau of Labor Statistics and Haver Analytics

7: Registered employment growth in September totalled 148,000 jobs (BLS), the majority of which occurred in the public sector in general, and in healthcare, transport or storage.

The positive surprise in Q3 figures was residential investment. It grew by 14.4% iin a better environment in terms of sales and new construction. New home sales have reached levels not seen since 2010. Thus, with the Fed's commitment to maintain interest rates low for the coming years, we expect housing demand to continue to gradually grow. A recovery in the U.S. housing market is key to eventually boosting economic growth[8], so those recent signs of financial system improvements and housing market's stability, may be showing traces of a crisis' exit as historically observed.

However, the recent weakness in business demand and in manufacturing shows that **US companies remain cautious about increasing the pace of investment and hiring.** This is the result of a slowdown in exports caused by weakening emerging markets and the European recession. But it is also due to growing uncertainty caused by the automatic fiscal adjustments (the "fiscal cliff") that may come into force at the start of 2013 if no measures are taken to reduce the public deficit, which requires an agreement between Republicans and Democrats.

It is not clear whether the November elections will significantly dispel uncertainty about economic policies in the US

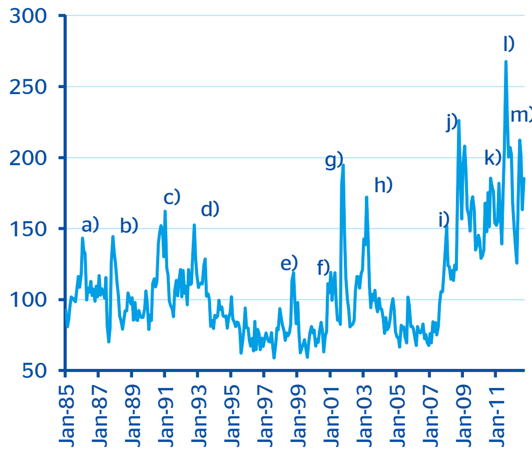
A clear victory by either of the parties seems unlikely, according to the most recent polls. Regardless of who wins the presidency, both legislative houses will probably lack majorities of the same party, thus maintaining a situation of political polarisation that will hinder any agreements[9]. Such agreements would relate not only to fiscal consolidation, (i.e., what taxes will be increased and what spending cutbacks will be made), but also to other issues, such as sector regulation. This generates uncertainty about the future economic policy (see Chart 13), and it may also have an impact on spending and investment decisions.

At any rate, **our growth forecasts for 2012 and 2013 remain unchanged: 2.1% in 2012 and 1.8% in 2013.** The aforesaid uncertainties will be offset by the Fed, since it will maintain a more accommodative economic policy for as long as needed[10]. In our opinion, by undertaking a further round of quantitative easing, the Fed is assuring the support of monetary policy in mitigating the aforementioned risks which are reflected in the weakness of the labour market.

Finally, with regard to inflation, **Consumer Price Index (CPI) growth trended downward throughout the second quarter, with an uptick in August and September owing to energy prices.** Worries about the long-term impact of the drought in the Midwest on food prices are increasing. However, no significant impacts are yet visible, as food inflation since last December has fallen from 4.6% to 1.6%. Moreover, **inflation expectations remain well anchored** in spite of recent spikes in some commodity prices and, above all, the more accommodative policy of the Fed. In fact, the Fed seems willing to tolerate temporarily inflation above the target until activity is more robust (see Chart 14). Ultimately, **a possible risk scenario would combine a still-weak cyclical environment, such as the one at present, and a revival of an inflationary outlook that would pose a dilemma for the implementation of the Fed's monetary policy.**

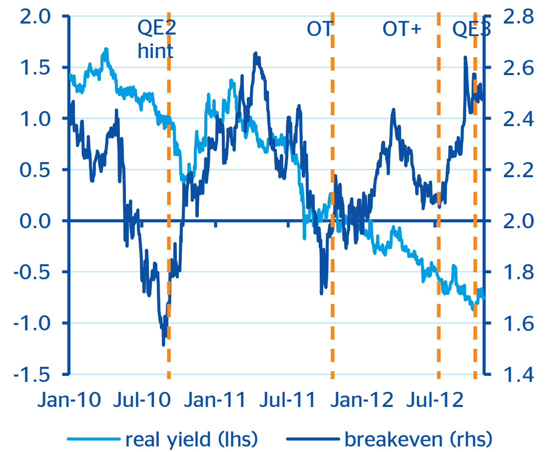
8: IMF's annual assessment of the U.S. economy (August, 2012)
9: Baker, Scott, Nicholas Bloom and Steven Davis (2012), "Measuring Economic Policy Uncertainty", Stanford mimeo.
10: See Box 2: "The Fed provides insurance that dispels uncertainties about growth"

Chart 13
US: Index of economic policy uncertainty



a) Balanced Budget Act, b) Black Monday, c) 1st Gulf War, d) Clinton Election, e) Russian Crisis, f) Bush Election, g) 9/11, h) 2nd Gulf War, i) Large interest rate cuts, Stimulus, j) Lehman, TARP, k) Banking Crisis, Obama election, l) Debt Ceiling Dispute, Euro Debt, m) Fiscal "cliff"
Source: Economic Policy Uncertainty at 31 October 2012

Chart 14
US: Inflation outlook



Source: Bloomberg and BBVA Research

Box 2: The Fed provides an insurance policy dispelling uncertainties over growth

In response to the difficult economic situation, the Fed decided to take concrete actions "for as long needed" in order to avoid a further cyclical downturn, in particular in the labour market. First, the Fed indicated that it intends to extend the period during which it will maintain interest rates at current levels. Second, it delineated a fourth boost to its quantitative easing policy (QE3). The Fed is thus acting as if it was acquiring an insurance policy consisting of monetary support, allowing it to dispel doubts regarding the strength of growth, in light of the uncertainty generated by: i) the weak recovery following the 2009 recession, ii) the possibility that a failure to reach an agreement in Congress will trigger an automatic revenue and spending adjustment equivalent to 4% of GDP (what is known as the "fiscal cliff") and iii) the fear of contagion in the event that a risk scenario is triggered in Europe.

Regarding its policy, **in mid-September the Fed explicitly stated its intention to maintain interest rates their current minimum levels at least until mid-2015** if called for by the economic situation. In this manner, it extended the term of its interest-rate target policy by one year.

In the same statement, the Fed also said that it intends to carry out a new round of quantitative expansion—possibility hinted at its July meeting. **QE3, just as previous quantitative monetary expansion programmes, seeks to bring down long-term interest rates through the purchase of assets, in this case on the mortgage market.** These purchases make it possible to maintain favourable financing conditions in the housing market and increase investors' appetite for riskier assets. Unlike previous programmes, the current one does not have a specific timeframe, but rather will be applied "for as long needed" for it to be successful. Its purpose is to boost economic activity and employment through the effects of its measures on the balance sheets of companies and households, on their borrowing cost and on their own economic expectations.

The magnitude of QE3 can be calculated based on the assumption that its effects will remain as long as the rate policy, hence QE3 should entail an injection of somewhat less than USD 1.5 trillion spread out over the coming 11 quarters. This figure is much higher than Q2, but lower than the QE1 USD 2.1 trillion. In addition, if we take into account the fact that the Fed expects to apply QE3 for a year longer than QE1, the quarterly average liquidity injection is 40% compared to QE1 (USD 120 billion per quarter compared with USD 300 billion under QE1).

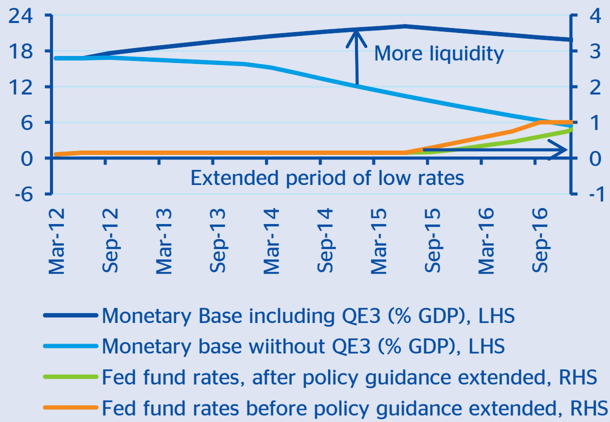
It is useful to estimate the impact that the change in Fed's policy will have on growth, unemployment and inflation in the US. To do so, we use the quantitative tool created by the Oxford Economic Forecasting (OEF model). The determination of this impact results from comparing a scenario (see chart 15) in which interest rates are left in place and at the same time changes in the monetary base are contingent on the quantitative expansion indicated by the Fed, compared with a scenario with no such condition—that is, one in which the model, depending on its structure, points to the most likely direction of the variables.

As shown in chart 16, the OEF model estimates a significant impact, although one that increases in particular starting in 2014, despite the fact that growth in fact begins in late 2012. Taking 2016 as a horizon, we should stress that **the impact predicted by the model in terms of economic activity would be a cumulative 3.2 pp, while the unemployment rate would decrease by 2.6 pp from an average of about 8.0% in 2012.**

The growing dynamic of impacts pointed by the OEF model may be explained by the accumulation of liquidity brought about by the programme, compared with short-term interest rates that remain at very low levels—a situation that magnifies the encouragement for investment and therefore spurs the labour market although, in the latter case, with somewhat of a delay.

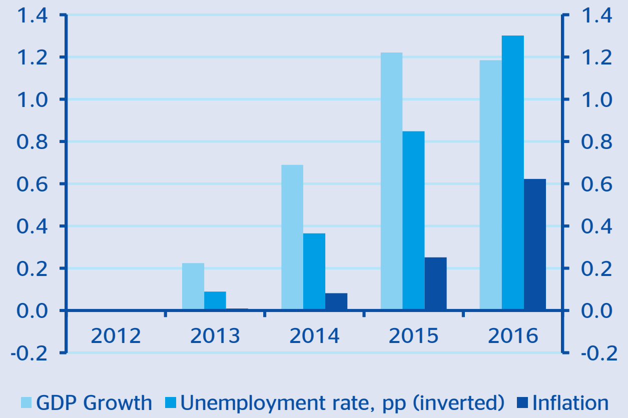
In addition, despite the massive liquidity injection that the QE3 programme entails, **the cumulative impact on inflation may be less than 1.0 pp over the next four years.** This boost to inflation—a priori limited—is consistent with the fact that the interest rate scenario does not change until the end of the period, between 2014 and 2015, and the increase in liquidity recorded since 2009 has not translated into an upturn in actual or expected inflation. This holds all the more true if the current assumed quantitative expansion is an average of previous posted rates of expansion. In any event, regarding the situation going forward, it should be considered that the factors of production have also less manoeuvring room to respond to higher demand.

Chart 15
QE3 and the extension of the target interest rate policy (% GDP)



Source: BBVA Research

Chart 16
Estimated impact of QE3 and the extension of the target interest rate policy



Source: BBVA Research

Box 3. The impact of QE in emerging markets: when economic success results in challenges for policy makers

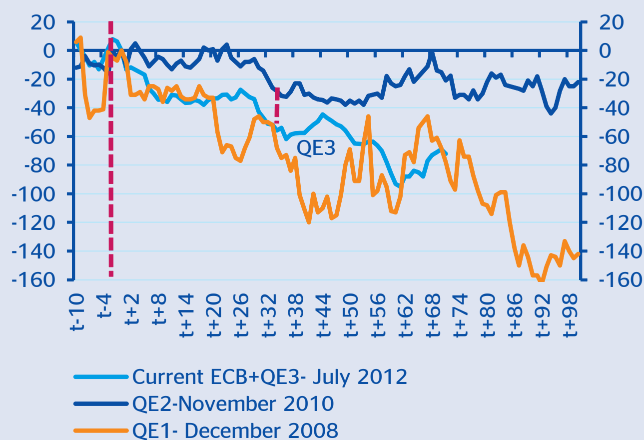
As discussed in box 2, against a backdrop of uncertainty, the Fed took action again by providing further stimulus in the US economy. In particular, the Fed embarked on a new round of quantitative easing (QE3) and extended its policy guidance on interest rates over a longer period. By maintaining a loose monetary policy "as long as needed", the Fed intends to improve the employment outlook.

These liquidity-support policies came on top of the ECB's move announced on July 26th to do "whatever it takes" to preserve the euro, (as Mario Draghi pointed out in order to eliminate the risk of convertibility in the eurozone) and generate an environment of more liquidity and less risk.

All in all, **both central banks are supplying (or committing themselves to) higher liquidity to their financial markets**. However, as had happened in previous periods of monetary loosening, their impact went beyond the US and the eurozone, and reached especially the emerging economies (EM) during these last 3 months. On average, risk premiums have decreased by 70 bp (see chart 15), although the movement has been uneven across areas. A comparison with QE1 and QE2 shows that the current episode of central banks loosening policies has triggered a reduction in risk premium. This is consistent with higher capital flows to EM surpassing the impact of QE2.

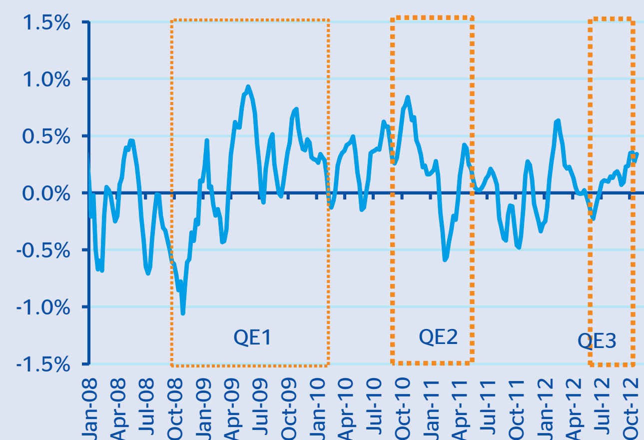
Strong capital inflows have generally resulted in pressures on exchange rates. However, not all countries have allowed its currencies appreciate. In fact, the policy response to an increase in flows is a key factor to estimate the effect of the new financial environment (after QE3 and ECB's move) in the emerging economies.

Chart 17
EM Risk Premium (global EMBI bp) during quantitative esaing (cumulative decrease)



Source: BBVA Research and Haver

Chart 18
Change in the share of EM assets (% total assets - 4 week moving average)



Source: BBVA Research and EPFR

In order to estimate the QE3 impact on an average emerging economy, we use the GPM[11] model. As far as the Fed's policy is concerned, in this simulation we take the same assumptions as those mentioned in box 2 (i.e., fixed interest rates at their current levels until mid-2015 and a quantitative expansion as proposed by the Fed). Moreover, we assume a permanent reduction in EM risk premiums (40 bp) versus a non QE scenario (baseline).

11: GPM is a model developed for different countries or economic areas by the IMF. It is based on new Keynesian economic theory, assuming that price rigidities stops from the full use of resources. The model considered in this exercise of QE impacts is the model calibrated for Mexico, an emerging and small economy (in the sense that it is a price-taker economy, not big enough to affect global variables), very open to the external sector through trade and financial channels.

It is important to mention a caveat. **EM policy makers can influence the magnitude and timing of the effects of QE on inflation and production** by modifying interest and exchange rates. Although the increase in global demand resulting from QE will have positive effects in the EM (by increasing the demand for their products), the decrease in risk premiums may boost foreign capital inflows and appreciate the EM currencies (partly offsetting the boost in exports). Policy makers in these countries may be tempted to prevent currency appreciation by using monetary policy. However, that action would decrease domestic demand.

The EM policy makers will face the classical dilemma of managing strong capital inflows, thus evidencing that "managing success" could also be challenging.

Policy makers have several possibilities to tackle this external shock, but we focus on the extreme cases:

- **Flexibility scenario:** The central bank would respond by increasing interest rates due to higher growth and inflation expectations on account of higher external demand (trade channel) and lower risk premium (risk premium channel). Increasing rates would boost further capital inflows and would lead to additional currency appreciation.
- **Activism scenario:** to avoid the negative consequences of an excessive currency appreciation, domestic interest rates would not be raised. Furthermore, interventions in exchange-rates markets could happen and restrictions on capital movement could be imposed.

The main results of our simulations can be observed in the graphs below, which include different results taking into account the alternative monetary-policy response to increasing trade and capital inflows and decreasing risk premium. These are the following:

- **Under the flexibility scenario, both GDP and inflation grow.** Note that the increase in output and inflation during the first year (2013) is lower than the estimated effect if a risk premium channel effect was not allowed. This is the consequence on output and inflation caused by real exchange-rate appreciation. However, in the mid-term, decreasing risk premium may allow a reduction in interest rates and boost activity offsetting the short-term effects of a currency appreciation. However, **this strategy may not be appropriate in countries where overvalued exchange rates and/or external sustainability are already a problem.**
- **Under the activism scenario, the QE would have** larger effects on output and inflation in 2013 and 2014. However, this strategy entails a trade-off. On the one hand, it may succeed in avoiding excessive exchange-rate appreciation; on the other, loosening monetary policy may result in an excessive activity growth and much higher inflation (and perhaps excessive credit growth). Therefore, in those **EM showing signs of overheating (excessive GDP and credit growth and high levels of inflation), this response to QE would not be appropriate.**

Activism scenario could finally require a significant tightening in official interest rates. This is because inflation link will also be influenced by economic conditions. In this sense, output and money velocity are also key to influence the final link between money and inflation. We can distinguish between economies with both negative output gaps and decreasing velocity gaps, and economies with closing or positive gaps with higher pressures from money velocity. This explains a higher relationship between money and inflation among the EM, and that is why their central banks should be alert to prevent money to feed inflation.

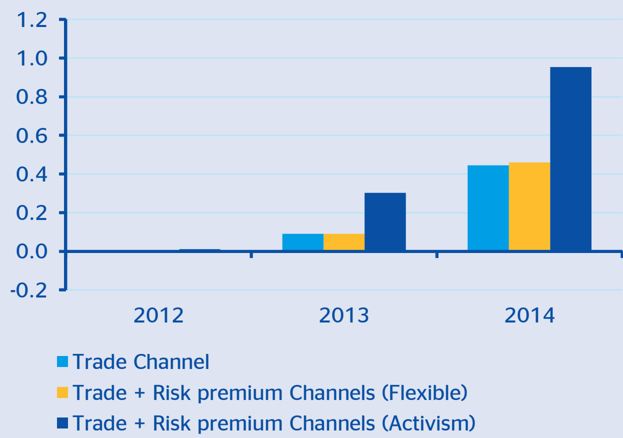
An additional worry about monetary-expansionary effects in EM relates to the fact that global excess liquidity can create bubbles. We think this is a latent risk, since the situation in EM is quite different from the one that developed economies underwent in the years leading up to the 2007-08 crisis. In fact, those countries in Asia and Latin America which suffered the late 90s crisis have remained isolated from effects of the boom period. Furthermore, these countries were undergoing deleveraging processes for extended periods of time, and therefore it is difficult to find imbalances, as those observed in the developed countries before 2007-08.

Average emerging economy response to an increase in liquidity and decrease in global risk

Chart 19
Response of GDP (pp)

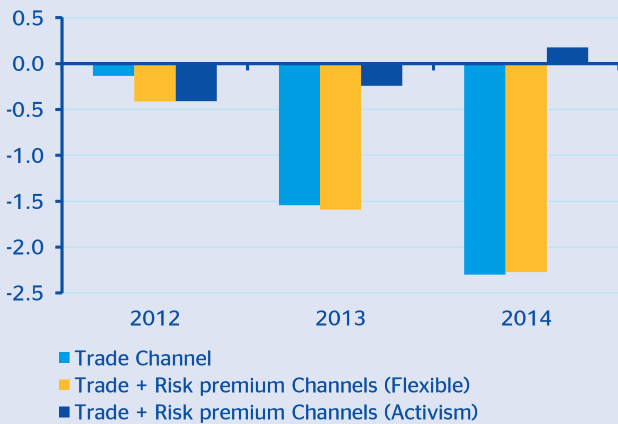
Source: BBVA Research

Chart 20
Response to inflation (pp)



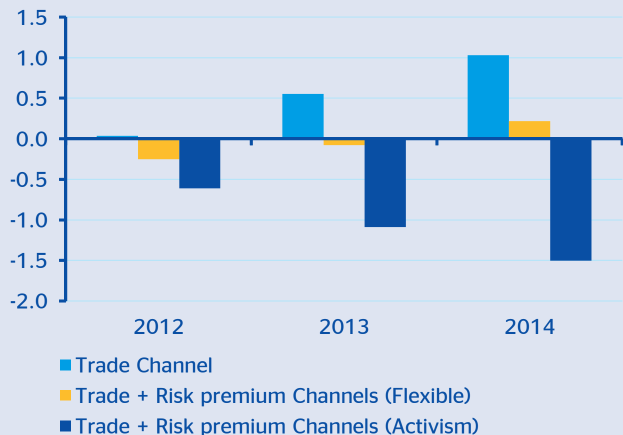
Source: BBVA Research

Chart 21
Response of real exchange rates (%)



Source: BBVA Research

Chart 22
Response of interest rates (pp)



Source: BBVA Research

4. Tables

Table 3

Macroeconomic Forecasts: Gross Domestic Product

(YoY growth rate)	2009	2010	2011	2012	2013
United States	-3.1	2.4	1.8	2.1	1.8
Eurozone	-4.3	1.9	1.5	-0.5	0.3
Germany	-5.1	4.0	3.1	0.9	1.3
France	-3.1	1.6	1.7	0.1	0.5
Italy	-5.5	1.8	0.5	-2.4	-0.6
Spain	-3.7	-0.3	0.4	-1.4	-1.4
UK	-4.0	1.8	0.9	-0.1	1.3
Latin America *	-2.2	6.2	4.3	3.0	3.7
Mexico	-6.1	5.4	3.9	3.7	3.0
Brazil	-0.3	7.6	2.7	1.6	4.2
EAGLES **	4.0	8.4	6.7	5.2	5.8
Turkey	-4.9	9.2	8.5	3.0	4.5
Asia Pacific	4.1	8.2	5.8	5.2	5.5
China	9.2	10.4	9.2	7.6	7.9
Asia (exc. China)	0.8	6.7	3.5	3.7	3.9
World	-0.6	5.1	3.9	3.2	3.5

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
** Brazil, China, India, Indonesia, Korea, Mexico, Russia, Taiwan, Turkey
Forecast closing date: November 2, 2012
Source: BBVA Research

Table 4

Macroeconomic Forecasts: Inflation (Avg.)

(YoY growth rate)	2009	2010	2011	2012	2013
United States	-0.4	1.6	3.1	2.0	2.1
Eurozone	0.3	1.6	2.7	2.5	1.8
Germany	0.2	1.2	2.5	2.1	1.8
France	0.1	1.7	2.3	2.3	1.7
Italy	0.8	1.6	2.9	3.4	2.3
Spain	-0.3	1.8	3.2	2.5	2.3
UK	2.2	3.3	4.5	2.7	2.1
Latin America *	6.4	6.4	8.1	7.6	8.1
Mexico	5.3	4.2	3.4	4.2	3.9
Brazil	4.9	5.0	6.6	5.3	5.3
EAGLES **	2.8	5.3	6.0	4.4	4.5
Turkey	6.3	8.6	6.5	8.9	5.5
Asia Pacific	0.3	3.6	4.7	3.3	3.4
China	-0.8	3.3	5.4	3.0	3.6
Asia (exc. China)	1.0	3.7	4.3	3.4	3.3
World	2.2	3.8	5.2	4.2	4.0

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
** Brazil, China, India, Indonesia, Korea, Mexico, Russia, Taiwan, Turkey
Forecast closing date: November 2, 2012
Source: BBVA Research

Table 5

Macroeconomic Forecasts: Current Account (% GDP)

	2009	2010	2011	2012	2013
United States	-2.7	-3.1	-3.1	-3.0	-3.3
Eurozone	0.2	0.4	0.4	1.2	1.2
Germany	5.9	6.1	5.8	5.6	5.0
France	-1.5	-1.7	-2.2	-1.8	-1.7
Italy	-2.0	-3.5	-3.2	-1.4	-1.4
Spain	-4.8	-4.5	-3.5	-1.4	-0.5
UK	-1.6	-3.9	-2.2	-3.6	-2.9
Latin America *	-0.3	-0.7	-0.9	-1.4	-1.6
Mexico	-0.6	-0.4	-1.0	-1.0	-1.4
Brazil	-1.5	-2.2	-2.1	-2.3	-3.1
EAGLES **	2.6	1.5	0.8	0.7	0.6
Turkey	-2.3	-6.4	-10.0	-7.0	-7.1
Asia Pacific	3.5	3.3	1.8	1.4	1.6
China	5.2	4.0	2.8	2.5	2.8
Asia (exc. China)	2.3	2.0	1.1	0.7	0.8

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
** Brazil, China, India, Indonesia, Korea, Mexico, Russia, Taiwan, Turkey
Forecast closing date: November 2, 2012
Source: BBVA Research

Table 6

Macroeconomic Forecasts: Government Deficit (% GDP)

	2009	2010	2011	2012	2013
United States	-9.9	-8.9	-8.7	-7.7	-5.0
Eurozone	-6.3	-6.2	-4.1	-3.2	-2.5
Germany	-3.1	-4.1	-0.8	-0.4	-0.4
France	-7.6	-7.1	-5.2	-4.6	-3.3
Italy	-5.4	-4.3	-3.8	-2.6	-1.9
Spain *	-11.2	-9.7	-9.4	-7.2	-5.9
UK	-5.6	-10.2	-7.8	-7.9	-6.1
Latin America **	-2.9	-2.4	-2.3	-2.3	-1.9
Mexico	-2.6	-3.4	-2.7	-2.6	-2.3
Brazil	-3.3	-2.5	-2.6	-1.9	-1.5
EAGLES ***	-3.8	-2.5	-1.9	-2.2	-2.0
Turkey	-5.5	-3.6	-1.4	-2.0	-1.6
Asia Pacific	-4.8	-3.6	-3.7	-3.8	-3.5
China	-2.8	-2.5	-1.1	-1.8	-1.8
Asia (exc. China)	-6.1	-4.5	-5.5	-5.2	-4.6

* Excluding aid to financial sector
** Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
*** Brazil, China, India, Indonesia, Korea, Mexico, Russia, Taiwan, Turkey
Forecast closing date: November 2, 2012
Source: BBVA Research

Table 7

Macroeconomic Forecasts: 10-year Interest Rates (Avg.)

	2009	2010	2011	2012	2013
United States	3.2	3.2	2.8	1.8	2.1
Eurozone	3.3	2.8	2.6	1.6	2.1

Forecast closing date: November 2, 2012
Source: BBVA Research

Table 8

Macroeconomic Forecasts: Exchange Rates (Avg.)

US Dollar per national currency	2009	2010	2011	2012	2013
United States (EUR per USD)	0.72	0.76	0.72	0.78	0.77
Eurozone	1.39	1.33	1.39	1.28	1.30
UK	1.56	1.55	1.60	1.59	1.66
China (RMB per USD)	6.83	6.77	6.46	6.32	6.26

Forecast closing date: November 2, 2012
Source: BBVA Research

Table 9

Macroeconomic Forecasts: Official Interest Rates (End period)

	2009	2010	2011	2012	2013
United States	0.25	0.25	0.25	0.25	0.25
Eurozone	1.00	1.00	1.00	0.75	0.75
China	5.31	5.81	6.56	5.75	5.75

Forecast closing date: November 2, 2012
Source: BBVA Research

DISCLAIMER

This document and the information, opinions, estimates and recommendations expressed herein, have been prepared by Banco Bilbao Vizcaya Argentaria, S.A. (hereinafter called “BBVA”) to provide its customers with general information regarding the date of issue of the report and are subject to changes without prior notice. BBVA is not liable for giving notice of such changes or for updating the contents hereof.

This document and its contents do not constitute an offer, invitation or solicitation to purchase or subscribe to any securities or other instruments, or to undertake or divest investments. Neither shall this document nor its contents form the basis of any contract, commitment or decision of any kind.

Investors who have access to this document should be aware that the securities, instruments or investments to which it refers may not be appropriate for them due to their specific investment goals, financial positions or risk profiles, as these have not been taken into account to prepare this report. Therefore, investors should make their own investment decisions considering the said circumstances and obtaining such specialized advice as may be necessary. The contents of this document is based upon information available to the public that has been obtained from sources considered to be reliable. However, such information has not been independently verified by BBVA and therefore no warranty, either express or implicit, is given regarding its accuracy, integrity or correctness. BBVA accepts no liability of any type for any direct or indirect losses arising from the use of the document or its contents. Investors should note that the past performance of securities or instruments or the historical results of investments do not guarantee future performance.

The market prices of securities or instruments or the results of investments could fluctuate against the interests of investors. Investors should be aware that they could even face a loss of their investment. Transactions in futures, options and securities or high-yield securities can involve high risks and are not appropriate for every investor. Indeed, in the case of some investments, the potential losses may exceed the amount of initial investment and, in such circumstances, investors may be required to pay more money to support those losses. Thus, before undertaking any transaction with these instruments, investors should be aware of their operation, as well as the rights, liabilities and risks implied by the same and the underlying stocks. Investors should also be aware that secondary markets for the said instruments may be limited or even not exist.

BBVA or any of its affiliates, as well as their respective executives and employees, may have a position in any of the securities or instruments referred to, directly or indirectly, in this document, or in any other related thereto; they may trade for their own account or for third-party account in those securities, provide consulting or other services to the issuer of the aforementioned securities or instruments or to companies related thereto or to their shareholders, executives or employees, or may have interests or perform transactions in those securities or instruments or related investments before or after the publication of this report, to the extent permitted by the applicable law.

BBVA or any of its affiliates´ salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to its clients that reflect opinions that are contrary to the opinions expressed herein. Furthermore, BBVA or any of its affiliates’ proprietary trading and investing businesses may make investment decisions that are inconsistent with the recommendations expressed herein. No part of this document may be (i) copied, photocopied or duplicated by any other form or means (ii) redistributed or (iii) quoted, without the prior written consent of BBVA. No part of this report may be copied, conveyed, distributed or furnished to any person or entity in any country (or persons or entities in the same) in which its distribution is prohibited by law. Failure to comply with these restrictions may breach the laws of the relevant jurisdiction.

In the United Kingdom, this document is directed only at persons who (i) have professional experience in matters relating to investments falling within article 19(5) of the financial services and markets act 2000 (financial promotion) order 2005 (as amended, the “financial promotion order”), (ii) are persons falling within article 49(2) (a) to (d) (“high net worth companies, unincorporated associations, etc.”) Of the financial promotion order, or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the financial services and markets act 2000) may otherwise lawfully be communicated (all such persons together being referred to as “relevant persons”). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.The remuneration system concerning the analyst/s author/s of this report is based on multiple criteria, including the revenues obtained by BBVA and, indirectly, the results of BBVA Group in the fiscal year, which, in turn, include the results generated by the investment banking business; nevertheless, they do not receive any remuneration based on revenues from any specific transaction in investment banking.

BBVA is not a member of the FINRA and is not subject to the rules of disclosure affecting such members.

“BBVA is subject to the BBVA Group Code of Conduct for Security Market Operations which, among other regulations, includes rules to prevent and avoid conflicts of interests with the ratings given, including information barriers. The BBVA Group Code of Conduct for Security Market Operations is available for reference at the following web site: www.bbva.com / Corporate Governance”.

BBVA is a bank supervised by the Bank of Spain and by Spain’s Stock Exchange Commission (CNMV), registered with the Bank of Spain with number 0182.

This report has been produced by the Economic Scenarios Unit:

Chief Econmist for Economic Scenarios
Julián Cubero
juan.cubero@bbva.com

Rodrigo Falbo
rodrigo.falbo@bbva.com

Jaime Martínez Martín
j.martinez.martin@bbva.com

Jorge Rodríguez Vález
jorge.rv@bbva.com

With contribution:

Cross-Country Emerging Markets Analysis
Álvaro Ortiz Vidal-Abarca
alvaro.ortiz@bbva.com

Alberto González de Aledo
alberto.gonzalezdealedo@bbva.com

BBVA Research

Group Chief Economist
Jorge Sicilia

Emerging Markets:
Alicia García-Herrero
alicia.garcia-herrero@bbva.com.hk

Cross-Country Emerging Markets Analysis
Álvaro Ortiz Vidal-Abarca
alvaro.ortiz@bbva.com

Asia
Stephen Schwartz
stephen.schwartz@bbva.com.hk

Latam Coordination
Juan Ruiz
juan.ruiz@bbva.com

Argentina
Gloria Sorensen
gsorensen@bbva.com

Chile
Alejandro Puente
apuente@bbva.com

Colombia
Juana Téllez
juana.tellez@bbva.com

Peru
Hugo Perea
hperea@grupobbva.com.pe

Venezuela
Oswaldo López
oswaldo_lopez@provincial.com

Mexico
Adolfo Albo
a.albo@bbva.bancomer.com

Macroeconomic Analysis Mexico

Developed Economies:
Rafael Doménech
r.domenech@bbva.com

Spain
Miguel Cardoso
miguel.cardoso@bbva.com

Europe
Miguel Jiménez
mjimenezg@bbva.com

United States
Nathaniel Karp
nathaniel.karp@bbvacompass.com

Financial Systems & Regulation:
Santiago Fernández de Lis
sfernandezdelis@bbva.com

Financial Systems
Ana Rubio
arubiog@bbva.com

Pensions
David Tuesta
david.tuesta@bbva.com

Regulation and Public Policy
María Abascal
maria.abascal@bbva.com

Global Areas:

Economic Scenarios
Julián Cubero
juan.cubero@bbva.com

Financial Scenarios
Sonsoles Castillo
s.castillo@bbva.com

Innovation & Processes
Clara Barrabés
clara.barrabes@bbva.com

Market & Client Strategy:
Antonio Pulido
ant.pulido@grupobbva.com

Equity Global
Ana Munera
ana.munera@grupobbva.com

Global Credit
Javier Serna
Javier.Serna@bbvauk.com

Global Interest Rates, FX and Commodities
Luis Enrique Rodríguez
luisen.rodriguez@grupobbva.com

Contact details:

BBVA Research
Paseo Castellana, 81 – 7th floor
28046 Madrid (Spain)
Tel.: +34 91 374 60 00 and +34 91 537 70 00
Fax: +34 91 374 30 25
bbvaresearch@bbva.com
www.bbvaresearch.com
Legal Deposit: M-31256-2000