BBVA | RESEARCH

Economic Outlook

Global

First Quarter 2013
Economic Analysis

- **The Global economic outlook is improving** due to lower financial tensions in Europe, the agreement avoiding the so-called "fiscal cliff" in the US and the resilience of emerging economies.
- **The recovery will only continue if appropriate policies are implemented.** The US needs to do more than soften the impact of tax rises and the eurozone has to implement agreements on banking union.
- **Although positive surprises are not out of the question,** the uncertainty surrounding the global economic outlook is bound to remain high.

Index

Closing date: February 11, 2013

1. Editorial: global economic outlook improves

The global economic outlook improved in the last quarter thanks to the continual decline in global financial tensions, especially in Europe, and the agreement avoiding the so-called "fiscal cliff" in the US. As a result, confidence indicators have picked up across all major economic areas, except for Japan, and real data for output and spending continue to point to limited global growth. Global growth is set to rise from 3.2% in 2012 to 3.6% in 2013 and 4.1% in 2014 - almost the same forecast as three months ago. In 2013, the downward revision of Brazilian growth and the unchanged scenario in the eurozone and the US should be offset by better forecasts for China, Mexico and some Latin American economies.

Europe has seen financial tensions ease for six months now, with markets gradually, albeit not fully, offering funding to financial and non-financial businesses in certain peripheral economies in the euro area. **Spain is a good example, and its funding needs are relying less and less on the Eurosystem** thanks to the increased appetite of investors. A recession is still on the cards for 2013, although the forecast is more optimistic than previous estimates (-1.1% vs. -1.4%), and a recovery is due in 2014, with a 1.1% increase in GDP. The pace of Spain's recovery will depend on the impact of increased fiscal revenue, the reforms undertaken and the better-than-expected contribution from foreign demand even taking into account price-competitiveness evolution.

The recovery will only continue if the appropriate policies are implemented in the US and the eurozone. The US needs to do more than just soften the impact of imminent tax rises and should dispel any uncertainty surrounding debt repayment and how the burden of fiscal consolidation is to be shared. With respect to the eurozone, progress in governance, especially with respect to the banking union, must continue, both through additional agreements and the effective implementation of the agreements reached on banking supervision and resolution procedures.

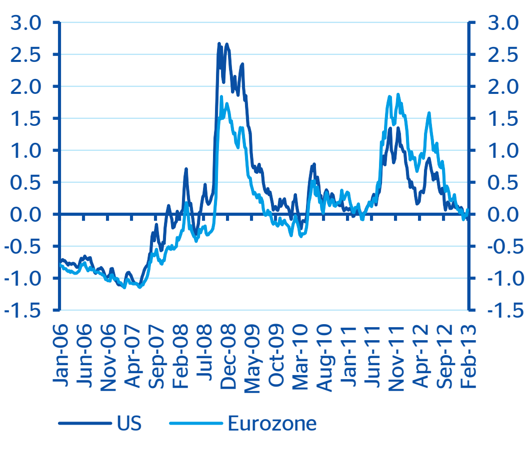
Although positive surprises are not out of the question, the uncertainty surrounding the global economic outlook looks set to remain high. Reduced global growth would be the consequence of increased financial tensions and a drop in confidence if doubts reappeared as to the European authorities' commitment to shore up the euro, which have been contained for now both thanks to the ECB's statement last July and the agreements reached between the countries in the eurozone in support of the single currency. If these tensions did emerge, new agreements on financial safeguards would be necessary and the recession in the eurozone would continue throughout 2013. The risk in the US would arise if the contagion arising from the European risk was added to the disagreements regarding fiscal consolidation or the debt ceiling. In that case, and with the support of emerging markets, the global GDP would range from 2.5% to 3% in 2013 and 2014. This **risk scenario is less likely and the impact is lower than estimated three months ago.** This is thanks to the progress that has been made in implementing policies in the most developed regions, and the resilience demonstrated by the emerging economies.

2. Mood in financial markets turns upbeat, but improvement in activity data still proves elusive

Financial markets improve, but on what grounds?

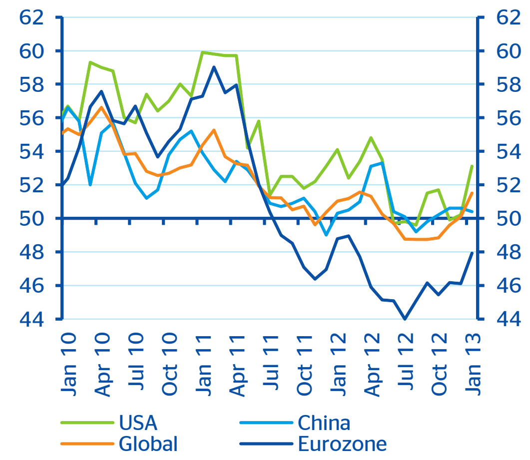
Over the past three months, some threats to the global economic recovery have partly faded, sparking a tide of renewed optimism. Financial markets have seen tensions decrease to two-year lows (see Chart 1), particularly in Europe, and almost all assets have benefited from this change in perception. Fading threats to the stability of the global economy have also boosted confidence among consumers and firms. Surging confidence has spread among regions (see Chart 2) with a few rare exceptions. However, these market and confidence rebounds have not prompted any significant change in activity yet. According to our global activity indicator (see chart 3 and Box 1 for an explanation), the slowdown the global economy underwent in much of 2012 came to an end in the fourth quarter of that year. **The most recent data have reinforced the perception that the global GDP is accelerating, yet from low levels** (below its historical average) and at just a slight brisker pace. According to our estimates, the global GDP in 2012 grew by 3.2%, down from 3.9% in 2011.

Chart 1
BBVA financial stress index



Source: BBVA Research

Chart 2
Confidence indicator (PMI)



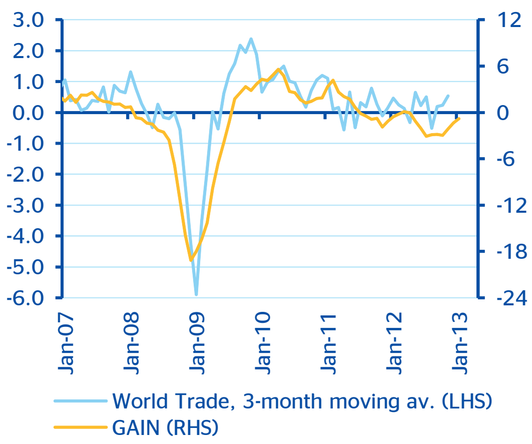
Source: Markit, BBVA Research

Indisputably, the financial markets have improved. Financial tensions have decreased for a protracted period of time. In fact, this seven-month period is by far the longest period of calm since the European debt crisis broke. Even those countries at centre stage have benefited from the lower risk aversion. These improvements have been gradual, as the market base broadened. At the end of the summer, equity and bond gains were driven by investors in need of covering short positions, but they were soon followed by institutional investors returning to these markets.

Most assets have made gains. First, the stock markets have seen large improvements. For example, since the end of July, the Euro Stoxx has increased by 10%, whereas the Dow Jones index has reached a five-year high and volatility, as gauged by the VIX index, has hit a five-year low. Equity markets in the periphery of Europe have also boomed, with Spain's Ibex 35 and Italy's FTSE MIB up by around 40%.

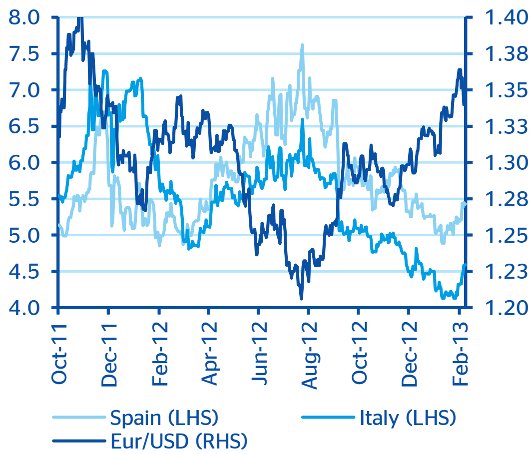
A similar pattern can be observed in the bond market. Since the end of July, peripheral bonds have rallied. For example, the 10-year Spanish bonds are yielding 5.1% on average in 2013[1] (a 13-month low), whereas the returns on Italy's bonds are fluctuating around 4.3% (the lowest yield since November 2010, despite the current political uncertainty in that country). Since July, that means a fall in yields of roughly 2 percentage points for both countries (chart 4). The short end of the curve (bonds with a maturity of less than three years and, therefore, eligible under the ECB's Outright Monetary Transaction program, OMT) has shown an even larger fall in yield. Safe-haven bonds have fallen slightly in price: the German 10-year bonds now yield 1.6% (up from 1.3% in July). As to other bond markets, the increasing activism of central banks and subdued outlook have made up for more risk appetite: the yield on the 10-year US bond has gone up by 50 bp since July, to around 2%.

Chart 3
Global Activity Index (GAIN) and world trade



Source: BBVA Research, CPB

Chart 4
Ten-year bond rates and euro/dollar exchange rate



Source: BBVA Research, Bloomberg

Lower risk aversion has helped some banks and large firms in Europe's periphery (in particular, Spanish) to issue debt. The characteristics of this recent debt issuance also show some encouraging signs: predominance of senior unsecured debt, longer maturities and lower spreads. The tide of debt issuance has allowed these countries to reduce their dependence on ECB funding (see Chart 5) from highs reached in August. As a whole, the banking system in Europe seems to be in better financial position. Interbank markets are far from normalization, but banks in the core countries and (at least) big banks in the periphery are taking advantage of this window of opportunity to pay back more than a quarter of the one trillion euros in funding the ECB granted in the two 3-year LTRO auctions held in 2011 and 2012. This figure exceeded **expectations and is seen as a sign of robustness.**

Finally, the activism of central banks in the US and Japan, along with decreasing fears of a euro break up, have also led to a euro appreciation. One euro is now worth 1.35 dollars, up from 1.23 in July or a 10% rise (chart 4). Some European politicians have recently warned against euro appreciation. At its February meeting, the ECB president said the exchange rate poses downside risks to the outlook for inflation, driving the euro slightly down to 1.335, but also acknowledged that the euro is around its long-term average. Some emerging countries' currencies are also under appreciation pressure, adding to fears of currency wars in the months ahead.

1: Last data 8 February 2013.

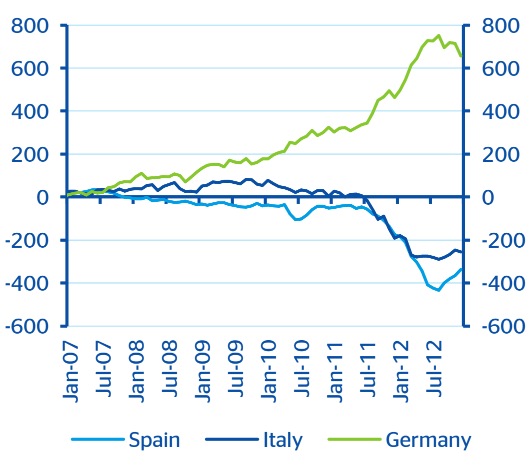
What lies behind the increased market confidence? First, data show that China is not heading for a hard landing

China's economy underwent a slowdown in much of 2012. Although it was not our scenario, it sparked fears of a hard landing that could drag down other export- and commodity-oriented economies. The Chinese economy has long been relying on investment and exports, with very few signs that consumption could drive growth if the other components faltered. But since the third quarter of 2012, the GDP growth has accelerated (Chart 6) – as we had been expecting – even slightly stronger than predicted, and the slowdown has come to an end. Investment has accounted for much of the rebound in GDP, on the back of stimulus policies implemented more deftly in 2012 than in 2009. The real estate sector has clearly recovered despite cooling measures that remain in place and has been a major contributor to the broader economic pickup. Furthermore, some tentative signs of stronger exports have also emerged, on demand from Asian countries and the US, whereas exports to Europe and Japan have remained a drag. In addition to this, the transfer of political power has been proceeding smoothly, and the new leadership team has signalled that it intends to maintain policy continuity with respect to growth-supportive policies and economic reforms. Policy targets as to GDP growth are likely to be 7.5%, the same as in 2012.

The rebound of the Chinese economy has been hailed in markets as a factor in the global economic resilience and, in particular, in other export-oriented economies and in commodity prices, in particular in Latin America. Although the outlook for China's growth is not as upbeat as in the past, markets seem relieved to have seen the fading of the risk of a severe slowdown.

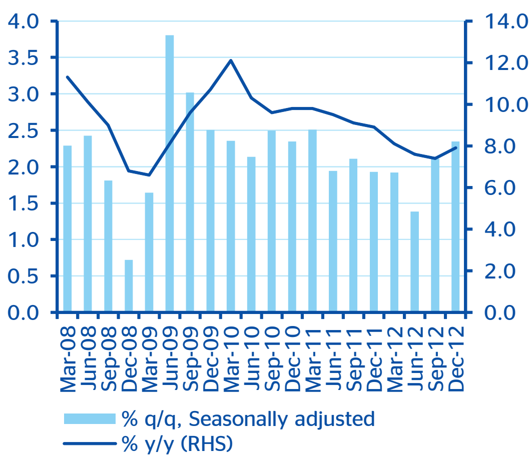
There are still some concerns about the sustainability of China's growth over the medium term, in particular, if consumption does not gain momentum. Local debt and the pace of shadow banking lending are probably the biggest financial threats to growth in the medium term. Yet even in the short term those threats could be a constraint for the government in implementing new stimulus measures if needed.

Chart 5
Eurozone: net balance with the Eurosystem (Bln EUR)



Source: BBVA Research, ECB

Chart 6
China: GDP growth

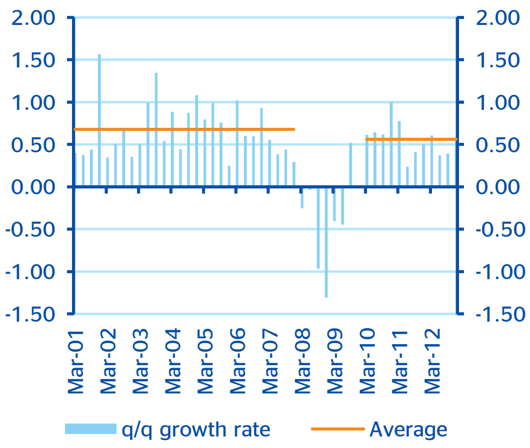


Source: BBVA Research, Haver

Second, the US did not fall off the cliff and, in fact, its economy is withstanding uncertainty remarkably well

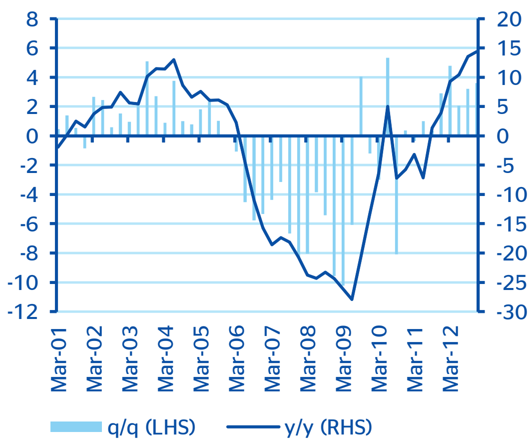
Arguably, data on GDP growth in the fourth quarter of 2012 was not the best example of resilience. In that quarter, the GDP declined by a shade (-0.1% in annualized terms), after 13 quarters of increases in GDP. However, the aggregate figure was dragged down by volatile components (private stock building and federal defence spending) along with exports. However, the underlying picture is brighter, in particular after taking into consideration the uncertainty surrounding the so-called fiscal cliff at the end of 2012. It had long been argued that consumers and firms withheld their spending, as a reflection of the impact that automatic spending cuts and tax hikes worth some 4% of GDP could have on their finances. Yet, it is difficult to measure the impact of fiscal uncertainty on economic indicators. Additionally, the monetary policy through the quantitative-easing program may have succeeded in offsetting the negative impact of fiscal uncertainty. Consumption growth has remained quite stable over the past quarters, averaging a growth rate slightly below the pre-crisis levels (Chart 7). At the same time, the housing sector has undoubtedly gained momentum (Chart 8). The perception that more sectors in the US economy were gathering pace despite uncertainty, coupled with steady employment growth, was also hailed as a key factor in supporting the global economy.

Chart 7
US: Consumer expenditure growth (%)



Source: BBVA Research, Haver

Chart 8
US: Private residential investment (growth rate)



Source: BBVA Research, Haver

Furthermore, at the turn of the year, the US Congress reached an agreement that extended most of the 2001/2003/2010 tax cuts (for households with income levels below $450,000) and delayed the so-called "expenditure sequester" (an automatic reduction in spending) for two months, among other changes. This fiscal deal was welcomed by markets, since it avoids a larger drag on the economy, which we estimate at 1.1% of GDP in 2013. In addition, it helps improve the US public-debt sustainability relative to the previous policy. In 2012 the US fiscal deficit reached 7% of GDP and assuming no further changes to current legislation, the deficit will decline to around 5.4% of GDP in 2013 and 3.8% in 2014. However, the agreement did not deal with two potential sources of uncertainty. On the one hand, the expenditure sequester is scheduled to take place at the beginning of March. If implemented, there would be an additional drag on the economy of 0.8% of GDP. On the other hand, there was no permanent agreement on the debt ceiling, although a later deal suspended this ceiling until mid-May. Hence, in coming weeks more negotiations will take place to avoid a sharp economic contraction in 2013 and, at the same time, to contribute to fiscal sustainability. However, a grand bargain is unlikely as long as policymakers continue kicking the can and fail to reach a bipartisan compromise to make hard choices.

Third, even Europe did its part: advances in the banking-union process reinforce the commitment to preserve the euro

The deal on Greece has shown that Europe is committed to maintaining Greece in the eurozone. European policy makers struck a deal with the Greek authorities on some details of the bail-out program that allowed the disbursement of its second tranche. The main measures included in the agreement consist of a debt buyback (11.2% of GDP), lower rates (2.5%) and foregoing ECB profits on its Greek-debt holdings (4.4%). In turn, the Greek government introduced new measures to ensure the meeting of fiscal targets. Under these new conditions, and according to the troika baseline scenario, the debt-to-GDP ratio will be close to 124% of GDP in 2020. The agreement does not dispel all doubts on Greece's debt sustainability. In fact, that issue will probably be reopened after German elections in September 2013, when an eventual official sector involvement (which has been supported by the IMF but not accepted by Europe) could be considered.

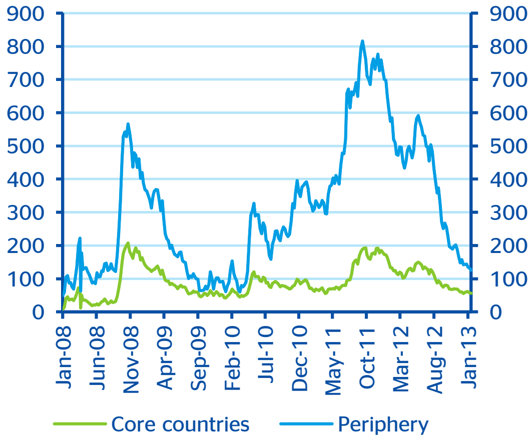
Europe's politicians no longer seem to be flirting with the idea of Greece leaving the eurozone, because the Greek authorities have proved their commitment to standing by agreements and staying in the euro. Market response to these developments (which included better-than-expected outturns in Greek fiscal data at the end of 2012) was positive, as shown by the significant recovery of the Greek bond, now yielding a few tenths above 10%. Furthermore, the positive tone also reached the other countries under EU and IMF programs, with Portugal and Ireland issuing syndicate bonds again with positive market response. These may be just their first steps towards a market return which, at the same time, would grant them support from the ECB's OMT program.

The second factor supporting this perception from Europe refers to the banking-union process. Despite the lack of agreement or even mention of a fiscal union, the December EU summit met the expectations of progressing towards a banking union. The process seems critical to breaking the vicious circle between government and banking finances, and also to stemming the tide of capital outflows besetting some countries in Europe's periphery. Agreements reached at the December EU summit were not as ambitious as had first been hinted, but are still quite positive since they include a clear calendar for implementing a single supervision mechanism and initial steps towards a single resolution mechanism.

Finally, the ECB's OMT program seems to be having long-lasting effects as a real backstop, preventing financial tensions from escalating, even if neither Spain nor Italy (the natural candidates) have asked for its activation. That situation may continue for several reasons. First, governments of core and peripheral countries lack incentives to undergo such a process. With Spain's bonds yielding 5 – 5.5% and Italy's at 4 – 4.5%, the funding of the public debt does not require the request of ESM intervention in the primary market and the ECB's OMT in the secondary. Second, the OMT may well continue being seen as a real backstop, preventing any escalation in yields, at least in the absence of any risk event. In that case, the ECB commitment to step in if Spain or Italy asked for the bailout (which would surely result in yields dropping) must be credible. Yet, it would also be necessary for the authorities' commitments in asking for a bail out (if funding costs soared) to prove credible. In this regard, the Spanish government has repeatedly signalled its willingness to seek a bailout if funding costs jumped.

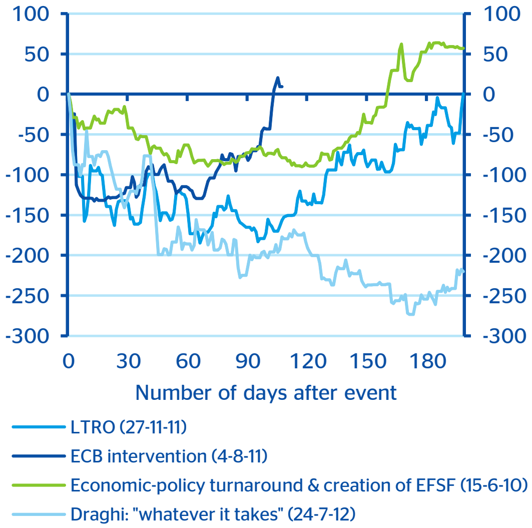
The result of all these factors has been a protracted period of financial easing. In fact, this has been the longest period of calm the eurozone has seen since the crisis broke only threatened by political jitters in Italy and Spain in early February. And, in particular the OMT seems be having longer-lasting effects than any other measure taken by the European authorities (see Charts 9 and 10).

Chart 9
BBVA financial tension index



Source: BBVA Research

Chart 10
Spain: change in yields at major European events (change in 10-y bonds, bps)



Source: BBVA Research

Improvement in market perception does not make up for lack of improvement in fundamentals: our scenario does not change.

The rebound in China's economy, the partial deal on how to tackle the fiscal cliff in the US, and the effects from the ECB's OMT announcement are all good reasons to think that the world economy may have avoided the tail-risk event some market participants were partially pricing in. However, changes in fundamentals are less conclusive. As a consequence, a soft recovery continues being the most likely outlook, as hard data pointing to a stronger rebound is elusive. Perspectives for the global economy in 2013 remained roughly unchanged: it is expected to grow by 3.6%, up from 3.2% in 2012 (Chart 11). This sound global growth belies differences between regions (chart 12).

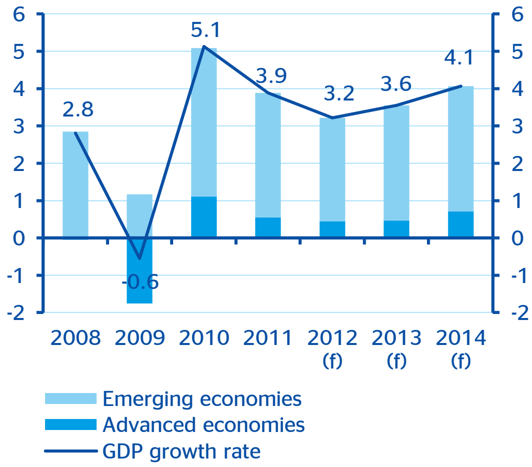
On the one hand, even if the US avoided falling off the fiscal cliff, US politicians will still have to agree on some key issues, such as the sequester and the debt ceiling. Either of them could derail the process. Even if agreements are reached, in 2013 the fiscal policy will turn tighter, squeezing household incomes. The real estate sector may be recovering, but the deleveraging process is still a factor at play, and the external sector is far from buoyant. Therefore, we maintain the outlook for the US economy, although we reckon there is scope for potential positive surprises. In 2013 we expect the US economy to grow by 1.8% (down from 2.2% in 2012) and by 2.3% in 2014.

In the eurozone the improvement of financial markets was not followed by activity data in the last quarter of the year, although there are clear signs of recovery in soft data. Tail risks may well have disappeared (i.e., the eurozone is no longer about to break up). The periphery remains mired in recession, dragged down by fiscal consolidation and funding conditions. Even if the external sector improves and exports drive the GDP up, some economies still have a path ahead beset with deleveraging and fiscal austerity. However, some leading indicators in Germany and other core countries are pointing to better prospects at the beginning of 2013. As a consequence, we roughly maintain our forecast for the eurozone: a rebound of a mere 0.3% in 2013 (after a contraction of 0.5% in 2012), leading to a 1.3% increase in 2014. The decoupling between the core countries and the periphery will persist throughout the forecasting period.

China is arguably the economy where the outlook has become clearer in the short term. The new authorities are committed to sustained growth and that must be interpreted as a clear intention to use loose economic policy. We have revised our projections slightly upwards and now China is likely to grow by 8% in 2013 and 2014.

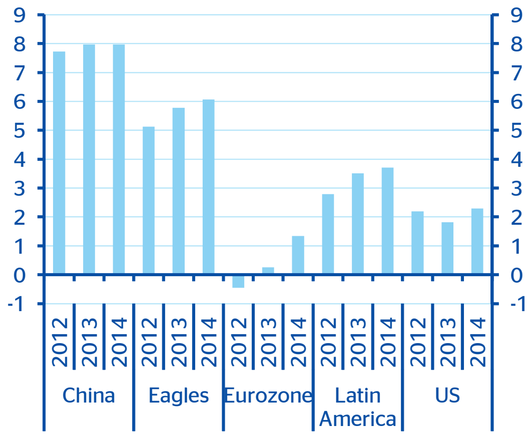
The robustness of China's economy and the resilience of the US economy will play a role in supporting demand in most emerging countries. In Latin America as a whole, we revised our forecasts slightly downwards, due to weaker situations in Brazil and Argentina. In 2013, the Latin American economies will grow by 3.5%, whereas in 2014 they will by 3.7%, approaching to their growth potential. In turn, emerging Asia will show a more robust growth, accelerating its pace to 6.6% in 2013, up from 6.1% in 2012.

Chart 11
World GDP growth rate



Source: BBVA Research

Chart 12
GDP growth rate



Source: BBVA Research

Box 1. BBVA Global Activity Index (BBVA-GAIN)[2]

The world has seen four global recessions since World War II—1975, 1982, 1991, and 2009. Each recession led to fears of an economic debacle but each time the global economy managed to recover in a year or two. **The global recession of 2009, which followed the financial market crisis triggered by the failure of the investment banking firm Lehman Brothers the year before, was the worst of the four recessions and the most synchronized across countries.** Some worried that the world would relive the Great Depression of the 1930s. However, probably as a result of policy actions that were often aggressive and unconventional, that did not come to pass. Since 2010, the global economy has been on the road to recovery-albeit fragile.

The so-called "Great Recession" of 2009 came as a huge shock to policymakers and economic agents. The sudden and grave downturn in the global economy triggered drastic reactions by policymakers who implemented monetary and fiscal policies to offset the adverse economic situation. As a result, when the economy began to recover, the economic agents seemed to have learnt their lesson since they acknowledged the need for new tools to monitor economic developments in high frequency. **At times of great uncertainty, having the most up-to-date information on the changes in the economy becomes paramount.** Economic data are published with a lag. So, for example, at this point (second month of Q1 2013) our most up-to-date information on GDP is from Q3 2012 while the advanced estimates of major economies for Q4 2012 are expected to be released by mid-February. In addition to such significant lags, the size and volatility of cyclical movements in recent years have once again raised the issue for the need to develop tools that will define the state of the economy in real time.

BBVA Global Activity Index (BBVA-GAIN) is a monthly index designed to gauge overall economic activity. It is based on the notion that co-movements among macroeconomic and financial variables are reflecting an underlying common factor which represents global business cycle dynamics, a non-observed latent variable. As such, BBVA-GAIN has been built upon a single-index dynamic factor model framework to produce high frequency measurement of the global macroeconomic activity in a systematic, replicable, and statistically optimal manner from GDP growth, industrial production, purchasing managers index (PMI), employment, new export orders and our one-month leading composite indicator BBVA Financial Stress Index (FSI).[3] Our extension of Aruoba and Diebold (2010) allows us to examine the information content of additional real activity data, survey indexes and financial indicators to produce accurate short-term forecasts of global GDP growth.

Methodological description

Accordingly, **BBVA-GAIN comprises several high-frequency economic indicators that share a common business cycle** component and exhibit high statistical correlation with the global GDP growth rate.[4] In addition to the correlation criteria, the economic indicators should use the published data each quarter before the corresponding GDP figure becomes available, and they must be relevant in the model from both a theoretical and empirical point of view. Thus the evolution of each of the indicators i for the period t, z_t^i can be broken down into the sum of two stochastic unobservable components. The first component, x_t, usually called "common factor", includes the combined dynamics of all the indicators and can be identified with the global economic cycle. The second component, u_t^i, known as the idiosyncratic component, refers to the particular dynamics of indicator i during period t.

$$z_t^i = \beta_i x_t + u_t^i$$

The movement of the common and idiosyncratic components is established by autoregressive models of order p and q.

$$x_t = \rho_1 x_{t-1} + \ldots + \rho_p x_{t-p} + e_t$$

$$u_t^i = d_t^i u_{t-1}^i + \ldots + d_q^i u_{t-q}^i + \varepsilon_t^i$$

In this case, e_t and ε_t^i are non-observable error terms that are assumed to be independent and not serially correlated. Mariano and Murasawa (2003) propose that if we consider the quarterly series as the weighted sum of its monthly expressions, the above model could be represented in state-space form and estimated by maximum likelihood using Kalman filtering.

2: This box summarizes those results of our forthcoming Economic Watch (Martínez-Martín, 2013).
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.
4: Note that Global Real GDP has been selected as proxy for global activity and relies on our own estimates (BBVA Research). It combines an appropriate representative-ness of global activity since it is based on Quarterly National Accounts of 69 countries and weights 92% on World GDP ppp.

The methodology used is in line with the seminal proposal of Stock and Watson (1991), since we use a small-scale single-index dynamic factor model to produce an accurate economic indicator of global business conditions in real time.[5] As in the Stock-Watson proposal, the model benefits from the information provided by several monthly coincident economic indicators. In addition, we use the approach proposed by Aruoba and Diebold (2010) on how to adjust a factor model to handle the different start and finish dates of the indicators, as they are typically available in real-time forecasting due to differing release timeliness. In short, we believe that such an extension is extremely useful to deal with monthly and quarterly indicators, which allow us to include quarterly estimation of World Real GDP as an additional coincident indicator to the constituent set of indicators.

Evaluation and robustness

Against this background, for an in-depth analysis of the accuracy of the common factor used to compute business cycle inferences, we conduct Markov-Switching Regimes estimations and provide smoothed probabilities of recession (at current time extremely low). We have found that the coincident indicator performs well as a global business cycle indicator since it is extremely consistent with the history of the global business cycle. In addition, we ascertain that **the correlation of global GDP growth with respect to BBVA-GAIN is higher than 0.8, indicating the high potential of the indicators used to capture global business cycle turning points.**[6] As a result, it allows us to produce short-term forecasts of global GDP growth.

All in all, we strongly consider that our BBVA-GAIN is a valid tool to be used for short-term analysis.

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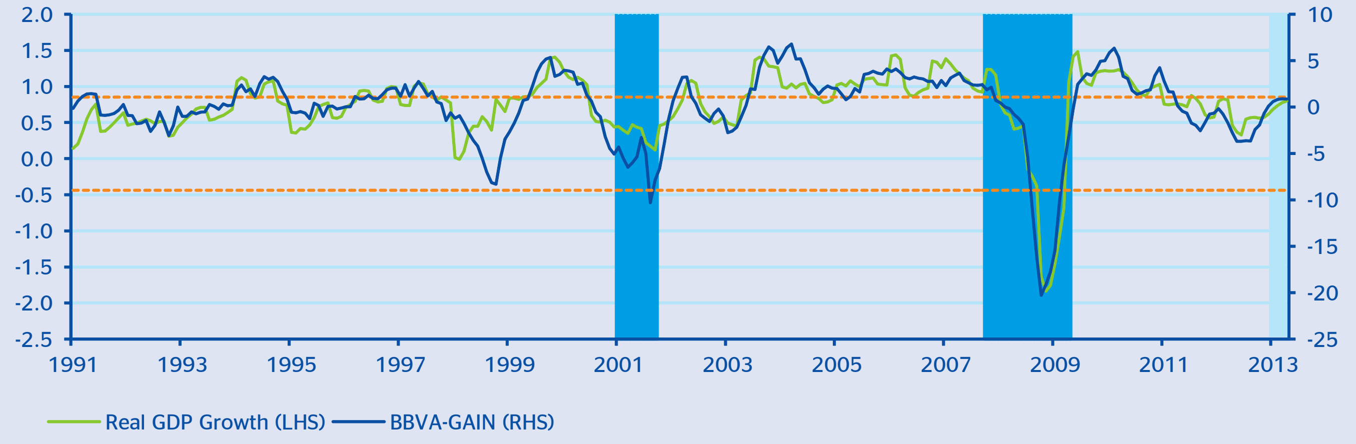
Chart 13
BBVA GAIN and World GDP (%, qoq) in monthly basis (Updated @ Feb 5, 2013). Shading corresponds with recession, blue with forecasts



Source: BBVA Research

5: And follow the extension of Camacho and Domenech (2012) by including financial leading indicators.
6: When using this index, trend direction is the most important element – not necessarily the value when the index is above/below a certain figure.

3. Tail-risk scenarios are less likely due to actions by policy makers and market confidence. The eurozone crisis remains the main concern

The recent improvement in market sentiment is not enough to upgrade our baseline scenario, since hard data continues within our estimates. In our view, the measures taken in Europe and the US, along with improvement in market perception, have avoided a systemic event and made tail-risks less probable and their impact less damaging. However, **the balance of risks has not changed: it continues tilted to the downside, but open to potential upside surprises for the first time in the past three years.**

The eurozone poses the biggest risk. The path for recovery is beset with potential sources of uncertainty that could unravel the process. Although the new institutional benchmark limits the impact, financial tensions may return for a myriad of reasons. First, the periphery of Europe could miss its current fiscal targets for 2013. If governments react with more austerity, the downturn may intensify (see Box 2: Fiscal adjustments and growth in Europe). However, this risk has low probability because the European Commission has made it clear that no further adjustment will be forced on these countries if targets are not met as a consequence of cyclical considerations. At the same time, that is likely to roil markets and make it necessary for those countries to ask for a bailout. In this regard, although the ECB seems ready to intervene, any potential wrangling between core and peripheral countries as to the conditionality attached is a possible source of instability. The situation could worsen as elections approach in Germany and its authorities turn more reluctant to the activation of this program. Other factors may also play a role. The details of the bank bailout for Cyprus are yet to be fixed, in particular the needs of the banking system. Even if Cyprus does not account for much of the eurozone, the size of the bailout as a share of the Cypriot economy may make some sort of debt relief necessary. Past experiences in Europe do not bode well for a quick solution.[7] Finally, the outcome of the elections in Italy remains unclear, as well as the impact that recent scandals may have in Spain. If financial tensions increased as a consequence of one or several of those triggers, the eurozone would continue in recession in 2013 too.

The other significant source of risk stems from the US political disagreement on how to deal with the fiscal deficit. Part of the original fiscal cliff has been avoided, but the remaining two issues – the sequester and the debt ceiling – still lie ahead. On the one hand, the wrangling over these issues may be a source of uncertainty that could hold back consumer spending and investment. On the other, if agreements are not reached, the tightening in fiscal policy could be enough to bring the US economy back to feeble growth rates.

According to our own estimations, **if both risks materialized the world economy would grow nearly a percentage point less than in the baseline scenario, well below its historical average.** The adequate implementation of eurozone-governance agreements and further agreements on fiscal issues in the US are necessary conditions for a sustained global recovery.

7: Although Germany seems to have softened its initial opposition to such an aid.

Box 2. Fiscal adjustments and economic growth in Europe[8]

One of the most controversial topics of the current financial crisis has been the effect of fiscal policy on economic growth. In recent months, this debate has been shaken by the results of the analysis carried out for the World Economic Outlook (October 2012) by the IMF, recently expanded by Blanchard and Leigh (2013). According to these results, the fiscal adjustments could be having a more contractionary effect on GDP than expected.

The stabilizing effects of fiscal policy on production levels are usually measured using a fiscal multiplier, which is defined as the variation of GDP in relation to the discretionary variance of the public deficit (spending, G*, less public income, T*), having removed the cyclical part due to automatic stabilizers:

$$\Delta PIB \,/\, (\Delta G^{*}\text{-}\Delta T^{*})$$

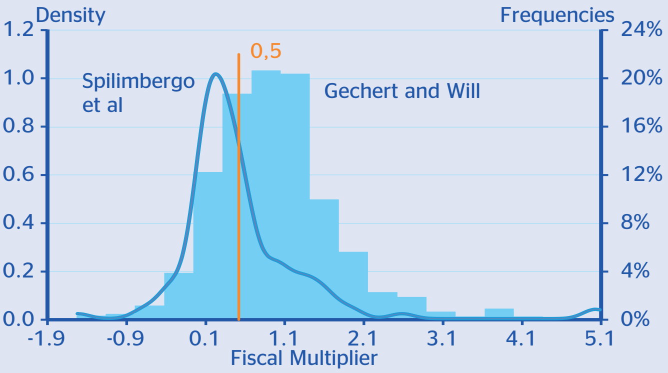
In an interesting article published in the Wall Street Journal in 2009, Robert Barro explained very simply how the fiscal multiplier can be interpreted. When the multiplier is equal to the unit, if the government purchases an aeroplane or builds a bridge, total economic production increases by the exact amount required to manufacture the aeroplane or build the bridge without reducing the production of other goods. In this way, consumption and investment in the private sector remain unaffected. If the multiplier is higher than the unit, as Barro states "the process is even more marvellous": in addition to increasing production on the aeroplane or bridge, GDP increase even more because of consumption and/or private investment.

Why is it important whether the multiplier is higher or lower for fiscal adjustment? If the multiplier is very high, the negative effects of fiscal austerity on GDP can cause a reduction in income which is greater than the ex-ante expected saving with the adjustment. In this situation, fiscal consolidation could be self-destructive, which is why economists (e.g. De Long and Summers, 2012) have even defended having to increase public expenditure in order for the deficit to reduce.

In practice, empirical evidence provides a variety of fiscal multiplier values, for various reasons. Firstly, because it is difficult to isolate the effects of fiscal expansionary policies from other perturbations that are simultaneously affecting the economy. Secondly, because the fiscal multiplier depends on the composition of fiscal stimulus and the specific characteristics of each economy, in the face of certain situations that vary over time. Examples of these characteristics are the degree of external openness, the exchange rate regime, the response of monetary policy, the stress levels of public balances, the existence of credit restrictions on the financial system, the level of external borrowing and private sector debt, the percentage of agents that consume only on the basis of their current income, or if the short-term stimulus measures are announced simultaneously with long-term consolidation measures.

As an example of the diversity that exists in fiscal multiplier estimations, Chart 1 indicates the high dispersion of the values that are collected in two literary panoramas. In Chart 1 the line (left axis) represents the density function of the multipliers compiled by Spilimbergo, Symansky and Schindler (2009), which ranges between -1.5 and 5.2, with an average of 0.54. Gechert and Will (2012) analysed a wider sample of 89 studies, on which a meta-analysis of 754 fiscal multipliers was carried out, the frequency distribution of which is represented via the bars in Chart 14 (right axis). These authors conclude that the multiplier varies between 2.82 (the maximum impact of military spending, in Neo-Keynesian general balance models when the interest rates reach zero) and -1.3 (the effect of an increase in transfers in a real business cycle model when imports constitute 50% of GDP).

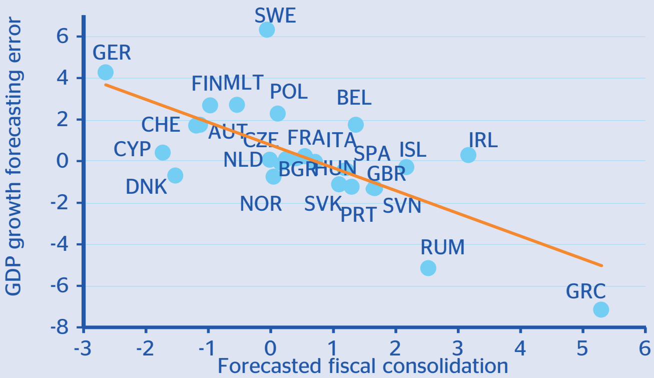
Chart 14
Fiscal multipliers: Density function and distribution of two panoramic frequencies



Source: authors' estimation based on the panoramic of Spilimbergo, Symansky and Schindler (2009) and Gechert and Will (2012)

8: This box summarises the results of a forthcoming Economic Watch (Andrés and Doménech, 2013).

Chart 15
Forecasted fiscal consolidation and GDP growth prediction error, 2010-11



Source: Blanchard and Leigh (2013)

Before the crisis a fiscal multiplier of 0.5 was normally accepted as standard. This multiplier has normally been used to evaluate fiscal consolidations over the last years (IMF 2010). However, Blanchard and Leigh's results (2013) have questioned this value, upon finding systematic errors in the GDP growth estimates for 2010 and 2011, which were negatively correlated with the fiscal consolidation estimates for those two years.

The evidence is summarised in Chart 15, using a sample of 26 European countries. The horizontal axis represents the fiscal consolidation forecasted in 2010 by the IMF for 2010 and 2011, and the vertical axis represents the forecasting error for GDP growth for these two years. Under the hypothesis of efficient use of the information available, the forecasting error should not be correlated with forecasted fiscal consolidation. However, in Chart 2 the regression coefficient between both variables is -1.095 and is statistically significant (with a t-ratio equal to -4.85).

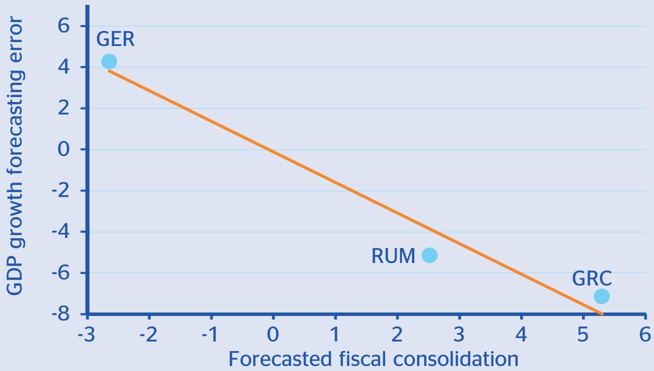
Given that the IMF's GDP estimates take into account the forecasted fiscal adjustments, the conclusion extracted by Blanchard and Leigh is that the multipliers were higher. If on average the multiplier used was 0.5, evidence would suggest that the fiscal multiplier in 2010 and 2011 could have been 1.6 (0.5+1.095).

Although Blanchard and Leigh interpret these results quite cautiously, their analysis has certainly meant that there is now a majority who accepts that fiscal multipliers are higher than the unit and that the fiscal austerity taken on by some European countries must be questioned.

How robust are these results? In response to criticism from Giles (2012 a and b), Blanchard and Leigh carried out different robustness tests, indicating that the results depend on the countries and periods analysed; the fiscal multiplier however is, generally , higher than the unit and is statistically significant when Germany and Greece are excluded.

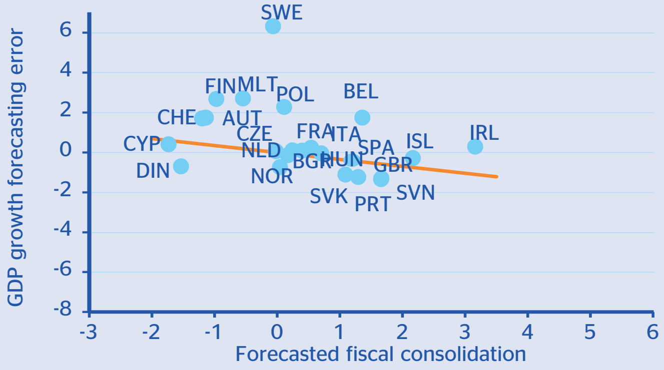
More detailed analysis of the evidence indicated by Chart 15 suggests that Blanchard and Leigh's results were very much influenced by a third country: Romania. Chart 16analyses the relationship between the forecasted fiscal consolidation and the forecasting error in economic growth for Germany, Greece and Romania, reaching a clearly negative relationship (the gradient of the line is equal to -1.49). As for Chart 17, this demonstrates the regression for the remaining 23 countries. In this case the correlation is much smaller and is no longer statistically significant (the regression coefficient falls to -0.347). Therefore, in this sample of 23 European countries, including Spain, it cannot be concluded that the fiscal adjustment has affected growth any more than forecasted. The same results are obtained through analysis of the European Commission, the OECD and the Euro Intelligence Unit's forecasts. In other words, the results obtained for Germany, Greece and Romania cannot be generalised for the other countries. It would suggest that in these three concrete cases, it is necessary to carry out more detailed analysis of the reasons for which the forecasting errors were so high.

Chart 16
Forecasted fiscal consolidation and GDP growth prediction error, 2010-11



Source: authors' estimation based on Blanchard and Leigh's data (2013)

Chart 17
Forecasted fiscal consolidation and GDP growth prediction error, 2010-11



Source: authors' estimation based on Blanchard and Leigh's data (2013)

In summary, based on the aforementioned results and reviewing the abundance of existing empirical literature, the following conclusions can be drawn:

- the multiplier depends on the type of fiscal measure: composition is important;
- the multiplier depends on the specific characteristics of each economy;
- although as a general rule a fiscal multiplier between 0.5 and 1 is an acceptable approximation, the different combinations of measures, countries and periods mean that the fiscal multiplier is very wide ranging.

These results indicate that the stabilizing effects of fiscal policies, whether expansionary or adjustment-like, must be carefully evaluated, with the most detailed cost/benefit analysis possible for each specific case, depending on the economy and time under consideration.

In the same way that at the start of the crisis it was emphasized that the expansive fiscal policies applied should be TTT (Timely, Targeted and Temporary), now the adjustment and fiscal consolidation policies should be TTP: Timely, Targeted and Permanent. Timely because they must be carried out with an appropriate pace for them to be effective in reducing the deficit without endangering growth more than necessary, and trustworthy for the financial markets that finance the governments. Targeted because not all public spending (income) has to be reduced (increased) equally, since not all spending policies are equally effective, nor do they have the same effects on growth and on the distribution of their costs between the economic agents. And Permanent because the only way of reducing the structural fiscal deficit is through adjustment policies with permanent effects on public balances.

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4. Tables

Table 1

Macroeconomic Forecasts: Gross Domestic Product

(YoY growth rate)	2010	2011	2012	2013	2014
United States	2.4	1.8	2.2	1.8	2.3
Eurozone	1.9	1.5	-0.5	0.3	1.3
Germany	4.0	3.1	0.9	1.0	2.0
France	1.6	1.7	0.0	0.4	1.5
Italy	1.8	0.6	-2.1	-0.7	0.9
Spain	-0.3	0.4	-1.3	-1.1	1.1
UK	1.8	0.9	0.0	1.0	1.9
Latin America *	6.2	4.3	2.8	3.5	3.7
Mexico	5.4	3.9	3.9	3.1	3.1
Brazil	7.6	2.7	0.9	3.6	4.0
EAGLES **	8.4	6.6	5.1	5.8	6.1
Turkey	9.2	8.5	2.6	4.4	5.5
Asia Pacific	8.2	5.7	5.2	5.6	5.8
China	10.4	9.2	7.7	8.0	8.0
Asia (exc. China)	6.7	3.4	3.6	4.0	4.4
World	5.1	3.9	3.2	3.6	4.1

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
** Brazil, China, India, Indonesia, Korea, Mexico, Russia, Taiwan, Turkey
Forecast closing date: February 11, 2013
Source: BBVA Research

Table 2

Macroeconomic Forecasts: Inflation (Avg.)

(YoY growth rate)	2010	2011	2012	2013	2014
United States	1.6	3.1	2.0	2.1	2.2
Eurozone	1.6	2.7	2.5	1.6	1.5
Germany	1.2	2.5	2.1	1.7	1.6
France	1.7	2.3	2.2	1.5	1.5
Italy	1.6	2.9	3.3	2.0	1.7
Spain	1.8	3.2	2.4	2.0	1.1
UK	3.3	4.5	2.8	2.5	2.0
Latin America *	6.4	8.0	7.5	8.1	8.3
Mexico	4.2	3.4	4.1	3.5	3.7
Brazil	5.0	6.6	5.4	5.9	5.8
EAGLES **	5.3	6.0	4.2	4.4	4.5
Turkey	8.6	6.2	8.5	5.3	5.0
Asia Pacific	3.6	4.8	3.0	3.3	3.5
China	3.3	5.4	2.6	3.3	4.0
Asia (exc. China)	3.7	4.3	3.3	3.3	3.2
World	3.8	5.2	4.1	3.9	3.9

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
** Brazil, China, India, Indonesia, Korea, Mexico, Russia, Taiwan, Turkey
Forecast closing date: February 11, 2013
Source: BBVA Research

Table 3

Macroeconomic Forecasts: Current Account (% GDP)

	2010	2011	2012	2013	2014
United States	-3.1	-3.1	-3.1	-3.1	-3.7
Eurozone	0.0	0.1	1.1	1.3	1.4
Germany	6.0	5.7	5.8	5.0	4.5
France	-1.6	-2.0	-1.9	-1.8	-1.7
Italy	-3.5	-3.1	-1.6	-1.2	-1.1
Spain	-4.5	-3.5	-1.4	0.3	0.9
UK	-3.9	-1.6	-3.6	-2.8	-2.6
Latin America *	-0.7	-0.9	-1.4	-1.6	-1.6
Mexico	-0.4	-1.0	-1.0	-1.4	-1.2
Brazil	-2.2	-2.1	-2.3	-2.6	-2.9
EAGLES **	1.5	0.8	0.4	0.4	0.6
Turkey	-6.4	-10.0	-7.5	-7.4	-7.4
Asia Pacific	3.3	2.0	1.2	1.3	1.7
China	4.0	2.8	2.6	2.8	3.5
Asia (exc. China)	2.0	1.5	0.3	0.2	0.5

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
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Forecast closing date: February 11, 2013
Source: BBVA Research

Table 4

Macroeconomic Forecasts: Government Deficit (% GDP)

	2010	2011	2012	2013	2014
United States	-8.9	-8.7	-7.3	-5.9	-4.3
Eurozone	-6.2	-4.1	-3.0	-2.3	-1.8
Germany	-4.1	-0.8	0.1	-0.1	0.0
France	-7.1	-5.2	-4.5	-3.2	-2.5
Italy	-4.3	-3.8	-2.8	-2.0	-1.7
Spain *	-9.7	-9.0	-7.2	-5.9	-4.6
UK	-9.6	-7.9	-5.1	-6.1	-5.2
Latin America **	-2.4	-2.3	-2.5	-2.0	-1.8
Mexico	-3.4	-2.7	-2.6	-2.3	-2.2
Brazil	-2.5	-2.6	-2.5	-1.9	-1.7
EAGLES ***	-2.5	-1.9	-2.2	-2.0	-1.9
Turkey	-3.6	-1.4	-1.8	-1.6	-1.3
Asia Pacific	-3.6	-3.7	-3.6	-3.5	-3.0
China	-2.5	-1.1	-2.0	-2.0	-1.8
Asia (exc. China)	-4.5	-5.5	-4.7	-4.5	-3.8

* Excluding aid to financial sector
** Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
*** Brazil, China, India, Indonesia, Korea, Mexico, Russia, Taiwan, Turkey
Forecast closing date: February 11, 2013
Source: BBVA Research

Table 5

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

	2010	2011	2012	2013	2014
United States	3.2	2.8	1.8	2.0	2.6
Eurozone	2.8	2.6	1.6	2.0	2.9

Forecast closing date: February 11, 2013
Source: BBVA Research

Table 6

Macroeconomic Forecasts: Exchange Rates (Avg.)

US Dollar per national currency	2010	2011	2012	2013	2014
United States (EUR per USD)	0.76	0.72	0.78	0.77	0.75
Eurozone	1.33	1.39	1.29	1.31	1.34
UK	1.55	1.60	1.59	1.52	1.53
China (RMB per USD)	6.77	6.46	6.31	6.16	6.02

Forecast closing date: February 11, 2013
Source: BBVA Research

Table 7

Macroeconomic Forecasts: Official Interest Rates (End period)

	2010	2011	2012	2013	2014
United States	0.25	0.25	0.25	0.25	0.25
Eurozone	1.00	1.00	0.75	0.75	1.25
China	5.81	6.56	5.75	6.00	6.00

Forecast closing date: February 11, 2013
Source: BBVA Research

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