Economic Outlook

Colombia

First Quarter 2014
Economic Analysis

- **The global economic cycle is strengthening,** but some countries are exposed to the withdrawal of US monetary stimulus.

- **Colombia will grow by 4.7% and 5.1% in 2014 and 2015, respectively.** Household consumption will continue to expand and other drivers will be the recovery of the industrial sector as well as civil works execution from 2015 onwards.

- **Inflation will slowly converge with the long-term target in 2014.** We anticipate the first change in monetary policy stance towards the end of the second quarter.

- **The withdrawal of monetary stimulus in the US and the elections in 2014 will give rise to volatility** in the local markets in the first half of the year. We are forecasting mild peso depreciation over the year.

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1. Summary

The global economic cycle strengthened during 2013. The improvement was due to the acceleration of growth in the advanced economies. In the emerging economies, the situation is more diverse, but some of them – for example China – are maintaining relatively stable rates of growth.

In December, the Federal Reserve started to taper its monthly purchases of financial assets, such that by the end of 2014 these will be normalised at zero. We expect the first interest-rate hike from the Fed in the second half of 2015, although it will continue to use forward guidance to anchor expectations.

The emerging economies have been subjected to a reduction in capital inflows and currency depreciation due to the gradual change in the extraordinary monetary conditions in the US. Nonetheless, the recent tensions have not led us to change our forecasts for growth for the emerging economies as a whole, but they do imply a downside risk for some countries.

The impact on Colombia has been limited, and capital inflows have continued, although at a slower pace than in the last two years.

The balance of leading indicators shows a consolidation of the economic recovery at the end of 2013. The recovery has been led by private consumption and construction. In contrast, the recovery of the industrial sector lagged behind, driven by a slower upturn in non-residential private investment. Altogether, we think that in 2013, GDP expanded by 4.1%.

Economic growth will be more balanced during 2014. Expansion in the construction sector will continue to lead growth, but at a more moderate pace than in 2013. Household consumption will continue to grow throughout the year, and industry will continue to benefit from the stronger growth in the US and peso depreciation to improve penetration overseas. The result will be stronger exports and non-residential private investment, particularly in the second half of the year. All in all, GDP growth will reach 4.7% in 2014.

In 2015, economic growth will consolidate to 5.1%. There will be scope for an improvement in private consumption thanks to formal employment, and the manufacturing industry will have a similar performance as the overall economy, driving non-residential investment. Building work, principally of commercial premises and social housing, will drive activity. The performance of two sectors will be key in 2015: civil works and exports. Finally, the GDP gap will close at the end of 2015.

The deficit on current account will be around 3% of GDP, due to an increase in investment and lower oil prices in 2015. However, long-term capital will continue to comfortably finance the current account deficit in 2014 and 2015.

The fiscal regulations impose discipline on the fiscal accounts as they require compliance with various floating targets. We expect the adjustment to be made under the heading of public investment. Starting in 2014, we anticipate tight fiscal accounts, which will become acute in 2015 with the elimination of some transitory taxes. We forecast that the government will have to find additional sources of financing.

The low rate of inflation at the close of 2013 gives more room for inflation and for the monetary authorities to increase the MPR. We now expect a first increase in the reference rate at end-2Q14 instead of April, after four consecutive quarters of above-potential economic growth. The increases will be gradual, reaching a neutral rate of 5.25% at the end of 2015.

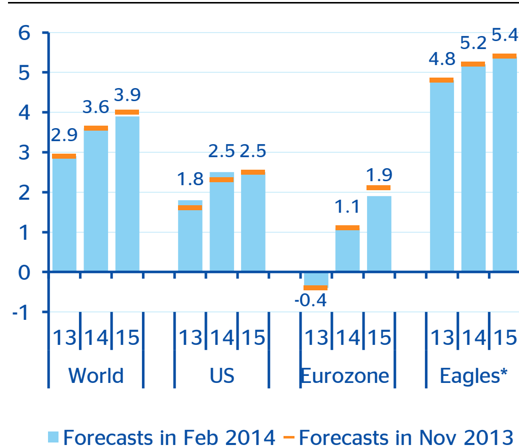
2. More growth and more balanced risks

The global economic cycle is improving and we now have clarity on some economic policy uncertainties

The global economic cycle strengthened during the latter months of 2013. According to our estimates, during the second half of 2013, global GDP accelerated to a rate close to 1% QoQ, leaving behind the moderation with its roots in 2012 and its low at the beginning of 2013, when growth was barely 0.5%. This improvement was driven by the acceleration of the developed economies – particularly the US, but also the eurozone, which started to see moderate growth. In the emerging markets, the situation is more diverse, but some of them (e.g. China) are posting relatively stable rates of growth.

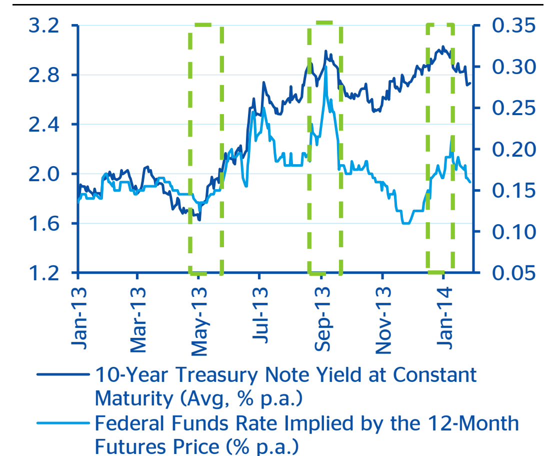
Our improved assessment of the global scenario is also the result of the developments in economic policy, inasmuch as this helps to reduce uncertainty. First, the US reached a more far-reaching agreement on fiscal policy than we expected. Meanwhile, the improvement in activity allowed the Fed to start tapering its expansive monetary policy at the beginning of 2014. In Europe, further steps have been taken towards the construction of banking union, which together with the ECB's determination to keep risks under control, should eliminate the hobble represented by financial fragmentation. The global outlook would be clearer if it were not for the effect that the tapering is having on financial markets in the EMs, and which could eventually affect economic growth in some of the countries included in this category.

Chart 2.1
GDP growth forecasts (%)



EAGLES is the group of emerging economies that will make the biggest contribution to global GDP in the next 10 years. The group comprises China, India, Indonesia, Brazil, Russia, Korea, Turkey, Mexico and Taiwan.
Source: BBVA Research and IMF

Chart 2.2
EU: Fed funds futures and long-term interest-rates (%)



Source: BBVA Research and Bloomberg

Thus, global GDP growth, which in 2013 had decelerated to 2.9%, will increase to 3.6% and 3.9% in 2014 and 2015, respectively (Chart 2.1), almost the same as our forecasts three months ago. The expected increase in global growth does not detract from the existence of downside risks to our forecasts. Although these risks are a long way from having the systemic nature that they had in the past, some recent events such as the fall in asset prices and currency depreciation in EMs have made themselves felt.

The US starts to unwind its monetary stimulus

US GDP growth has been accelerating through 2013, which by year-end allowed the Fed to take the first steps towards withdrawing monetary stimulus. Furthermore, in December, an agreement was reached that represents an important step forward in eliminating the uncertainty regarding the funding of the government's activity in 2014-15, as well as reducing the fiscal adjustment initially forecast for that period.

The outlook for monetary policy has also clarified recently, in line with our expectations. As a consequence of an acceleration in activity with well-anchored inflation expectations, the Fed decided to start to taper its monthly purchases of financial securities. All in all, in the fourth quarter of 2014, the central bank will have stopped expanding its balance sheet. Our base scenario also assumes that the first increase in interest rates will take place in the second half of 2015, although the FED will continue to use its forward guidance to anchor interest-rate expectations. In fact, the Fed's efforts to explain its exit strategy have been relatively successful in avoiding episodes of volatility like we saw last summer. Both long-term interest rates and expectations regarding Fed funds remain at levels no higher than the beginning of the summer (Chart 2.2). This is significant because part of the US recovery was due to interest-rate sensitive sectors such as real estate.

In this context, we have revised upwards our forecast for US growth in 2014 to 2.5%, the same as our estimate for 2015 (Chart 2.1). This adjustment reflects both the strength of the US economy in the second half of 2013 and the additional momentum contributed by the reduced fiscal drain thanks to the agreement reached at the end of last year. Note that there are also upside risks to our forecast if the improvement in confidence results in additional corporate investment and hiring.

The withdrawal of monetary stimulus in the US could cloud the outlook for some emerging economies

The change of direction in US monetary policy has, as usual, had a global impact. The emerging economies are being subjected to reduced capital inflows and currency depreciation, intensified in some cases by domestic events that have increased uncertainty regarding the management of their respective economic policies. In addition, there continues to be a differentiation between economies depending on their fundamentals: higher external deficits and more dependence on short-term and foreign-currency funding are associated with greater vulnerability to capital outflows and currency depreciation (Chart 2.3).

The recent tensions have not changed our growth forecasts for the EMs as a whole, but they do represent a significant downside risk. This risk is higher in the economies that have a higher weighting in global investment portfolios and that have the above-mentioned vulnerabilities: Turkey, Brazil, Indonesia and India in particular. The monetary tightening being introduced by some of these countries to control currency depreciation and inflation expectations will inevitably have a negative impact on growth. All in all, the diversity within the EM group means that our outlook remains favourable for some parts of South America, such as the Andean economies, emerging Asia and Mexico, some of which are benefiting from the cyclical momentum of the US economy (Chart 2.4).

Growth in China remains at around 7.5%, but the vulnerabilities are more evident

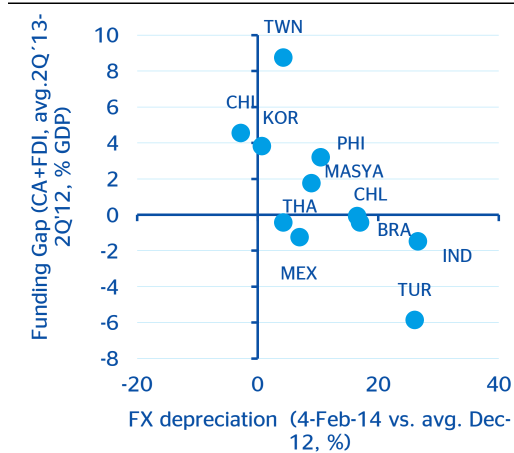
The fourth quarter was a clear example of the duality of China's economy as both a support for the global economy and a potential risk factor. The uncertainty at the beginning of the last year regarding the sustainability of its growth and the possibility of a hard landing dissipated in the short term. The economy recovered in the second half of 2013 (Chart 2.4) and maintains a good tone, although some of the more recent data on confidence and expectations of manufacturing activity are once again below market expectations.

Fundamental changes in economic policy have also been announced. At the Third Plenum of the Chinese Communist Party, the authorities reiterated their commitment to maintaining high rates of growth, while proposing measures that will strengthen the role of the market in allocating resources and a rebalancing from a model of investment and exports towards increasing household consumption. These announcements are steps in the right direction, but their effectiveness will depend on their execution, and they are not without risk.

For example, as regards the financial sector, the authorities are continuing to demonstrate their commitment to tackle the current vulnerabilities, fundamentally linked to the rapid growth of credit. This is being reflected in liquidity tensions in the interbank market which are above all affecting the so-called shadow banking sector[1], although the authorities have not managed to moderate the rate of growth in credit.

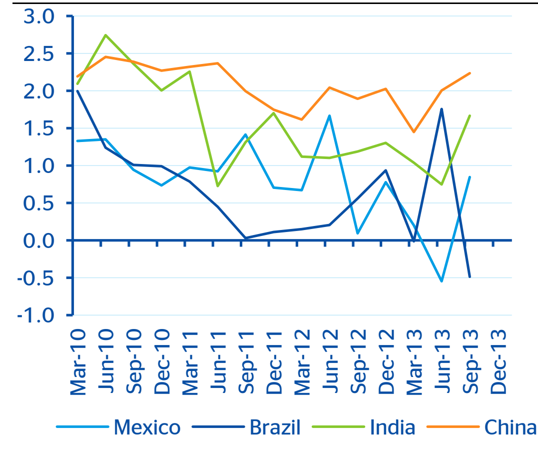
In any case, our 2014 and 2015 growth forecasts for China's economy remain unchanged (at 7.6% and 7.5% respectively), based on our confidence in the authorities' scope and ability to take action.

Chart 2.3
Exchange-rate depreciation (%) vs. external funding gap (CA + FDI, % GDP)



Source: BBVA Research and Haver Analytics

Chart 2.4
GDP growth in EMs (% QoQ sa)



Source: BBVA Research

The gradual recovery in the eurozone continues, with the support of the ECB and with banking union in its sights

After starting the year in recession, the eurozone managed to sustain moderate expansion throughout the second half of the year, in line with our forecast. Thus the fourth quarter data indicate YoY growth of 0.4%, which although only slight, is its best since the end of 2011. The driver of this slight improvement was the prospect of an increasing role played by domestic demand and the sustained improvement in credit financial conditions, favoured by the determination and commitment of the ECB to an expansive monetary policy. Nonetheless, the engine of European growth in 2013 and 2014 was, and will continue to be, the export sector.

In any case, we cannot rule out periods of instability as we approach events that could alter the panorama of progress in banking union and of strengthening the monetary union in Europe in general. The events to watch in this context include the European Parliamentary elections, and developments on the conditions and results of the stress test and asset quality review of the banking sector.

All in all, we reiterate our forecast for eurozone GDP growth at 1.1% for 2014. For 2015 we estimate 1.9%. However, given our projection of continued cyclical weakness, we are also maintaining as a risk event to our forecast horizon a scenario of significant deflation, although we assign a low probability to this risk.

1: The group of financial institutions and vehicles that fall outside the regulation of the banking system, but that carry out the same intermediary functions between the economic agents with surplus liquidity and those with insufficient savings to take consumption or investment decisions.

3. The Colombian economy is set to grow by 4.7% and 5.1% in 2014 and 2015

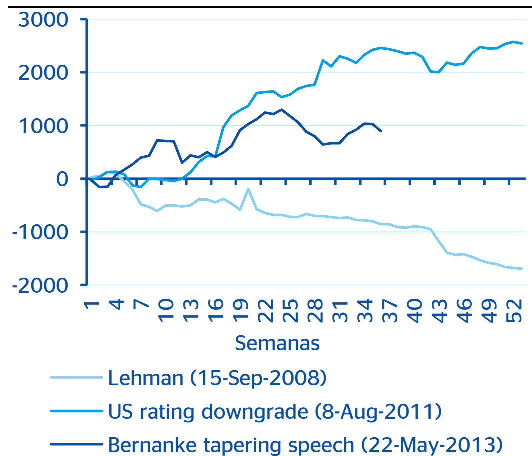
Colombia withstands greater aversion to global risk and continues to attract capital

Colombia was not immune to the phenomenon of the dollar's appreciation and the migration of capital from emerging economies to developed ones because of currency rates and levels of risk. The exchange rate dropped 5.9% over the year and touched highs not seen since 2009 after the international financial crisis. The EMBI, on its part, went up nearly 24bp from the levels at the beginning of the year, and the 5-year CDS increased 14bp during the month of January.

This was not the case when it came to investments, however, since the response of capital flows to Colombia was not the same as in other countries. Portfolio investments did not drop from their weekly averages, and from December onwards there were net capital inflows. In fact, since the Fed decided late on 17 December to reduce its monthly bond purchases in money markets, there have been net capital inflows from non-resident investors into the country totalling USD348mn, for a weekly average of USD58mn (latest data available at 24 January), a slightly lower average than in the second quarter of 2013 (USD76mn).

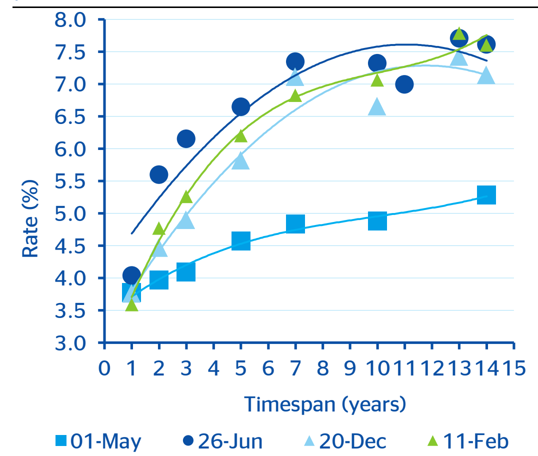
The impact on the public debt curve was concentrated in the long term. The 10-year rate increased 220bp since the Fed announced a possible tapering in monetary expansion in May 2013, and 40bp since December when the first reduction became effective in the monthly bond purchases. Nevertheless, in the short term there has been less selling pressure. 3 and 5-year bonds went up 130bp from May until now, and the trend has been similar to the long term since December. Nonetheless, the government has continued gradually to reduce the average domestic debt coupon, from 8.2% in May 2013 to 7.6% in December 2013. In addition, demand at domestic debt auctions this year was more sustained, despite higher issue targets than those between June and August of 2013 in the midst of high volatility following the tapering announcement.

Chart 3.1
Net portfolio inflows towards Colombia, USD mn, accumulated



Source: central bank and BBVA Research

Chart 3.2
Yield curve of internal public debt
%



Source: Bloomberg and BBVA Research

The balance of leading indicators for the last quarter of 2013 shows that the recovery is stabilising

For the first time since March 2013, economic growth in the third quarter of 2013, at 5.1% per annum, surpassed the psychological 5% threshold and our 4.6% annual forecast. Nevertheless, the nuances in the results make it impossible to establish a more optimistic scenario for the economy at the end of last year than the one that we described in our previous edition of the Colombian Economic Outlook in November 2013.The underlying reason was the downward revision of performance at the beginning of the year, with growth reductions from one to three percentage points in the first and second quarters respectively. These corrections completely offset the difference between our forecasts and the actual third quarter results.

The Colombian economy consolidated the recovery trend, which started in the previous quarter (Chart 3.3) according to our balance of leading indicators. The sectors spearheading this growth were probably the same ones. Private consumption continued to reflect the positive impact of low interest rates on household spending decisions. Its greater momentum coincided with new cuts in the intervention rate during 2013 (75bp in total) and the gradual pass-through of financing costs to the market. Furthermore, civil works showed strong performance thanks to the high rate of compliance with the public budget. Its execution was slightly above the average in 2002, in a scenario of a larger government budget, which increased 9% versus 2012. In short, the economy would have grown at a 4.8% annual rate in the last quarter of 2013, with a 4.1% variation in GDP over the entire year, a forecast that has remained unchanged since our February 2013 edition of the Colombian Economic Outlook.

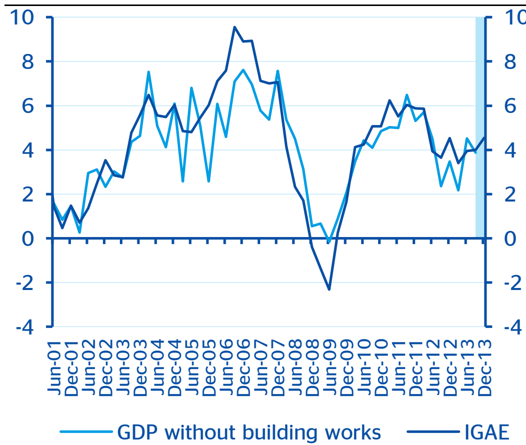
If this were to be the case, activity in 2013 would have moved from less to more. Momentum in the first half of the year was 3.3%, compared to 4.9% in the second part of the year. The difference was more evident in the case of investment in construction, which increased from 5.5% to 16% on an annual basis during the same period, and was one of the key drivers of the economic upturn.

Industry performance at the end of 2013 leaves some doubts about its ability to recover

In 2013, the industrial sector was the one which showed the least growth. The scenario at the beginning of last year seemed favourable for the manufacturing sector, due to both internal demand and greater global growth. In June, Colombian businesspeople interviewed by ANDI were optimistic about achieving their sales targets. They believed they would reach 93% of these, with particular optimism in exports, at 99%. Nevertheless, the scenario changed drastically in the second half of the year. When asked the same export question in October, confidence had slipped back to 92% and they maintained the same outlook for the internal sales component. That is, expectations for domestic growth were met but exports were disappointing. This was even more evident in the case of low-technology manufactured products, which reduced their presence in the external market by nearly 10% during 2013 (See Box 2).

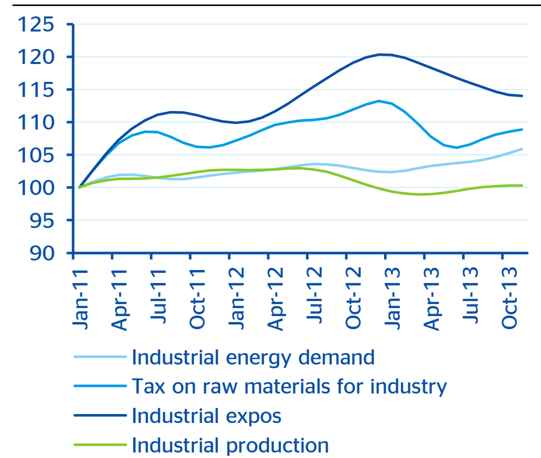
The industrial sector has recently recorded an increase in the purchase of raw materials, a sign that we could see a recovery this year (Chart 3.4). The installed capacity levels, however, remain below the historical averages, determined by negative investment conditions, according to business sentiment. Accordingly, our new scenario postulates a delay in the recovery of non-residential investment until mid-2014, three months later than previously expected.

Chart 3.3
Balance of leading indicators at 31 December —IGAE*— and GDP growth, excluding civil works
Index and % var. YoY



*IGAE: general index of economic activity. It is the first main component of the leading indicators of the economy.
Source: DANE and BBVA Research

Chart 3.4
Leading industry indicators
Index Jan11=100



Source: DANE, XM and BBVA Research

The underpinnings for growth this year will be more balanced

In 2013, the growth drivers were evident: from investment in construction followed by final consumption. In contrast, in 2014 the situation will be somewhat more balanced. Construction will continue to be the main driver, albeit at lower rates, and private consumption should start to pick up thanks to better conditions in the jobs market (See Box 1). In addition to these factors, exports and non-residential investment will also play a role with similar dynamics in the average for the year, although each should be peaking at different times in 2014.

Residential investment will be very significant in the first quarter, as well as the completion of civil works. The high rates of construction licences, strongly driven by medium-sized cities, reached their peak in 4Q13. Considering the time lag from the moment that building permits are granted to the actual completion of the projects, between six and eight months, we should see some strong residential activity in the first half of the year, even stronger than the statistics from the same period in 2013.

Civil works, for their part, should receive a considerable stimulus from public policy (Chart 3.5). We have seen near total compliance with the 2013 budget, especially when it came to transport and infrastructure, despite the state's restrictions on contracting under the Law of Electoral Guarantees. This is a sign of mature governance which is ahead of the regulations and succeeded in carrying out tender processes and executing agreements before these were paralysed by law. Furthermore, the economic-political cycle shows a clear relationship between public investment and the primary elections which will be held in May or June, depending on the results of the first round of the presidential elections. This means that spending should remain high during the first half of the year and, accordingly, a significant contribution on the part of civil projects.

Non-residential investment and exports should play a greater role in the second half of the year. The consolidation of the industrial recovery will take place in the second half of 2014 and this should go hand-in-hand with greater investment demand from the sector. The stronger economy in the US and the stable growth rates in China should contribute to the positive performance of the export sector, with direct foreign investment and the greater installed capacity of exporting companies, specifically those in the mining-energy sector. This growth in investment and exports will help partially to offset the possible slowdown in the

second part of the year in the construction sector, building and civil works, as is often the case after elections, even when a government is re-elected.

The momentum should slow down in the second half of 2014, however. Quarter-on-quarter variations will be less pronounced, on average, from the third quarter onwards. This, combined with the more demanding statistical basis of comparison from July to December of 2013, will mean that the annual growth rate will be higher at the beginning of the year. Growth in the first half should be at an annual average of 5.3% and 4.1% in the second half.

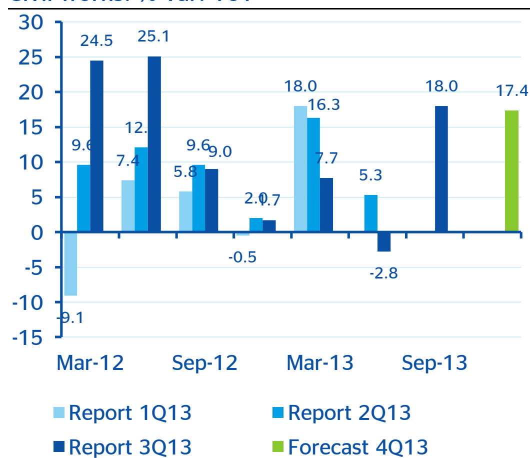
Internal demand in 2014 will grow more than GDP, thanks to an improved balance by type of expense. This will be the case for the fifth consecutive year since 2010 as a result of the significant investment growth in the country. In fact, the investment rate should increase from 24% of GDP in 2009 to an average 29% of GDP this year.

The relationship between dynamic internal demand and imports, which has been building up since 2010 against a backdrop of a nominal and actual appreciation of the exchange rate, may be at least partially lost this year. We have been observing this in data since 2013 when strong growth in internal demand (also measured in retail sales and household and business confidence indexes) has not been reflected in greater imports. This has positive consequences for the offering of domestic products, since we anticipate that the connection between internal demand and industrial activity will intensify thanks to the influence on imports of the exchange rate depreciation. It could also help the industry to recover some ground in exports, particularly in relation to low-technology manufactured goods. (See Box 2).

In short, our expectations are for 4.7% GDP growth in 2014 (Chart 3.6). This forecast is explained by the increase in private spending, from 3.9% in 2013 to 4.5% this year, and of fixed investment, up from 5.8% to 6.6% in the same period. In the latter case, the most important recovery will be in private non-residential investment which grew only 0.8% last year, and should be increasing 6.5% this year thanks to the positive effect of the favourable YoY comparison as well as the stronger dynamics in industrial and mining activities. Exports should grow 6.3% (vs. 2.5% in 2013) as a result of the stronger performance of the United States. Lastly, imports will increase by 7.7% (vs. 2.8% in 2013), although with less elasticity of internal demand than in previous years.

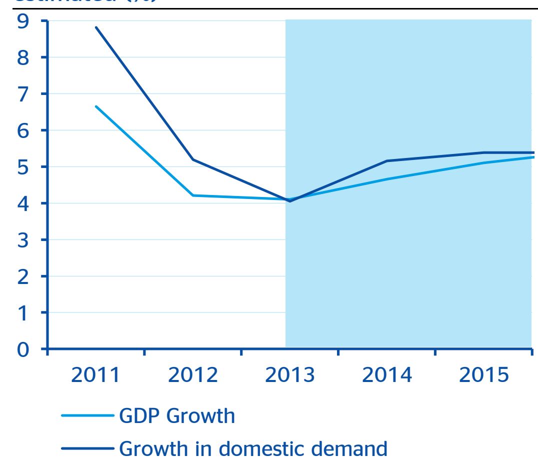
The main difference in the composition of growth versus our forecast three months ago is the slower growth in internal demand (due to non-residential investment in the manufacturing industry and with a recovery further over the horizon), which will be offset by an improved export balance and a drop in imports.

Chart 3.5
Civil works. % var. YoY



Source: DANE and BBVA Research

Chart 3.6
GDP and internal demand growth, observed and estimated (%)



Source: DANE and BBVA Research

Employment data benefit the performance of consumption

Unemployment data in 2013 were fairly favourable, showing historically low levels and reaching an average one-digit rate of unemployment nationwide (see Box 1). The annual rate of wage employment creation (4.4% YoY average in 2013) was greater than the total rate of employment (2% YoY average in 2013), even eroding part of the selfemployment. In terms of job quality, this composition was positive since the income of wage employees is greater than those of non-wage employees, in addition to the other benefits of formal work. In terms of income, for example, while 60% of non-wage employees were paid wages that were less than the minimum; this percentage was somewhat more than 20% in the case of wage employees (estimates for 2012). Therefore, the job market is offering favourable conditions that benefit consumption.

The outlook for 2014 is for a first half with rates of unemployment below those of the first half of 2013, thanks to the significant impact of economic activity. The leading job-generating sector in this half of the year will be construction, followed by the trading sector which is expected to continue to grow over the course of the year. Already by 2013, the construction and trading sectors were playing an important role in job creation, contributing 0.4pp and 0.5pp respectively to annual growth. In that year, nevertheless, the sectors that made the greatest contribution to annual job creation were community, social, and personal services (1.1pp) and transport (0.5pp). It seems that industry, which was rather on the side-lines in 2013 in terms of its contribution to the annual rate of job creation, will be picking up in the second half of 2014.

In summary, the rate of unemployment in 2014 will continue to decline, getting even closer to its potential level and showing signs of inflationary pressure. For mid-2014, we anticipate that the central bank will increase its intervention rate, and this should cushion the drop in the unemployment rate during the second half of 2014.

Box 1. Good employment results in 2013

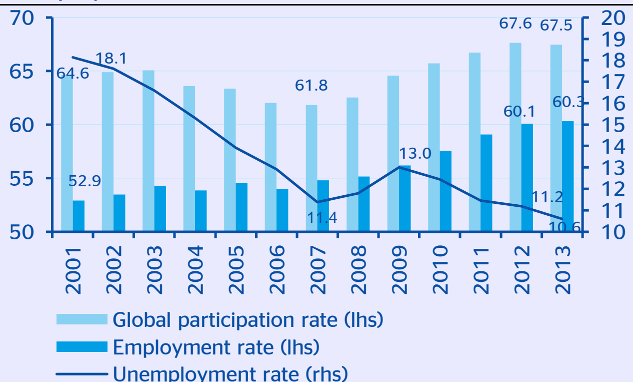
The unemployment rate in 2013 was at historically (single-digit) low levels

The job market performance in 2013 was positive, with the average rate at 9.6% nationwide and 10.6% in 13 cities, which represents a reduction of 0.6pp to 0.7pp by comparison with 2012 (Charts B.1.1 and B.1.2). Colombia, therefore, was able in 2013 to achieve the single-digit national unemployment rate targeted by the Santos administration. Although there were individual months in 2012 when the unemployment rate had been in single digits, this was in periods characterised by low seasonality in unemployment, whereas the 2013 result was an average for the year.

Chart B.1.1
Growth of the labour force, the employed and the unemployment rate National (% YoY)

Source: DANE and BBVA Research

Chart B.1.2
Growth of the labour force, the employed and the unemployment rate. 13 cities (% YoY)



Source: DANE and BBVA Research

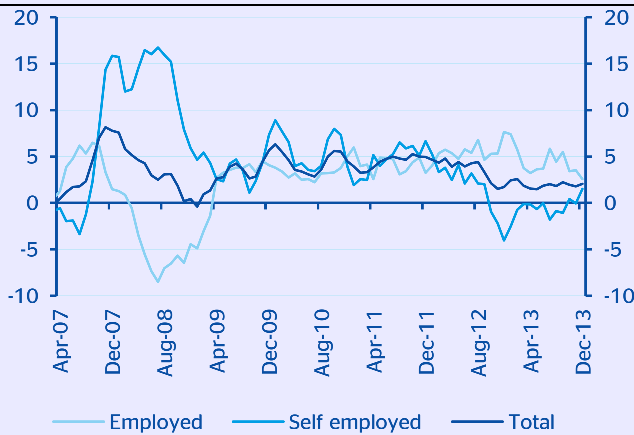
Despite the good unemployment result and its downward trend, according to the estimates of urban NAIRU for Colombia (Arango et al, 2011), which places it at 10.8%, there does not seem to be much room for further drops considering, as mentioned before, that the average unemployment rate in 2013 was 10.6%. It should be mentioned, however, that despite the drop of this rate in the last few months (which is below 10.8% if seasonally adjusted) it seems that there is no significant inflationary pressure to date, possibly because of supply-side shocks. Nevertheless, even inflation excluding food and regulated goods does not seem to show signs of significant inflationary pressure. This might lead to an expectation that the NAIRU could be slightly less than 10.8%, which would be below the current level. The possibility of a lower NAIRU seems more plausible if we take into account that the growth of the workforce has dropped considerably. This could be partially explained by the economic cycle considering the rate of growth of the workforce in 2013 which was extremely low, something which was not achieved in 2007 or 2011 either, years which recorded stronger economic growth.

Employment grows at rates higher than the work force, although below the rates of previous years

The reduction in the unemployment rate between 2012 and 2013 is explained by the increase in the employment rate (ER) which was more than the increase in the participation rate (GPR), both nationwide and urban. The ER in the country grew 0.1pp, whereas the GPR dropped -0.4pp from 2012 to 2013 (Charts B.1.1 and B.1.2). Therefore, during 2013 an average of 350,000 jobs were created throughout Colombia, while the work force increased by 200,000. The moderate growth of GPR between 2012 and 2013 was partly due to the slowdown in the growth of the workforce, explained mainly by the performance of the "second members of the household" workforce, the annual growth of which was actually negative during some months of 2013. This performance can be partially accounted for by the economic activity cycle (see Employment Watch). In fact, the improved economic conditions and greater formalisation of employment during the past year contributed to better work conditions for the heads of households in terms of lower unemployment rates and higher income, allowing other members of the household to carry out other activities such as housework and study.

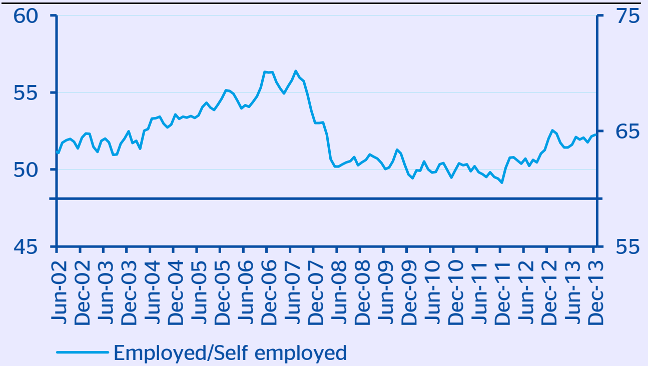
As was the case with labour supply, job-creation was slower than in previous years (1.8% in 2013 vs. 4.3% from 2009 to 2012). Nevertheless, the population indicators show greater rates of growth in the case of the employed than in the job offers (workforce), which explains the downward trend in employment. The jobs created in 2013 were waged, and there was even annual growth in the negative field of non-waged employees during most of the year (Chart B.1.3). There was a rebalancing in the breakdown between waged and non-waged employees, with an average of 52% of waged employees accounting for the total in 2013, as opposed to 50.2% from 2009 to 2012 (Chart B.1.4).

Chart B.1.3
Growth of total employment, wage and non-wage 13 cities (% YoY)



Source: DANE and BBVA Research.

Chart B.1.4
Participation of wage-earners in total employed 13 cities (% of employed)



Source: DANE and BBVA Research

The performance of the job market was positive, with a NAIRU that may be slightly below estimates

The performance of the jobs market was positive in terms of lower rates of unemployment, greater formalisation and a better breakdown of the inactive population. In view of the limited inflationary pressure to date, with rates of unemployment adjusted for seasonality at 10.8%, and the significant moderation in the growth of the population of working, there are many signs that the NAIRU rate may be slightly below the current 10.8% estimate for Colombia. In this respect, the NAIRU can be presumed to be currently below the average rate in 2013 (10.6%).

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Dynamic performance by civil works will be essential for economic growth in 2015

The country's growth will be consolidating in 2015. There is room for improvement in private consumption, since the jobs market will continue to show signs of the increasing formalisation of employment (See Box 1). Manufacturing industry will tend to show a similar performance to the rest of the economy for the first time since 2011, driven by non-residential investment. Building, mainly in commercial areas and social housing, will boost activity. Nevertheless, the performance of civil works and exports will be the decisive factors for GDP growth in that year.

2015 will be one of the best in terms of the contribution to growth of the completion of fourth generation (4G) telecom infrastructure projects put out to tender. The government's investment estimate amounts to COP47trn being spent by 2018 (or 2019), which will boost the growth of civil projects to an annual rate of 8.8%, similar to the values estimated three months ago. We are waiting to see the progress made on tenders during the first half of this year, which has a number of very tight deadlines. The positive trend in tenders and the selection of contractors will be paramount in ensuring the effective use of resources in 2015.

Up to now, the newly institutionalised nature of the sector, following the creation of the *Agencia Nacional de Infraestructuras* (ANI, the Spanish acronym for the National Infrastructure Agency) has generated greater confidence among investors, and it has been more proactive in formulating projects. Nevertheless, there are still some important challenges ahead that will test its capabilities in managing major infrastructure initiatives. For example, six of the initial projects (for a total amount of COP7.3trn) envisaged in the infrastructure programme have already been postponed, which means there will be a delay of at least one month in the tender process. Also, although Congress has passed the Infrastructure Law, the supporting regulations have not yet been drafted.

The method for measuring civil works is yet another area of uncertainty. The country's statistical department (DANE) is increasing the number of contractors included in its index on civil works, which corresponds with the results of the same GDP item. Whenever it incorporates new data, there is risk that the present and past series are changed. We will only have a more stable indicator only when there is a complete census of projects, not just a sample as is currently the case. Nevertheless, there are still further stages to go before this can be achieved, including meetings with index experts and clients who will only be starting to meet up this year.

We also believe that there remains room for growth in exports in 2015. By then, growth in developed countries will have recovered to near their pre-crisis averages. The country will have more mature free trade treaties, with an exchange rate more aligned to break-even levels, and with a stronger industry that will be able to take advantage of this. Hence, we expect that exports will be growing at an annual rate of 9.8%.

In short, according to our estimates, in 2015 GDP will grow at a rate of 5.1% and internal demand at a rate of 5.4%. These rates will be achieved despite the drop in public spending and increased imports.

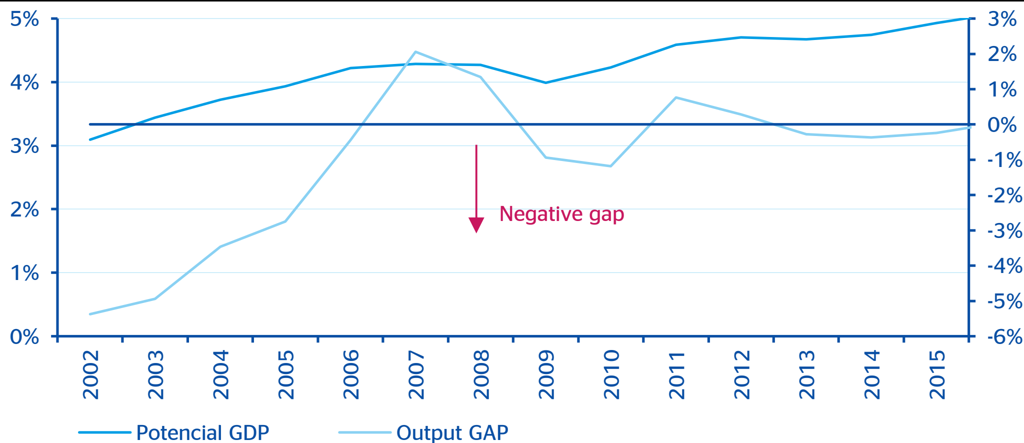
Slow narrowing of the product gap

The narrowing of the product gap helps to anticipate the response of monetary policy to the economic cycles and the pressure of greater demand on inflation. The gap is defined as the percentage difference between the values of the effective and potential GDP. The latter is currently 0.3% higher than the former, since the GDP growth values in the two previous years (4.2% on average) were below the potential level (which was 4.7% on average).

For 2014, we anticipate that the average effective GDP growth rate will be at an identical level to the potential GDP, that is to say that the gap will remain the same even though effective growth in some quarters will be greater than potential growth. Nevertheless, effective growth in 2015 will surpass the potential one and the process of narrowing the gap will continue.

Therefore, inflationary pressure will be greater on the demand side. The gap will eventually be closed at some time towards the end of 2015 or the beginning of 2016 (Chart 3.7). By that date, the central bank's interest rate should be at a neutral value at which, while not supporting economic activity, it will not be impeding it.

Chart 3.7
Potential GDP and product gap*. YoY variation and percentage of GDP potential



* Gap= (Effective GDP / Potential GDP) * 100%.
Source: BBVA Research

4. External and financial accounts

The current account deficit will stabilise at around 3%

The country's foreign trade has experienced a transformation since 2010. At that time, trade openness (calculated as the sum of exports and imports) accounted for 28% of GDP, increasing to 32% of GDP at year-end 2013. More than half (60%) of this greater openness was due to the greater impact of imports thanks to the appreciation of the exchange rate and the slow industrial recovery, among other factors.

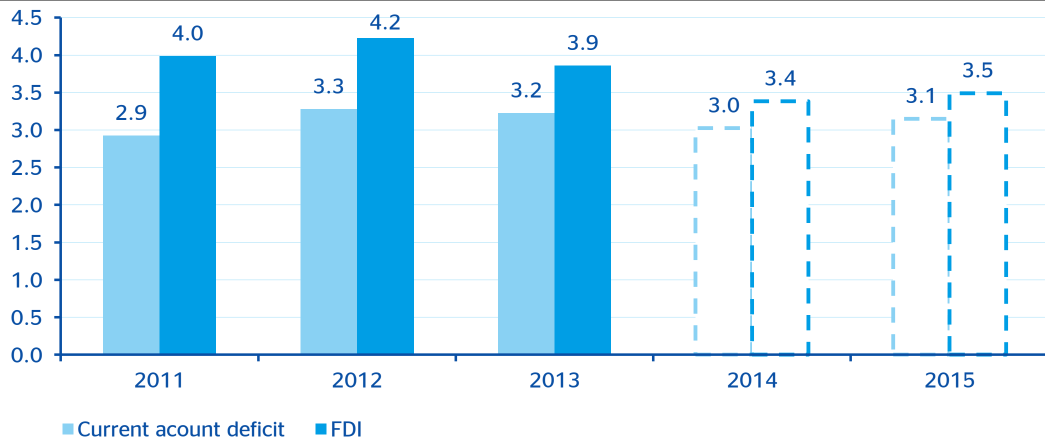
As a result, the current account deficit went up structurally, reaching around 3% of GDP compared to an average of 2.4% from 2006 to 2009. This enlarged deficit, however, was in line with the sharp increase in the investment rate, from 24% in 2010 to 28% in 2013, which will continue to increase until reaching almost 30% in 2015. Otherwise, it is not explained by the increase in the end-consumption rate, which remained at nearly 81% over the same period.

The current account deficit should remain at around 3% over the coming years. There is greater flexibility in oil prices compared with the levels estimated three months ago, since we believe that the values of Colombian purchases will remain close to current levels until at least 2015. Also, it will take another two years for remittances from Colombians living in Europe to reach the levels prior to the 2008-09 crisis. Moreover, the reduced elasticity of imports to internal demand will mean that the economic recovery will not have a strong impact on foreign purchases, thereby limiting pressure on the deficit. In addition, the positive impact of the free trade treaties on industrial and agricultural exports will consolidate in 2015 and finally the reduced profits of the mining companies in 2013 will mean less dividend flow abroad during this year.

As in previous years, in 2014 and 2015 there will also be flexibility in financing the current account deficit (Chart 4.1). The estimated flows of foreign direct investment, albeit lower, will more than cover the funding needs of the economy, making the entry of portfolio flows irrelevant. The latter could, in fact, be considerably lower this year, as a response to the restrictions that the Fed has already started to impose on the growth of liquidity. Its reduction

will continue to imply high volatility in domestic assets (bonds and securities) but will not imply any risk to the continuation of the physical investment process in Colombia, which will be covered by direct investment continuing to flow into the country.

Chart 4.1
Current account deficit and Direct Foreign Investment, In % of GDP



Source: central bank and BBVA Research

Fiscal accounts will gradually close the gap with the targets in the fiscal rule scheme

Colombia's Fiscal Rule (Act 1473 of 2011) is committed to maintaining fiscal discipline by fulfilling certain floating targets for the structural deficit contemplated by the National central Government (GNC). Accordingly, the structural deficit should reach 2.3% of GDP in 2014, 1.9% of GDP in 2018 and less than 1% of GDP by 2022. The deficit should also show a downward trend. The commitment to comply with the fiscal rule is a fact. The target for the reduction of the structural deficit was fulfilled in 2013 and the structural deficit that year was 2.4% of GDP (the details of the GNC balance are not known, but the Government announced that the target had been met).

The fiscal regulation imposes restrictions on GNC spending which will mean, as could be construed from the government's projections (Medium Term Fiscal Framework, June 2013 - MTFF), the reduction of GNC's investment expenditure, since this is the most flexible spending item. Despite the adjustments in investment expenditure, the fiscal accounts show some tightness. For 2013, tax revenues were COP1.5trn less than the level budgeted by the government, standing at COP 100.7trn. Moreover, since corporate income tax retentions at source in 2013 were made at the rates prevailing before the reform, this benefited revenues that year but will affect the payment of income tax quotas in 2014.

In 2015, the GNC budget will be even tighter. The removal of duties on financial movements will bring the tax rate down from 4x1000 to 2x1000 thereby affecting tax revenues by 0.4% of GDP. On the other hand, the last two quotas on estate taxes will be collected in 2014, which quotas total 0.5% of GDP. Therefore, tax revenues in 2014 will be reduced by 0.9% of GDP compared with 2014. Again, according to MTFF the adjustment of the GNC balance will be made by reducing investments. The question is, however, whether this adjustment in investment will be sufficient to cover the 0.9% shortfall of GDP in tax revenues as well as the pressure on expenditure as a result of the CREE (a tax reform which, among other changes, substituted some payroll taxes) and pension expenses.

It is important to reconsider the tax revenue scheme and to stay a step ahead of the situation, generating strong sources of funding for the efficient allocation of resources, greater equity, and to promote economic stability and growth. So far, the government has announced that it plans to intensify the fight against tax evasion, but has not mentioned any tax reform to increase tax revenues.

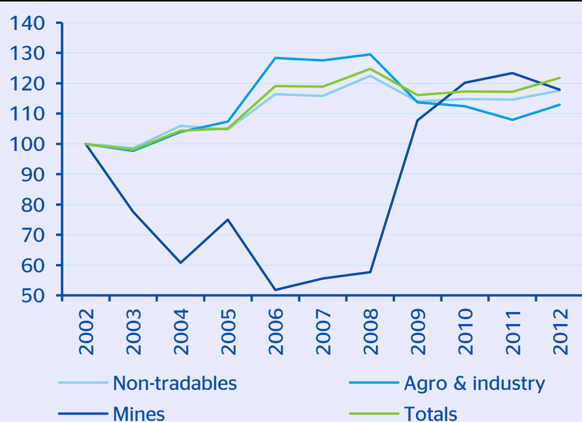
Box 2. Industrial competitiveness has declined since 2008

The economy's productivity peaked in 2008, declined as a result of the international crisis and has not yet recovered

Average productivity in Colombia has shown an upward but differential trend. Since 2002, average productivity grew 22% over the economy as a whole at an effective annual rate of 2.0%. The main factors behind this increase were, up to 2008, the energy, construction, and industrial sectors, with annual rates of 5.6%, 5.0% and 4.4% respectively. Nevertheless, starting in 2008, mining has been the sector showing the greatest increase in average productivity (+20% per annum), while industry (-2.8% annually) and the total economy (-0.7% per annum) reduced their productivity until recording negative variation rates (Chart B.2.1).

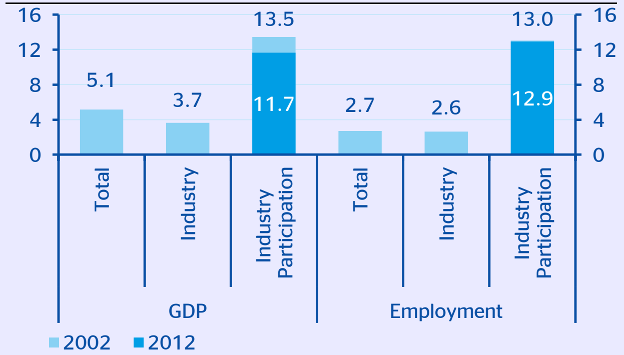
Since 2011, despite the slight increase, productivity has not returned to pre-2008 levels. The structural change is due mainly to the diminished penetration abroad of tradable sectors other than mining, due to the appreciation in the exchange rate, the neighbouring country crisis and reduced demand from developed countries. The progress achieved in markets such as Ecuador, Peru and Mexico was not enough to offset this drop and it also meant that there was smaller base of beneficiary companies, which were mostly in the vehicles and chemical sectors. As a result of this, the direct participation of manufactured goods in GDP and employment has been declining gradually since 2002 (Chart B.2.2), although this is mainly explained by the vertical disintegration of the industrial chain, according to Carranza and Moreno (2013).

Chart B.2.1
Total productivity* broken down by economic sectors 2002 Index=100)



* Productivity measured as the average labour product.
Source: DANE and BBVA Research

Chart B.2.2
Average annual GDP growth (total and industrial) and employment (total and industry) between 2002 and 2013 and the participation of industry in GDP and in employment in 2002 and 2012



Source: DANE and BBVA Research estimates

The appreciation of the currency limited the competitiveness of manufactured goods abroad

Industry recorded strong growth from 2002 to 2008, despite real currency appreciation in a scenario of high raw material prices. This was achieved thanks to the growth of external markets and the consolidation of internal demand, which gradually offset the problems of competitiveness and lower income from abroad due to the currency appreciation. In fact, the participation of the industry in exports was nearly equivalent to the contribution of fuel sales abroad and, in addition, the country reduced its exposure to the United States. Since then, however external and internal demand has dropped, there has been faster growth in terms of trade and the export capability to the country's main commercial partners has diminished. The appreciation of the actual rate of exchange was, on average, greater between 2007 and 2012 than between 2002 and 2007.

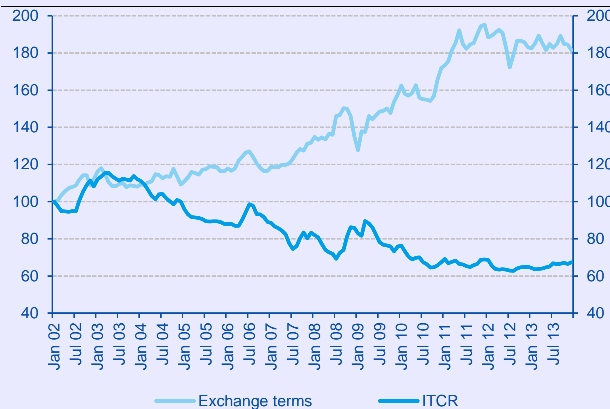
The terms of trade grew 72% between 2002 and 2013, at an annual rate of 5.0%. From 2009 to 2013, the annual rate increased to 6.5%. Part of the increase was due to improved results in the oil industry. From 2000 to 2011, growth in exports was the result of higher prices (+374% in the export value index) rather than because of increased output (+86% in the export volume index). In addition, in bilateral terms, the Colombian currency appreciated strongly against the currencies of developed countries and Mexico (Chart B.2.3).

In general, the country's exports increased at a faster pace than the world total, but this was achieved because of the dynamics of a few products: live

plants, fuel, precious stones and cars. In other cases (in the main, manufactured goods), the penetration rates in global markets, which had shown improvement, fell back again during the 2007-2012 period. Fuels currently represent two-thirds of the country's exports and manufactured goods account for no more than 15% of the total. As a consequence, the Herfindahl-Hirschman concentration index for exports increased more than 4x from 2007 to 2012, and the number of products sold abroad fell by 15%. There was no diversification in respect of the markets where the country sells its products, and there was an increase in the shipments of low-technology products.

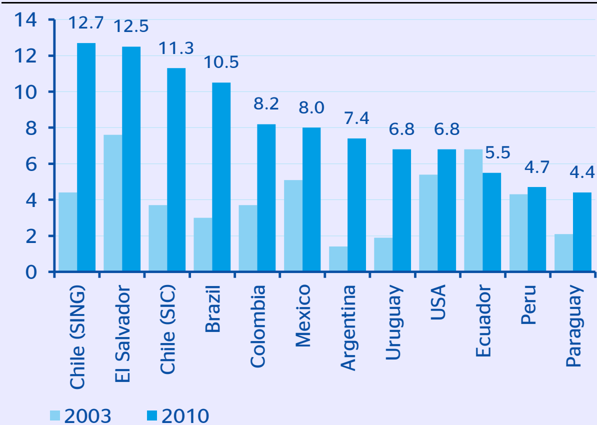
The interpretation of these results is that Colombia mainly experienced intensive growth in the margin (expanding existing trade flows) rather than extending the margin - that is, the addition of new products and markets.

Chart B.2.3
Terms of trade and real multilateral exchange rates [2002 Index=100



Source: central bank and BBVA Research estimates

Chart B.2.4
Electricity prices in selected countries. CUS$/KVh



CUS$ refers to US dollar cents, KVh is kilowatt per hour. The price in Colombia does not take into account the 20% social contribution. SING= the Norte Grande interconnecting electricity grid. SIC refers to the central interconnecting electricity grid.
Source: Interame, ANDI and BBVA Research

Some internal bottlenecks erode the industry's competitiveness, more so since 2008

There are other internal factors, more related to regulations and to the few steps taken in the reform agenda that have hampered competitiveness: the cost of energy, the quality of infrastructure, access to financial services and informality.

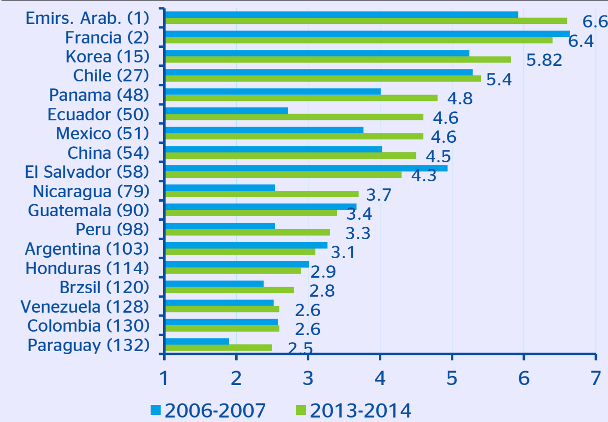
As to the energy market, Colombia must deepen its reforms, since electricity prices still remain among the highest in the region despite the progress made and the high rate of competitiveness in the energy sector. In the Latin American context, according to Interame and ANDI data, Colombia is the country with the fourth-highest energy prices, whereas in 2003 it was in eighth place among the small sample of twelve countries (Chart B.2.4). When adjusted for purchasing power parity, the values confirm that Colombia has one of the highest prices, in third place after Chile and Uruguay.

A second subject of discussion is its infrastructure. Road infrastructure in Colombia is inferior to that of its regional peers and ranks in 130th place among 144 countries according to WEF data (Chart B.2.5). Quality problems affect transport costs, and this is the reason why Colombia has the highest internal cargo costs among its competitors in manufacturing markets. Furthermore, unlike Korea, Chile, Mexico, China, Peru, and Brazil (the country's main competitors) its infrastructure rating did not improve in the 2006-13 period.

Third, although Colombia's financial inclusion has been growing, it remains below other comparable countries such as Chile or Brazil. According to international measurements, Colombia's financial inclusion index is barely 40% (Chart B.2.6). This is the case despite the fact that financial channels have increased significantly in recent years, from 47 channels for every 10,000 adults in 2008 to the current 86 channels.

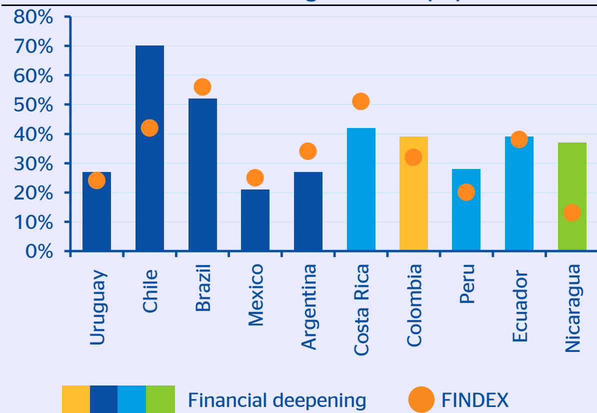
Fourth, companies' access to financing is restricted because of informality, due, among other reasons, to high procedural costs, such as governmental procedures and non-salary costs. The latter generate extra charges for companies of about 52% of salaries, considerably eroding the relationship between the company's costs and its competitiveness. Lastly, capital markets have been a source of efficient financing only for the largest companies, and the task of expanding coverage to medium-sized, already formalised, companies remains a challenge.

Chart B.2.5
Ranking of road infrastructure quality in the region (ranking of 144 countries and rating, 7= max.; 0= min.)



Source: WEF World Bank and BBVA Research

Chart B.2.6
Financial inclusion. Percentage of adult population



Countries in dark blue: income per capita between USD9.001 and USD15.000. Light blue: between USD4.001 and USD9.000. Green: between USD 1.000 and USD4.000.
Source: WEF and BBVA Research

Conclusions

Industry increased its competitiveness from 2002 to 2007. After this period, competitiveness came down sharply and was unable to recover the maximum levels of exports reached at the end of the first five-year period.

The change in average work productivity, declining since 2008 and showing only a slight recovery recently, the share of high-technology products in exports, which has been falling since 2007, and the industrial export momentum (except for vehicles) which grew less than the global aggregate, among other indicators, all support this conclusion.

It is also necessary to make more consistent progress in resolving some of the bottlenecks to increasing industry's competitiveness, in a scenario of a greater devaluation of the exchange rate and stability in terms of trade.

References

Carranza, Juan and Moreno, Stefany (2013). "Tamaño and estructura vertical de la cadena de producción industrial colombiana desde 1990". Borradores de Economía del central bank, No. 751.

5. Inflation set to converge slowly at 3% in 2014

Inflation, surprisingly, continued to drop until the end of 2013

Inflation at 31 December 2013 surprised both financial analysts and the central bankcentral bank, based on the forecasts of three months ago, and was principally the result of unexpected deflation in October and November (-0.26% and -0.22% MoM respectively). A sharp drop in food prices and regulated prices, such as for fuel and electricity, were determining factors in contributing to bringing annual inflation slightly below the central bank's target range (2% to 4%). Deflation in October surprised the market and was the result of an unexpected drop in food prices (-1.0% MoM), following good crop yields thanks to the good weather. Deflation in November, for its part, was due not only to a further drop in food prices (-0.53% MoM) but was also supported by a reduction in the price of regulated goods (-1.0% MoM) such as electricity and transport. In both months, the surprises were due to supply shocks that brought down prices, rather than to aggregate weak demand. Inflation increased again in December (0.26% MoM) and was in line with forecasts after incorporating the surprises of the two previous months. Year-on-year, however, inflation was again slightly lower than the central bank's target (1.9%).

A breakdown of total inflation into its basic and less volatile components shows that throughout the year the total measurements (three) increased gradually in line with the economic acceleration, after the weak performance in the first quarter of 2013. Specific inflation measurements representing a good approximation of household demand - for example, dining out or entertainment - show price increases higher than total inflation, reflecting the positive demand for these items. In addition, the non-tradable goods component has shown signs of inflation which have remained at the top of the central bank's target range, reinforcing the hypothesis of the positive demand scenario.

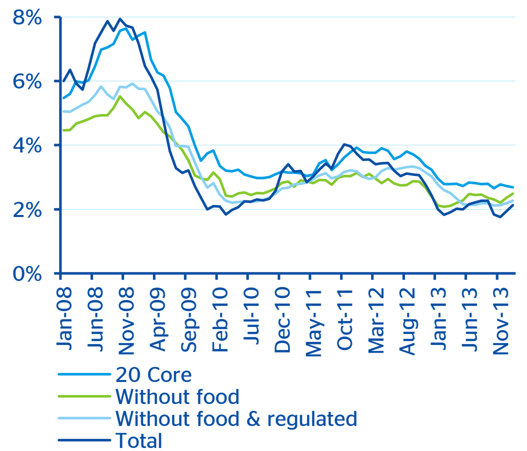
Inflation will gradually converge towards 3.0% in 2014

The deflationary surprises in October and November 2013 made it necessary at one point to revise downward the forecast for the end of 2013, as well as the inflation trend for 2014. Thanks to the favourable food supply shocks during the above-mentioned two months, annual inflation in November was the lowest since 1955. Given the lower-than-expected inflation at the end of 2013, (36bp), we decided to reduce our inflation forecast for 2014. We anticipate that inflation during the year will remain at the lower end of the target set by the central bank, with upward pressure during the first and last quarters of the year, reaching a maximum of 3.0% in November and closing the year at a rate of 2.9%.

Inflationary pressure in the first quarter of the year will be caused by the positive performance of economic activity and the anticipated volatility in the exchange rate, which will have a greater impact on prices than has been the case on previous occasions, although it will continue to be low. During the last quarter of the year, the extraordinarily low statistical basis for comparison will mean that inflation will be reaching its long-term target, despite a slightly weaker economic performance than during the first half of the year.

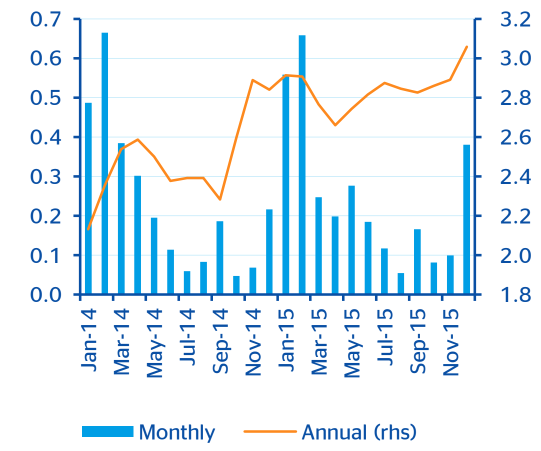
In short, inflation in 2014 will increase gradually towards the central bank's long-term target, without ruling out inflationary surprises in certain months due to the most volatile components in the price indexes.

Chart 5.1
Total inflation and basic inflation measurements, YoY change, %



Source: central bank and BBVA Research

Chart 5.2
Annual and monthly inflation forecasts, %



Source: DANE and BBVA Research

We do not expect inflation surprises in 2015

We expect that inflation in 2015 will remain at the lower end of the central bank's range, with inflation averaging 2.8% and reaching 3.1% only at the very end of the year. Good economic output performance, particularly during the second half of the year, on the back of the execution of fourth-generation infrastructure projects and robust consumption, will be offset by the lagged impact of the central bank's interest rate hikes in 2014 and the expectation of additional increases in the second half of 2015. On our estimates, the product gap will be closed by the end of 2015, and inflationary pressures will be cushioned by the gradual increases in interest rates until they reach a neutral rate of 5.25% by the end of 2015. It is important to note that low inflation in 2015 will enable the absorption of unanticipated inflation rises in the most volatile components (e.g. food and regulated prices) and still meet the target range.

6. The slow change in monetary stance should begin in 2014

We expect the first interest rate hike in the second quarter of 2014

Lower inflation at the end of 2013 has left more room for higher inflation in 2014, to such an extent that the monetary authorities will be less inclined to increase the reference interest rates. Even though we expect inflationary pressures during the year, driven by economic growth and, marginally, by the devaluation, these should be gradual and starting from a low rate (1.94% in December 13) which will allow inflation to stay below the long-term target (3.0%). The first increase in the reference rate is expected at the end of 2Q14, after four consecutive months of annual growth above the economy's potential, historically low unemployment rates, and an increasing rate of inflation which make the economy's actual interest rates more expansive.

Considering the above and the lower inflation rate at year-end 2013, we decided to postpone our forecast of the first 25bp increase in the reference interest rate until the end

of 2Q14 (June), instead of April in the same quarter. Nevertheless, we continue to expect successive 25bp hikes during the second half of 2014 with the intervention rate reaching 4.25% at the end of the year, which implies a 100bp increase in the central bank's reference rate during the year.

The 4.25% intervention rate at the end of 2014 will continue to be expansive in monetary terms, since it is lower than the estimated neutral rate (BBVA : 5.25% nominal) and gradual increases of the intervention rate should be expected over the course of 2015 as long as economic growth remains at high levels. In our estimates, the rate should increase by an additional 100bp during 2015 before reaching the neutral rate in the last quarter of 2015, at the same time as the product gap closes at the end of the year.

Additionally, concerns over the rate of growth of some domestic assets coupled with inflationary pressures on non-tradable components of the CPI (which remained at the upper end of the inflation target in 2013) support the decision to gradually increase the intervention rate as of the second half of the year.

Lastly, we expect the gradual tapering of the Fed's extraordinary monetary stimulus, which started in December, to continue to have an impact on the exchange rate too, as capital flows into emerging countries decline again. The depreciation of the Colombian peso and a possible subsequent depreciation and its inflationary impact on non-tradable goods are yet another argument in favour of the central bank starting to raise its intervention rate in 2Q14.

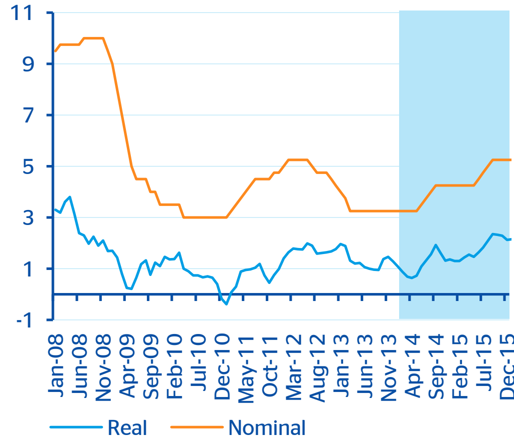
The accumulated depreciation of the Colombian peso from 2014 to 2015 will be 5.2%

We are estimating an average exchange-rate depreciation of 4.8% in 2014, which is more than we anticipated three months ago because of an unexpectedly sharp depreciation of the exchange rate in January with the start of the Fed's tapering and the subsequent reduction of capital flows into EMs. The country's congressional and presidential elections in the first half of the year (March, May and June) will generate uncertainties, and will put pressure on the currency during this period. Nevertheless, we believe that international portfolio rebalancing in January due to tapering, and the main factors behind the depreciation of a large group of emerging currencies, have ended and will be partially reversed as of March. As the appetite for emerging markets builds up again, this should offset the volatility of the exchange rate caused by the elections in Colombia, and the exchange rate should approach our forecast of USDCOP 1,960 by the end of the year.

For 2015, however, we expect a lower average depreciation (0.4%), because of the improved comparative base as a result of the impact of the sharp depreciation in January on the average exchange rate in 2014. Nevertheless, as in 2014, we maintain our exchange rate forecast for the end of 2015 (USDCOP 1,980). The favourable macroeconomic outlook for Colombia in 2014, strong economic growth, controlled inflation, and the decreasing trend in public debt should enable the country to differentiate itself from other emerging markets and benefit from the inflows of foreign capital, particularly from FDI,

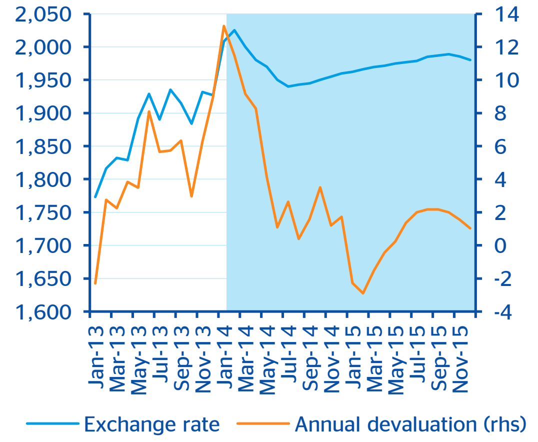
An important difference in 2014 is the impact of currency depreciation on inflation, particularly tradable goods. The most recent currency depreciation took place in 2009 in a scenario of global economic slowdown in the wake of the financial crisis and the subsequent slowdown of the Colombian economy. In 2014, depreciation should generate further inflationary pressure on tradable goods, since the world economy will be recovering and the Colombian economy should be reaching its growth potential. Nevertheless, according to studies, the impact will be weak and we are not expecting that this will jeopardise compliance with the issuer's target.

Chart 6.1
Actual and nominal intervention rate, %



Source: central bank, DANE and BBVA Research

Chart 6.2
Nominal exchange rate and annual devaluation, peso/dollar rate and %



Source: central bank and BBVA Research

Box 3. The exchange-rate pass-through to inflation is at historical lows

This result is consistent with findings in other emerging countries that have introduced inflation targets

Understanding the impact of the exchange rate on prices in the economy makes it easier to design macroeconomic policy. If the inflation pass-through is low, the monetary authority can act more independently: in cycle downturns it can introduce greater evaluations, emphasising the counter-cyclical strength of its policy, and in cycles with high pressure on demand a low pass-through helps to contain economic inflation. Monetary policy, therefore, is more restrictive when the pass-through of the exchange rate to prices is greater.

There are various direct and indirect channels whereby the exchange rate is passed through to inflation. In the more direct channels, the pass-through is by way of changes in the prices of both end and intermediate products. A devaluation not only increases the prices of the end products that a country imports, but would also increase the costs of the production processes using imported inputs. The final effect on the economy's inflation would then depend on the proportion of imported goods in household consumption and on the preponderance of imported inputs in the production costs of end consumer goods in the economy.

In indirect channels, by making imported goods more expensive, devaluation increases local demand for their replacement products. With an offering that tends to be inelastic in the short term, increased demand driven by devaluation puts upward pressure on the price of these goods. Similarly, a higher exchange rate increases the price of tradable goods as a result of greater external demand, thanks to the competitiveness of exports. Accordingly, devaluation generates inflationary pressure due to the greater demand that is generated by (i) the replacement of imported products, and (ii) the increased competitiveness of tradable products.

The empirical evidence of the pass-through of the exchange rate to prices in Colombia is shown in Table B.3.1.

Table B.3.1
Empirical evidence of the pass-through to the price of goods in Colombia (% of the shock absorbed by prices)

	Rowland (2003)	Rincón et al. (2005)	Gonzalez et al. (2008)	Parra (2008)
Period	1982-2002	1995-2002	1985-2007	1994-2005
PPI imports	73-80	40	10-40	-
Total PPI	27-53		-	-
CPI	3-18		-	23

Source: BBVA Research

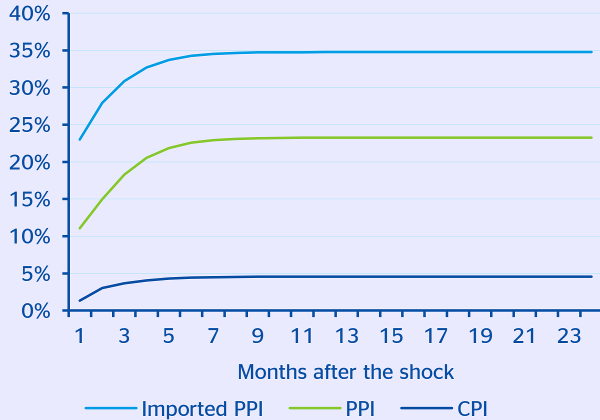
Because of the devaluation of the peso since the tapering announcement in May 2013 (12%), which has become more pronounced since the end of January, it is necessary to have recent estimates of the exchange rate pass-through to domestic prices (the most recent study to calculate this relationship uses information up to the year 2007). For this purpose, a VAR model was calculated based on the Rowland (2003) empirical strategy, applying the exchange rate, the producer price index (PPI) of imported products, the total PPI, and the consumer price index (CPI). The industrial production gap resulting from the difference between the industrial production index and the adjusted production gap using the Hodrick-Prescott filter was included as an exogenous variable.

This calculation enables inflation shocks to have an impact on consumer inflation directly and indirectly, through its effects on the producer's inflation. The underlying chain of events of the identification strategy is shown in the following flow chart:

Exchange rate --> PPI of imports --> Total PPI --> CPI

The results of the model show that the pass-through of the exchange rate to prices is incomplete: two months after the shock, inflation absorbs 3% of the exchange rate shock, and after twelve months the absorption rate is 4.5%. Second, as expected, the impact of devaluation is stronger on imported products, followed by the inflation of output prices and domestic inflation. At the end of 12 months, the PPI of imports absorbs 35% of the devaluation shock, whereas total PPI and CPI absorb 24 and 5 per cent respectively. Third, the increased inflation of all prices is sustained over the first few months, especially in the second month, when the increase in prices is the highest in the period following the shock. Finally, the effect of the shock fades away after 12 months.

Chart B.3.1
% of the shock absorbed by prices over several months after the shock



Source: WEF World Bank and BBVA Research

These results show that the pass-through of the exchange rate to prices is minimal. Only 5% of the shock of a devaluation is absorbed by domestic inflation. After comparing the results of this exercise with the estimates of previous studies, we can assert that the pass-through of the exchange rate on prices has diminished in Colombia. Additionally, the results are similar to recent pass-through estimates performed for Peru and Chile, where the pass-through has declined in recent years and its current magnitude is estimated at levels of less than 8%. Finally, these results are consistent with recent literature which indicates that the pass-through of the exchange rate has been dropping in countries that have implemented inflation targeting policies. (Coulibaly and Kempf, 2010).

References

Coulibaly D. and Kempf H. (2010), "Does Inflation Targeting decrease Exchange Rate Pass-through in Emerging Countries?" Documents de travail du Centre d'Economie de la Sorbonne 10049, Université Panthéon-Sorbonne (Paris 1), Centre d'Economie de la Sorbonne.

González, A., Rincón H. and Rodríguez N. (2008), "La transmisión de los choques a la tasa de cambio sobre la inflación de los bienes importados in presencia de asimetrías", Borradores de Economía 532, central bank.

Parra, J. (2008), "Sensibilidad del IPC a la Tasa de Cambio in Colombia: Una Medición de Largo Plazo", Borradores de Economía 542, central bank.

Rincón H., Caicedo E. and Rodríguez N. (2005), "Exchange Rate Pass-Through Effects: A Disaggregate Analysis of Colombian Imports of Manufactured Goods", Borradores de Economía 330, central bank.

Rowland P. (2003), "Exchange Rate Pass-Through to Domestic Prices: The Case of Colombia", Borradores de Economía 254, central bank.

7. Tables

Table 7.1
Macroeconomic forecasts: annual

	2012	2013	2014	2015
GDP (% YoY)	4.2	4.1	4.7	5.1
Private Consumption (% YoY)	4.7	3.9	4.5	4.8
Public Consumption (% YoY)	5.1	5.0	4.6	3.7
Fixed Invesment (% YoY)	7.6	5.8	6.6	7.6
Inflation (% YoY, eop)	2.4	1.9	2.9	3.1
Exchange rate (vs. USD, eop)	1794	1934	1960	1980
BanRep Interest rate (%, eop)	3.25	3.25	4.25	5.25
Fiscal balance (% GDP)	-2.3	-2.4	-2.3	-2.1
Current account (% GDP)	-3.3	-3.2	-3.0	-3.1

Source: DANE, Banco de la República, Inland Revenue Ministry and BBVA Research Colombia

Table 7.2
Macroeconomic forecast: quarterly

	GDP (% YoY)	Inflation (% YoY, eop)	Exchange rate (vs. USD, eop)	REPO rate (%, eop)
Q1 12	5.9	3.4	1766	5.25
Q2 12	4.9	3.2	1793	5.25
Q3 12	2.8	3.1	1803	4.75
Q4 12	3.3	2.4	1794	4.25
Q1 13	2.6	1.9	1810	3.25
Q2 13	3.9	2.2	1910	3.25
Q3 13	5.1	2.3	1919	3.25
Q4 13	4.8	1.9	1934	3.25
Q1 14	5.5	2.6	1933	3.25
Q2 14	5.0	2.4	1920	3.50
Q3 14	4.3	2.4	1930	4.25
Q4 14	3.9	2.9	1960	4.25
Q1 15	4.6	2.8	1969	4.25
Q2 15	4.7	2.8	1977	4.50
Q3 15	5.5	2.8	1987	5.25
Q4 15	5.5	3.1	1980	5.25

Source: DANE, Banco de la República and BBVA Research Colombia

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