BBVA | RESEARCH

Economic Outlook

Paraguay

First Half 2013
Economic Analysis

- **Global growth remains strong, although there is significant disparity among geographical areas,** especially in developed economies.
- **Paraguay will grow 10.4% in 2013, driven by the recovery of the agriculture sector.** Both domestic and external demand will resume growth.
- **Downward surprises in inflation will result in a scenario of stable rates in 2013.** Base effects in 2014 should justify a rise.
- **Paraguay needs to push forward a number of reforms in order to boost its potential.** With proper strategic planning, Paraguay can make the quality leap needed to continue developing.

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Closing date: May 17, 2013

1. Summary

Global growth remains strong, although the prospects are more varied for the main economies. This greater disparity in growth rates will also extend to the developed economies, where recovery in Europe is lagging behind the U.S., which has proved resilient to the fiscal adjustment underway. In turn, emerging economies will continue to underpin global growth. We estimate that the global economy will grow 3.3% in 2013, only 0.1 point above the figure estimated for 2012. Rates of around 4% would be reached in 2014, although the risks remain tilted to the downside.

Paraguay will rebound strongly in 2013, growing 10.4%. The end of the 2012 agriculture crisis caused by the drought and the outbreak of foot-and-mouth disease will enable this sector to recover and will also have multiplier effects for the economy. In 2014, in the absence of an event of great impact, the economy will gradually reach its potential.

Private consumption and especially investment will move into high gear, driving domestic demand. This will be accompanied by government consumption, which will remain at levels similar to those seen the previous year. However, there is some concern with regard to the appropriateness of maintaining high fiscal expenditure in a year marked by high growth and also increasing current expenditure, which rising at its current rate could exceed government revenue in the coming years.

Exports will benefit from the record soybean crop and the recovery of the meat markets. The higher revenue would offset the increased imports driven by the recovery of domestic demand, resulting in a current account surplus.

The surprisingly low inflationary results change the previously forecasted scenario. Inflation currently stands below the floor of the target range set by the BCP, and in the absence of a series of upward surprises (something which given the volatile nature of inflation in Paraguay cannot be completely ruled out) the year should end with inflation below 5%. This also leads us to expect that the rates will remain at current levels in 2013. Base effects in 2014 would increase inflation and support a rise in rates.

Despite having certain competitive advantages, Paraguay is way below both global and Latin American standards and therefore needs to drive reforms to increase its potential. Improvements are urgently needed in infrastructure and institutions, while education and innovation can be considered strategic goals in the medium term. With good planning, the country can certainly move towards development.

2. A more varied global scenario

Global growth continues its steady recovery, but the very different prospects for the leading economies are halting the strength of improvement in GDP in 2013 and 2014. Quarterly global GDP growth, estimated at 0.7% by BBVA Research at the start of 2013, will have been slightly over 0.6% in the last quarter of 2012, but available indicators point to growing disparity in activity, particularly between the most developed economies, with the euro zone once more lagging behind the U.S. and even Japan. In turn, emerging economies will continue to underpin global growth. Overall, the rate of global growth in 2013 is expected to be 3.3%, only 0.1 point above the figure estimated for 2012 (Chart 1). In 2014, the rate will be close to 4%, although the risks continue to be downside.

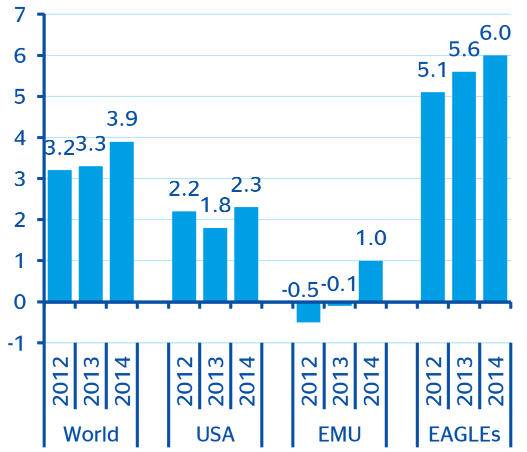
In the euro zone the recovery has been delayed until 2014, despite the role of the ECB as a firewall for financial tensions, aided by the boost provided to banking union. The ECB has been surprisingly effective as a guarantor of the euro against shocks such as the disordered bailout of Cyprus, the political situation in Italy and the ruling by the Portuguese Constitutional Court. As a result, the markets and financial tensions have only reacted to these events to a limited extent (Chart 2). On the negative side, economic indicators show a general cyclical weakness beyond the European periphery, justifying the ECB's recent interest-rate cut. This is a positive measure, although in itself it is unlikely to reduce the financial fragmentation that is now impacting less on sovereign issuers and even large corporations, but is continuing to affect households and companies due to the uneven operation of the banking channel. The conditions of credit supply in the area as a whole continue to tighten while demand for credit is falling in peripheral countries. More is needed than the extension of the liquidity facility for banks at least until mid-2014; measures currently being studied have to be implemented to boost business financing, with the participation of institutions such as the European Investment Bank.

In this context, our scenario includes a downward revision of Eurozone growth. We estimate GDP will fall by 0.1% in 2013 and rise by 1% in 2014, 0.4 and 0.3 points, respectively, below the forecasts in our January publication. In any event, the risks continue to have a downward bias. A key point is that Germany must not remain the only source of growth in the area thanks to its easy access to financing, high level of competitiveness and greater exposure to the best performing sources of global demand.

One additional consequence of the weakness of the European cycle is the growing debate on the appropriate level of fiscal consolidation to achieve a credible schedule for cutting the deficit without leading to such short-term deterioration in growth that it makes the adjustment effort a waste of time. The European Commission's support for the postponement of the public deficit targets in some European countries is in line with the idea of stressing the quality and composition of the fiscal adjustment and emphasizing structural reforms over short-term objectives. What is Europe missing? More determined progress towards banking union, shifting the debate on deficit targets to structural measures, and a firmer commitment to the reforms in the peripheral countries.

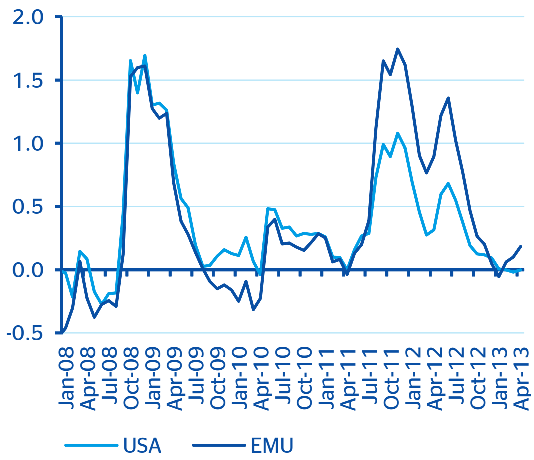
In the U.S., the strength of private demand is sustaining growth prospects despite the brake provided by fiscal adjustment. Uncertainty regarding fiscal policy in the short term has receded in terms of scenarios that included the closure of government offices (although credible long-term fiscal consolidation measures have still not been taken). The elimination of some tax breaks and the coming into effect of spending cuts have not triggered alarms in the financial markets (Chart 2), nor in the end do they appear to have put a substantial brake on private expenditure, thanks to the monetary expansion that is maintaining very favorable financing conditions and is contributing to the improvement of income and wealth. Thus it is reasonable to maintain growth prospects for 2013 at 1.8%, despite the downward surprise of public demand in the GDP figures for the last two quarters.

Chart 1
GDP growth



The EAGLEs are the emerging countries that will contribute most to growth over the next 10 years. They are: China, India, Indonesia, Brazil, Russia, Korea, Turkey, Mexico and Taiwan.
Source: BBVA Research

Chart 2
BBVA Financial Stress Indicator



Source: BBVA Research

The Chinese economy has lost steam in the first quarter of 2013, with a negative surprise of weak investment, despite the greater strength of foreign demand and growth remaining in line with the government's target of 7.5% for 2013. The measures implemented to limit domestic financial fragility appear to have contributed to the slowdown. However, the change in the growth model towards a greater weight of consumption continues. With inflation also lower than expected, there is less pressure for tightening monetary conditions, so authorities have room for maneuver given their commitment to sustainable growth in achieving the announced growth target. That is why our growth forecast for China remains unaltered at 8% for 2013 and 2014.

The path of sustained monetary expansion, which the Central Bank of Japan has now joined, involves challenging problems. The idea that investors looking for returns will move to more risky assets may favor valuations in some markets that are a long way from their long-term fundamentals, which could lead to disordered adjustments when the stimuli are withdrawn. This risk is growing because of the lack of coordination between central banks with quantitative expansion policies, each focusing on their respective domestic anchored inflation targets and sustainable growth. In the case of emerging economies, although for now they are coping well with major capital inflows, it is essential to remain vigilant about the domestic excesses this could generate.

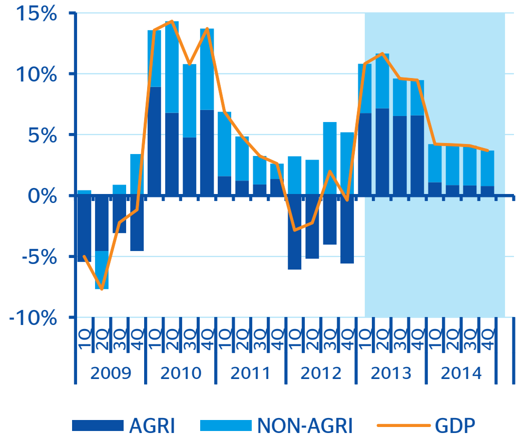
3. Paraguay: steaming ahead in 2013

Return to growth

In line with our forecast, Paraguay shrank by 0.9% in 2012 (last BBVA forecast -1%) due to two major events: the consequences of the outbreak of foot-and-mouth disease in September 2011 and the severe drought that undermined the production of soybean, the country's main export. The first one was particularly acute in the first half of the year, while the second one persisted throughout the year. Thus, while the livestock-forestry GDP grew 7% at year-end, the agriculture GDP declined sharply by 28%, even more steeply than during the previous drought in 2009 (-25%).

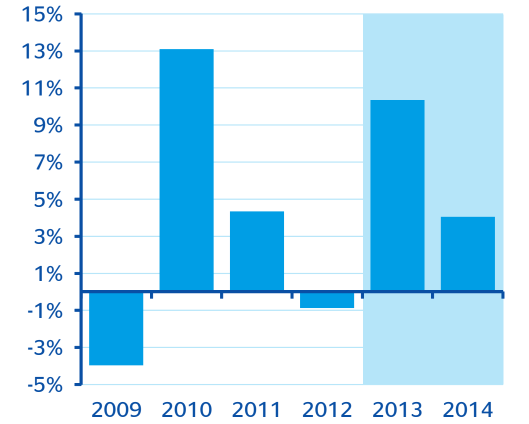
The other economic sectors showed moderate dynamism. Two sectors grew more strongly than in 2011: industry, which also benefited from a base effect due to the previous contraction, and services, with a healthy expansion of 6.3%. In short, the non-agriculture GDP grew 5.4% in 2012.

Chart 3
Contribution of the agriculture and non-agriculture sector to GDP growth (pp)



Source: BCP and BBVA Research

Chart 4
GDP growth (y/y %)



Source: BCP and BBVA Research

This year, the normalization of weather conditions will drive soybean production to record levels. We thus expect the agriculture GDP to grow around 50% compared to the previous year, similarly to 2010, which would account for about two-thirds of the total growth forecast for 2013. The other economic sectors will slow down slightly, but will nevertheless remain above potential GDP. We therefore expect Paraguay to grow 10.4% in 2013.

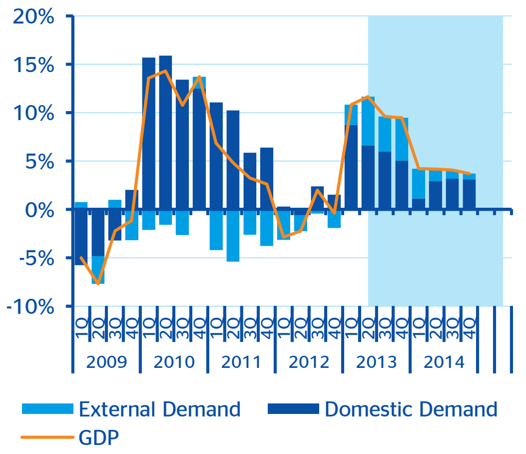
In 2014, in the absence of a drought, growth would continue to converge gradually towards its potential level. GDP for both agriculture and the other sectors would reach those levels, closing the year with 4% growth.

Recovery of domestic dynamism

To a great extent, domestic demand helped cushion the downturn in 2012. Contrary to 2009, private consumption did not fall, but barely grew (0.62%). The fall in investment was also much more limited, -6.4%, nearly half the decline during the previous drought. Even so, the large difference came from government spending.

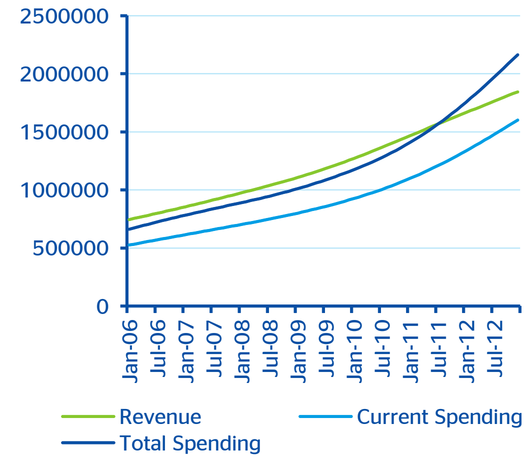
Following the political crisis that ended with the removal of Lugo, Federico Franco's transition government implemented a major fiscal stimulus plan with two objectives: one, to act as a countercyclical measure in the event of a drought, and two, to provide a first boost to infrastructures in order to increase Paraguay's productive potential. As shown in Chart 5, government spending, and therefore domestic demand, significantly increased its contribution to growth during the second half of the year compared to the first six-month period.

Chart 5
Contribution of domestic and external demand to GDP growth (pp)



Source: BCP and BBVA Research

Chart 6
Trend in government revenue and spending



Source: BBVA Research

With the normalization of the economy, private consumption and especially investment will become increasingly more dynamic. Government spending will remain at levels similar to those seen in 2012, since the investment plan is still underway. Domestic demand will thus grow 6.5% in 2013. In 2014 it will slow down like the rest of the economy, growing 2.6%, an apparently low figure due particularly to a base effect, which in 2013 and 2014 ultimately involves an average growth of 4.6%, still above the potential.

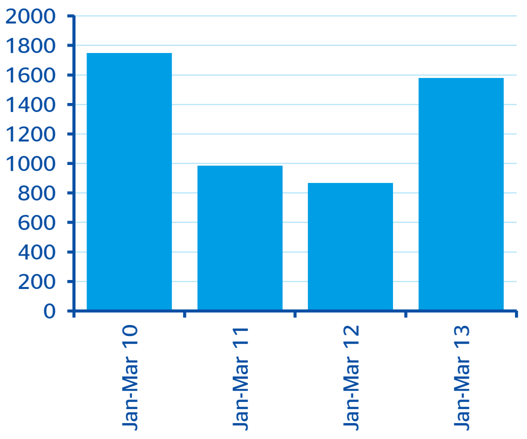
There is nevertheless a reason for concern. Government spending in 2012 was higher than revenue for the first time since 2003, ending a long cycle of fiscal surplus. This makes sense considering that 2012 was a year of drought that warranted a fiscal stimulus to counteract the decline in the agriculture sector. However, a large part of the increase in spending was also due to a significant increase in current expenditure (24% y/y), which has no countercyclical logic and is practically impossible to decrease in the future. As we can see in Chart 6, which shows trend data for government revenue and spending (i.e. without the cyclical component or shocks), trend spending already exceeded trend revenue, and what is still more worrying, current expenditure, which should it continue to grow at an accelerated rate will soon exceed total fiscal revenue, causing a structural deficit which will be very difficult to reverse. It is therefore important for the authorities to slow down the rate of growth of current expenditure so as not to endanger fiscal sustainability.

The record soybean harvest will boost exports

As we already mentioned, soybean production will reach record levels this year in Paraguay. In fact, we can already see the first signs of this during the first quarter of the year (Chart 7). This will give a great boost to exports, which will exceed the levels seen in 2011, the year that holds the previous record. In annual terms, we forecast a 13.5% increase over 2012.

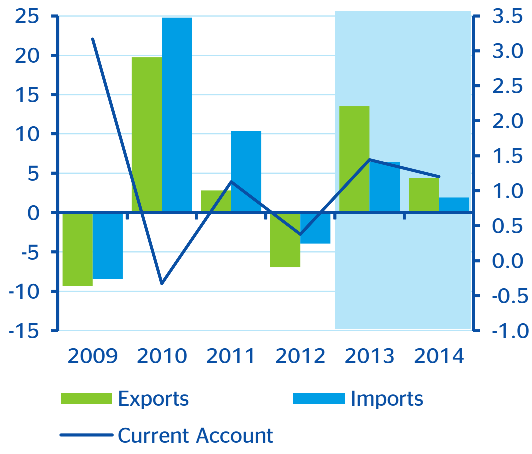
The recovery of domestic demand will also have an effect on imports, which should increase in parallel and grow 6.4% according to our forecast. In any event, the levels of growth in exports seen in 2010 will not be reached, since the decline caused by the drought in 2012 was much lower than in 2009, which results in a significantly lower base effect (-6.9 vs -9.3 in exports and -3.5 vs -8.5 in imports, respectively).

Chart 7
Soybean exports (thousands of tons)



Source: Central Bank of Paraguay

Chart 8
Exports and imports (left) and current account (right, y/y %)



Source: BCP and BBVA Research

Likewise, for 2014 we forecast a slowdown, in line with the trend towards the potential, primarily in exports. Import growth figures will also be affected by the base effects from 2013, and we expect average growth in 2013 and 2014 to be 4.2%, as forecast for domestic demand.

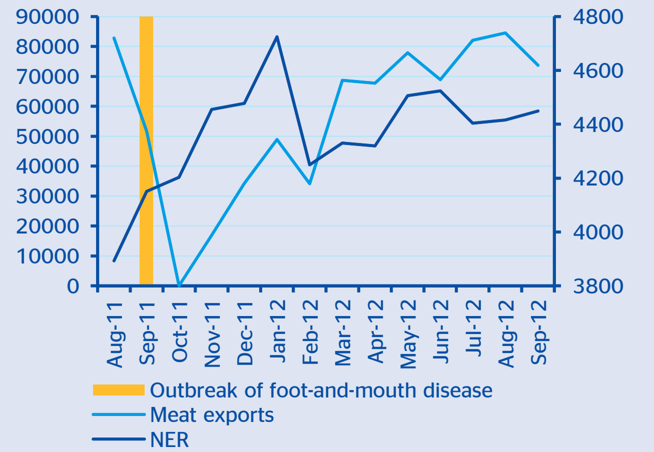
The fact that exports will grow faster than imports will result in a 1.4% current account surplus in 2013, which will decrease gradually from 1.2% in 2014 to 1% in the medium term, assuming that soybean price levels remain at around 450 dollars per ton.

Box 1. The foot-and-mouth disease crisis

In September 2011, an outbreak of foot-and-mouth disease marked the start of a period that had serious consequences for Paraguay's economy. Due to the outbreak, already in October 2011 no meat exports were registered. In the months prior to the outbreak this product accounted for 12% of export revenue and was the third most important export after soybean and electric power. This resulted in total exports in the fourth quarter of that year declining 3% compared to 2011, marking the start of the agriculture crisis that became more pronounced in 2012 with the drought that undermined soybean production.

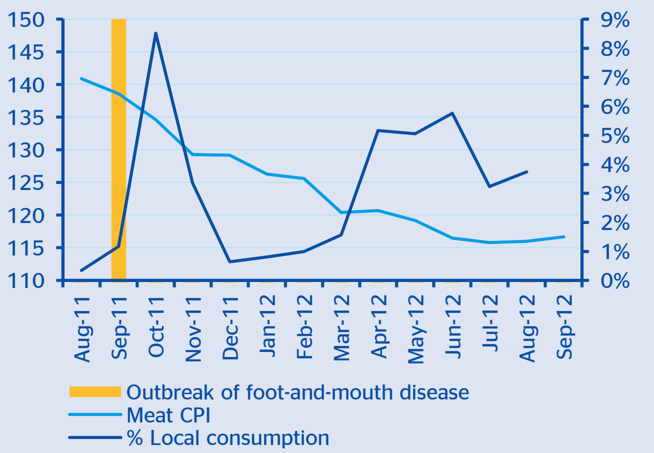
What was the impact of the foot-and-mouth crisis on the economy? It is certainly difficult to tell, since we need to consider not only lost export revenue, but also the expenses incurred for treating the disease and the multiplying effects on the economy, which are hard to quantify. These include, for example, the fall in domestic meat prices, because part of cattle production had to be sold in Paraguay, since many international markets were closed, thus creating a local supply shock. In addition, lower foreign-currency revenue resulted in a steep rise in the dollar exchange rate, which after closing at 3,893 guaranis in August 2011 reached 4,725 guaranis in January, adding also to the effect of the drought.

Chart 9
Meat exports (thousands of USD, left) and exchange rate (PYG/USD, right)



Source: Haver Analytics

Chart 10
Meat CPI (Dec 2007=100, left) and production for local consumption (% of total, right)



Source: Haver Analytics and SENACSA

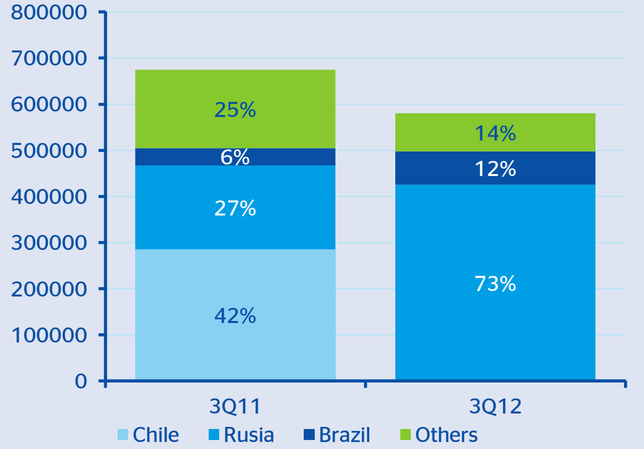
However, it is also interesting to analyze how the crisis was confronted and the adjustments made, which meant that already in August 2012 exports reached levels above those posted the previous year, therefore marking the start of the end of the crisis. And the most relevant adjustment was clearly the redirection of exports.

In the third quarter of 2011, Chile was the main destination of Paraguay's meat exports. With the outbreak, the Chilean market closed its doors. The dilemma was what to do with production. After a few months, production was redirected to other markets, in particular Russia, which became the first destination for exports (Chart 11). This was a great move, as it prevented a larger loss of production and actually kept the sector afloat for some of the toughest months of the crisis. But it obviously involved higher costs, not only in terms of having to export to more distant destinations, but also as regards another more direct and easy to quantify cost, such as the price received for the product.

As shown in Chart 12, Chile is a country that pays a much higher price for meat than the international price, represented in this case by the price in Australia. Prior to the crisis, Paraguay benefited from this fact, taking advantage of the price differential and receiving more revenue per exported unit. With the closing of the Chilean market and the redirection to other more distant destinations the country had to export at more competitive prices, which virtually eliminated the gap with the international price.

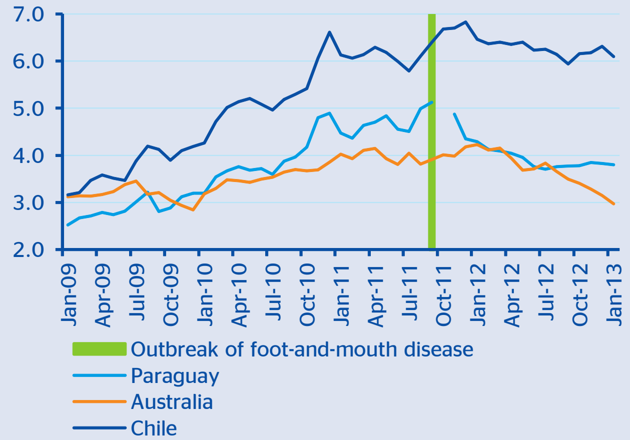
As the Chilean market reopened, the gap once again opened and Paraguay started to receive higher revenue per unit. This and the foregoing will enable the costs involved for the economy to be estimated and preventive measures to be taken to avoid being caught up in a similar or worse health crisis.

Chart 11
Meat exports by destination (thousands of USD)



Source: Central Bank of Paraguay

Chart 12
Meat prices (USD/ton)



Source: BCP, ODEPA and BBVA Research

Downward surprises in inflation point to a scenario of uncertain stability

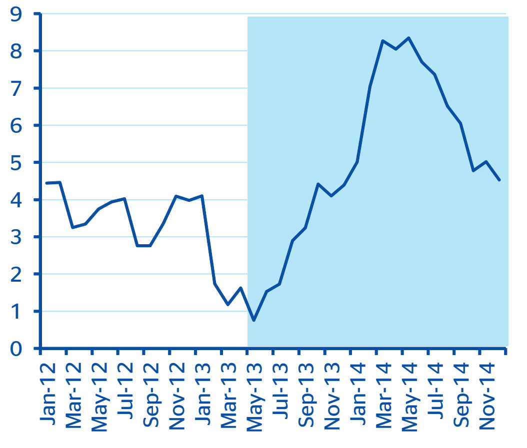
The year 2013 started with two major surprises: while inflation in January was similar to the previous year (1.1% m/m in 2013 vs 1.2% m/m in 2012), inflation in February was -0.8% m/m, which stands in sharp contrast to the 1.5% m/m in 2012, and -0.1% m/m in March, vs 0.5% m/m the previous year. Thus, already in February inflation stood below the target range of the BCP at 1.7% y/y.

This was difficult to predict considering the sharp increase in growth in the same period, which usually involves upward inflationary pressures. It is important to consider that core inflation (which excludes the volatile items in the basket) also fell, closing February at 2.7% y/y, slightly above the floor of the target range of the BCP, proving that those pressures have not materialized. Taking this into consideration, we change our inflation scenario at the end of 2013 to 4.4% y/y, below the BCP 5% y/y target. However, given the volatile nature of inflation in Paraguay, we cannot rule out some other surprise that will once again alter the scenario, probably upward. Even so, given that inflation is already well below the target (1.6% y/y in April), we do not believe that it will rise sufficiently to break through the target range.

Taking this into consideration, we suggest a scenario of stable rates in 2013. Although there have been indications of a more expansive policy of lower rates, we see no reason for this in a year in which high growth is expected under current conditions. It would mean adding unnecessary inflationary pressures.

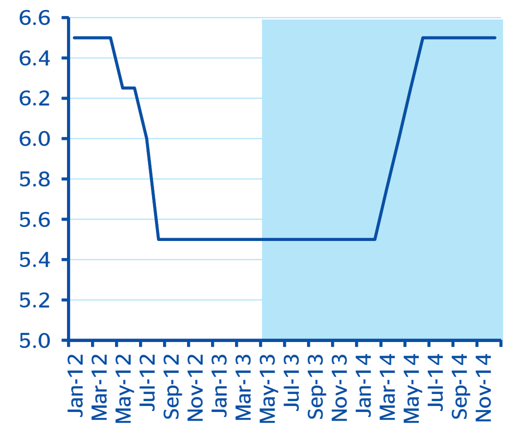
Now, because of the base effect that will arise in 2014 due to the low inflation figures for February and March of this year, we expect the BCP to hike the rates next year, ultimately stabilizing around 6.5%. As with our inflation scenario, here we also remain cautious. The high volatility of inflation could completely change the scenario in just a couple of months.

Chart 13
Inflation (y/y %)



Source: BBVA Research

Chart 14
Monetary policy rate



Source: BBVA Research

After bottoming out in February at levels close to 3,990 PYG/USD, the exchange rate started an upward cycle and closed April at 4,100 PYG/USD. We expect this upward trend to continue, although more moderately, closing the year at 4,300 PYG/USD, around its equilibrium levels. We forecast a similar scenario for 2014, with a somewhat higher closing figure at around 4,400, as the expansive monetary policies in the United States are withdrawn.

Box 2. Exchange rate and interventions

Paraguay's economy is highly dollarized. By way of example, in 2012 around 40% of bank lending to the private sector was arranged in foreign currencies, a percentage similar to that for deposits in foreign currencies in the banking system. This, combined with the fact that the economy relies to a great extent on soybean export revenue, which for several reasons is highly volatile, makes the exchange rate a very relevant element for monetary policy.

Although the Central Bank's main goal is to keep inflation under control, it always keeps an eye on exchange rate fluctuations. It quite frequently intervenes in the foreign-exchange market in order to smooth out variations in the value of the U.S. dollar. And there is the ongoing discussion. Does it make sense for the Central Bank to step in? The main reason for intervening in the foreign-exchange market is the existence of some deviation of the exchange rate from its fundamentals.

To assess this hypothesis we created a model to help us estimate the exchange rate in relation to its fundamentals. The model we use considers the differential of local and foreign interest rates (in this case, 245 and 360-day monetary regulation instruments versus 8 to 12-month LIBOR) and the price of some products which are relevant to the economy, such as oil (associated with outflows) and soybean (associated with inflows). With these parameters we create the exchange rate curve shown in Chart 15.

At first sight we can see that a close relationship between foreign-exchange interventions and the imbalance in relation to the fundamentals does not necessarily exist, neither in the direction (purchase of dollars when it is appreciated and vice versa) nor in the amount (imbalance size versus intervention size). We can therefore ask ourselves, what other factor does the BCP consider when it decides to intervene?

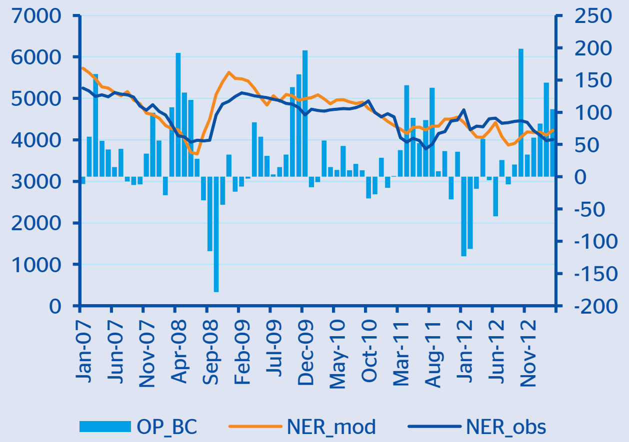
This other factor is the exchange-rate volatility. The BCP often intervenes to "smooth out" appreciation or depreciation trends, i.e. to prevent sudden exchange-rate fluctuations. Will this factor explain the interventions more accurately?

To do so we created a couple of indexes to include both factors, deviation from the fundamentals and volatility, the latter measured as the standard deviation of the daily NER values in a month. The indexes go from zero to one, zero indicating the month with the least deviation of the fundamentals or the month with the least volatility, and one the month with the greatest. We add these indexes and compare them with another index that represents the BCP interventions, which goes from zero to the maximum value of the sum of the other two indexes, representing the least intervention and the greatest intervention respectively. The result of this analysis is shown in Chart 16.

Although after looking at the chart doubts still persist about the contingency of the interventions (even though there is clearly an endogeneity bias, since the interventions have an effect on volatility), this new analysis shows that, in general, both the deviation from the fundamentals and the volatility explain the BCP interventions sufficiently well. Even more interesting is the fact that volatility explains about 2/3 of the volume of interventions, so we can claim that the BCP, rather than correct potential imbalances with the fundamentals, steps in to curb the dollar's fluctuations in relation to the local currency.

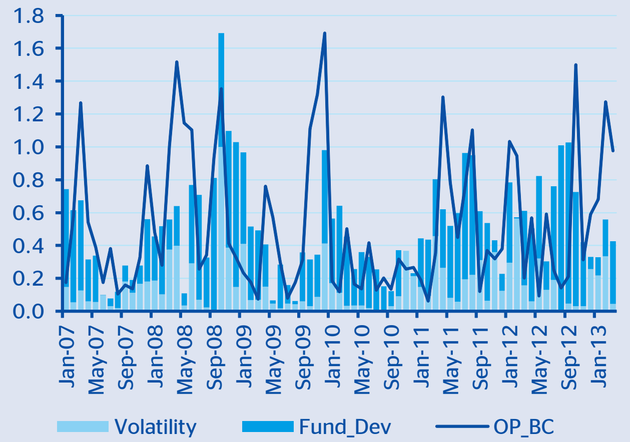
Is this advisable? This is open to discussion, since an economy so dollarized should avoid sudden fluctuations, as the multiplier effects can be significant. But we also need to consider that if the interventions do not closely adapt to the deviations of the fundamentals they can be of little practical use, they will not have much influence on the short and medium term trends and their effect will therefore be very limited.

Chart 15
Dollar observed, resulting from the model (PYG/USD, left), and BCP foreign-exchange operations (millions of USD, right)



Source: Haver Analytics, BCP and BBVA Research

Chart 16
Relationship between volatility and deviation of the fundamentals in relation to the amounts of the BCP foreign-exchange operations



Source: BBVA Research.

4. The challenge of increasing the potential

Paraguay is a country with great potential. For example, standing in the middle of the region it could easily become a strategic distribution center for the other countries. Having a border with Argentina and Brazil, the two largest economies in South America, also opens a series of doors. Another very important example is its huge hydroelectric potential with the Itaipú and Yacyretá plants, at a time when demand for energy worldwide is increasing sustainably.

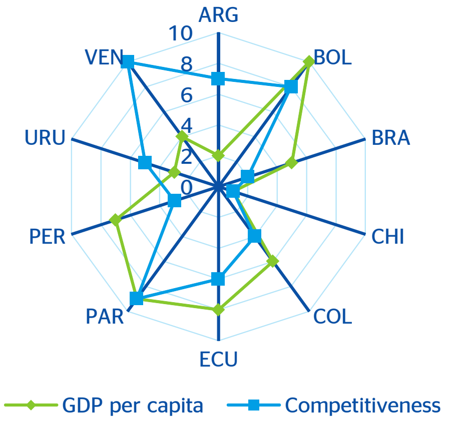
However, despite these and other advantages it could make good use of, Paraguay lags well behind the rest of the countries in the region. It currently has the second lowest GDP per capita in the region (behind Bolivia), equivalent to 1/3 of the better positioned country, which is Chile. Its competitiveness levels are also very low, coming in 116th out of 144 countries, the penultimate in the region, ahead of Venezuela.

This situation can be explained by historical reasons but, rather than looking for explanations in the past (which although not a futile exercise, is more important for avoiding the same mistakes than for moving ahead), it is necessary to analyze the country's weaknesses in order to turn them into opportunities to help Paraguay at least surpass the threshold of low-income countries.

According to the latest Global Competitiveness Report by the World Economic Forum, few aspects of Paraguay achieve a good assessment. Among them, the most highly rated is the macroeconomic environment. Fortunately, Paraguay has managed to maintain a relatively stable economic management line in recent years, but we can see that this has not been enough to boost the country. What are the worst-rated factors? Innovation and infrastructure. What other factors are also lacking and could be corrected in the medium term? Tertiary education, institutions and technological readiness. The country should focus on these factors to start making a quality leap.

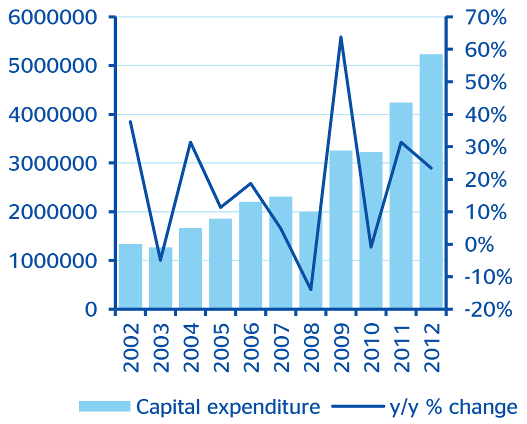
In a sense we can say that infrastructure, institutions and technological readiness on the one hand and tertiary education and innovation on the other hand are two large blocks of related factors, the first one being the lifeblood for the second to be able to develop. It would therefore seem logical to start by investing heavily in the first block and investing not so heavily, i.e. thinking in the medium term, in the second block.

Chart 17
Relative position of Paraguay in South America in terms of GDP per capita and competitiveness



Source: BBVA Research, with WEO and WEF data

Chart 18
Central government capital spending: levels (millions PYG, left) and year-on-year growth (rigth)



Source: BCP and BBVA Research

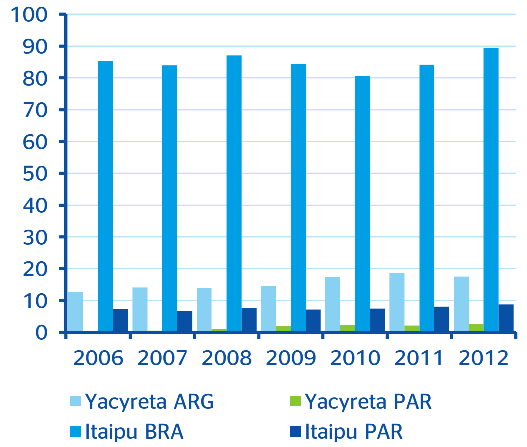
Infrastructure, institutions and technological readiness

Franco's government has already implemented an ambitious infrastructure investment plan. The Ministry of Public Works and Communications is using funds from several sources, including the issue of sovereign bonds completed in January and the National Fund for Public Investment and Development (FONACIDE), which uses reserved funds from the sale of electric power to Brazil. A large part of this plan is concentrated on road infrastructure: an efficient road network is certainly needed not only to promote trade, but also to improve road safety and reduce the number of traffic accidents. But there are also other matters that need to be addressed, for example, the improvement of the air transport infrastructure, where there are already plans to upgrade the Asunción airport, and also river transport, where the dredging of the River Paraguay is crucial.

One surprising aspect is the electricity problem. Despite the fact that Paraguay produces much more energy than it consumes, there are constant supply problems due to the poor transmission and distribution infrastructure. According to ANDE data, in recent years energy transmission losses have been around 7.5% of total production, while distribution losses account for approximately 25%. It is impossible to make progress with such levels of losses. It is thus essential to improve the institutional and budgetary aspects of ANDE and, with an eye to the future, prepare a sound strategic plan with a view to renegotiating the energy sale contracts with Brazil and Argentina when the current ones expire, so as to obtain increased profits for the country.

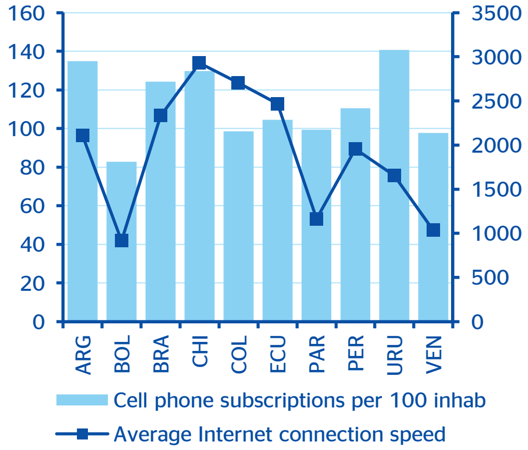
Lastly, as regards technology, Paraguay is also lagging behind the other countries in the region. For example, only 0.22% of the population has broadband Internet connections, the lowest rate in the region, and the country's connection speed is the third lowest, only ahead of Bolivia and Venezuela. The country is somewhat better positioned in terms of cell phone usage, but still below the average for the region and far from the leading countries. In this regard, the setting up of the Secretariat for Information Technology and Communication (SETIC) last year is a step in the right direction in order to move ahead.

Chart 19
Electricity output of the Itaipú and Yacyretá plants by country of destination (GWh)



Source: Itaipú and Yacyretá power plant statistics

Chart 20
Cell phone subscriptions per 100 inhabitants (left) and average Internet connection speed (right)



Source: ICT Statistics from International Telecommunications Union and Akamai, State of the Internet report

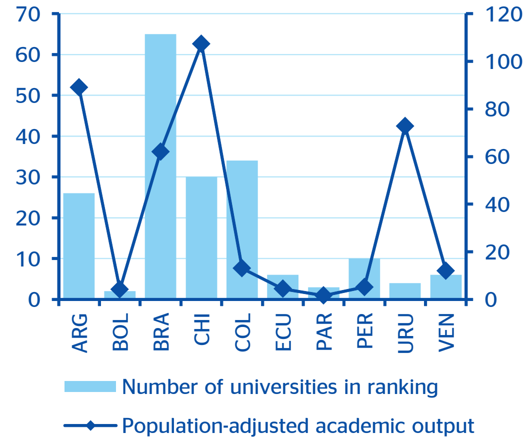
Education, innovation and the leap into the future

Although infrastructure is the backbone of a country's economic progress, productivity is what provides a competitive edge over the rest. In this regard, the technical quality of workers and constant innovation in pursuit of greater efficiency in the production systems or added value can make all the difference.

Only three Paraguayan universities are listed in the latest QS Latin American ranking of universities (which, although it has deficiencies like any other ranking system, can be used as an approximation), none of them in the top 100. Only Bolivia has fewer, with two. Paraguay is certainly a small country, and adjusted in terms of population it would show a better profile, but this is not the point. The point is that there are currently very few institutions capable of providing education, not even by global, but by regional standards. Academic output is also very poor. According to WDI data, in 2009 Paraguay was the South American country with the lowest production of academic papers, a mere 11, well below the next country, Bolivia, with 45. Even adjusted in terms of population, it is the worst in that ranking.

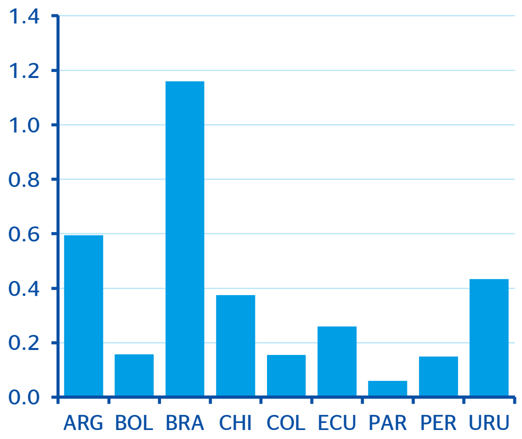
Something similar can be seen in innovation. Paraguay is the country with the lowest R&D spending as a percentage of GDP in South America.

Chart 21
Number of universities in the Latin American ranking (left) and weighted production of academic papers (right)



Source: QS Latin American University Ranking and WDI

Chart 22
R&D Spending* (% of GDP)



* Latest data available.
Source: WDI

Now, is there an urgent need to improve these ratings? The most prudent course of action would probably be to focus public spending on infrastructure for the time being and establish a strategic plan to enable education to be improved in the medium to long term: obviously, the results of this type of reforms are not immediate, so no hefty investments should be made either expecting to see immediate improvements. In addition, as we saw in the latest Paraguay Economic Outlook, tax receipts as a percentage of GDP in Paraguay are still below the figure for the rest of the countries in the region, which limits the government's capacity to invest in various areas. This, combined with the fact that Paraguay's GDP is not only low, but highly volatile, makes it necessary to exercise prudence when addressing these matters. Thus, it would probably be a good idea to continue promoting public-private initiatives, creating mechanisms to encourage the private sector to take part in projects that not only provide a good return to those involved, but also have a high social impact. And once again, it is always important to bear in mind that all these changes should be tackled as processes, not despair and do things calmly to ensure a good outcome. Paraguay certainly has a great opportunity in this regard, since a great effort is not needed to "destroy" obsolete mechanisms, but rather to "create". With patience and wisdom, the country can move toward a sustainable development path.

5. Tables

Table 1

Macroeconomic forecasts annual

	2010	2011	2012	2013	2014
GDP (% y/y)	13.1	4.3	-0.9	10.4	4.0
Inflation (% y/y eop)	7.2	4.9	4.0	4.4	4.5
Exchange rate (vs USD, eop)	4571	4433	4285	4309	4438
Interest rate (%, eop)	5.3	7.3	5.5	5.5	6.5
Private comsumption (% y/y)	15.3	8.7	0.9	6.5	2.7
Public comsumption (% y/y)	19.7	2.8	-6.9	13.5	4.4
Investement (% y/y)	24.8	10.4	-3.9	6.4	1.9
Fiscal balance	1.2	0.7	-1.7	0.1	-0.1
Current account	-0.3	1.1	0.4	1.4	1.2

Source: BCP, BBVA Research

Table 2

Macroeconomic forecasts quarterly

	GDP (% y/y)	Inflation (% y/y eop)	Exchange rate (vs USD, eop)	Interest rate (%, eop)
Q1 10	13.6	4.1	4695	
Q2 10	14.3	4.3	4752	
Q3 10	10.8	3.8	4783	
Q4 10	13.7	7.2	4571	
Q1 11	6.9	10.3	4333	
Q2 11	4.9	8.8	3995	
Q3 11	3.3	9.4	3997	8.50
Q4 11	2.6	4.9	4433	7.25
Q1 12	-2.8	3.3	4284	6.50
Q2 12	-2.2	3.9	4529	6.25
Q3 12	2.0	2.8	4419	5.50
Q4 12	-0.4	4.0	4285	5.50
Q1 13	10.8	1.2	3997	5.50
Q2 13	11.7	1.5	4128	5.50
Q3 13	9.6	3.2	4234	5.50
Q4 13	9.5	4.4	4309	5.50
Q1 14	4.2	8.3	4349	5.75
Q2 14	4.2	7.7	4371	6.50
Q3 14	4.1	6.0	4404	6.50
Q4 14	3.7	4.5	4438	6.50

Source: BBVA Research

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