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Brazil Watch

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The global economic slowdown sends growth under its potential

Although public balances are not problematic this time around, the room for countercyclical policies is limited

Inflation falls despite currency depreciation

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Editorial

The Brazilian economy grew by 6% in 1H08, building on a period of growth underpinned by economic stability and the incorporation of millions of citizens into its consumer market. Brazil achieved investment grade status in the midst of the international financial crisis, unleashing tremendous optimism regarding the nation's prospects.

This optimism has since given way, almost overnight, to growing concern over international market events in the wake of the Lehman Brothers bankruptcy. Brazil, along with other emerging economies, has been caught up in the whirlwind financial crisis, prompting a steep depreciation of the real, a collapse in equities, a sharp spike in the sovereign risk premium, widespread liquidity issues and a credit crunch. With the ravaging financial crisis as a backdrop, growth estimates have been slashed and doubts raised over the strength of a segment of the banking system as a result of corporate exposure to losses on currency derivatives, judging by some of the measures taken in recent months by the central bank.

The unfolding crisis has revealed some of the Brazilian economy's weaknesses, such as its dependence on capital inflows from abroad and on commodity prices, the government's reduced capacity to stimulate growth via fiscal policy and the central bank's persistent difficulties in cutting rates.

Nonetheless, the country is far better prepared to weather the crisis than at any time in the recent past and in all likelihood is in better shape than most of its emerging market peers for several reasons. Firstly, domestic demand is currently the main driver of economic growth while Brazil's exports are relatively well diversified. Secondly, the non-financial corporate sector is today far more competitive than in the past and, in general, less exposed to dollar depreciation than a few years back, despite recent disclosures of losses on exposure to currency derivatives. In addition, the government is a net foreign creditor and the budget balance has improved significantly, enabling the state to release financial resources into the private sector. Nowadays, in stark contract to prior episodes, the real's depreciation generates a reduction in government debt. The central bank has built up enough international reserves to enable it to at least partially moderate exchange movements and address dollar-denominated liquidity problems. Furthermore, the Brazilian central bank is one of the few emerging market central banks eligible for a temporary Federal Reserve 30 billion US$ dollar swap facility. This is yet another indication that Brazil has gained in stature on the international scene.

Therefore, the crisis can be seen as a litmus test for the Brazilian economy. Although the country has made very significant strides in recent years in establishing the correct macroeconomic policies for driving economic progress, further reforms are needed. The time could be ripe to reopen the debate and generate proposals.

Executive Summary

In the wake of the Lehman Brothers bankruptcy, global risk aversion and investor flight to quality heightened. As the crisis deepened, there was an immediate liquidity crunch in the Brazilian financial system, initially in the dollar market and later in the local currency market. Almost immediately, the Brazilian real fell sharply, while equities imploded. The real's unexpected weakness triggered significant losses at non-financial corporates caught wrong-footed on currency derivative contracts. As the dollar appreciated against the real, corporates began to unwind their derivative positions, putting additional pressure on an already weakening real.

In addition to threatening the financial health of Brazilian companies, the losses on foreign currency derivatives heightened uncertainty over the banks' potential exposure to these losses, exacerbating the already tight interbank lending market.

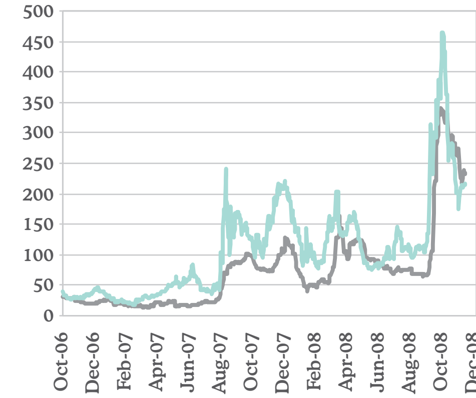
The combination of these two factors -the liquidity crunch and corporate sector losses on currency derivatives– led to serious issues for some of the small- and medium-sized banks throughout October, although things appear to be settling down now. The turbulence has accelerated consolidation within the Brazilian banking system.

The new context will cause lending growth to fall off sharply. Credit currently accounts for almost 30% of GDP. In turn, this slowdown will take a heavy toll on growth via private consumption and, more notably, via investment, expected to grind to a virtual standstill according to the results of corporate surveys. Investment will also be hampered by the losses on currency derivatives and higher financing costs (a weaker real, reduced access to international markets and tougher terms on access to local markets, among others). Private consumption will also take a hit from rising unemployment and the slowdown in job creation in Brazil.

The slowdown in global growth will dampen capacity for net trade to offset the slump in domestic demand. In addition, falling commodity prices will act as a further barrier to a recovery in exports, although mitigated by a weaker currency, at least medium term. In all, we expect Brazilian growth to be virtually sliced in half in 2009 to 2.5%, compared to an estimated 5.2% in 2008.

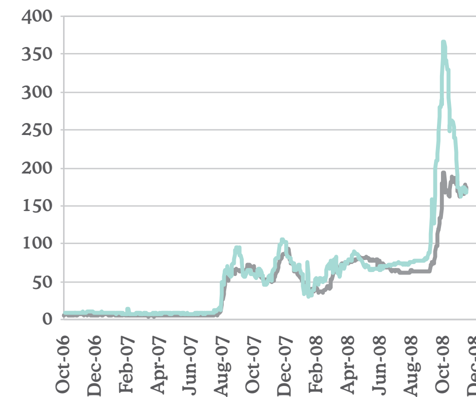
The government and central bank are implementing measures to soften the impact of the crisis on Brazil. The government is beginning to implement fiscal stimulus packages, albeit handicapped by falling receipts against the backdrop of a slowing economy. Increased government spending could additionally tie the central bank's hands on rate cuts as, in contrast to elsewhere, the crisis in Brazil could fuel inflation via currency depreciation. Overall, however, we do not expect the central bank to raise its benchmark rates further. It could even begin to cut them in 2009.

US vs. EMU index of Interbank liquidity pressure: 3-month Treasury bills-Euribor spread



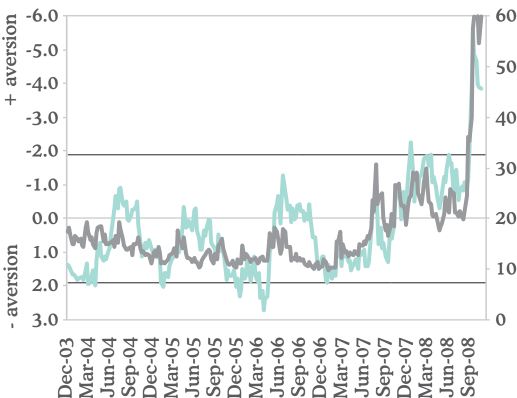
Source: BBVA and Bloomberg

US vs. EMU index of Interbank liquidity pressure: 3-month LIBOR-OIS spread



Source: BBVA and Bloomberg

Global risk aversion index (BBVA-GRAI) 64 assets: emerging countries (US$) and developed countries (local currency)



Source: BBVA and Datastream

International environment

The extreme volatility across the markets is a reflection of the ongoing liquidity crunch and prevailing global financial and economic uncertainty.

Just a few months ago, to talk of the international financial crisis was tantamount to enumerating the sequence of events unfolding in the US. However, 12 September -the day Lehman Brothers went under- marked an inflexion point worldwide. Investor uncertainty and strong risk aversion became globally widespread, primarily contaminating Europe, but also emerging markets.

Following the bankruptcy of Lehman Brothers and the bailout of the AIG Group by the US Treasury, the US administration approved the Troubled Asset Relief Program (TARP), also known as the Paulson Plan. The aim was to address the problems posed by the toxic assets on the banks' balance sheets and resolve the liquidity and solvency issues suffered by many of the country's financial institutions. Unlike the events at Bear Stearns, AIG or the US government mortgage agencies, the Lehman bankruptcy triggered sizeable losses for bondholders which shook the markets to their core. Sharp credit spread widening drove liquidity costs to unheard of and unsustainable levels. The spread between 3-month Treasury bills and interbank rates (the TED spread) in the US and EMU currently stands at 216bp and 233bp, respectively. However, the TED spread peak of 464bp was well above the high of 300bp reached on 20 October 1987. In addition, the spread between the 3-month LIBOR rate and the overnight index swap (OIS) – a proxy for the availability of market funds– currently stands at 170bp in the US (vs. a high of 366bp), compared to 171bp in Europe (vs. a high of 194bp). And just as financial tensions were heightening, the banking crisis escalated, not only in the US, but also across Europe.

Equity markets globally have notched up historic losses, with the main developed markets down by around 40% YTD. In emerging nations, the range of corrections is broader, going from 17.0% in Chile to 76.0% in Russia. Meanwhile, risk aversion is at an extreme. This risk aversion, together with expectations for additional rate cuts, explains the average reduction in October in 2Y bond yields of 60bp in the US and 100bp in the EMU relative to pre-Lehman bankruptcy levels.

The initial wave of unilateral rescue packages has since given way to unified criteria across the developed economies devised to address the global crisis.

The central banks have injected vast sums of liquidity into the market with a view to alleviating the financial standstill, although these measures have yet to have a decisive impact. The Federal Reserve has virtually doubled the amounts auctioned off via its TAF program to 300 billion US$, having also increased the dollar swap lines in place for other central banks by over 500 billion US$. The European Central Bank has also taken extraordinary measures in terms of the scale, currencies and maturities of its auctions. The most recent ECB initiative has been to launch full allotment auctions with the goal of alleviating short-term financing requirements.

The various economic and monetary authorities are faced with an unparalleled financial crisis, which is being amplified by the risk aversion phenomenon. Initially, the various governments passed different measures aimed at restoring citizens' confidence in their financial institutions by guaranteeing deposits and at stimulating business as usual in the financial markets, but with limited effect. The main reason for the reduced impact was the market's perception of a total lack of coordination among administrations and the reading that measures being taken were put in place reactively to put out fires as the various entities stumbled.

At the beginning of October, however, more coordinated action was taken. Firstly, the Fed, the ECB, the Bank of England and the central banks of Switzerland, Sweden and Canada cut their benchmark rates simultaneously by 50bp, accompanying the move with a joint press release. Shortly after, the European governments struck a timely agreement to jointly address the crisis in a coordinated manner, announcing a raft of potential measures fashioned around guarantees and capital injections. Although the immediate impact was limited, the joint efforts probably prevented an even more serious financial crisis.

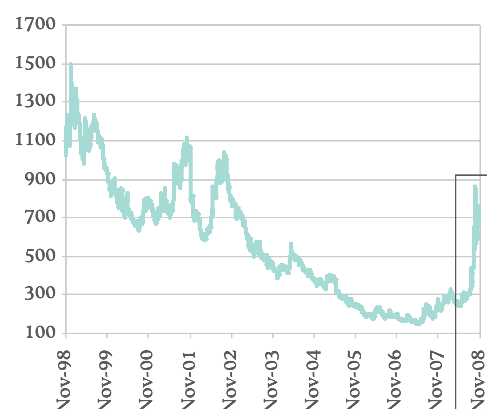
These efforts culminated with the G-20 Summit in Washington. The main thing to come from the summit and the agreements reached is the international community's firm desire to tackle the unfolding economic and financial crisis in a coordinated fashion, combining multilateral initiatives and measures with national policies previously ratified and vetted by all summit participants. This is significant, as it should mean preventing certain mistakes in the past -where unilateral national responses, on occasion purely protectionist in nature, only served to accelerate the recession- from recurring. It is also worth highlighting the fact that the announced list of measures is ambitious and stems from an accurate diagnosis of the causes of the current crisis, and why it subsequently spread and gathered pace so rapidly.

Low growth, inflation and interest rates and a strong dollar.

Based on the consideration that the distortions in the financial markets are not likely to remit over the short term, and given that the international financial crisis is likely to translate into reduced borrowing ability on the part of households and corporates, our growth estimates for the US and EMU point to acceleration in the economic slowdown. We believe that US consumption and residential and non-residential investment will continue to fall, thereby continuing to erode economic growth in that country. Meanwhile, in terms of the trade balance, imports look set to continue to fall, driven by the weak economy. Exports should continue to grow, albeit at a far slower pace due to a stronger dollar and global economic weakness. This means that on a net basis, trade will not prove a very solid crutch for growth. In sum, we expect US GDP to contract by 0.8% next year. In the EMU, we expect GDP to narrow 0.9%. Despite the existence of a few somewhat favourable factors, such as substantially lower benchmark interest rates and a weaker euro relative to the dollar, the effectiveness of the rescue packages designed by the various governments will be key to preventing a sharper recession.

Against this backdrop, the commodity markets have reacted viscerally, with oil and copper prices tumbling by close to 60% and grains, such as

Fixed income spread: EMBI+



Source: BBVA and Datastream

Stock Markets

		2008
US	S&P500	-46%
Spain	IBEX35	-47%
United Kingdom	FTSE100	-38%
France	CAC40	-47%
Germany	DAX30	-48%
EMU	STOXX	-50%
Japan	NIKKEI 225	-50%
China	Shanghai SE 180	-64%
Hong Kong	HANG SENG	-56%
Brazil	BOVESPA	-48%
Mexico	MXSE IPC Gral.	-38%
Argentina	MERVAL 25	-59%
Chile	SASE Gral Index	-17%
Russia	IRTS	-76%

Source: Bloomberg

corn, wheat and soybeans, plunging by around 40% from their mid-year peaks. In all these instances, our forecasts point to stabilisation and subsequent recovery, due to supply side restrictions in the medium and long term and ongoing rapid growth in consumption of energy, food and raw materials for manufacturing processes in China, India and other emerging markets. Nonetheless, the fall in prices to date will translate into a very sharp reduction in disposable income in developing nations, some of which are highly dependent on commodities for exports and tax receipts. Unlike earlier global slowdowns, however, this one will stand out for the fact that most Latin American nations have saved a significant portion of the windfall profits reaped during boom times, better positioning them to cope with the current price correction.

Meanwhile, we expect inflation to continue to trend significantly lower. For 2009, we are forecasting average headline inflation in the US of 0.8%. In the EMU, inflation is expected at 1.9% on average. These realigned expectations are underpinned by the correction in oil and other commodity prices, combined with the outlook for slower global growth. In addition, tame inflation will enable the central banks to continue to cut rates in order to reactivate economic growth. The ECB and the Fed have already cut rates by half a point to 3.25% and 1.0%, respectively. Our forecast for official interest rates are as follows: we think the Fed will cut benchmark rates to 0.5% in 2009, while the ECB will cut its official rate to 1.5% early next year. This underpins our forecast for a stable dollar, trading at around \$1.25/¸ through the end of 2008. In 2009, we expect the dollar to further strengthen towards the \$1.15/¸ mark, although, if anything, the risk is biased towards stronger appreciation.

Taking our base case scenario for central bank rates, we are forecasting a stable yield on 10-year US Treasury bonds of 3.80% by the end of 4Q08. Looking to 2009, we expect yields to start the year at around 3.70%, falling throughout the year to end at closer to 3.40%. In the EMU, we expect 10-year sovereign bond yields to end the year at 3.80%. We are forecasting yields of 3.50% in 1Q09, falling gradually throughout the year to end the fourth quarter at 3.10%.

Turning to the emerging markets, we have revised our forecasts downward to factor in the impact of the recessionary outlook for the developed world. While the pace of growth looks set to ease next year, we are still talking about healthy growth rates in 2009. Emerging Asia looks set grow by 6% compared to 7.5% in 2008, with China continuing to grow at around 8%, driven in large part by the government's stimulus package. Other nations in the region will grow at far lower rates, especially the smaller and more open economies, which are accordingly far more dependent on foreign demand.

Looking to the months ahead, the direction taken by and effectiveness of government policies designed to restore financial stability and jump-start the markets will be crucial to injecting confidence, breaking the vicious liquidity-solvency circle and bringing the markets back to business as usual.

Macroeconomic environment

A tougher international backdrop coupled with reduced access to credit on the home and foreign markets will trigger a correction in demand and leave economic growth below potential

The Brazilian economy remained dynamic in 1H08, expanding at 6%, compared to 5.4% in 2007. The growth engine was domestic demand, which rose by nearly 8%. Consumption rose 6.7% in the first six months of 2008, boosted by growth in real wages thanks to higher formal employment and, above all, higher lending activity. Growth in investment (15.7% in 1H08), meanwhile, was stimulated by the growth in the domestic market and easier financing conditions (due to increased supply of credit, greater access to the capital markets in Brazil and elsewhere and the appreciation of the real, which reduced the cost of imported capital goods). Public spending rose 5.6% during the same period, slightly trailing GDP growth. Imports rose 22.4%, buoyed by the strong real and strong internal demand, compared to growth of just over 1.6% in exports. In all, net trade detracted almost 2% from GDP growth[1] .

Dynamic consumption and investment kept domestic demand above potential supply (estimated at 4.5%) during the first half, fuelling inflationary pressure. The Brazilian central bank reacted to this imbalance, initiating a cycle of rate hikes with the goal of bringing domestic demand in line with potential supply.

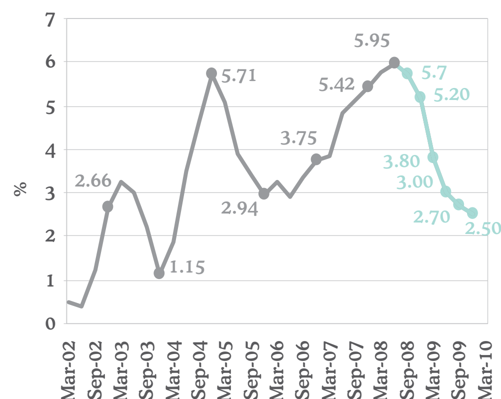
The unravelling of the global panorama in the wake of the Lehman Brothers bankruptcy, however, has dramatically changed the situation. The scarcity of international credit, an internal liquidity crunch in reais and dollars and the problems related to losses on foreign currency derivative contracts will put the brakes on the recent expansion in credit, in turn taking a toll on growth in household spending. The unemployment rate, currently at 7.6% according to the most recent data point (an historically low level, and close to the estimated natural rate of unemployment), is expected to tick higher in the coming months, although not rising by as much as GDP is expected to slow due to the rigidity of the Brazilian labour market. In addition, the adverse economic backdrop will clearly hamper new corporate hiring and wage policies. Accordingly, growth in wages can be expected to slow on recently observed levels. Lastly, falling confidence will inevitably reduce the incentive to invest and consume. Private consumption, which is expected to surge 6.2% this year, is forecast to slow to 2.8% in 2009.

Business spending will also be hit hard due to the sharp expected slowdown in lending activity, reduced access to foreign borrowing in terms of amounts and cost, growing difficulties in tapping the local capital markets, the higher cost of importing capital goods and widespread uncertainty surrounding the current situation. Lastly, the losses sustained by certain Brazilian companies (mainly exporters) in the foreign exchange derivative markets are beginning to hit their income statements and will inevitably prompt a scaling back of capex programs.

[1] On the supply side, the agricultural sector expanded by 5.24% in 1H08, while the industrial sector advanced 6.3% and the services sector, 5.25%. This highlights how, despite the positive impact of commodity prices on the Brazilian economy, the main growth driver at present is domestic demand.

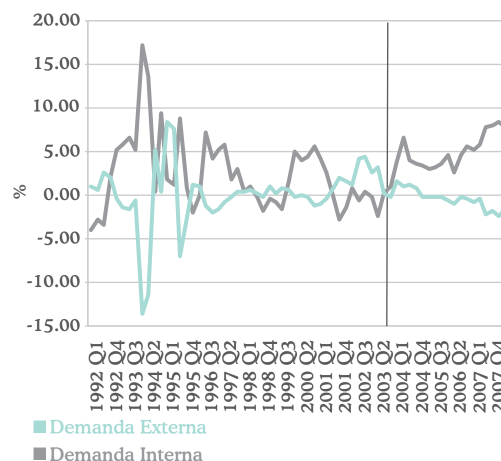
Brazil: GDP

4-quarter cumulative growth



Source: IBGE, Bloomberg and BBVA

Contributions to GDP: domestic and external demand



Source: Bloomberg

Brazil - unemployment rate

Source: IBGE

GDP and components - quarterly data-2007 - 2008

(% Change, YOY)

	2Q - 08	1Q - 08	4Q - 07	3Q - 07	2Q - 07	1Q - 07
GDP	6.13	5.87	6.21	5.58	5.42	4.39
Consumption	6.73	6.59	8.58	6.01	5.75	5.67
Investment	16.17	15.19	16.03	14.59	13.93	8.84
Government expenditure	5.33	5.77	2.20	3.12	3.42	3.66
Exports	5.11	-2.14	6.35	1.77	13.27	6.01
Imports	25.76	18.92	23.39	20.41	18.64	19.81
Agriculture	7.13	3.03	8.64	9.73	1.08	3.70
Industry	5.71	6.95	4.35	4.99	6.87	3.15
Services	5.51	4.99	5.28	4.64	4.49	4.49

Source: Bloomberg, IBGE

GDP and components - Forecasts - 2008 and 2009

(% Change, YOY)

	2009	2008
GDP	2.50	5.20
Domestic demand	2.20	7.60
Consumption	2.80	6.20
Investment	0.00	15.00
External demand	0.30	-2.40
Exports	-0.50	2.00
Imports	-2.50	21.00

Source: BBVA

While not accurate, the best estimates of losses on the depreciation of the real and related derivatives point to a figure in the region of 20 billion US$. According to the CETIP, Brazil's derivatives registrar for OTC transactions, Brazilian companies' open interest at 30 September stood at 40 billion US$. In the wake of a race by these companies to switch to dollar-denominated assets, their exposure had narrowed to 7 billion US$ by 24 October. Therefore, although losses appear contained, uncertainty surrounding this issue lingers.

The Brazilian real's recent depreciation could also have an impact on corporates not exposed to currency derivatives via dollar-denominated liabilities. Based on preliminary data, however, this exposure appears limited. The percentage of dollar-denominated liabilities (in relation to total liabilities) was almost 12% at the end of 2007 compared to nearly 24% in 2002. The percentage of dollar-denominated liabilities in relation to the sum of export revenues and dollar-denominated assets fell from almost 100% in 1997 to just under 40% in 2007[2] . In all, taking all these factors into consideration we think investment will remain flat in 2009.

Lastly, net trade will not make up for the slowdown forecast in Brazilian domestic demand. The beneficial impact of a more favourable exchange rate for exporters will have a limited impact on Brazilian exports due to the weakness anticipated in foreign demand (mainly in developed economies) over the coming months, compounded by the drop in commodity prices. Meanwhile, the continuing lack of liquidity in dollars will continue to hinder Brazilian exporters' access to financing. Medium term, however, the weaker real should give exports a boost. Import growth, on the other hand, should slow on lower domestic demand. By our estimates net trade will have a drag on GDP growth of nearly 2.4pp in 2008, but should make a positive contribution of 0.3pp in 2009.

Although the government may consider launching stimulus packages, its hands are relatively tied. Any attempt to increase spending could crowd out the private sector, placing upward pressure on rates and, as a result, slow private investment. In addition, still high public debt levels leave narrow room for manoeuvre. Furthermore, tax revenue can be expected to shrink substantially in 2009 on the back of the economic slowdown, thereby limiting scope for fiscal manoeuvring (see the section on the budget balance below).

From the monetary authority's perspective the risk profile has shifted, giving rise to the widespread perception that the central bank will not have to hike rates any further to bring domestic demand in line with potential supply.

Overall, the Brazilian economy is likely to be hit hard by external shocks. There is a risk of higher than currently estimated corporate losses amid fresh bank liquidity problems. This downside risk means GDP growth could end up nearer to 2% in 2009.

However the progress made on macroeconomic fundamentals means Brazil is expected to deal with the current global shocks better than in previous crises. Firstly, the country now enjoys institutional stability in relation to key economic policies (control over inflation, role of the state, freely floating currency, inflation target system, etc.). Secondly, the trade and budget accounts are in far better shape (see corresponding sections

[2] This data and other information on Brazilian and Latin American companies' exposure to dollar-denominated liabilities can be found in the *Regional Economic Outlook: Western Hemisphere* report recently published by the IMF.

below). Lastly, the investment and credit boom of recent months has gotten the economy in better shape to weather the turmoil.

Although the weaker currency will exert upward pressure on prices, the economic slowdown should help keep inflation in check, at least in 2009

Recent pressure on prices has come from rising commodity prices and buoyant demand. These pressures have eased and given way to a different series of factors likely to shape inflation in 2009. Firstly, the real's deprecation and the potential pass-though to domestic prices. Secondly, a sharper than anticipated economic slowdown unfolding since the second half of this year, expected to intensify throughout 2009.

Inflation is currently running at 6.4%, substantially above the targeted 4.5% for 2008, and very close to the ceiling for this year (6.5%).

It is feasible that over the coming months, until demand starts to show clear signs of flagging, the real's depreciation will hinder a more pronounced fallback in inflation. However, throughout 2009, the slump in domestic demand combined with a moderate appreciation of the real from current levels before stabilising, should facilitate a marginal easing in inflation towards around 4.8%.

The improvement in the budget balance in recent years will enable the government to pursue moderately counter-cyclical fiscal policy

The most important factors to the improved budget balance in recent years are: (i) the shift in the debt structure, and (ii) the reduction in debt as a percentage of GDP.

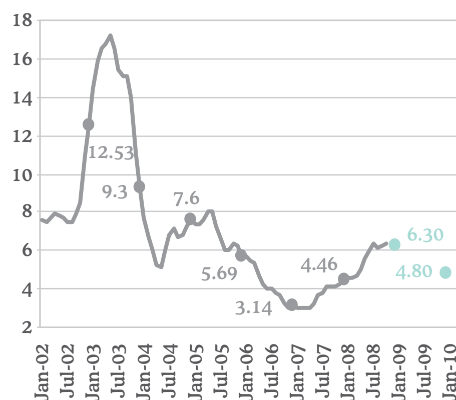
Just a few years ago a significant percentage of Brazilian government bonds were dollar-denominated (e.g. some 62.3% in 2003). This composition meant that during episodes of flight to quality such as at present, the real depreciated and the public debt burden automatically rose. To moderate capital outflows and the pass-through effect from a weaker currency on inflation, the central bank was then forced to raise rates, adding pressure to the debt burden. Accordingly, during episodes of international crisis, monetary and fiscal policy ended up being pro-cyclical.

The situation today is very different. The percentage of sovereign bonds denominated in dollars is zero and the state is a net foreign creditor. According to the Brazilian central bank, the net balance of domestic and foreign borrowings denominated in foreign currency stood at -28.1% of total debt (-11.4% of GDP) in August 2008, and 5.5% of total debt in gross terms (31.1% of GDP at the end of 2002). Thanks to the current debt structure, a 10% depreciation in the real reduces the debt/GDP ratio by 1.1%, whereas in 2002, an equivalent depreciation boosted the ratio by 3.1%.

Meanwhile, total government debt has fallen to under 40% of GDP (from over 50% in 2002) and the nominal budget deficit stands at less than 2% of GDP (having gone as high as 6% of GDP in 2003)[3].

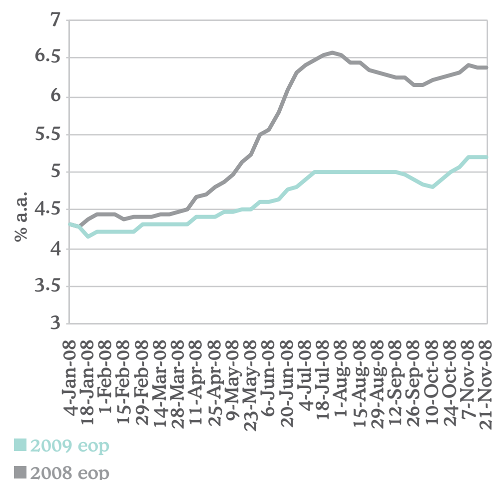
[3] Nonetheless, government spending continues to rise. Between January and August 2008, Federal public sector spending (including the central bank) rose 10% year-on-year. Wage expenses rose by nearly 9%.

IPCA - cumulative 12 months



Source: Bloomberg and BBVA

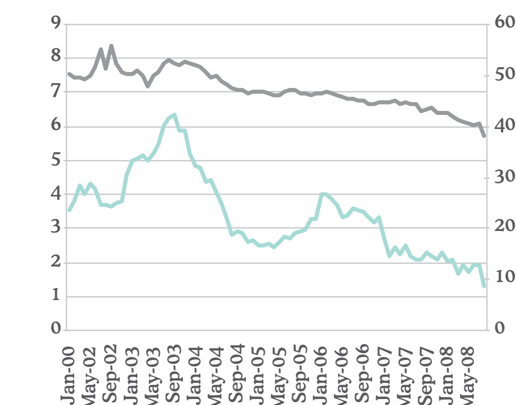
Inflation expectations



Source: Bloomberg

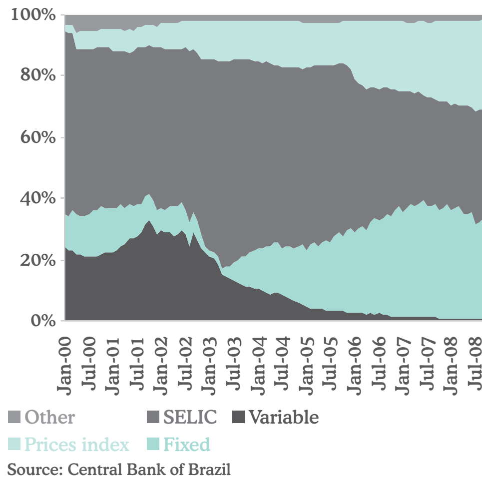
Net public sector debt and nominal deficit

(% of GDP)



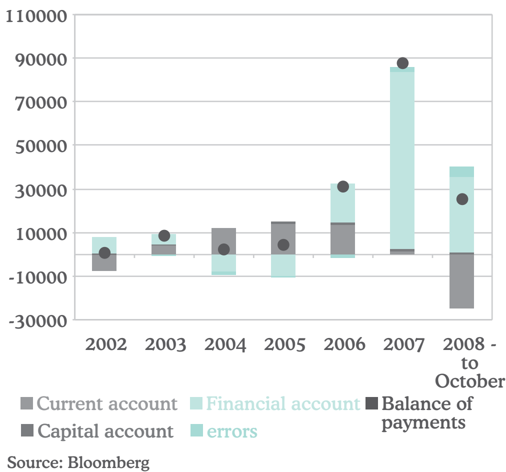
Source: Bloomberg

Brazil: debt profile



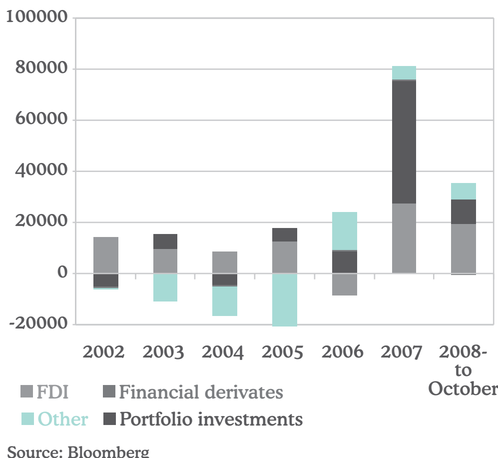
Source: Central Bank of Brazil

Balance of payments



Source: Bloomberg

Financial account



Source: Bloomberg

This progress will enable the government to implement fiscal stimuli to counter the impact of the crisis. The government has so far said it would cut its primary budget surplus to 3.8% of GDP in 2009, leaving the door open to a bigger reduction to around 3.3% of GDP[4]. However, as mentioned above, the government's tax receipts are highly leveraged to the economy so that the anticipated slowdown in 2009 will tie its hands on fiscal initiatives. In all, our forecasts point to a total year-end deficit of around 1.9% of GDP in 2008 and 2009.

Despite the slowdown in capital inflows, funding for the trade deficit is guaranteed. A weaker scenario could put additional pressure on the real.

In January 2008, for the first time since May 2003, Brazil recorded a current account deficit. Since then, the deficit has widened to 1.71% of GDP in October, fuelled by the strong pace of growth in domestic demand.

The current turmoil will affect the current account and how it is financed in several ways. The weaker real should stimulate, at least medium term, growth in exports and a slowdown in imports. Prospects for growth in exports, however, are constrained by the global economic panorama and tighter financing conditions clamping around exporters. The slowdown in domestic demand will also have a positive impact on the current account, most notably next year. Offsetting these favourable winds of change, the sharp correction in commodity prices will have an adverse effect on the current account deficit which, on our estimates, will amount to 1.8% of GDP in 2008 and around 1.5% in 2009.

As for how the current account deficit is financed, foreign capital inflows, via both fund flows and FDI, will correct sharply in 2009. The most recent data available highlights the radical shift taking place in capital flows. In October, net capital outflows amounted to 4.639 billion US$ (net balance between financial outflows of 6.249 billion US$ and trade inflows of 1.61 billion US$). Outflows of this scale had not been seen in Brazil since 1999, when the currency was freely floated. We think FDI, which looks set to total nearly 35 billion US$ in 2008, could be sliced in half in 2009.

Despite the drop in capital flows, they should still be sufficient to fund the current account deficit in 2008 and 2009. If the deterioration intensifies, the real should weaken further to adjust the Brazilian trade accounts. In any event it is worth recalling that Brazil is sitting on a tidy sum of international reserves of close to 200 billion US$, a prop that mitigates concerns over deficit financing issues.

The central bank freezes rate hikes and injects dollars and *real* liquidity into the financial system to alleviate the crunch.

At its most recent meeting in October, the central bank paused the series of rate hikes initiated in April of this year. Between April and October, SELIC rates were increased from 11.25% to 13.75%. Before

[4] The government seems to be prioritising the maintenance and even expansion of infrastructure spending. It has announced its intention of pressing ahead with its PAC (growth acceleration program) projects. In addition, it has taken preliminary measures (essentially setting up credit facilities) to benefit the export, agricultural, real estate and automobile sectors.

the crisis, expectations were that the central bank would continue to raise rates to leave them at 14.50% at year-end. However, after Lehman Brothers went under, the sharp squeeze on domestic liquidity and expectations for a pronounced slowdown in growth led the Brazilian monetary authority to leave rates intact at 13.75% at its October session.

Guided by its inflation targeting policy, the central bank is weighing up the opposing forces that will drive inflation in the coming months, i.e. currency depreciation mitigated by slower growth. It is feasible that as the economic slowdown gathers pace, the central bank will have the elbow room necessary to cut rates by 100bp.

Meanwhile the Brazilian monetary authority is injecting liquidity into the financial market in *reais* and dollars in an attempt to alleviate market tightening. Accordingly it has begun to offload dollars onto the currency markets and has intervened on a daily basis, selling currency swaps and also dollars on the spot market. The central bank is also beginning to target funds directly at exporters, who are having a hard time getting dollar financing. So far, the institution has injected almost 50 billion US$ into the system, including the nearly 7 billion US$ in forward sales.

The central bank currently holds over 200 billion US$ in international reserves, and can draw on another 30 billion US$ swap facility with the Fed if it chooses to continue to intervene. International reserves have held virtually steady since the crisis began.

On another front, the central bank has actively been trying to alleviate the bank system's local currency liquidity problems. To do so, it has been modifying its swap policy[5], under which it has capacity to inject up to 70 billion US$. Because the smaller banks are facing the greatest liquidity problems, incentives have been put in place to encourage the larger banks (including the state banks and the central bank itself) to buy assets from the smaller banks as a means of getting liquidity flowing to the more troubled banks[6]. To date, over 9 billion US$ has been spent on purchasing other banks' assets (one third of the total authorised by the central bank).

An initial assessment suggests that these measures have been moderately effective. Tensions in the interbank lending market and exporter financing problems have both eased. Nonetheless, the liquidity levels evident prior to the turmoil have not been restored[7].

[5] The Brazilian central bank has ample room for manoeuvre in terms of swap initiatives, at least in relation to other countries, as it holds a very significant proportion (almost 50%) of the banks' reserves.

[6] Here the main central bank initiatives have included permission granted to large banks to use up to 40% of mandatory reserves to buy portfolio assets and a 30% limit on the percentage of funds that can be held in public bonds.

[7] Interbank funding rates, which stood at 105% of the CDI rate (overnight interbank deposit rate) before the crisis, peaked at 140% and have since fallen back to 115%. Exporters, meanwhile, still require central bank intervention in the form of dollar liquidity auctions to get financing.

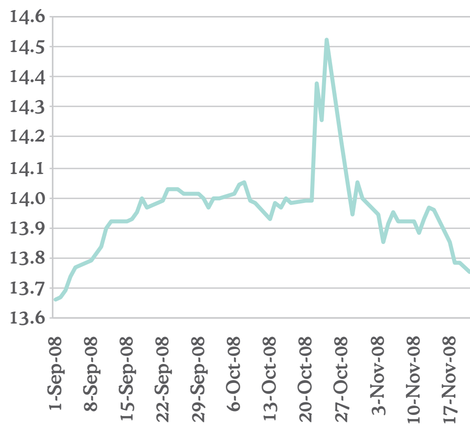
BRL/USD exchange rate

Source: Bloomberg and BBVA

Brazil: credit as % of GDP

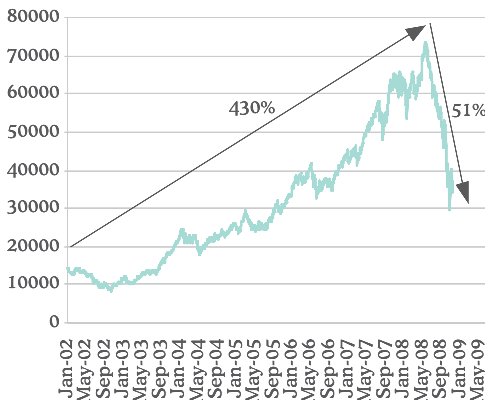
Source: Central Bank of Brazil

CDIs in Brazil - 90-day futures



Source: Bloomberg

BOVESPA



Source: Bloomberg

Financial markets

Credit growth to ease sharply over the coming months

Credit supply has been one of Brazil's main growth drivers of late. Credit as a percentage of GDP rose from 22% in 2004 to almost 40% in 2H08. Both household and corporate lending surged during this period. Mortgages, still relatively negligible in absolute terms (just under 2% of GDP), had been expanding rapidly before the crisis, registering real growth rates of over 25%. The growing credit supply fuelled household consumption in recent years, underpinning, for example, annual growth in car sales in excess of 30%.

The credit boom of recent years was driven by higher demand (linked to stronger economic growth) and legislative changes enhancing guarantees, thereby providing lending institutions with greater incentives.

The turnaround in economic growth will adversely impact the credit markets in Brazil. Although the stock of credit climbed 2.9% month-on-month in October (rising from 39.2% of GDP to 40.2% as a result), some leading indicators suggest a slowdown in lending around the corner. Total loans given fell 3% between September and October. Daily loan grants shrank 7.3%. In addition, intervention by state institutions prevented a sharper contraction in lending.

Recently released car sales statistics, indicating a 22% plunge in sales between September and October, are further proof of the impact of the crisis on the Brazilian credit markets. Preliminary data also suggest that the agricultural and real estate sectors are beginning to show signs of weakness, despite government intervention[1] .

Against this backdrop, we expect credit to fall from current annual growth rates of almost 30% to closer to 15% (in nominal terms). This slump is likely to unfold despite the government's efforts to substitute part of the drop in local and foreign private sector lending with public credit (through its development bank, BNDES, and state banks, Banco do Brasil and Caixa Economica Federal). In addition to reduced supply, the market will also feel the effect of reduced demand for credit.

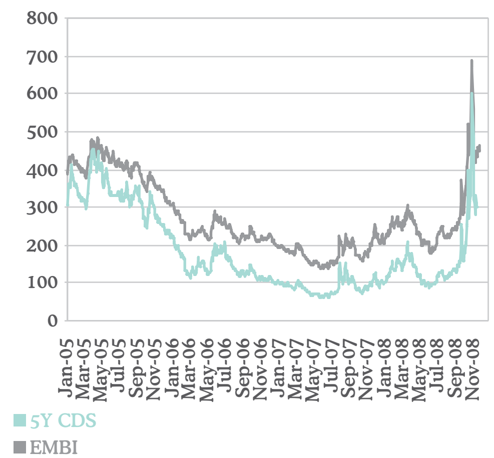
Despite healthy capital adequacy ratios across the banking system, primarily at the large banks, the jump in default rates, liquidity problems and losses on currency derivatives paint a more adverse picture for the banking sector, especially the mid- and small-sized banks. Troubles at some of these smaller banks could trigger intra-sector consolidation.

The recently announced merger between Itau and Unibanco creates Brazil's largest bank. It now outpunches the former number one ranked bank, Banco do Brasil (even taking into consideration the announced acquisition of Banco Nossa Caixa) and the largest private Brazilian bank, Bradesco. The competition unleashed among these banks will also stimulate M&A activity.

[1] Via the state banks, the government has increased credit available to the agricultural sector. It has also permitted Banco do Brasil and Caixa Economica Federal to purchase assets from real estate companies as a way to prevent a crisis in a sector that has been growing via IPOs and is now poised for consolidation.

Meanwhile, the equity markets clearly mirror the impact of the global turmoil on Brazil. The IBOVESPA index, which peaked at over 73,000 points in May (after the country was upgraded to investment grade status by S&P), has corrected by over 30% in the months following the Lehman Brothers bankruptcy. This rout has been driven primarily by the plunge in commodity prices and outflows of foreign capital. The CDS for sovereign bonds has virtually doubled since the crisis began, hovering at 300bps at the beginning of November. During the same period, the spread on Brazilian EMBI bonds widened from 167bp to 437bp.

EMBI and 5Y CDS



Source: Bloomberg

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The natural rate of interest in Brazil

The natural rate of interest concept has generated huge interest in recent years, especially for central banks, which have adopted it as a key benchmark when designing their monetary policies. To summarise, the natural rate of interest is defined as the real interest rate consistent with output equalling potential and, therefore, stable inflation. This definition suggests that the natural rate is the interest rate which does not put pressure on prices. Another of the natural rate's key features is that it varies over time in accordance with changes in the potential output of the economy (e.g. changes that might be derived from technological advances).

Estimating the natural rate of interest is especially intriguing for Brazil, given that chronically high interest rates have long been a fundamental characteristic of its economy. Even today, and despite the fact that the macroeconomic stability of recent years has allowed for major drops in inflation and nominal interest rates, Brazil's real interest rates are still among the highest in the world. This goes some way towards explaining the country's lower growth in comparison with other Latin American economies since the end of the 1970s.

This highly unusual trend has captured the attention of the economic literature, which has developed several theories to explain the persistence of high interest rates in Brazil. One of the main culprits is the country's fiscal policy due to its expansionary character and the importance of non-discretionary expenses, which has made it difficult to achieve a more flexible spending structure. As a result, the public sector has found itself with massive financing needs, which until recently resulted in a public debt/GDP ratio of over 85%. Accordingly, the public sector has been one of the main applicants for credit in local markets.

In addition to the excessive weighting of the public sector, the literature has also blamed the exchange rate and the Brazilian economy's tendency to suffer periodic crises. The exchange rate regime in force until 1999, based on the imposition of exchange rate bands which limited the flexibility of the real, forced interest rates up with the aim of avoiding sharp swings in the balance of payments. Meanwhile, the Brazilian economy's propensity to suffer periodic crises drove real rates up, especially starting in 1999, when Brazil started inflation targeting.

Aside from these macroeconomic factors, the institutional framework appears to be a fundamental obstacle to creating a scenario in which real interest rates could fall to more moderate levels. Specifically, Brazil has a legal bias in favour of borrowers, which has caused lenders to jack up interest rates to compensate for their greater legal vulnerability. In short, there are a series of macroeconomic and institutional factors responsible for keeping the country's interest rates chronically higher than the levels generally seen in other emerging economies.

Methodology

Against this backdrop, it seems reasonable to assume that Brazil's natural interest rate is higher than other countries in the region. To confirm this, the present study aims to estimate this rate through a space-state model[1]. This methodology was already applied to Peru and

[1] We are grateful to Mario Nigrinis for his assistance in drafting this study

Colombia in our Latinwatch report of 1H08. The main characteristic of space-state models is that some of the explanatory variables are not observed, depending on a stochastic process[2]. In our case, the space-state model follows a VAR(2) structure, and includes the real interest rate as the difference between the central bank's benchmark rate (SELIC) and the IPCA inflation rate. The inflation and output gaps are generated though Hodrick-Prescott filters, leaving our equation system as follows:

$$r_t = \mu_{1t} + \sum_{i=1}^{2} \beta_{1it} r_{t-i} + \sum_{j=1}^{2} \alpha_{1jt} og_{t-j} + \sum_{l=1}^{2} \partial_{1lt} gap_\inf_{t-j} + \varepsilon_{1t}$$

$$og_t = \mu_{2t} + \sum_{i=1}^{2} \beta_{2it} r_{t-i} + \sum_{j=1}^{2} \alpha_{2jt} og_{t-j} + \sum_{l=1}^{2} \partial_{2lt} gap_\inf_{t-j} + \varepsilon_{2t}$$

$$gap_\inf_t = \mu_{3t} + \sum_{i=1}^{2} \beta_{3it} r_{t-i} + \sum_{j=1}^{2} \alpha_{3jt} og_{t-j} + \sum_{l=1}^{2} \partial_{3lt} gap_\inf_{t-j} + \varepsilon_{3t}$$

With this specification, the natural rate is calculated through the first equation, on the assumption that the product and inflation gaps are closed. In algebraic form,

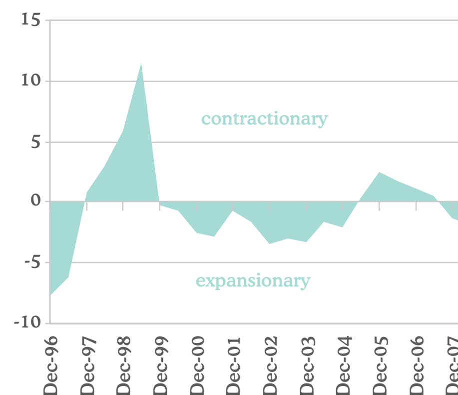
$$r_t^* = \frac{\mu_{1t}}{(1 - \sum_{i=1}^{2} \beta_{1it})}$$

Our estimates give an average natural rate of interest of around 13.5% for the January 1996-June 2008 period and a natural rate after the downward trend of 1H08 of around 8.1%. We would highlight that during this period, the natural interest rate stayed at very high levels until the second half of 1999, at which point it fell sharply and almost simultaneously with the drop in real interest rates. Up to that point, the only serious attempt to stabilise inflation rates was the 1994 Real Plan, a programme that was able to reduce inflation, but only at the cost of extremely high interest rates. The chronically high interest rates were due to, among other factors, the combination of an expansionary fiscal policy and a monetary policy which aimed to defend the country's currency in the context of fixed exchange rates.

In 1999, the Brazilian economy took the opposite approach when it opted for a floating exchange rate and started setting inflation targets. This transformation was also supported by significant fiscal improvements, with the primary budget surplus rising from 0.01% of GDP in 1998 to 3.23% in 1999. This streamlining permitted the rapid reduction of the benchmark (SELIC) over the course of 1999, from 45% in March to 19% by the end of the year. Subsequently, 2001 and 2002 were affected by a series of shocks (terrorist attacks in the US, the Argentina financial crisis, political uncertainty regarding President Lula's first term), which rekindled inflationary pressures, mainly as a result of the real's depreciation, and forced the Central Bank to reinstate its hawkish interest rate policy on several occasions, starting in 2001[3].

[2] For a more detailed discussion of our methodology please see the *Latinwatch* for 1H08.
[3] Starting this year, there were three rounds of interest-rate hikes: March 2001-February 2002, October 2002-June 2003 and September 2004-September 2005.

Brazil: monetary policy position



Based on our results, we have arrived at several conclusions. The first confirms the success of the economic policies adopted in conjunction with the change in monetary policy implemented in 1999, which permitted the sharp reduction of both interest rates in just a few months, in tandem with a reining in of inflation. A second conclusion, already discussed in the literature, is that the natural rate of interest in Brazil tends to be higher than the international average (Miranda and Muinhos, 2003). By way of comparison, our previous edition of Latinwatch calculated an average natural rate of interest of between 4 and 5% for Colombia and between 5 and 6% for Peru. Given this high natural rate of interest, the various rounds of interest-rate hikes in Brazil after 2001 are not indicative of a restrictive monetary policy[4] . In fact, the real rate of interest has tended to hover around the natural rate of interest since 1999, invalidating the argument that high interest rates are the outcome of monetary authorities' overly conservative stance since they started setting inflation targets in 1999. Chananeco and Savino (2006) arrive at the same conclusion in their paper, although they relate the persistence of high real interest rates to different factors, such as the sensitivity of inflation rates to economic agents' change in expectations, and to the difficulty of increasing the economy's overall productivity.

In short, to blame excessively conservative Central Bank policies may be barking up the wrong tree. Further declines in the natural rate of interest will require reducing the effects of structural factors, which continue to provide a floor for interest rates. Therefore, after the progress in exchange rate policies and in controlling inflation, the next challenge will be will be to enact further reforms in the two previously mentioned areas: 1) to make public spending more flexible and, 2) to reduce jurisdictional uncertainty[5] .

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[4] Monetary policy position is determined by the difference between the real and natural rate of interest. Accordingly, positive amounts are related to a restrictive monetary policy and negative amounts to an expansive policy.
[5] Gonçalves et alia (2005) gives a detailed treatment of the effects of jurisdictional uncertainty on interest rates in Brazil.

Infrastructure

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Infrastructure is probably the single area where investment is most critical in the Brazilian economy. Spending on infrastructure has grown in the last few years, but still just accounts for a little over 2% of Brazilian GDP, not even enough to maintain existing capital stock. For this, infrastructure investment as a percentage of GDP needs to rise to 3% and to converge with the developed world to increase to and remain at least at 5% over the next 20 years[1] .

Infrastructure investment (% GDP)

	2003	2004	2005	2006	2007-2010*
Infrastructure investment	1.60	1.85	2.05	2.05	2.18
Public	0.72	0.75	0.89	1.04	-
Private	0.88	1.10	1.16	1.01	-
Electricity	0.58	0.52	0.59	0.70	0.82
Communicatinos	0.47	0.69	0.66	0.53	0.55
Road transportation	0.21	0.26	0.29	0.36	0.31
Railway transportation	0.07	0.10	0.15	0.11	0.10
Airports	0.03	0.03	0.03	0.04	0.03
Ports	0.01	0.02	0.02	0.02	0.02
Waterways	0.003	0.004	0.002	0.001	0.007
Sanitation	0.22	0.23	0.30	0.29	0.35

Source: O Investimento em Infra-Estrutura no Brasil: historico recente e perspectivas, Claudio Frischtak (2007).
* Forecasts

The main reason for the low level of investment in infrastructure is the country's low saving rate, specifically public sector saving. Total domestic saving as a percentage of GDP in 2007 was just under 18%. Public sector saving was 2.5% of GDP in the period from 1951 to 1963; 3.6% from 1964 to 1980, -1.5% between 1964 and 1980 and -5.4% between 1994 and 2000. The level has improved in the last couple of years to -0.5% in 2006 and to 0.5% in 2007, which partly explains the moderate increase in the overall saving rate and, indirectly, in investment.

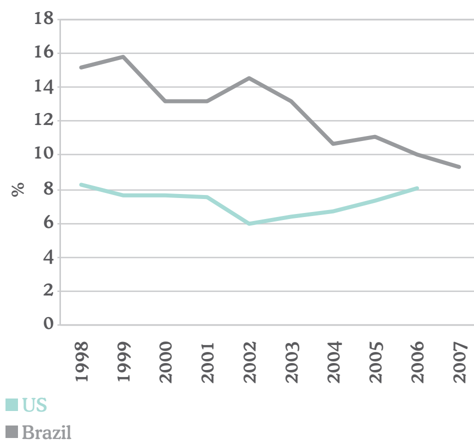
Low public sector saving is the result of extreme rigidity in current public expenditure (e.g. payment of civil servant wages and pensions). Other reasons for low investment include: i) scant national planning and execution capacity related to the governing bodies' politicization and lack of professionalisation; ii) the weakness of the legal frameworks -or lack thereof- to provide legal guarantees to investment and a tax system that does not encourage investment, iii) three decades of macroeconomic instability, which distorted asset prices and financing conditions (e.g. high costs of capital and the scant development of the country's capital markets until recently).

At any rate, changes have taken place in the last few years that are stimulating investment in new projects and these changes affect all of the factors mentioned above. First, both the budget deficit and public debt are falling, leaving more room for spending on investments.

The government may not play a huge role in driving investment via public projects, but it should help pave the wave for the legal framework to become more propitious for private investment in infrastructure

[1] These estimates are based on the data provided in this article and are shown in Claudio Frischtak's article *O Investimento em Infra-Estrutura no Brasil: historico recente e perspectivas.*

Capital costs in Brazil and the US



Source: O Investimento em Infra-Estrutura no Brasil: historico recente e perspectivas, Claudio Frischtak (2007).

concessions. The federal government is organising and coordinating investment efforts through the Growth Acceleration Program, or PAC (for its initials in Portuguese).

Over the last decade, the federal government has been working on a new legal framework that encourages private investment, although in many instances it is still not satisfactory. Telecommunications and electricity seem to have benefited most from the progress made on the regulatory front, with both sectors operating with relative stability and a great deal less uncertainty. In healthcare and transportation, however, the legal deficiencies are evident.

Last, but possibly most important, is that macroeconomic stability is beginning to foster a more investment-friendly environment. Up until a few years ago, investment was hindered by the risks related to macroeconomic instability and high interest rates. Nowadays, however, macroeconomic instability, the decrease in the costs of capital and growing interest among foreign investors should boost the financing role of the capital markets.

The PAC

Approved in early 2007, the PAC, or Growth Acceleration Plan, is designed to sustain the growth of the Brazilian economy at an average of 5% in 2007-2010. It entails a series of investments amounting to 220 billion US$ earmarked for infrastructure. Slightly more than half of the funds are for the energy sector (e.g. projects to develop new oil fields and refineries, and gas pipelines). 34% is aimed at social infrastructure projects (e.g. universal electricity and healthcare). Finally, 11% targets transportation (e.g. projects to renovate the country's main motorways and develop an urban underground system in four state capitals).

Of the PAC's total planned investment, 90% was already included in the investment programs of state institutions when the plan was unveiled. The remaining 10% includes investment in additional projects to be carried out with a mix of public and private initiative. Tax incentives and public-private partnerships are helping stimulate private investment. Public-private partnerships (PPPs) entail the grant of a service or public works concession arrangements to the private sector, whereby the public sector provides money to the private company. The government's contribution is proportional to the risk of the project. While the practical results of the PPPs have so far been limited, the government may implement them in the near future.

As the PAC basically covers existing projects and fails to address two of the main problems undermining investment in Brazil (e.g. the lack of public funds caused by the high level of government expenditure on areas such as welfare and wages, and the lack of incentives for private investment), it is considered insufficient to sustain the growth of the Brazilian economy.

Statistic and forecasts

International Context

Commodity Prices (average)							
	2007	2008	2009		2007	2008	2009
Brent (USD/barril)	72.8	101.0	54.5	Gold (USD/troyoz.)	697.7	879	775.0
Copper (USD/t)	7108.0	6994.0	3569.0	Soya (USD/ton)	317	458	342

	Real GDP (%)				Consumer prices (%. average)			
	2006	2007	2008	2009	2006	2007	2008	2009
USA	2.9	2.0	1.4	-0.8	3.2	2.9	4.2	0.8
EMU	3.0	2.7	1.0	-0.9	2.2	2.1	3.3	1.4
Japan	2.4	2.0	0.7	-0.3	0.3	0.1	1.2	0.3
China	11.6	11.9	9.5	8.1	2.8	6.5	4.5	3.0

	Exchange rate (vs $. end of period)				Official interest rate (%. end of period)			
	2006	2007	2008	2009	2006	2007	2008	2009
USA					5.25	4.25	0.50	0.50
EMU ($/€)	1.32	1.46	1.30	1.15	3.50	4.00	2.50	1.50
Japan (yenes/$)	116.4	113.1	100.7	95.6	0.24	0.06	1.20	0.30
China (cny/$)	6.12	7.47	6.93	5.31	1.70	4.80	6.40	3.40

Latin America

	Real GDP (%)				Consumer prices (%. end of year)			
	2006	2007	2008	2009	2006	2007	2008	2009
Argentina	8.5	8.7	6.9	1.9	9.9	8.5	8.0	13.0
Brazil	3.7	5.4	5.2	2.5	3.1	4.5	6.3	4.8
Chile	4.3	5.1	4.3	2.3	2.6	7.8	8.9	4.8
Colombia	6.8	7.7	3.7	3.0	4.5	5.7	7.2	4.5
Mexico	4.9	3.3	1.8	0.0	4.1	3.8	6.2	4.0
Peru	7.7	8.9	8.9	5.0	1.1	3.9	6.5	2.9
Venezuela	10.3	8.4	5.5	2.6	17.0	22.4	30.7	32.5
LATAM[1]	5.4	5.6	4.4	1.8	5.0	6.0	8.1	7.0
LATAM Ex-Mexico	5.7	6.6	5.4	2.6	5.4	7.1	9.0	8.4

	Fiscal balance (% GDP)				Current account balance (% GDP)			
	2006	2007	2008	2009	2006	2007	2008	2009
Argentina [2]	1.8	1.2	1.9	0.5	3.8	2.7	2.0	-0.3
Brazil	-3.0	-2.2	-1.9	-2.0	1.6	0.6	-1.8	-1.5
Chile [2]	7.8	8.8	6.5	2.7	4.9	4.5	-2.7	-2.6
Colombia	-0.8	-0.8	-1.0	-1.3	-2.2	-3.4	-2.0	-1.9
Mexico	-0.1	0.0	0.0	-1.8	-0.6	-1.0	-1.5	-3.5
Peru	2.1	3.1	2.5	0.1	3.0	1.4	-2.1	-3.0
Venezuela [2]	2.1	4.5	0.6	-4.2	14.7	10.5	14.2	4.3
LATAM [1]	-0.5	0.0	-0.2	-1.5	2.0	0.9	-0.3	-1.7
LATAM Ex-Mexico	-0.3	0.3	0.0	-1.2	3.0	1.7	0.1	-1.0

[1] Average of the 7 countries. [2] Central Government.

	Exchange rate (vs $. end of year)				Interest rates (%. end of year)[3]			
	2006	2007	2008	2009	2006	2007	2008	2009
Argentina	3.06	3.14	3.30	3.90	9.80	13.50	22.00	20.00
Brazil	2.15	1.78	2.30	2.10	13.25	11.25	13.75	12.75
Chile	530	499	634	603	5.25	6.00	8.25	5.25
Colombia	2239.00	2015.00	2329	2443	7.50	9.50	9.50	8.00
Mexico	10.93	10.95	12.82	12.83	7.02	7.44	8.00	5.45
Peru	3.21	2.98	3.10	3.25	4.50	5.00	6.50	6.00
Venezuela	2.00	2.00	2.15	2.70	10.26	11.70	17.50	18.00

[3] For each country interest rate see the following page.

Argentina / Brazil

	Argentina 2006	Argentina 2007	Argentina 2008f	Argentina 2009f	Brazil 2006	Brazil 2007	Brazil 2008f	Brazil 2009f
GDP (%)	8.5	8.7	6.9	1.9	3.7	5.4	5.2	2.5
Consumer Prices (%. end of year)	9.9	8.5	8.0	13.0	3.1	4.5	6.3	4.8
Trade balance ($bn)	12.3	11.1	11.3	3.3	46.1	40.0	25.0	28.0
Current Account (m.M. $)	8.1	7.2	6.5	-1.2	15.4	7.9	-32.0	-25.0
Current Account (% GDP)	3.8	2.7	2.0	-0.3	1.6	0.6	-1.8	-1.5
Reserves ($bn. end of year)	32.0	46.2	44.6	45.0	85.8	180.3	200.0	190.0
Exchange Rate (end of year vs US$)	3.06	3.1	3.3	3.90	2.15	1.78	2.30	2.10
Fiscal balance (% GDP) [1]	1.8	1.2	1.9	0.5	-3.0	-2.2	-1.9	-2.0
Interest Rate (end of year) [2]	9.80	13.5	22.0	20.0	13.25	11.3	13.8	12.8

[1] Argentina: Central Government. Exluding privatisation receipts

[2] Argentina: 30-d deposits interest rate in pesos; Brazil: SELIC rate

Chile / Colombia

	Chile 2006	Chile 2007	Chile 2008f	Chile 2009f	Colombia 2006	Colombia 2007	Colombia 2008f	Colombia 2009f
GDP (%)	4.3	5.1	4.3	2.3	6.8	7.7	3.7	3.0
Consumer Prices (%. end of year)	2.6	7.8	8.9	4.8	4.5	5.7	7.2	4.5
Trade balance ($bn)	22.2	23.7	6.5	8.1	0.0	-0.7	4.4	4.7
Current Account (m.M. $)	6.8	7.2	-4.6	-3.7	-3.0	-5.9	-4.1	-3.8
Current Account (% GDP)	4.9	4.5	-2.7	-2.6	-2.2	-3.4	-2.0	-1.9
Reserves ($bn. end of year)	19.4	16.9	25.0	25.0	15.4	21.0	23.5	23.0
Exchange Rate (end of year vs US$)	530	499	634	603.00	2239	2015	2329	2443
Fiscal balance (% GDP) [1]	7.8	8.8	6.5	2.7	-0.8	-0.8	-1.0	-1.3
Interest Rate (end of year) [2]	5.25	6.00	8.25	5.3	6.8	9.0	10.1	8.2

[1] Chile: Central Government

[2] Chile: Official Interest Rate (since August 2001 in nominal terms); Colombia: 90-d DTF interest rate

Mexico / Peru

	Mexico 2006	Mexico 2007	Mexico 2008f	Mexico 2009f	Peru 2006	Peru 2007	Peru 2008f	Peru 2009f
GDP (%)	4.9	3.2	1.8	0.0	7.7	8.9	8.9	5.0
Consumer Prices (%. end of year)	4.1	3.8	6.2	4.0	1.1	3.9	6.5	2.9
Trade balance ($bn)	-6.1	-10.1	-16.3	-32.4	8.9	8.4	3.3	0.0
Current Account (m.M. $)	-6.0	-10.2	-17.6	-35.5	2.8	1.5	-2.7	-4.1
Current Account (% GDP)	-0.6	-1.0	-1.5	-3.5	3.0	1.4	-2.1	-3.0
Reserves ($bn. end of year)	67.7	78.0	83.0	87.0	17.3	27.7	31.1	28.1
Exchange Rate (end of year vs US$)	10.93	10.95	12.82	12.83	3.21	2.98	3.10	3.25
Fiscal balance (% GDP) [1]	-0.1	0.0	0.0	-1.8	2.1	3.1	2.5	0.1
Interest Rate (end of year) [2]	7.02	7.44	8.00	5.45	4.50	5.00	6.50	6.00

[2] Mexico: 28-d Cetes Interes Rate; Peru: Interbank Interest in soles

Uruguay / Venezuela

	Uruguay 2006	Uruguay 2007	Uruguay 2008f	Uruguay 2009f	Venezuela 2006	Venezuela 2007	Venezuela 2008f	Venezuela 2009f
GDP (%)	7.0	7.4	9.2	4.8	10.3	8.4	5.5	2.6
Consumer Prices (%. end of year)	6.4	8.5	8.2	6.4	17.0	22.4	30.7	32.5
Trade balance ($bn)	-0.5	-0.7	-0.8	-1.3	32.7	23.7	47.9	15.8
Current Account (m.M. $)	-0.4	-0.5	-0.8	-1.0	27.1	20.0	42.6	14.1
Current Account (% GDP)	-2.3	-2.4	-3.0	-3.7	14.7	10.5	14.2	4.3
Reserves ($bn. end of year)	0.8	1.9	2.3	3.1	37.3	33.9	31.9	31.9
Exchange Rate (end of year vs US$)	24.5	21.7	22.5	24.0	2	2	2.15	2.7
Fiscal balance (% GDP) [1]	-0.6	0.9	-0.4	-0.6	2.1	4.5	0.6	-4.2
Interest Rate (end of year) [2]	—	7.5	5.7	4.6	10.3	11.7	17.5	18.0

[1] Venezuela: Central Government

[2] Uruguay: 30-d BCU Papers Interest Rate in pesos; Venezuela: 90-d *Certificado Participaciones* rate

[3] Venezuela: including FIEM

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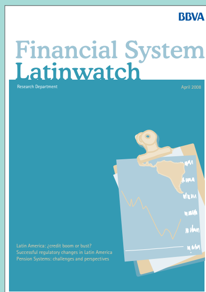

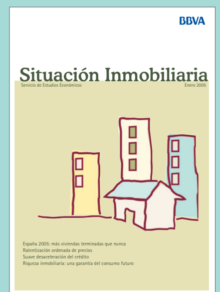

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