Monetary Policy
Monetary, fiscal, and exchange rate polices need to be coordinated better

Oil and Gas
Investigations of corruption at Petrobras and the plunge in oil prices will raise concerns

Interview
Pedro Passos
President of Iedi



THE BRAZILIAN ECONOMY

FGV IBRE A publication of the Getulio Vargas Foundation • April 2015 • vol. 7 • nº 4

Calming the financial waters

Brazil faces the risk of having its sovereign debt downgraded by international rating agencies, which would reduce capital inflows and Brazilian companies access to external financing. What can be done to prevent a downgrade?

FGV IBRE

The Getulio Vargas Foundation is a private, nonpartisan, nonprofit institution established in 1944, and is devoted to research and teaching of social sciences as well as to environmental protection and sustainable development.

Executive Board
President: Carlos Ivan Simonsen Leal

Vice-Presidents: Francisco Oswaldo Neves Dornelles, Marcos Cintra Cavalcanti de Albuquerque, and Sergio Franklin Quintella.

IBRE

BRAZILIAN INSTITUTE OF ECONOMICS

The institute was established in 1951 and works as the "Think Tank" of the Getulio Vargas Foundation. It is responsible for calculating of the most used price indices and business and consumer surveys of the Brazilian economy.

Director: Luiz Guilherme Schymura de Oliveira
Vice-Director: Vagner Laerte Ardeo

Directorate of Institutional Clients:
Rodrigo de Moura Teixeira

Directorate of Public Goods:
Vagner Laerte Ardeo

Directorate of Economic Studies:
Márcio Lago Couto

Directorate of Planning and Management:
Vasco Medina Coeli

Directorate of Communication and Events:
Claudio Roberto Gomes Conceição

Comptroller:
Célia Reis de Oliveira

Address
Rua Barão de Itambi, 60
Botafogo – CEP 22231-000
Rio de Janeiro – RJ – Brazil
Phone: 55(21)3799-6840
Email: ibre@fgv.br
Web site: http://portalibre.fgv.br/

THE BRAZILIAN ECONOMY

Economy, politics, and policy issues
A publication of the Brazilian Institute of Economics of Getulio Vargas Foundation. The views expressed in the articles are those of the authors and do not necessarily represent those of the IBRE. Reproduction of the content is permitted with editors' authorization. Letters, manuscripts and subscriptions: Send to **thebrazilianeconomy.editors@gmail.com.**

Chief Editor
Vagner Laerte Ardeo

Managing Editor
Claudio Roberto Gomes Conceição

Senior Editor
Anne Grant

Production Editor
Louise Pinheiro

Editor
Solange Monteiro

Art Editors
Ana Elisa Galvão
Marcelo Utrine
Sonia Goulart

Contributing Editor
Cristina Alves – Cover Story

THE BRAZILIAN ECONOMY

IN THIS ISSUE

FGV IBRE Brazilian Institute of Economics | April 2015

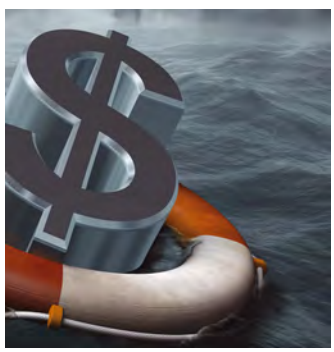
News Briefs



Photo: Wilson Dias-ABr

5 IMF urges austerity … new inflation worries … lower UN growth forecast for Latin America … major anti-Rousseff demonstrations country-wide … tax officials charged with corruption … primary budget deficit in February … Levy warns taxes could go up … Chinese financing for Petrobras … loans from Japan … coalition backs Rousseff's economic plan.

Cover Story



Calming the financial waters

8 There's no new downgrade from the rating agencies, but the threat remains. Companies as well as the country would suffer, and the largest companies would suffer most—already companies are seeing more ratings downgrades than upgrades. Cristina Alves consults the experts to find out about worst-case and better-case scenarios.

Monetary Policy

Getting it all together

19 To resume growth, Brazil needs to fine-tune and coordinate its monetary, fiscal, and exchange rate policies. In March IBRE brought together former directors of the Central Bank of Brazil for its first Seminar on Monetary Policy. The consensus was that this time Brazil cannot expect the favorable conditions that supported previous adjustments. Solange Monteiro reports.

Oil and Gas

Much to do

26 Oswaldo Pedrosa, the CEO of Pre-Salt Oil SA, which manages the deep sea oil exploration contracts, updated FGV Energy staff on how the work is progressing: The market expects oil prices to recover over a period of 12 to 18 months, although not to the previous level. Meanwhile, the company is exploring options to exploit the natural gas accompanying deep-sea oil. Solange Monteiro reports.

Value Chains

Chain reaction

28 In South America, cases of companies that are integrated into global value chains are still rare. This backwardness has been a source of concern as its manufacturers confront increased international competition. Solange Monteiro reports on recent studies of how much demand could be met by producers in the region and possible factors that might make joining value chains difficult.

Interview

Wanted: A strategic vision for Brazilian industry

31 Pedro Passos, President of the Institute for Industrial Development Studies and cofounder and advisor to Natura, talks with Solange Monteiro about why he considers it urgent that the country commit to a long-term strategy that will guide investments. He also explains why the manufacturing trade situation is so dire, criticizes the recent tax exemptions, and discusses why it is necessary that there be a change in the profile of Brazilian industry to permit greater international integration.

From the Editors

GROWTH, INFLATION, FISCAL ADJUSTMENT, monetary policy, and the country's investment rating are among the issues addressed in this issue. What analysts have expected for some time—that in 2015 inflation is likely to exceed the 6.5% ceiling of the central bank's inflation target range—was confirmed on March 27 by a central bank market survey: the market is forecasting inflation of 8.1% for 2015, and a fall in GDP of 1.0%. Last year, GDP growth was a feeble 0.1%, the worst result since 1999, according to government statistics agency IBGE.

Another piece of bad news is that the unemployment rate, although still low, is now heading upward: in February, it hit 5.9%, up from 5.3% in January—the highest level since June 2013. And consumer incomes were 0.5% lower than in February of last year. Yet another alarming fact is that consumers are still losing confidence: the FGV consumer confidence index declined by 2.9% month-on-month in March, to its lowest level since September 2005.

But there is at least some good news. Despite the deterioration of these economic indicators, the significant decline in President Rousseff's popularity, and the increasing difficulties of the politicians and businesspeople caught up in the Petrobras corruption investigation, ratings agency Standard & Poor's has decided to continue to see the outlook for Brazil's sovereign risk as stable. At BBB-, however, the S&P rating for Brazil is only one step up from speculative grade. If the rating were to drop by that one step, the downgrading of Brazil's sovereign risk to speculative grade would have serious consequences for the economy: interest rates would go up, companies would lose access to external financing, and foreign institutional investors could not invest in Brazilian financial assets. The S&P vote of confidence was an acknowledgment of the government economic team's efforts at long-needed fiscal adjustment, despite enormous difficulties in getting their measures through Congress as they were originally designed. The policy measures are essential for resuming growth, maintaining employment and income, and continuing social cash transfer programs like the Family Grant. If they are watered down, consequences for the country could be dire.



THE BRAZILIAN ECONOMY

Subscriptions
thebrazilianeconomy.editors@gmail.com

ECONOMY

Economy stagnated in 2014

Brazil's gross domestic product grew just 0.1% in 2014 from 2013, according to government statistics agency IBGE. For the year, investment was 4.4% lower in 2014 than in 2013. (March 27)

IMF: Austerity necessary for growth

The Brazilian economy will likely shrink this year, but could return to positive growth in 2016 if its austerity drive succeeds in building investor confidence, the International Monetary Fund said; the IMF lowered its 2015 growth estimate from its 0.3% forecast in January to a negative 1% due to tighter fiscal and monetary policies and less investment by state-run oil company Petrobras. The IMF stated that the fiscal adjustment is crucial if Brazil is to regain investor trust. To achieve its fiscal goals this year, the IMF said, the Brazilian government would need "ambitious, front-loaded measures." (April 10)

Annual inflation surges in March

March consumer inflation came in at 1.32% month-on-month (m-o-m), 8.13% year-on-year, its highest level since 2003 and above the central bank's target ceiling of 6.5% a year. Government-controlled prices, which make up 23.3% of the consumer price basket, went up 3.36% m-o-m (13.4% y-o-y) in March. (April 8)

Central Bank Governor Alexandre Tombini said inflation should slow in April compared with the first quarter, citing several factors that should bring 12-month inflation to the 4.5% center of the target range in 2016. However, he told the Senate's economic affairs committee, "Monetary policy is and will remain vigilant to make sure that the effects of the price adjustments are confined to the short term." (March 24)



Photo: Wilson Dias/Agencia Brasil.

Central Bank Governor Alexandre Tombini

POLITICS

Anti-Rousseff protests draw 1.5 million

About 1.5 million protesters hit the streets across Brazil on Sunday, March 14, in response mainly to the corruption scandal at state-owned oil company Petrobras. Many called for impeachment of President Dilma Rousseff, less than six months after she was narrowly returned to power in the most bitterly fought presidential race since the military dictatorship ended in 1985. The Petrobras scandal is also affecting an already-faltering economy.

The biggest demonstration was in São Paulo, where police estimate that a million people rallied. The city, South America's biggest and Brazil's business and industrial hub, is a stronghold of opposition to Rousseff. Peaceful demonstrations also took place in 83 other cities and towns, including major turnouts in the capital, Brasilia, and Rio de Janeiro. The protests were significantly larger than those convened on Friday in support of Rousseff and Petrobras by unions and social movements related to Roussef's Workers' Party (PT).

Supporting the marches was the opposition Social Democracy Party; its president, Aécio Neves, who lost the runoff to Rousseff, said in video on Facebook that "We will not disperse." (March 15)

A survey later that week found President Rousseff's approval rating had fallen to a record low. The Datafolha polling institute said that about 62% of respondents said that Ms. Rousseff's administration was "bad or terrible," up from 44% in February. (March 18)

Tax officials charged with corruption

Prosecutors are investigating allegations that Brazilian tax authorities solicited bribes from major companies for reducing their corporate tax liabilities, charging that losses to the nation's treasury totaled US$6.1 billion over 15 years. On Tuesday, the Finance Ministry said the alleged scheme involved only "isolated acts" carried out by a small group of tax officers. (April 8)

LATIN AMERICA

UN cuts growth forecast

The United Nations dropped its 2015 growth projection for Latin America from 2.2% to 1.0%, citing global economic concerns and financial volatility. The U.N. Economic Commission for Latin America and the Caribbean (ECLAC) said that "To lower world growth is added greater international financial volatility as a product of a very expansive monetary policy in Europe and Japan, at the same time as a rise in interest rates is expected in the United States."

ECLAC said the end of the commodities "super-cycle" was also a factor, since the region relies heavily on such exports as soy, oil, and copper. It projected contractions of 0.9% for Brazil and 3.5% for Venezuela and zero growth for Argentina. Mexico is a relative bright spot, with predicted growth of 3.0%. (April 7)

ECONOMIC POLICY

Primary budget deficit in February

The consolidated public sector posted an unexpected primary balance deficit of R$2.3 billion (US$721 million) in February, an ill omen for achieving the government fiscal goal of a 1.2% surplus this year. The primary fiscal balance—savings before payments on debt—serves as a gauge of a country's capacity to repay its debt. (March 31)

Finance minister: Taxes could go up

Government will raise taxes if that must be done to meet its 2015 fiscal savings target, Finance Minister Joaquim Levy has said, warning that the investment grade rating for government debt is still at risk. "We're monitoring tax revenues and will take measures if needed to avoid any risk that tax collections are not sufficient for our target," Levy told the Senate economic affairs committee. As Brazil's economy slips closer to recession, tax revenues have been going down. Since Levy took office the finance ministry has raised taxes on fuel, payrolls, and consumer loans.. (March 31)

Chinese financing for Petrobras

Petrobras Global Trading BV, the company's international unit, has contracted with the state-owned China Development Bank for financing of US$3.5 billion as part of a cooperation agreement for 2015–16. Details were not made public.

As a first step in its new divestment plan, Petrobras has also approved the sale of assets in Argentina for US$101 million. The company plans to sell assets worth an estimated US$13.7 billion in 2015 and 2016. Previously it had announced intentions to cut its US$220 billion investment plan by US$16 billion. Both the cut-back and the sales stem from the corruption scandal that has decimated the company's market value. (April 1)

Japanese loan to the National Development Bank

The National Development Bank has signed a financing contract worth US$150 million with Japan's Bank for International Cooperation and Mizuho Bank, Ltd. The loan is to be used for environmental projects to curb greenhouse gas emissions. (April 1)

Coalition backs Rousseff's economic plan

Leaders of the parties in Brazil's ruling coalition signed an agreement to back the government's proposals to narrow the budget deficit after Vice President Michel Temer took over negotiations with them; Temer is a member of the Brazilian Democratic Movement Party (PMDB). They also vowed to avoid bills that reduce revenues or increase spending. Rousseff's proposals call for R$23 billion (US$7.3 billion) in tax increases and social benefit cuts, equivalent to about 35% of the 2015 fiscal surplus target. (April 8)

Follow FGV Brazil

Get the latest news from FGV,
world-renowned Brazilian Think Tank

Twitter
twitter.com/**FGVBrazil**

Linkedin
linkedin.com/company/**FGV-Brazil**

Google Plus
google.com/**+FGV-Brazil**

Facebook
facebook.com/**FGVBrazil**

Calming the financial waters

Brazil faces the risk of having its sovereign debt downgraded by international rating agencies, which would reduce capital inflows and Brazilian companies access to external financing. What can be done?

Cristina Alves

BRAZIL WAS PUT THROUGH a real stress test when the technical staff of the three major international credit agencies—Standard & Poor's, Moody's, and Fitch Ratings—visited the country in recent weeks. On March 23, the government economic team received with relief the news that S&P has decided to retain Brazil's stable outlook for sovereign risk. With this endorsement, the economic team hopes to continue carrying out the reforms and the fiscal adjustment needed to revive economic growth. S&P's rating of Brazil's debt is BBB—, the lowest investment grade.

But anxiety about a possible downgrade in coming months has not been completely



eliminated. The agencies have specific schedules. Before they downgrade a country's investment rating, for example, they usually change the country's outlook to negative. Last September, in fact, Moody's changed Brazil's outlook to negative though retaining the Baa2 rating, its lowest investment grade, for Brazil's debt. So a downgrade in Brazil's rating may first come from Moody's. Fitch kept its outlook for Brazil stable, but its BBB rating could still drop to BB (speculative).

When it revised Brazil's outlook downward last September, Moody's based the decision on three factors: sustained reduction in economic growth; a remarkable deterioration in investor confidence, which has negatively affected fixed investment; and deterioration in the fiscal stance, which kept government debt indicators from improving.

At the time, Moody's stated that improving the outlook to stable would require both consolidation of the economic recovery led by investment and achievement of the fiscal balance primary surplus target of 2–3% of GDP. Given those requirements, the agency was of the view that its Brazil outlook was unlikely to return to stable in the next two years.

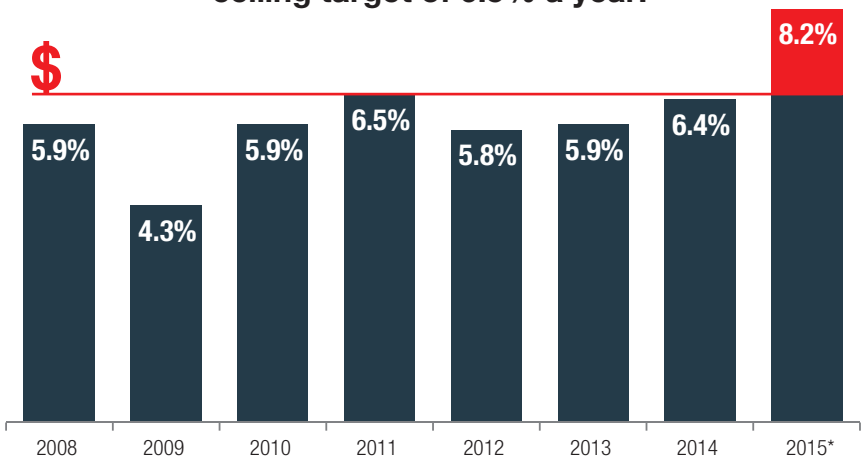
The main concern of the government and people in business is that if a downgrade occurs, Brazil will lose billions of dollars in investment, for one simple reason: foreign institutional investors, such as large pension funds, are not allowed to apply resources in countries whose debt is not rated investment grade. This barrier certainly jeopardizes Brazil's economic situation.

Foreign institutional investors, such as large pension funds, are not allowed to deploy resources in countries whose debt is not rated investment grade.

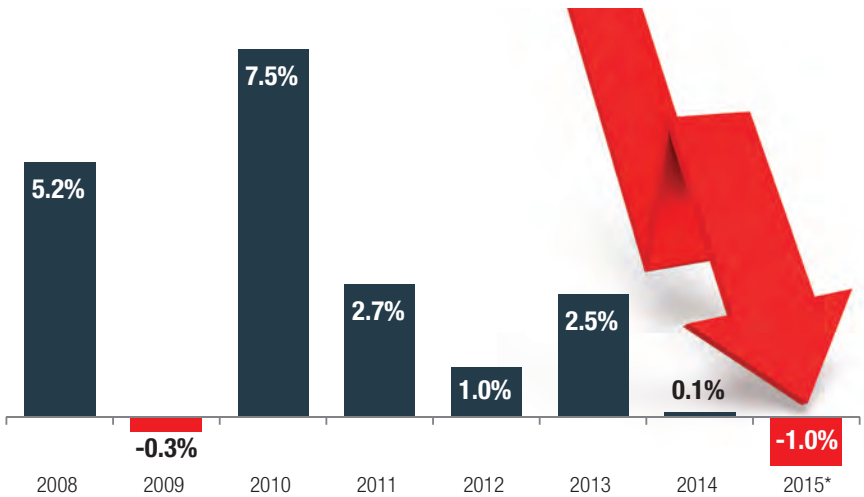
A downgrade could also limit the access of Brazilian companies to international financing. If a country's investment rating goes down, many companies may also have their ratings lowered, reducing their access to external financing for new projects. Already, many companies have been suffering cash flow problems because of falling commodity prices and rising interest rates.

Rating agencies look primarily at the performance of public accounts, GDP growth, the trajectory of inflation, and trade openness. They also give attention to issues such as governance and control of corruption. IBRE researcher Samuel Pessôa believes that the agencies are unlikely to downgrade Brazil's rating this year, but he warns that the fiscal situation of the country today is the worst since 1997. The rating agencies may give some credit to the economic policy adopted by Finance Minister Joaquim Levy, he

Brazil's inflation breaches the central bank's ceiling target of 6.5% a year.



The economy has tanked and GDP is expected to fall by 1% in 2015.



* IBRE staff projection.
Source: IBGE.

explains, but they know that the country's fiscal stance has deteriorated badly.

One of the government's biggest challenges will be to meet the fiscal balance primary surplus target of 1.2% of GDP this year, Pessôa says. The government must also bring inflation back down to the mid-point of the target range (2.5–6.5%). According to IBRE, official inflation will reach 8.2% this year, well above the central bank's target ceiling of 6.5%. On March 27, a central bank survey of market economists found agreement on 8% inflation for 2015.

Less investment

Even though deterioration of the macroeconomic outlook does not immediately threaten Brazil's ratings, it does have immediate consequences for the productive sector. Professor Heitor Almeida of the University of Illinois has the numbers: He points out that the companies that suffer most from the possibility of a downgrade are the largest, which typically have a credit rating equal to or greater than that of Brazil itself. They suffer more because they tend to be "downgraded" along with the country; companies with lower ratings are less affected.

If a country's investment rating goes down, many companies may also have their ratings lowered, reducing their access to external financing for new projects.

Though the number of companies affected is small, Almeida explains, because they are so large, "the level of investment may fall significantly." He estimates that fixed investment could drop 30% in the year of the downgrade from the previous year. "Assuming, for example, that these companies, which are more important, are responsible for 10% of aggregate investment, the effect would take 3% off total investment in the previous year," Almeida explains, adding, "their downgrade may also impact other Brazilian companies that do business with them, in which case the effect would be even greater."

Almeida also believes that the current depreciation of the exchange rate already reflects to some extent the expectation of a downgrade. He points out that "We have also seen a drop in foreign capital inflows. If the downgrade really happens, we will have another negative shock. And there are still uncertainties about the magnitude of the downgrade. The effect will be greater if the country goes from investment grade to junk grade, creating barriers for foreign investors to apply their resources here." Almeida also says that banks tend to reduce their loan portfolios after a downgrade, choking off financing for companies.

Domino effect

Ricardo Carvalho, senior director of business valuation for Fitch Ratings, notes that if a country seems likely to be downgraded, the business environment begins to deteriorate.

Rating agencies look primarily at the performance of public accounts, GDP growth, the trajectory of inflation, and trade openness. They also give attention to issues such as governance and control of corruption.

He sees this already happening in Brazil, where the ratio of downgrades to upgrades of companies is the worst in 10 years. So far in 2015, Fitch has downgraded 24 Brazilian corporations and has not upgraded a single one. In 2014, Fitch downgraded 32 companies and upgraded only 10. The pattern has thus reversed since 2013, when 34 companies were upgraded and 18 downgraded.

Carvalho points out that today Brazilian companies are investing only the minimum necessary: "In Peru, investment is two and a half times the rate of depreciation. Until two years ago, in Brazil, capital expenditure was twice depreciation. Today the ratio is 1.3. This means that these companies are not investing enough to really improve cash flow. The expected growth did not happen, the country has not grown. Industry has lost competitiveness, and there is inefficiency in the cost structure."

"We have also seen a drop in foreign capital inflows. If the downgrade really happens, we will have another negative shock. And there are still uncertainties about the magnitude of the downgrade."

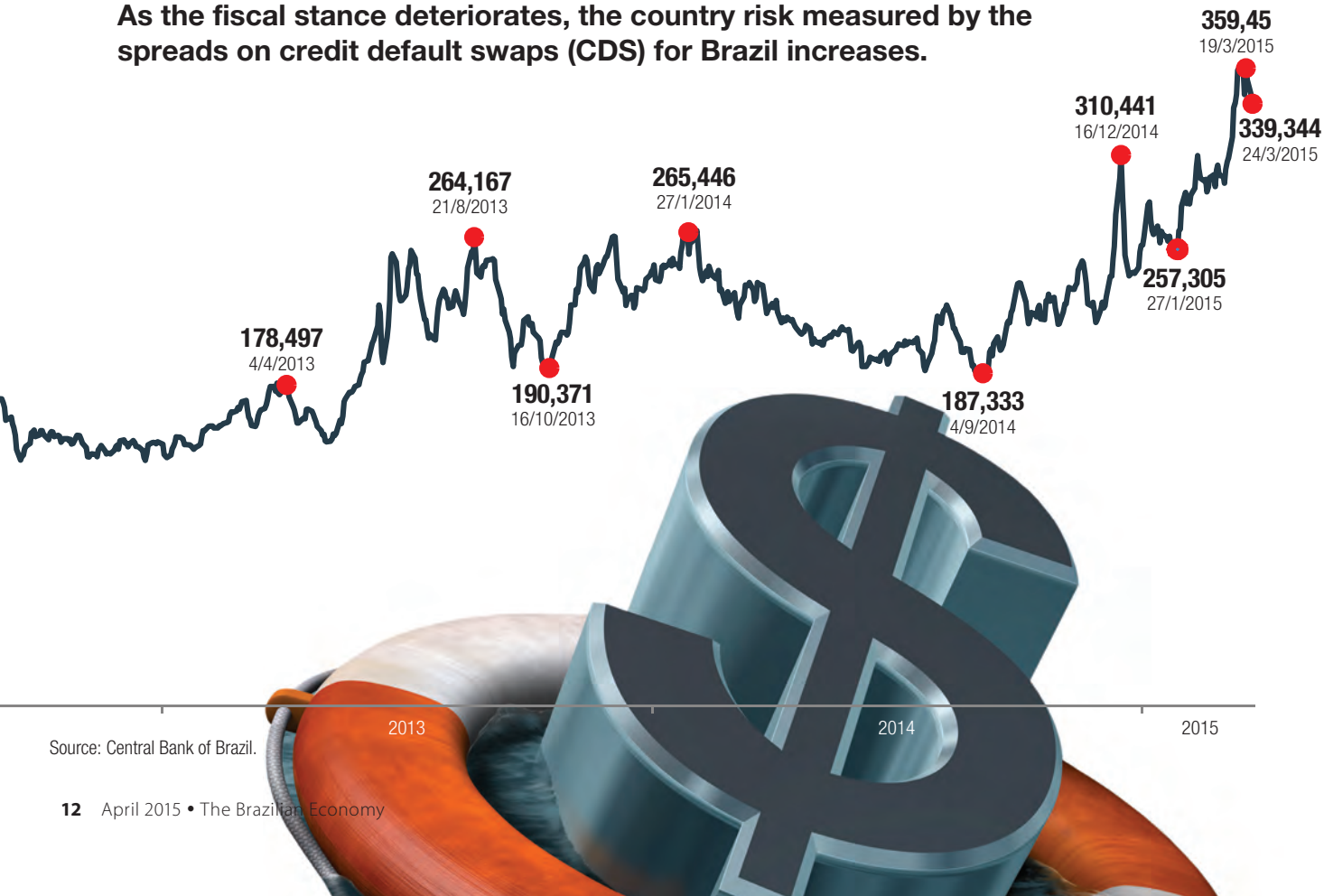
Heitor Almeida

Carvalho predicts that in 2016, some companies may have to struggle to meet their financial commitments. A large concentration of corporate debt is maturing then. "We have a great concern about limited liquidity as a result of possible restricted access to international credit lines. To access these funds, companies would have to pay higher risk premiums."

Second division risk

"The worrying fiscal stance is still the greatest risk related to Brazil's loss of investment grade rating, but undoubtedly the deterioration of external solvency indicators is also a serious concern," says Carlos Kawall, Safra Bank chief economist and former Secretary of the Treasury. He warns that the quality of external financing has declined and there is increasing reliance on portfolio investments

As the fiscal stance deteriorates, the country risk measured by the spreads on credit default swaps (CDS) for Brazil increases.



Source: Central Bank of Brazil.

and short-term debt. "Our terms of trade are returning to levels of a decade ago. Part of the current macroeconomic adjustment involves reducing absorption of foreign savings and increasing domestic savings by means of fiscal tightening," he says.

In recent years, Kawall points out the country experienced a "bubble" caused by rising commodity prices and abundant global liquidity. Now, he says, it is necessary that the Brazilian currency depreciate to help reduce fiscal and external deficits.

"We must avoid a return to the 'second division,' the loss of investment grade, which would lead to more expensive and scarcer foreign credit," Kawall says. He commends the progress the new economic team has made in its first 100 days in office. He particularly considers the fiscal effort significant, notably the unprecedented effort to reduce transfers, especially in such social programs as unemployment insurance and salary bonuses he considers "anachronistic" and "too generously sized." He also praises the changes in the rules for pensions for survivors, which were outliers in terms of international practice.

"The adjustment involves a very brave measure of tariff realism, notably the increase in electricity rates is equivalent to 1% of GDP. Finally, the government has addressed the expansion of off-budget spending, such as the Investment Support Program and the Fund for Financing Higher Education," Kawall says. "The policy measures adopted should ensure that the rating agencies give us the benefit of the doubt if Congress approves them and the government meets the fiscal target."

"We have a great concern about limited liquidity as a result of possible restricted access to international credit lines. To access these funds, companies would have to pay higher risk premiums."

Ricardo Carvalho

In the short term, Kawall thinks, there is a risk that because of its systemic importance, the situation of the state oil company Petrobras will threaten the country's investment rating. He explains that since the necessary exchange rate depreciation worsens the financial and economic situation of the company, the federal government as the controlling shareholder may need to provide credit guarantees or recapitalize the company. Kamall advocates a complete overhaul of the company governance that gives it autonomy to price its products; a review of national content policies; and a strategic reorientation of priorities. But he cautions: "The new economic team is very competent, determined, and knows the right way. But it is too early to celebrate; there are many challenges, many beyond the macroeconomic level, such as the electric power crisis, how the investigations of corruption at Petrobras

"The worrying fiscal stance is still the greatest risk related to Brazil's loss of investment grade rating, but undoubtedly the deterioration of external solvency indicators is also a serious concern."

Carlos Kawall

unfold, and political instability. Not to mention the agenda for micro reforms—almost a lost dream in the current context."

Otaviano Canuto, senior adviser to the World Bank, sees no point in discussing whether the ratings agencies have goodwill toward the new economic team. "Willingness to pay debt is not an exact science," he says, pointing out that the rating is nothing more than an indication of the probability that the government will default on public debt.

According to Canuto, the two areas that need work to put the Brazilian economy on a better track are adjustment of controlled prices and devaluation of the exchange rate. It is also necessary to reverse the recent fiscal deterioration. But he is optimistic: "The homework is being done. And the exchange rate is depreciating."

In commenting on whether the government can meet its 2015 fiscal primary balance surplus target of 1.2% of GDP, Canuto is again optimistic: "I think there is great determination to meet the fiscal target. If we do not get there, it will be very close to the target. … I am optimistic about the government's ability to fulfill its commitments." He warns, however, that it will be necessary to contain the spillover effects of the exchange rate devaluation. He believes that by the end of 2016 or early 2017 Brazil's inflation will converge to the mid-point of the inflation target range (4.5%).

"Rating agencies are going to evaluate what is being done. I believe that both the fiscal program and the adjustment of controlled prices will be successful." But, like other economists, Canuto agrees that the possibility of a downgrade has a troubling impact on company investment capacity, and that companies that are not able to hedge against exchange rate fluctuations may have serious problems. "The company that has to worry is the company that has revenues in Brazilian currency and expenses in U.S. dollars," he says.

Like Kamall and others, Canuto fears that the corruption scandal will have a negative effect on Petrobras finances, because Petrobras will have to correct its inflated assets in the face of falling oil prices; that means it will have to sell assets and renegotiate its debt with suppliers. The effects on the Brazilian economy as a whole, he says, could be very negative because of the weight of Petrobras in GDP.

Canuto disagrees with other economists on one point: He is not so worried about the current account deficit (trade and services) of 4.2% of GDP. He notes that Brazil's international reserves are substantial and the exchange rate is evolving to a more realistic level.

AEGEA





ÁGUAS GUARIROBA - **MS**



PROLAGOS - **RJ**



ÁGUAS DE BARRA DO GARÇAS - **MT**

By efficiently supplying quality water and treating all the sewage collected, AEGEA has become one of the greatest Brazilian companies in waste treatment and one of the companies mainly responsible for helping to give locations across the country access to exceptional water and sewage services. Its expertise allows AEGEA to expand investments, consolidate current concessions and acquire new markets. Nowadays,38 cities of various sizes count on the services of AEGEA: from a town with 2,000 inhabitants to a capital with approximately 800,000 inhabitants. Thus, demonstrates the capacity for catering to different economical and geographical realities in order to ensure more health and quality of life for the users.

- Growth of 21.9% on net earnings (2013/2014)
- EBITDA of R$ 295 million (2014 closing)
- "A+" rating (bra) by Fitch Ratings agency
- 17% of the private market
- Best private company on Revista de Saneamento Ambiental ranking



ÁGUAS DO MIRANTE - **SP**



NACIONAL ÁGUAS E SANEAMENTO - **SC**

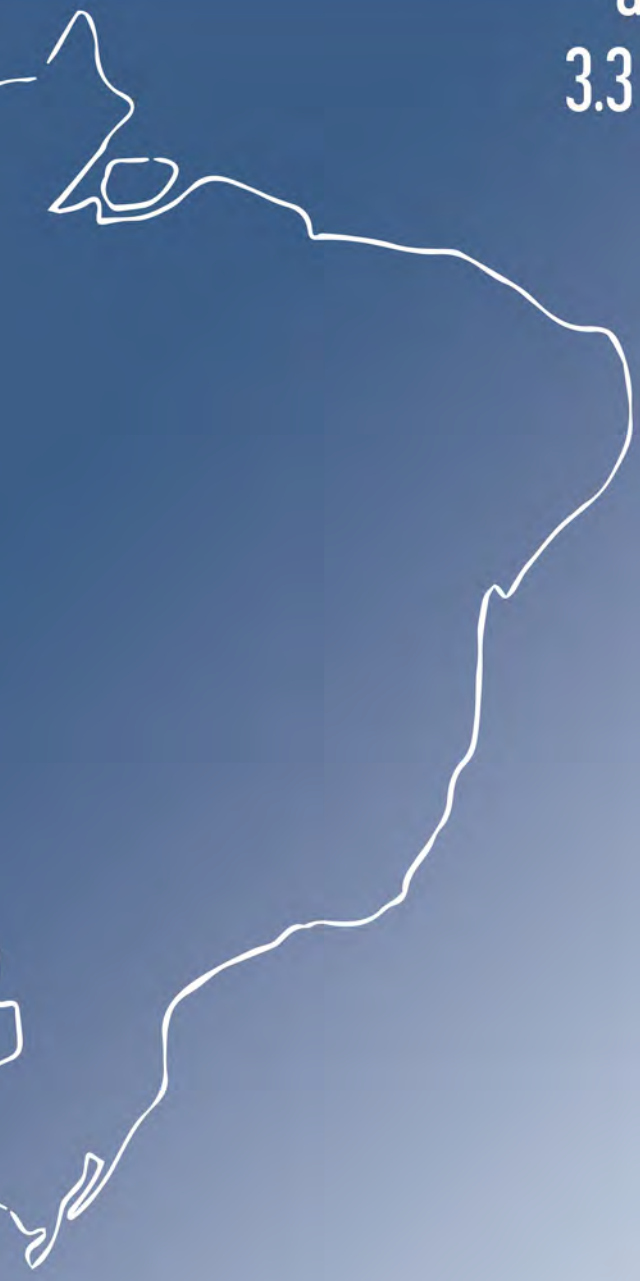


ÁGUAS DE SÃO FRANCISO - **PA**

8
BRAZILIAN STATES

38
MUNICIPALITIES

Essential service that already reaches 3.3 million Brazilians



AEGEA

twitter.com/aegeasaneamento

facebook.com/aegeasaneamento

www.aegea.com.br

LEV Comunicação

Getting it all together

To resume growth, Brazil needs to fine-tune and better coordinate its monetary, fiscal, and exchange rate policies.

Solange Monteiro

THE MAIN CHALLENGE FOR CENTRAL BANKS in developed countries is to support the gradual recovery of their economies. Today, much of the hope of building up U.S. and European Union economies depends on normalization of U.S. monetary policy by the Federal Reserve Bank (the Fed) and on monetary quantitative easing by the European Central Bank (ECB).

For Brazil, however, the Central Bank challenge is managing monetary and exchange rate polices so as to correct relative prices and curb rising inflation expectations while fiscal policy is tightened, which may further reduce growth. "In cases like Brazil's, Central Bank attention and responsibility must be intensified," says José Julio Senna, head of the Monetary Policy Center of the Brazilian Institute of Economics (IBRE).

To explore risks to Brazilian monetary policy arising from the global outlook and recommend policies to curb inflation, on March 12 in Rio de Janeiro IBRE brought together former directors of the Central Bank of Brazil in its first Seminar of Monetary Policy.

Adjusting relative prices

Experts in attendance warned that, unlike what happened during the adjustments in 1998 and 2003, this time Brazil cannot count on a favorable export outlook to help reduce the external current account deficit, because deflationary pressures persist in many countries. Senna points out that core inflation in the euro area is just over half a percent a year and in China wholesale prices have been declining for three years.

In addition to a lack of demand from China, Brazilian exports have also been affected by falling commodity prices as the U.S. dollar has strengthened. Commodities typically have an inverse relationship with the value of the dollar, so that when the dollar strengthens against other major currencies, commodity prices usually drop. When the value of the dollar weakens against other major currencies, commodity prices tend to move higher. The main reason this happens is that commodities are priced in dollars, and when the value of the dollar increases, it takes fewer dollars to buy commodities. According to the Foreign Trade Studies Center Foundation, in the first two months of this year, the Brazilian commodities price index fell by 28% compared to the same period in 2014. "[Falling oil prices] have not benefited Brazil's economy because of depreciation of the exchange rate and adjustment of controlled energy prices," says Eduardo Loyo, former central bank Director of Special Studies. "The decline in oil prices is related to the expansion of shale oil and gas production in the United States," adds Affonso Celso Pastore,

The Central Bank challenge is managing monetary and exchange rate polices so as to correct relative prices and curb rising inflation expectations while fiscal policy is tightened, which may further reduce growth.

former governor of the Central Bank of Brazil (1983–85).

The relatively stronger recovery in the U.S. compared to other developed countries has contributed to the dollar appreciation. It is still difficult, Senna says, to predict how long it will take for European and Japanese economies to recover. He points out that recovery from a recession preceded by a surge in debt depends on both businesses and households cutting their debt, which so far has not happened. The asymmetry of the adjustment of the balance of payments between countries in the euro area is an additional problem that slows growth there because the burden of adjustment falls on the most vulnerable countries.



Commodities typically have an inverse relationship with the value of the dollar.

Source: U.S. Federal Reserve Bank and Bloomberg.

As a result, the ECB may have limited scope for monetary easing to boost the euro area economies. So far, quantitative easing—purchases of securities worth €60 billion every month through September 2016—has certainly caused the euro to devalue against the U.S. dollar and kept interest rates in the region low.

With a more balanced economy, where the private sector has already relieved itself of much of its debt, the U.S. will be in the best position to attract the capital made available by the ECB monetary easing, which will provide more business opportunities and gains for investors. "When I see that U.S. growth is sustainable and that of Europe and Japan still needs a lot of stimulus to keep growing," Pastore says, "I have no doubt that the U.S. will attract capital flows, and that this will bring about another round of appreciation of the dollar, which as in previous times should be long and persistent."

The Brazilian currency has been depreciating more than that of Brazil's trading partners because domestic inflation is much higher. In the 12-month period into early 2015, the dollar had appreciated 27% against the euro and 32% against the Brazilian real. This, explains Pastore, is partly caused by Brazil's large external imbalance: "Our external current account deficit reached US$90 billion—4.2% of GDP. We are not competitive enough to increase exports. The external adjustment is much more dependent on adjusting the exchange rate."

In other words, Brazil will now have to face a sizeable correction of relative prices,

With a more balanced economy, where the private sector has already relieved itself of much of its debt, the U.S. will be in the best position to attract the capital made available by the ECB monetary easing.

allowing prices of its internationally traded goods to rise over the price of goods and services not traded internationally, such as services. "Since 2011, the pass-through of exchange rate movements to internationally traded goods denominated in domestic currency was blocked. This kept inflation down, but also prevented a major adjustment in the external trade balance," Pastore explained.

Pastore, Senna, and Loyo agreed that to realign relative prices, the central bank will have to stop intervening in the foreign exchange



In the 12-month period until early 2015, the dollar had appreciated **27%** against the euro and **32%** against the Brazilian real.

market, which since 2013 has helped to curb inflation. The central bank "has to let the exchange rate move more freely and intervene only to smooth out volatility. It should not prevent the Brazilian currency from finding its new equilibrium," Pastore said in defending the cut-back in the central bank foreign exchange swap auction program. Such a correction of relative prices, the three economists agreed, will encourage a reduction in household and government consumption and a drop in wages and employment similar to those experienced in 1998 and 2003.



Off-track?

Strong inflation earlier this year raises skepticism about central bank ability to bring inflation back to the **4.5%** target promised for 2016.

Back to the inflation target

Another challenge for monetary policy that seminar participants identified is how to bring inflation back to the 4.5% target promised in principle for 2016. IBRE staff expect inflation to hit 8% this year, partly because of adjustments in controlled prices. However, the jump in inflation to far past the inflation target ceiling of 6.5% has reduced the ability of the central bank to curb inflation expectations, according to seminar participants. "With 12-month inflation running at 8% to 8.5%, it is not clear what new factor can limit inflation expectations over the next few years," says Afonso Bevilaqua, central bank director of economic policy (2003–07).

"Our external current account deficit has reached US$90 billion—4.2% of GDP. But we are not competitive enough to increase exports."

Affonso Celso Pastore

Bevilaqua believes that in the last four years the central bank abandoned the 4.5% target, and this apparent leniency has now expanded

the range of expected inflation. "The perception is that the 4.5% target is no longer a relevant anchor for inflation; but if we lose confidence in the 6.5% target ceiling, what nominal anchor do we have? Once confidence in the inflation targets is lost, the cost of bringing inflation down can be very high," says Rodrigo Azevedo, central bank director of monetary policy (2004–07).

Azevedo believes that, well-managed, the inflation targeting system is a good summary of the government policy stance and should not be abandoned. He thinks it was a mistake for the government not to have reduced the inflation target in 2007. At the time, the government decided to hold to the 4.5% target because there was a belief that changing it would increase unemployment. Mario Mesquita, central bank director (2007–10), thinks that the central bank must now restore the inflation target system but with a more ambitious target. "I would hope that by 2019 we would have a more civilized inflation target of 3%, which 20 years after the inflation target system was introduced is not too much to ask," he says. He also suggests more intensive inflation monitoring, along the lines adopted by India: "There the central bank has to write an open letter if inflation breaches the target for three consecutive quarters. If we had a similar system, penalties for the central bank could have been more frequent and the correction in monetary policy, which started in 2013, could have come earlier," he says.

Correcting the fiscal imbalance

Sergio Werlang, central bank director of economic policy (1999–2001), believes that, even though there is a need to curb inflation expectations, there is not much room for tighter monetary policy. The consensus among economists attending the seminar was that without fiscal adjustment, monetary policy alone will not be able to curb inflation. His opinion is that "The efficient way to reduce domestic demand is not by raising taxes, but always by cutting current spending."

"With 12-month inflation running at 8% to 8.5%, it is not clear what new factor can limit inflation expectations over the next few years."

Afonso Bevilaqua

Bevilaqua underlines the necessity of restoring the fiscal regime that operated until the 2008 crisis, when there was a substantial fiscal loosening that "increased the debt-to-GDP ratio by 10 percentage points of GDP and turned the fiscal primary balance into a deficit of 0.6% of GDP in 2014," he says. "More serious than the deterioration in the quality and transparency of the fiscal stance was the dismantling of fiscal institutions that seemed consolidated, as for example the recently approved changes to the law of fiscal responsibility," he says, referring to the relaxation of the conditions for states and municipalities to pay down their debt. He points out that these factors increase the risk of loss of the country's investment grade rating, which would make management of monetary, fiscal, exchange rate policies even more complex. "Unless this situation changes, growth will not resume," he says.

Azevedo says that large fiscal adjustments imply friction and bring about deterioration in the political situation. "Political support is

"I would hope that by 2019 we would have a more civilized inflation target of 3%, which 20 years after the inflation target system was introduced is not too much to ask."

Mario Mesquita

essential because building confidence depends on the realization that the policy adjustment will not be abandoned mid-way," he says, citing episodes in 1999, 2003, and 2008, when Brazilian governments demonstrated determination and mustered the necessary political support: "We have to come up with credible gains that reduce the risk premium because this reduces the cost of capital, encourages investors, and contributes to more balanced growth."

Photo: Littleny/Shutterstock.com



United States leading

With a more balanced economy, the U.S. will be in the best position to attract private investment.


FGV IBRE
Research, development and dissemination of important economic and social performance indicators:
FGV's Brazilian Institute of Economics carries out economic research and analysis, stimulating the growth of public and private businesses across the country. The Institute's statistics forecast principal short-term economic trends, serving as an excellent tool for planning and strategic decision-making.
Present in 100% of Brazilian State Capitals
Sound Understanding of Market Dynamics and Practices
Highly Skilled Technical Team
Tradition and Experience in Price Research and Economic Surveys
ibre@fgv.br | +55 (21) 3799-6799 | www.fgv.br/ibre

Much to do

The CEO of the agency managing the deep sea oil exploration contracts updates FGV Energy staff on how the area is progressing.



Solange Monteiro

FALLING OIL PRICES and unfolding investigations of corruption at state oil company Petrobras have the market concerned about their impact on exploration of the deep sea oil deposits. Given the immense complexity of managing the large deep sea reserves, there are many issues that if not addressed may upend investment and production in the oil and gas sector.

Pre-Salt Oil SA (PPSA) was created by the government just over a year ago to manage deep sea exploration contracts. In addition to managing the first oil sharing agreement—for Libra block, which has estimated reserves of 8-12 billion barrels—the PPSA is also managing contracts related to new discoveries outside the limits of the deep sea oil field in the Santos Basin. These new reserve discoveries are being treated in individual agreements in which the PPSA represents the federal government. "We have ten agreements in progress, and we should start negotiating another nine agreements this year," Oswaldo Pedrosa, CEO of the PPSA, said.

Pedrosa was the guest at the March meeting of Energy in Focus, sponsored by FGV Energy in Rio de Janeiro. In his presentation he acknowledged that investigations of corruption at Petrobras and the plunge in oil prices—which fell 45% from June to December 2014—will affect deep sea exploration and production. "At the very least, the pace of development of the deep sea oil field will not happen as planned," he said. He added that the current low oil price outlook is forcing a reorganization of production similar to that other oil companies around the world: "It will be necessary to seek better profitability, increase the recovery of oil reservoirs, and reduce costs." Pedrosa also pointed out that the current environment offers an opportunity to expand the share of gas associated with deep sea oil production to improve cash flow: "There are many alternatives, from extension of pipelines to onshore electricity generation. The technology is available. There is the option for liquefaction of gas because today, worldwide, LNG is considered to be the major mode for packaging energy that will transform gas into a real tradable commodity."

Pedrosa pointed out that the market expects oil prices to recover over a period of 12 to 18

Photo: Petrobras/ABr



Uncertain future
investigations of corruption at Petrobras and the plunge in oil prices—which fell **45%** from June to December 2014—will affect deep sea exploration and production.

months, although not to the previous level. "Several international financial institutions indicate that by the end of 2016 the price a barrel should reach US$83 to US$96," he said. "Anyway, this is not a scenario that should worry us. … Deep sea oil exploration is just beginning, and the bulk of its production will occur in the next decade," he said. He noted that deep sea oil production is expected to peak in about 2030 at 4 million barrels of oil and 140 million cubic meters of natural gas daily. Of total oil produced in 2030, the PPSA estimates that the share of the federal government will be 700,000 barrels a day. The calculation takes into account a price of US$100 per barrel of crude oil.

In his presentation, Pedrosa also emphasized the importance of ensuring continuity of the supplies contracted for deep sea oil exploration, reminding the audience of the delicate financial situation of the shipbuilding industry and layoffs in recent months by shipyards and manufacturers of machinery and equipment. A study by the Federation of Industries of the State of Rio de Janeiro released in late March estimated that the threat of stoppage of investments in the oil and gas sector could cost US$60 billion—US$20 billion in Rio de Janeiro State alone. Pedrosa gave as an example demand for floating production storage and offloading (FPSO)—vessels located near an oil platform, where oil can be processed and stored until it can be transferred to a tanker for delivery. So far 22 FPSOs have been contracted for. "We estimate, however, that there will be demand of 70 FPSOs by 2030. We need to ensure continuity," he said. He also argued for the need to align local supply capacity to demand, and emphasized that current low oil prices require that local suppliers be internationally competitive: "We need to have stable rules, enforce contracts … But the important thing, what is essential, is that Brazil's oil potential is unique."

"At the very least, the pace of development of the deep sea oil field will not happen as planned."



Chain reaction

Is it possible to form value chains in South America?

Solange Monteiro

ONE OF THE CHARACTERISTICS that marks whether exporters can be competitive in recent decades is their ability to divide production to make the most of the comparative advantages of other companies, often in other countries, as suppliers of components and services. This unbundling of production can be seen, for example, in the large share of imported inputs in goods produced in Asia, which has allowed for more rapid industrialization and diversification of trade opportunities.

In South America, cases of companies that are integrated into global value chains are still rare. This backwardness has been a source of concern as its manufacturers confront increased international competition. A number of studies have investigated whether it is possible to change manufacturing reality in South America. One of the most detailed studies was recently carried out by the Institute of Applied Economic Research (IPEA), which surveyed imported inputs of companies in South America to identify how much demand could be met by producers in the region. "For 60 years we have discussed economic integration, and we have not moved anywhere. The idea is that with an effective knowledge of production potential, which we currently do not know, we can stimulate integration," says Renato Baumann, IPEA director of studies and economic relations and international policies.

IPEA plans to release the first results of its research—an input-output matrix and a map of potential productive complementarity among South American companies—in June at the Federation of Industries of São Paulo State (FIESP). The research covers 40 sectors. From the data available so far, Baumann says, the potential of some sectors has been a real surprise. "In a second phase of the research, we want to talk to businesses to understand what gets in the way of production complementarity in South America," he adds.

Regional value

The South American Network of Applied Economy presented another recent study in late March in Rio de Janeiro.[1] It raised the question of whether value chains cannot expand in South American countries because their products are too commodity-intensive. The report confirms that there is little production dynamism and diversity. It points out that, despite high participation of

South American products in certain world market segments—such as coffee (25%), fruit juices (20%), jams and fruit purees (9%), and wine (8 %)—prices in most cases are below the average of global trade, as well as the average of the top five exporters. Among the reasons for this are that countries in the region do not have access to production chains of higher added value, and lack innovation.

The study also points to the region's minimal capacity to innovate and develop technology related to exploring non-renewable resources. For instance, in copper mining in Chile, productivity fell by 50% between 2003 and 2012, largely due to gradual reduction in the quality of ore removed. Despite being the world's largest copper producer, with a third of global output, the country failed to put together a competitive national chain of inputs and capital goods that could be exported to other production centers, helping to make up for the decline in ore production. Compared to competitors like Australia and Canada, Chile invests little in research and development.

In South America, cases of companies that are integrated into global value chains are still rare. This backwardness has been a source of concern as its manufacturers confront increased international competition.



Better results

Despite high participation of South American products in the world markets, prices in most cases are below the average of global trade. Among the reasons for this are that countries in the region do not invest enough in innovation.

Most countries in South America still suffer from old unresolved issues, among them poor logistics and infrastructure, regulatory barriers, and a shortage of skilled workers.

The report also gives examples of exceptions, among them Chilean salmon and fruits, Colombian coffee, and Argentine biodiesel. For Brazil, the report highlights the large companies that have made the country the main global exporter of poultry products. This was achieved because after dominating the domestic market, the sector expanded its production, technology, and organizational capacity to adapt its products to the needs of foreign markets, specializing in the sale of cuts ready for consumption, which now account for over 60% of exports. These companies also expanded their industrial operations abroad, reducing distances and the impact of regulatory and tariff measures and organized small producers and cooperatives to become suppliers. Brazil's chicken exports in 2013 added up to US$7 billion, of which US$762 million came from cooperatives. "In the poultry business, there is a more equitable distribution of income. The sector stands out as a very important job creator with its links with family farms," the report says.

Old challenges

Experts in the study of value chains acknowledge, however, that most countries in the region still suffer from old unresolved issues, among them poor logistics and infrastructure, regulatory barriers, and a shortage of skilled workers. "Latin America does not buy in Latin America because we are complicated, bureaucratic," says Renato Fonseca, executive manager of research and competitiveness, National Confederation of Industry. While exports from European countries have 39% of imported inputs, Latin American exports have only 22%. José Tavares, director of the Center of Integration and Development Studies, points out that especially for Brazil, shifting the focus from the domestic market to international markets will require more trade liberalization and less protection. "The best way to stimulate innovation is competition," he says.

[1] Ramiro Albrieu, coordinator, "Oportunidades, obstáculos y lecciones en torno al escalamiento de las cadenas de recursos naturales de América del Sur," Red Sudamericana de Economía Aplicada.

Photo: Luis Ushirobira/Valor/Folhapress



Wanted: A strategic vision for Brazilian industry

Pedro Passos

President of the Institute for Industrial Development Studies

Solange Monteiro

THE FACT THAT THE FISCAL adjustment may take longer than expected to show results does not postpone the obligation to define what kind of economy and industry Brazil should have after the economic adjustment is completed, says Pedro Luiz Barreiro Passos, president of the Institute for Industrial Development Studies (Iedi) and cofounder and advisor to Natura, the cosmetics company. Passos considers it urgent that the country commit to a long-term strategy that will guide investments. He also considers it necessary that there be a change in the profile of Brazilian industry to permit greater international integration: He advocates a policy directed to improving the productivity of the economy as a whole rather than policies targeted to specific sectors. "We have to let each sector gain muscle. We can support those that are seeking vitality, but we should not create an emergency room for those that are not doing well," he says.

***The Brazilian Economy*—In 2014 manufacturing accumulated a trade deficit of US$64 billion—nine times higher than in 2008. What caused this deterioration?**

Pedro Passos—The main factors in this deterioration have been present for a long time. Fundamentally, for a long time we have had a macroeconomy characterized by an overvalued exchange rate that was virtually impossible

Industry must do its part by investing to increase productivity, and the government also must do its part by improving education and infrastructure, and simplifying regulation of the economy.

to overcome with productivity gains. We also had excessively high interest rates for a long time; there was some decline in 2010 but real interest rates were still high. So industry has been losing density and consistency, and most of the demand for industrial products was met by imports. Industry barely took advantage of the recent growth we had. Associated with this, the productivity of labor and total factor productivity have grown less than in our competitors. I have the impression that this scenario is the end of a cycle; now a shift is required to ensure that industry can contribute to the country's growth.

The Iedi survey on trade balance shows that between 1995 and 2014 industry recorded a trade surplus in only six years. What would be a realistic trade balance for industry?

A country like Brazil should not in any way accept that its trade balance must be structurally in deficit. We have to generate a trade surplus. For this, however, Brazilian industry must change its profile—possibly have a slightly different matrix, with both more imports and more exports. It is going to be a difficult process, to turn away from the protected domestic market and seek greater international integration. Both internally and externally it will take time to negotiate this shift so that it will work. Brazilian industry can do it, provided it recognizes that this is a process. As we have seen in the past, making abrupt changes to open up trade can be traumatic for some sectors. We have to be aware of these likely dislocations, but at the same time we must have a clear agenda if we want greater international integration. Brazil has several sectors that could be more aggressive and have a larger presence globally.

What are these sectors?

We cannot assume that we can identify specific sectors. It is up to us to develop internationally competitive sectors. … We should be careful not to protect sectors that today have poor prospects. The transition . . . . will depend on Brazil's making bets on emerging sectors that have comparative advantages … The presence of China and other competitors has definitely changed the scale of production and our ability to compete. Brazilian industry in the future will not necessarily be the same as the

industry we have today. The industry matrix is changing.

In what ways?

First, industry needs to understand that opportunities are global. Today in most of the world, there are no longer vertically integrated industries, especially when it comes to adding value. Today, industries get inputs from all over the world. This is one of the global features that calls for a change in policies that so far has sought to encourage vertical integration. That's a major change, and once again Brazil's aerospace company Embraer is our example of how one should harness the strengths of many suppliers around the world into products.

Second, Brazil has to develop productive chains that have demonstrated competitive advantages, like agribusiness … That is a sector that was exposed to competition, and invested effectively in innovation to be able to compete internationally.

At Iedi, we do not pick sectors. We do not have favorites. If we support better international integration generally, it helps to raise domestic productivity to let sectors choose their own ways. … We have to let each sector gain muscle. We can support those that are seeking to become more vital, but we should not create an emergency room for those that are not doing well.

Today we cannot talk about reducing the tax burden, but we can at least recommend simplification of the tax system.

In your opinion, do Brazil's policies to support research, development, and innovation follow this principle?

I think Brazil has evolved in recent years with regard to supporting innovation. In general, some policies were in the right direction, such as tax incentives for companies that invest in research and development, creation of the Brazilian Company for Industrial Research and Innovation, and partnerships with universities. But they are still not enough for Brazil to compete with international investments [in innovation]. The economic and fiscal constraints have had some impact on [the effectiveness of programs to support innovation], but the whole process is still very bureaucratic.

For example, the National Institute of Industrial Property works poorly; a major backlog in registration of patents makes many people prefer to patent outside Brazil. There are also major regulatory problems. One is the 2001 law related to access

[Agriculture] is a sector that was exposed to competition, invested in innovation, and invested effectively to be able to compete internationally.

to genetic resources (a new law awaits approval of the Senate), which is absolutely inappropriate. It prevents companies as well as the Botanical Garden and the University of São Paulo State from doing research on these resources that could generate innovation, and business ... Brazil has lost food and pharmaceutical companies that could have done research here, intensifying innovation and producing positive results for the economy.

Today, I would say that most companies do not fail to innovate for lack of encouragement and support from the National Development Bank and the Brazilian Innovation Agency. Often the process has been bureaucratic, it does not reach small and medium companies because they lack the structure to access official funding sources, but generally funding was adequate. There is a shortage of skilled labor and some structural problems, it is true, but what I think has prevented us from creating more innovation is the absence of competition—which is enough of a problem that today private investment in innovation in Brazil is lower than in other countries with which we compete.

The government intends to eliminate exemptions for payroll taxes. The main industries argued against this, but several economists have argued that it was ineffective and cost the Treasury billions. What is your opinion?

The tax exemptions granted were disorderly and exaggerated. They were created with the correct purpose, in our view, which was to make Brazilian products more competitive with imported ones. It was a step to level the playing field, not ideal but a step. Then two things that went in the wrong direction caused problems: the subsidy and the extension of the tax exemption to sectors that did not need this competitive advantage, that do not suffer from international competition. The exemption should not have been granted to so many sectors.

We all agree that we need to promote broader reforms and make greater adjustments, and that measures targeted to specific sectors end up exacerbating the problem we want to solve, creating greater complexity. I sympathize with the sectors that face a slowing economy and are feeling the burden. But from the fiscal perspective, we clearly need to adjust; otherwise we will aggravate the problem.

To heighten productivity in Brazilian industry, we need to approach world standards of quality and efficiency and encourage competition and innovation.

Today, the policy tightening that the government is proposing will leave little room to stimulate industry. What agenda does the Iedi recommend, and what does it seek from the government to aid industry?

Like all Brazilians, we want some structural reforms. Today we cannot talk about reducing the tax burden, but we can at least recommend simplification of the tax system. We have also identified the need for more horizontal policies. For example, we have said that we need competitiveness at the beginning of supply chains …We need to reduce costs at the beginning of the supply chain to raise competitiveness. This will mobilize company investments to improve international competitiveness.

Recently the National Confederation of Industry has pointed out that between 2002 and 2012 Brazil lost competitiveness against its main competitors: productivity grew by only 0.6% but unit labor cost in dollars rose by 9%, while in South Korea unit labor costs fell by 3%. What can be done to increase productivity?

In the short term, we may see productivity rise and fall with movements in output and employment. But raising industrial productivity sustainably depends on innovation, greater external integration, and better training of workers. That's what works in the long run: to enhance productivity in Brazilian industry, we need to approach world standards of quality and efficiency and encourage competition and innovation. Industry must do its part by investing to increase productivity, and the government also must do its part by improving education and infrastructure, and simplifying regulation of the economy.

What do you consider the most critical point today for resumption of confidence in industry?

The situation calls for fiscal adjustment in the short term, but I do not know what comes after—which direction the country wants for the economy as a whole, and especially for industry. It is true that the situation raises concerns, but we cannot just wait to see whether the fiscal adjustment works. Business investment needs a longer horizon. And it seems that business will go through the crisis without knowing what direction it is going to take. Definition of this strategic vision . . . is part of confidence building. Society's consensus on this vision needs to be discussed. [Otherwise,] talking about resumption of investment is difficult.