Powering up the electricity sector

Business and government seek consensus on putting the electricity sector back on the route to supplying reliable power at competitive prices.
News Briefs

5 Brazil's credit ratings downgraded … consumer confidence low, loan defaults high … Brazil in technical recession … inflation slows … protesters hit the streets in 129 cities … Rousseff under attack by Cardoso and the elections authority … coalition members in Congress get their pork … Merkel pushes EU-Mercosur deal … government expects a budget deficit in 2016 … Rousseff chief of staff calls for a temporary tax hike.

Cover Story

8 Powering up the electricity sector
August was marked by high tension in Brazilian electric companies. Drought, a proliferation of government decrees and regulations, and volatile government management of energy prices have made both businesses and consumers nervous about what, if anything, can be done to ensure reliable power supplies at affordable prices. At the fifth IBRE/FGV Energy seminar on the Brazilian Energy Matrix and Security, experts discussed how to reconcile the electricity sector’s short-term challenges with the need for long-term restructuring. Solange Monteiro reports.

Seminar

18 The outlook for growth is not promising
If growth is ever to become sustainable, the reform agenda will be long and complex—that was the consensus at the August IBRE/FGV seminar on the growth agenda, where the fundamental question was: how can growth get moving again?

In August, all the IBRE confidence indices for productive activity declined relative to July: confidence in industry, commerce, and services hit the lowest levels ever. As Solange Monteiro reports, there was general agreement on the need for Brazil to boost productivity, particularly in the service sector, and to rethink the earmarking of public revenues for specific purposes.

Steel Industry

26 Brazilian steel industry in the doldrums
Steel sales are down, production is down, and in the 12 months ending in July, Brazilian steel companies laid off 11,200 and suspended the contracts of another 1,400, with more layoffs expected by December 2015. Domestic consumption is declining and 20 units in 29 steel companies have been shut down. The situation has been described as “the worst crisis” in the industry’s history. But there are also opportunities, for those able to take advantage of them, such as investing in improvements in energy efficiency. Chico Santos reports.

Interview

35 Subsidies have bankrupted the country
Brazil’s economic crisis is deep; escaping from it will require more effort than ever before. Yoshiaki Nakano, director of the São Paulo School of Economics of Getulio Vargas Foundation (EESP-FGV), is a tireless promoter of the role of industry in revitalizing the economy. He explained to Solange Monteiro that Brazil needs the discipline to adopt a competitive exchange rate and lower interest rates to stimulate investment, and its bureaucrats need to stimulate production rather than granting subsidies. He also lamented the lack of shared national values.
PRESIDENT ROUSSEFF SAID recently that the government was slow to realize how deeply rooted the economic crisis was. Although the government was indeed slow to react, for over a year many observers of the Brazilian economy, including this publication, have been looking at the numbers and trying to alert the government to the economy’s vulnerabilities. In 2014 it was already abundantly clear that the public accounts were out of control and that the primary fiscal surplus goal was imaginary. Industry had long been going downhill and business and consumer confidence had fallen to depressingly low levels. And, as many stated publicly, the chances of even a modest economic recovery in 2015 were clearly remote.

The inflation ghost returned to haunt society as controlled prices that had been repressed for a long time, especially for electricity, shot up.

Data on gross domestic product released last month by government statistics agency IBGE confirmed that the Brazilian economy is mired in recession: The economy contracted by 2.6% in the second quarter, more than in the same period last year. The result was worse than the most pessimistic of Bloomberg’s market estimates, although it was about the same as the IBRE projection that output had fallen 2.7%.

As recession spills across all sectors of the economy, companies and households are becoming more indebted. Moreover, discounted for inflation, the net revenue of the 1,000 largest nonfinancial Brazilian companies grew only 2.4% in all of 2014, according to Valor Econômico newspaper; except at the peak of the global crisis this was the least growth since 2001. Productivity is low, and stagnant. And infrastructure projects are barely moving at all.

Today Brazil’s economic crisis is deep and structural; it will be harder to resolve than were previous cyclical crises, as Yoshiaki Nakano, Director of the São Paulo School of Economics, FGV, explains in this issue’s interview.

Making matters worse is the political crisis, which casts clouds of uncertainty over the near future of our country. This year is already lost, as the president herself recognizes, and nothing suggests that 2016 will see fewer difficulties. A long-term inclusive growth agenda for the country might minimize the impact on the poor and raise productivity, but—as our report on the Brazilian Institute of Economics seminar on the Growth Agenda shows—moving such an agenda forward is itself fraught with difficulty.
Rating agencies downgrade Brazil’s credit

Moody’s Investors Service cut Brazil’s rating to the cusp of junk, dropping it one notch to Baa3, though with a stable outlook, and Standard & Poor’s actually brought its rating down to junk. Moody’s said that “Weaker-than-expected economic performance, the related upward trend in government expenditures, and lack of political consensus on fiscal reforms will prevent the authorities from achieving primary surpluses high enough to arrest and reverse the rising debt trend this year and next.” (August 11) S&P attributed its ratings drop to government backpedaling on budget deficit targets and divisions in Rousseff’s cabinet over fiscal policy. S&P reduced the BBB- rating to BB+ with a negative outlook. (September 10)

Consumer confidence at an all-time low

The August consumer-confidence index was at 80.6 points, down from 82 points in July, the Getulio Vargas Foundation (FGV) announced. This was the lowest level since the index began in 2005. According to FGV economists, Brazilians remain pessimistic about inflationary pressures and interest-rate increases and fear job losses. (August 25)

Defaults reach a 19-month high

Both business and consumer bank loans delinquent for at least 90 days rose in July to their highest in 19 months, the central bank said, because of the economic downturn and rising borrowing costs. Defaults rose to 4.8% of outstanding non-earmarked loans, up from 4.6% in June. The July ratio was the highest since December 2013. (August 26)

GDP again falls

Gross domestic product (GDP) contracted by 1.9% between the first and second quarters, according to government statistics agency IBGE. Two consecutive quarters of decline put Brazil into technical recession. GDP decreased 2.1% in the first half of this year from the first half of 2014. (August 28)

Inflation slows

Food prices and airfares dropped in August, giving President Dilma Rousseff and the central bank some respite after inflation surged earlier this year. The rise in the consumer price index from July to August was just 0.22%, its smallest advance in 13 months and far less than the previous month’s 0.62% jump, IBGE reported. Consumer prices rose 9.53% in the 12 months through August, less than the increase of 9.56% in July but far above the 6.5% government’s inflation target ceiling. (September 10)

Protesters march across Brazil

Groups opposed to President Rousseff hit the streets on August 16, the third major anti-Rousseff protest in six months. In São Paulo, the protests attracted about 135,000 people, according to Datafolha, and they were significant in at least 129 cities, including all state capitals. Opposition leaders also took part. The main targets were Rousseff, former President Lula da Silva, and President of the Senate Renan Calheiros (PMDB). (August 17)

Cardoso calls for Rousseff resignation

One day after antigovernment protests swept Brazil, former president Fernando Henrique Cardoso (PSDB) gave his harshest assessment yet of the Workers’ Party (PT) administration. The most significant aspect of the protests, he wrote on his blog page, is the popular feeling that while “the government is legal, it is illegitimate.” He warned that “If the President is incapable of a grand gesture (resignation, or at least a frank admission that she has made mistakes, and can indicate the way for national recovery), we will witness the government’s increasing disintegration.” (August 17)

Rousseff campaign funding investigation sought

The vice-president of Brazil’s electoral authority (TSE) has asked for an investigation of President Dilma Rousseff’s 2014 re-election campaign, citing evidence that it may have been financed with money from a corruption scheme at state-run oil firm Petrobras. In a message sent to federal prosecutors and police, Gilmar Mendes said a 17-month investigation into a massive price-fixing and political kickback scandal had found evidence that Rousseff’s Workers’ Party (PT) was indirectly funded by money stolen from Petrobras. (August 25)

Congressional coalition gets its pork

Civil aviation minister Eliseu Padilha, currently the administration’s liaison with Congress, has announced the release of half a billion reais (US$138 million) for expenses representatives included in the 2015 budget, which never got off the ground (the “leftover payments”). The funds had been the cause of a dispute between Padilha and finance minister Joaquim Levy. (August 26)
TRADE

Merkel calls for EU-Mercosur trade accord

German Chancellor Angela Merkel pressed Brazil’s government to further open its markets and said she saw an opportunity for a free-trade deal between the EU and the Mercosur trade bloc. During her two-day visit to Brazil with a large delegation of government officials and representatives of German businesses, Merkel stressed Germany’s “very special relationship” with Brazil, where more than 1,300 German companies are active. “I gained the impression that the president is very interested,” Merkel said of the EU-Mercosur negotiation after meeting Rousseff; negotiations have been held intermittently since 1999. Mercosur members Paraguay and Uruguay want a swift deal; Argentina and Venezuela are reluctant. (August 21)

ECONOMIC POLICY

Budget deficit predicted for 2016

For the first time the government has sent Congress a budget bill that forecasts a primary deficit; it also urged lawmakers to help fix a fiscal crisis that threatens the country’s investment rating. The president’s 2016 budget proposal forecast a primary deficit of the nonfinancial public sector of 0.34% of gross domestic product, down from the surplus of 0.7% the government was projecting earlier this year.

Planning Minister Nelson Barbosa said the government will work closely with Congress to identify spending reforms to reverse the shortfall, telling a press briefing, “What is important now is to have a realistic budget.” The government adjusted its forecast after lawmakers and business leaders opposed Rousseff’s proposal to revive a tax on financial transactions to raise revenues in 2016. (August 31)

Central bank interest rate unchanged

A unanimous monetary policy committee kept the policy interest rate at 14.25%, a nine-year high and the highest among the world’s top 10 economies. The bank reiterated its previous decision statement, stating that “The Committee understands that maintaining the benchmark interest rate at that level, for a sufficiently prolonged period, is needed to ensure that inflation converges to the target by the end of 2016.” Although the deep recession is helping to slow inflation as consumption falls, a widening fiscal gap and market turmoil are keeping pressure on the central bank. (September 3)

Rousseff chief of staff calls for a temporary tax hike

Brazil needs a temporary tax increase to reduce a budget deficit that threatens the country’s debt rating, chief of staff Aloizio Mercadante said recently. He did not say which taxes might go up but told the Folha de S. Paulo newspaper that a tax increase could help speed economic recovery over the longer term. (September 7)
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Powering up the electricity sector

Business and government seek consensus on putting the electricity sector back on the route to supplying reliable power at competitive prices

Solange Monteiro

AUGUST WAS marked by high tension for Brazilian electric companies. Wielding court orders, some hydroelectric generation companies exempted themselves from paying for part of the more expensive electric energy they had to buy on the spot market to meet their contracts, sparking a red alert in government. On this account, Brazil’s Electric Energy Trading Board (CCEE) lost 35% to 40% of its expected revenue.
Hydroelectric companies in Brazil are always at risk of droughts that mean they produce less energy. As long as they can operate to capacity, the average generation company does not have to buy energy elsewhere. However, when that is not possible, all companies are required to share the cost of buying electric energy in the currently very expensive spot markets.

The hydroelectric company offensive marked a new wave of legal actions, a process that has dragged on since Provisional Measure (MP) 579 of September 2012. This measure, which later became law, allowed hydroelectric companies to renew their concession contracts without having to participate in auctions in exchange for dropping electric energy prices by up to 20%. Since not all hydroelectric companies accepted the proposal, the law ended up producing financial losses for companies and the government (which wanted to reduce electricity prices) and a tsunami of decrees, ordinances, and new MPs that destabilized the sector and made investors and industrial consumers very uncertain. “It has become a patchwork. When the new legal framework was introduced in 2004, the electricity sector had only one law and two decrees — one that regulated commercialization, and another creating the Energy Research Company (EPE),” says Luiz Fernando Vianna, president of Copel. From September 2012 to

“If the improvement of US competitiveness as a result of shale gas is as significant as announced, it will change the configuration of the industrial world.”

Carlos Ivan Simonsen Leal

April 2015, the government issued 30 decrees, ordinances, and new provisional measures — not counting the regulations issued by the National Electric Energy Agency (ANEEL). As the government cannot afford to provide subsidies, households had to bear the higher electricity costs. Through August this year electricity prices shot up by 54%. “With rising prices and an economic downturn,
household electricity consumption lost two years of growth, returning to the 2013 level,” says Mario Veiga, president of PSR consultancy.

Nevertheless, sector stakeholders believe that an agreement with the government is possible to put the electricity sector back on a road to recovery. “The dialogue with the Ministries of Mines and Energy, Finance, and Development has improved. One can not say that there is too much optimism, but we are headed to a positive agenda,” says Paulo Pedrosa of the Brazilian Association of Large Industrial Energy Consumers and Free Consumers (ABRACE). The latest example is how quickly the government is moving to find a solution for the hydroelectric company losses caused by the drought—an estimated US$4.2 billion just this year. According to MP 688, published on August 18, companies that accept the government proposal may have their concession periods extended for up to 15 years to offset their accumulated losses, and consumers will have to bear future costs if droughts push up electric energy prices.

PSR’s Mario Veiga says that “Congress has yet to approve the MP, and as the government is politically weakened, there is concern that amendments could jeopardize the proposal.” There is consensus that the vote of confidence in Energy Minister Eduardo Braga’s management will show results only when the government moves from one-off measures to a restructuring of the energy sector that not only corrects distortions that make it impossible to supply energy at competitive prices but also prepares the sector for adoption of new business models that incorporate cheaper new technologies.

“It will not be an easy process or fast,” says Copel’s Vianna, citing the need to pay back losses incurred so far. Veiga points out that from September 2012 to April 2015, the government issued 30 decrees, ordinances, and new provisional measures—not counting the regulations issued by the National Electric Energy Agency.
“Even with higher electricity prices, sooner or later consumers will still have to pay to make up US$23 billion.” He explains that paying for losses over an extended period will reduce the impact on consumer electricity bills but has a downside because it will take longer to normalize prices.

Open dialogue
Reconciling the electricity sector’s short-term challenges with the need for long-term restructuring was the theme of the 5th Seminar on Brazilian Energy Matrix and Security, organized by the Brazilian Institute of Economics and FGV Energy. There Carlos Ivan Simonsen Leal, president of FGV, highlighted the importance to Brazil’s international competitiveness of restoring the sector and expanding the energy supply at reasonable costs. “If the improvement of US competitiveness as a result of shale gas is as significant as announced, it will change the configuration of the industrial world,” he says. Among possible consequences would be revival of industrial production in the U.S. and an eventual standstill on such trade agreements as the Transatlantic Partnership (TTIP) between the United States and the European Union because countries like Germany could lose interest in benefitting a strong industrial competitor.

“The dialogue with the Ministries of Mines and Energy, Finance, and Development has improved. One cannot say that there is too much optimism, but we are headed to a positive agenda.”

Paulo Pedrosa

Brazil’s energy problems are reflected in the Global Competitiveness Index prepared by the World Economic Forum: between 2012–13 and 2014–15 Brazil fell 21 positions on electricity supply, down to 89th place among 143 economies. Simonsen Leal also emphasized the need to improve relations between government and the private sector, expand long-term financing alternatives, and mitigate such obstacles as environmental licensing to expansion of the energy sector.

Luiz Eduardo Barata, executive secretary of the Ministry of Mines and Energy (MME), said that the government recognizes the need for open discussions with the public, the private sector, and scholars and for improving the structure and financing of the energy sector to attract new investments. Copel’s Vianna points out that so far sector financing has been concentrated in the
“With rising prices and an economic downturn, household electricity consumption lost two years of growth, returning to the 2013 level.”

Mario Veiga

National Development Bank (BNDES), which has recently had to reduce its share of project funding. Vianna believes it will be necessary to seek equity financing in a market made wary by the crisis in the sector.

MME’s Barata also noted the concern over delays in all energy projects, which raise costs. There needs to be detailed diagnosis of all aspects of the projects to ensure they can be completed as planned. Barata said the government agenda includes replacing high-cost thermal power plants by gas-fired ones, and incentives for small hydroelectric plants and solar energy. Solar power is being looked at for both commercial and residential use. Barata sees a need to integrate distributed power generation into electric distribution systems; today legal restrictions still prevent that.

Hermes Chipp, general director of the National Operator of the Electricity System (ONS), believes Brazil has been successful

Brazil’s electric power generation will become more diversified by 2019, but hydropower will continue to be the major source of energy.

Sources of energy to produce electric power, % of total

Hydro-power 73.7 68.0 Nuclear 1.6 2.0 Gas 8.1 8.3 Coal 2.5 2.1 Biomass 5 4.8 Other 0.8 1 Oil/Diesel 3.6 2.8 Wind 3.7 9.4 Solar 0.5 0.5

2014 2019 proj.

Source: National Operator of the Electricity System (ONS).
As the industry produces less, companies consume less electricity.

Consumption of energy in the nonregulated market

July 2015 over July 2014, in %

<table>
<thead>
<tr>
<th>Industry</th>
<th>July 2015</th>
<th>July 2014</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles and auto parts</td>
<td>-0.02</td>
<td>0.23</td>
<td>-10.66</td>
</tr>
<tr>
<td>Textiles, leather, clothing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper and cellulose</td>
<td>-8.87</td>
<td></td>
<td>-10.66</td>
</tr>
<tr>
<td>Steel</td>
<td>-4.66</td>
<td></td>
<td>-8.87</td>
</tr>
<tr>
<td>Electromechanical</td>
<td></td>
<td></td>
<td>-4.66</td>
</tr>
<tr>
<td>Building material</td>
<td>-2.33</td>
<td></td>
<td>-8.87</td>
</tr>
<tr>
<td>Hygiene and cleaning</td>
<td>-2.84</td>
<td></td>
<td>-4.66</td>
</tr>
<tr>
<td>Packing</td>
<td>0.71</td>
<td></td>
<td>0.23</td>
</tr>
<tr>
<td>Packets for commerce and retail</td>
<td>-0.44</td>
<td></td>
<td>-2.33</td>
</tr>
<tr>
<td>Foods</td>
<td>-6.81</td>
<td></td>
<td>-2.84</td>
</tr>
</tbody>
</table>

Source: Comerc.

in diversifying its energy matrix, but hydroelectric plants need larger water reservoirs, and “Because of difficulties with environmental licensing and other land issues, they are no longer built.”

**Forced adjustment**

While sector stakeholders seek convergence of views, so far supply and demand for electric energy have been adjusted by reducing consumption. In 2015 demand fell 1.8% through July 2015 compared with 2014: “It was a steep drop, 4,000 MW on average,” says Chipp. This prompted ONS to review electricity sector operations, and in August to shut down 21 thermoelectric plants with generation costs of more than US$200 per MWatt-hour. This in turn allowed ANEEL to reduce the highest electricity rate (red–flag rate) by 18%, from R$5.50 to R$4.50 per kilowatt-hour as of September 1.

**High electricity prices pressure up costs:**

Aluminum production falls 35% in first half of 2015 compared to the same period last year.
According to MP 688, published on August 18, companies that accept the government proposal may have their concession periods extended for up to 15 years to offset their accumulated losses.

For electricity-intensive industries that have invested in their own generation and buy in the free market, electricity prices and adverse economic conditions have dramatically suppressed consumption. “This year industry’s consumption of electricity was 4.2% lower than a year ago .... It is a huge setback,” says Mario Menel, President of the Brazilian Association of Investors in Self-production of Energy (Abiape).

For ABRACE’s members, energy is on average 30% to 40% of total production costs. ABRACE therefore wants to stop paying into the Energy Development Account (CDE), a fund for subsidizing low-income consumers. In August ABRACE obtained a court order that excludes its members from paying into the CDE. In 2014, the payment totaled R$1.67 billion; this year the bill would have risen to R$18.92 billion. ANEEL has appealed the decision, pointing out that if producers no longer contribute, electricity bills may rise by up to 8% this year. But Pedrosa responds that “It is no use having cheap energy for households if goods are expensive and industry reduces jobs because of the cost of electricity.”

Electricity cost for industry has increased significantly since 2013. Both generation costs and taxes have risen, though transmission and distribution costs have remained stable.

Breakdown of the average industrial tariff for high voltage consumers (R$/MWh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Generation cost</th>
<th>Cost of transmission and distribution</th>
<th>Taxes and other charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>139.17</td>
<td>49.97</td>
<td>33.65</td>
</tr>
<tr>
<td>2013</td>
<td>143.72</td>
<td>37.8</td>
<td>18.76</td>
</tr>
<tr>
<td>2014</td>
<td>186.83</td>
<td>43.6</td>
<td>16.3</td>
</tr>
<tr>
<td>2015</td>
<td>234.99</td>
<td>47.25</td>
<td>99.31</td>
</tr>
</tbody>
</table>

Sources: Abrace and TR Soluções.
Veiga believes that encouraging a free market in electricity is today government’s most important task. “In spite of everything, the free market’s share of total energy remains at 25% and it responds quickly to price signals. This is something that pushes the electricity sector to modernize; worldwide the free market is providing lower electricity rates, which is what we need right now,” he says. Veiga advocates greater market participation in the expansion of power generation by eliminating restrictions on this segment in the new energy auctions.

Abiape, whose members produce 60% of the energy they consume, wants to ensure diversification of funding and a reliable future supply of natural gas from deep sea oil. Menel says, “We have 3 GW in power generation projects ready in São Paulo, but we need a reliable and low-cost gas supply. Today, the gas price is US$13 per million of BTUs, but if our power generation projects are to be economically viable, the price should be

The vote of confidence in Energy Minister Eduardo Braga’s management will show results only when the government moves from one-off measures to a restructuring of the energy sector.
There needs to be detailed diagnosis of all aspects of energy projects to ensure they can be completed as planned.

US$6.” Abiape has been working to allow independent electricity generators to issue shares and bonds, Menel says, to attract more capital for new projects.

The change in electricity prices has also mobilized other sectors. The Retail Development Institute (IDV), for example, has formed a committee to find ways to reduce the impact of energy on its members. “Companies operating both here and abroad have utility bills that are four to six times higher in Brazil than in Mexico, France, or the United States,” said Hugo Bethlem, IDV advisor. “In some cases, the energy bill takes up all the profits.” The committee is discussing solutions for more rational use of electricity as well as distributed power generation. IDV is focusing on regulation and tax issues. IDV and ANEEL have studied ways to apply solar energy in retail. “Today, shopping centers are restricted to shared self-generation because they cannot have projects managed by more than one legal entity,” says Bethlem. “Another problem is the VAT on goods and services. In the case of solar energy, most states charge VAT of 25% on electric energy exchanged with the electric network, even for simple storage,” he says.

Trust and dialogue

Despite the work to be done and the need over time to clear past losses and get electricity prices back to normal, Veiga is optimistic that the sector will come back. “It is true that the room to maneuver is more limited today, and perhaps sad that all this could have been avoided,” he says. He points out that some foundations of the electricity sector undermined by the crisis must be reestablished. The image of the electricity sector has been tarnished; consumers see it as yet another problem in the total complexity of Brazil’s infrastructure. Operators have seen the breakdown of the self-sustainability that was forged after the 1995 electricity sector reform; today the energy sector is again dependent on government support and taxpayer money.

In 2014, in the technical report that the PSR prepared at the request of the Forum of the Brazilian Electric Sector Associations (FASE), Veiga pointed out, the basis for solving the electricity crisis was transparent discussion with all stakeholders, on prices, charges, exemptions, and the performance of the regulator. Veiga points out that a major source of instability of recent years was rapid changes in the rules. “With a strong regulator that took a more cautious approach we could have avoided some of the hasty actions,” he says. In the energy sector, he concludes, what matters is the long term. Over time the sector needs to recover credibility through transparency and institutional strengthening.
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.
The outlook for growth is not promising

If growth is ever to become sustainable, the reform agenda will be long and complex.

Solange Monteiro

THE GOVERNMENT’S ANNOUNCEMENT of a primary deficit goal of R$30.5 billion (US$ 8.4 billion) for 2016, raising market fears that that could finally push rating agencies to downgrade Brazil’s debt below investment grade, accentuated local pessimism about the economy recovering any time soon. The arm-wrestling between government, Congress, and business representatives about the possibility that taxes will again rise has exacerbated the insecurity. The question has thus become, how can growth get moving again?

At the Growth Agenda seminar held August 6 and 7 at the Brazilian Institute of Economics (IBRE) of the Getulio Vargas Foundation, researchers, business representatives, and government officials analyzed the causes of the economic crisis and possible growth strategies. In the two days of debate, participants found no magic solution for Brazil’s complex problems: getting the economy back on the growth track will require a broad and complex reform agenda.
IBRE staff, said researcher Silvia Matos, estimate that the current recession could last seven quarters. “The IBRE Dating Economic Cycles Committee determined that the recession began in the second quarter of last year. We see that the slowdown of the Brazilian economy is stronger than that observed in other Latin American countries because it is mainly driven by domestic factors,” she said. Matos presented the results of an analysis of the behavior of 14 emerging economies between 2000 and the first quarter of 2015; it found that “countries dependent on exports, such as Chile and Peru, did not slow as much as Brazil,” she says. In Brazil, external factors accounted for only an estimated one-third of the slowdown. However, Braulio Borges, IBRE research associate who is also chief economist of LCA Consultants, put more emphasis on external factors to explain the current economic situation. He believes that “We have to take into account their effect on income, reducing the relative price of investment and consumption, as well as the role in Brazil’s procyclical fiscal policy.” Borges recognized that there had been economic policy mistakes, but noted that adjustments were postponed because of last year’s elections.

The deepening recession has been reflected in the productive sector. In August, Valor

“...The slowdown of the Brazilian economy is stronger than that observed in other Latin American countries because it is mainly driven by domestic factors.”

Silvia Matos

Brazil's slowdown has been stronger than elsewhere in Latin America

Average growth (%)
Adjusted for inflation the net income of the thousand largest Brazilian companies grew only 2.4% in 2014—except for the international crisis peak in 2009 this was the lowest figure since 2001.

_Econômico_ newspaper reported that adjusted for inflation the net income of the thousand largest Brazilian companies grew only 2.4% in 2014—except for the international crisis peak in 2009 this was the lowest figure since 2001. Business owners have become more pessimistic about the outlook for the economy: In August, all the IBRE confidence indices declined relative to July: confidence in industry, commerce, and services all hit the lowest levels ever.

**Productivity at stake**

Seminar participants were unanimous that it is essential for the economy to become more productive. Ricardo Paes de Barros of the Institute of Education and Research (Insper), said it is no longer possible to keep wages rising faster than productivity, which for a decade has helped to reduce income inequality for a large number of Brazilians. He noted that “The productivity of Koreans and Brazilians was about the same in the 1980s, but today Koreans are three times more productive than Brazilians. Then, Brazilians were 10 times more productive than Chinese; now both have the same productivity. The annual growth of Brazil’s productivity is half that of South Africa.”

IBRE researcher Regis Bonelli cited the steep fall in Brazilian productivity of 2 percentage points on average for 2011–14 compared to 2007–10. “This change was mainly explained by the fall in the growth of total factor productivity.”

### Adjusted for inflation the net income of the thousand largest Brazilian companies has declined since 2010

<table>
<thead>
<tr>
<th>Year</th>
<th>% Change</th>
</tr>
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<tr>
<td>2002</td>
<td>4.6</td>
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<tr>
<td>2003</td>
<td>10.7</td>
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<td>10.7</td>
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<td>2014</td>
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</table>

*Sources: Anuário Valor 1000 and IBGE.*
productivity,” he said, which he considers to have been due primarily to the reduced productivity of capital. Bonelli believes that one of the most likely explanations of this result is the waste and distortions in resource allocation due to economic policy blunders. “Common sense tells us that everything spent on fixed capital that does not result in added value implies lower capital productivity,” he explained. This seems to be the case for several infrastructure projects in Brazil. Another IBRE researcher, Armando Castelar, mentioned the Growth Acceleration Program (PAC), whose transport and energy projects have accumulated delays of two or more years. “The reasons range from the poor quality of projects and environmental studies to discrepancies of more than 25% between project cost and what was budgeted,” he said.

Marco Antonio Cavalcanti, a researcher at the Institute of Applied Economic Research (IPEA), pointed out that investments in infrastructure have the greatest impact on GDP per capita, and Brazil still has a large infrastructure deficit. A McKinsey Global Institute study found that on average, the world stock of infrastructure is 70% of GDP; in Brazil it is 53%. To reach the global average, Brazil would need to invest in infrastructure 5.5% of GDP every year until 2030—even though for the past 30 years, its average investment has been just above 2%. Castelar commented that “To boost infrastructure, Brazil should reduce transaction costs, promote more concessions and public-private partnerships, improve planning and ensure that in pre-licensing there is closer coordination between regulatory agencies.”

Fernanda Negri, also an IPEA researcher, pointed out that better allocation of research and development resources would help to increase productivity in Brazil. In the United States, she said, about 90% of investments in science and technology are directed to institutions responding to specific social demands, such as defense and health, while in Brazil this is only 30%. “We need to diversify, purchase R&D, promote venture capital and seed funding, and establish different models of public agencies,” Negri said, citing as a worthwhile example the Brazilian Company for Industrial Research and Innovation (Embrapii), formed in 2013 to share the risk of new projects with innovative companies.

Service sector and growth
For Insper’s Barros, the losses caused by Brazil’s lack of productivity are even greater considering that today the country could

“It is clear that reviewing regulations to facilitate capital inflows into service sectors with greater productivity potential will be positive for the country.”

Paulo Guilherme Correa
“Countries that have experienced sustained growth over long periods are those that have adopted outward strategies.”

José Julio Senna

be taking advantage of its promising demographics: 65 million people of working age, and more than three workers per dependent. Failure to grow with this demographic bonus is paradoxical. Moreover, Barros said, Brazil has a serious educational deficit: the average number of schooling years for Brazilians is comparable to that of countries with much lower GDP per capita. He added, “This situation should lead companies to value skilled workers with more years of schooling; instead the labor market behaves as if there is an excess of skilled workers.”

One major problem is the low productivity of the service sector, the largest employer in the country. Fernando Veloso, also an IBRE researcher, said that in the last three decades, 25–30% of the higher wages due to education in developed countries were related to a larger share of higher-added-value services, such as financial intermediation and insurance, information services, and services provided to companies.\(^1\) In contrast, in Brazil, although services have accounted for 83 of every 100 jobs created in recent years, they are concentrated in low-productivity, low added-value, traditional activities, such as commerce, retail, transport and personal services, where there is no demand for skilled workers.

Jorge Arbache of the University of Brasilia argued that it is necessary to stimulate high-added-value services that support the productive sector. “The relationship between goods and services could be the main source of competitiveness and wealth creation in coming years,” he said. However, he added, if services are to contribute to this structural change, their productivity must be higher than other sectors to help make industries that use them as inputs more competitive. IBRE’s Veloso argued that in both quantity and quality Brazilian education will have to be improved to achieve this transformation. “There is evidence that the effectiveness of reforms and incentive policies, for example, to formalize business, depends on how educated the entrepreneurs are,” he said.

According to Paulo Guilherme Correa, Secretary of Economic Monitoring, Ministry of Finance, the Ministry is promoting service sector productivity by reducing regulatory restrictions in higher-added-value sectors. “These sectors have their expansion constrained,” he said, pointing to civil aviation, where foreign ownership of domestic companies is limited to 25%, and to similar restrictions for the audiovisual sector and reinsurance. For reinsurance, the government

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wants to resume the opening begun in 2007 by reducing insurance premiums that must be locally placed from 40% to 15% by 2020 and raising the amounts that can be transferred to the headquarters of a multinational insurer from 20% to 75%. “It is clear that reviewing these regulations and facilitating capital inflows into service sectors with greater productivity potential will be positive for the country,” Correa said.

Open and compete
In addition to greater domestic competition, government representatives at the seminar also stressed the intention of facilitating Brazilian international trade. Afonso Arinos de Mello Franco Neto, Secretary for Economic Policy of the Ministry of Finance, cited Federal Revenue Department initiatives to reduce the transaction cost of enterprises seeking to integrate into global supply chains. José Julio Senna, head of IBRE’s Center of Monetary Studies, said that “Countries that have experienced sustained growth over long periods are those that have adopted outward strategies.” He noted that although the global outlook does not look favorable for an export-led growth strategy, “one cannot undervalue the importance of more outward strategies [for technology transfer and innovation].”

Otaviano Canuto, International Monetary Fund executive director for Brazil, agreed, noting that reforms to facilitate international trade could support the relative price adjustment policy through exchange rate devaluation. “In any event, it is not enough to rely solely on the devaluation of the exchange rate as a short-term solution to our economic problems because part of the adjustment [in the external accounts] is related to the economic downturn. There is still no clear sign of the effect of the exchange rate devaluation on trade, since the effect can take about four quarters,” he said.

Fiscal quandary
Designing a long-term agenda for fiscal policy is more difficult when short-term difficulties are overwhelming. With a primary fiscal deficit of R$1.2 billion in the first half of the year and another primary deficit of R$30.5 billion forecast for 2016, there is no doubt about the difficulties facing the government, especially with very little room for tax increases. On the revenue side, IBRE consultant Samuel Pessôa pointed out that for 12 years the country managed to generate significant primary fiscal surpluses even as public spending on social programs grew. “Since 2011, however, the fiscal outlook has changed and I think it will not come back. Even if growth accelerates, the revenue performance will not be repeated,”
“To boost infrastructure, Brazil should reduce transaction costs, promote more concessions and public-private partnerships, improve planning and ensure that in pre-licensing there is closer coordination between regulatory agencies.”

Armando Castelan

says Pessôa. Also, between 2004 and 2010 the country went through a boom, generating nearly 1.5 million jobs a year—another factor that will not be repeated.

IPEA’s Mansueto Almeida noted that most public spending is mandated, reducing the government’s power to negotiate cuts. Between 1991 and 2014, federal primary spending (excluding interest payments) increased by 9 percentage points of GDP. Of this increase, 86% went to cash transfer programs, social security benefits, public employee pensions, and health and education. Almeida pointed out that there is thus significant pressure against reforms, especially social security. Insper’s Barros pointed out that through 2032 the Brazilian population will age rapidly, reaching in just two decades a proportion of old population that France took 120 years to achieve. “Our pension system was created at a time when 4% of population was over 70. But from now on old people’s share in the population will explode and if the pension system does not adapt, it will explode too,” he said. José Ronaldo de Castro of IPEA commented that “Instead of making it flexible, however, we are making social policy more rigid.”

According to Almeida, constitutional ear-marking of tax revenues to pay health and education expenses prevents realistic financial management: “Investment in education increased from R$2.1 billion in 2007 to R$9.6 billion in 2014. [The number of] public employees rose from 5,000 in 1997–2007 to 90,000 in 2007–14. How do we control this cost?” he asked. In recent years, public spending has been fattened by new subsidies and tax exemptions: the My House My Life program (R$18 billion), transfers to the Energy Development Account to subsidize the electricity sector (R$9.2 billion), and payroll tax exemptions (R$18 billion) together total 0.8% of GDP. With public spending projected to increase, Almeida estimates that to achieve a federal government primary surplus of 2% of GDP in 2018 will require raising R$200 billion more than was collected in 2014. This will require reviewing subsidies and tax exemptions, controlling spending growth, and raising taxes.
When a company thinks about the next twenty years, it’s called planning.

When it thinks about the next two hundred, it’s sustainability.

Tractebel’s work is much more than merely generating energy. Our commitment is to do this in a sustainable way, respecting nature, future generations and the communities where we conduct our operations. And this is only possible because besides using clean and renewable sources in more than 80% of what we produce, we are always investing in projects which produce social, environmental and economic improvements. All because we believe that the importance of a company is greater when all stakeholders are also winners with it as well.
Brazilian steel industry in the doldrums

Chico Santos

Brazil currently has installed capacity for 48.9 million metric tons of crude steel; globally it is the ninth largest producer. In the first quarter of 2016 capacity will reach 51.9 million metric tons when Vale mining company starts production at its Companhia Siderúrgica de Pecém (CSP), Ceará state—a company worth US$4.9 billion built in partnership with the Korean Dongkuk Steel and Posco that will produce 3 million tons of sheet steel a year for export.

Brazil is the third largest source of iron ore in the world, behind only China and Australia, and has a consumer market of 200 million inhabitants. Nevertheless, according to the Brazil Steel Institute (IABr) domestic consumption is relatively small at 121 kg of steel per capita, compared to 460 kg per capita for China, 292 kg for Russia, and 158 kg for Mexico.

Steel consumption per capita in Brazil peaked at about 110 kg in 1980, sank deeply until 1992, and only then resumed growth, although even
now the production a level is incompatible with Brazil’s status as a new industrialized nation.\textsuperscript{1} In 2011 the world average was 215 kg per capita.

The IABr notes that Brazilian consumption is in fact declining: Steel consumption per capita fell 12.8\% in 2014 and 8.6\% in the first seven months of 2015. Marco Polo de Mello Lopes, IABr executive chairman, estimates that Brazilian steel sales in the domestic market have fallen by almost 27\% in two years.

With domestic consumption of about 24 million tons a year and declining, crude steel production can only stay relatively stable—it was 33.9 million tons in 2014 and 34.1 million in the 12 months ending in July 2015—because between January and July exports, responding to the exchange rate devaluation, rose 51.4\% in volume (49.2\% in value). But despite the help from the international market, steel industry capacity utilization is less than 70\%; the level historically considered good is 85\%, according to Pedro Landim, manager of the Industry Department of the Brazilian Development Bank (BNDES).

“This is the worst crisis in the history of the Brazilian steel industry,” Lopes said. In August the IABr counted 20 production units closed in 29 Brazilian steel mills, including two blast furnaces, four steelworks, and four rolling mills. In the 12 months ending in July, Brazilian steel companies laid off 11,200 and suspended the contracts of another 1,400. IABr estimated that there will be another 4,000 layoffs by December 2015. At the end of 2014 the steel sector had a total workforce of 122,100.

In recent months, IABr estimates, steel companies have announced cuts in investment of US$2.1 billion. Usiminas, Brazil’s largest producer of crude steel, reported a net loss of R$602.2 million in the second quarter of this year, compared to a net profit of R$114.4 million in the same period a year ago. For this year it has cut back investment in renovation and equipment modernization from R$1 billion to R$750 million.

Of the three steel companies that trade shares on Bovespa, the São Paulo Stock Exchange, only Gerdau S.A. recorded a profit in the second quarter—R$255.6 million, a drop of 28.5\% from the same period a year ago. Analysts estimate that Gerdau’s presence in international markets, with plants in several

\textsuperscript{1} Fernando de Oliveira Nascimento and Luiz Paulo Verveloet Sollero, “Steel Consumption in Brazil,” Department of Studies and Research, Central Bank of Brazil, July 2014.
“This is the worst crisis in the history of the Brazilian steel industry.”

Marco Polo de Mello Lopes

countries, among them the U.S., serves to buffer it from weak domestic demand.

However, Companhia Siderurgica Nacional (CSN), also a large Brazilian steel maker with some degree of internationalization, posted a loss of R$614.3 million in the second quarter, down dramatically from its R$21.7 million profit in the second quarter of 2014. With net revenue down 9%, CSN ended the first half of 2015 with gross debt of R$31.87 billion, having sold some assets to reduce even heavier debt.

“There are no orders,” said Roberto Araújo, commercial manager of SMS Demag, which has long manufactured equipment for the steel industry. He said not only are steel-makers not ordering equipment, they are doing the bare minimum in maintenance.

Araújo said that engineering and equipment companies are surviving by doing “small projects and small reforms” in the expectation that the outlook might change. But he is not optimistic, saying “We have to be prepared to go through two to three very difficult years.”

Old plans

The euphoria of the first decade of this century and the start of the second produced a totally different scenario. Landim of the BNDES said that steel industry production rose from 33.4 million metric tons in 2002 to 48.5 million in 2012. At that time Brazil had the world’s fourth largest investments in the steel sector, he said. That culminated in the last major new plant inaugurated in the country, opened by the ThyssenKrupp group in Rio de Janeiro in 2010.

In 2010 BNDES projected that by 2014 domestic steel consumption would reach 33.4 million tons\(^1\)—36% higher than the 24.6 million that was actually recorded. In August 2008, just before the international crisis broke out, the Brazilian steel industry was operating at 91% of its capacity. By 2010, on the assumption that the crisis was over, the steel industry was investing to avoid new bottlenecks.

For 2000–09 the steel industry invested US$20.3 billion, primarily to upgrade existing plants, increasing capacity by 13.5 million

tons of crude steel to 43.1 million tons. But the global crisis has proved much tougher than expected, and the Brazilian economy has also stagnated. In 2014 Brazil’s crude steel production was 33.9 million metric tons. The projection had been that another US$27.7 billion would be invested in 2010–14 to reach production capacity of 52.5 metric million tons—which will in fact be achieved only in 2016 with the entry of CSP.

As optimism dissipated, many projects that could have fueled growth beyond today were aborted or put on hold without any new startup dates being set. Usiminas stopped building a plant in Santana do Paraíso (MG) in November 2010. The plant would have capacity to produce 5 million tons of steel sheets a year for export.

Two projects associated with businessman Eike Batista in the Port of Açu, on the north coast of the State of Rio de Janeiro, fell apart even before the collapse of the entire Batista conglomerate. The two plants would have been able to produce 10.6 million metric tons of steel.

Although moving ahead with CSP, Vale has two other projects that are in abeyance.

In the 12 months ending in July, Brazilian steel companies laid off 11,200 and suspended the contracts of another 1,400. IABr estimated that there will be another 4,000 layoffs by December 2015.

### After peaking in 2009, Brazil's investment in the steel industry has declined

<table>
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<th>Year</th>
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**Total investment 2002-2013:** US$30.3 billion

Source: BNDES.
Of the three steel companies that trade shares on Bovespa, the São Paulo Stock Exchange, only Gerdau S.A. recorded a profit in the second quarter; it was R$255.6 million—a drop of 28.5% from the same period a year ago.

The first was the Companhia Siderúrgica Ubu (CSU) in Espírito Santo state; that was being built in partnership with Chinese Bapsteel but has been on hold since the Chinese pulled out in January 2009. Aços Laminados do Pará (Alpa) in Pará state was to be a steel plant with capacity of 2.5 million metric tons and a rolling mill capable of producing 500 tons. Under heavy political pressure the launch of construction was announced for 2010. The project remains on paper.

Currently, in addition to Vale’s CSP steel mill in Ceará state, there is only one major project underway, a Gerdau heavy rolling mill in Minas Gerais state, which is also scheduled to start production in 2016.

China’s juggernaut

In addition to canceling new projects, the Brazilian steel industry is suffering from not only the pain of excess capacity but also the lack of prospects for bringing it back on line. The problem, says BNDES’s Landim, is “not only in Brazil, but in the world.” He believes Brazilian steel production costs are competitive—but the main current competitor, China, is unusually powerful.

According to the World Steel Association, the world crude steel capacity glut has reached 717 million tons—of which China accounts

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Brazil's steel production capacity has increased by 45% in the last 10 years

(Millions of metric tons per year)

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<th>Capacity (Millions of metric tons)</th>
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Source: BNDES.
for 460 million tons. Thus China’s excess production capacity is almost 10 times Brazil’s total capacity. The market expectations were that with weak global demand China, which has many obsolete steel mills, would reduce its production capacity. It has not.

“China may have reached the peak of its steel consumption [in 2014], but it continues to increase capacity,” Landim said. Although they are closing obsolete steel mills, the Chinese are replacing them by more efficient and less polluting ones. This is not good for Brazil, Landim said. If world consumption of steel stagnates, China is likely to seek to expand its market share at the expense of other countries, one of them being Brazil.

IABr’s Lopes pointed out that Brazilian imports of Chinese steel went up from just 12 thousand tons in 2000, just 1.3% of total steel imports, to 2.1 million tons in 2012, or 52% of total steel imports. Lopes is of the view that emergency and structural measures are necessary to stem the crisis in Brazil’s steel industry. Among emergency measures, he proposes that Brazil’s domestic market be closed to predatory imports and tax credits raised from 1% to 3% on revenues from the export of steel products (The REINTEGRA Program). Among structural measures he espouses are a competitive exchange rate, interest rates compatible with international rates, and elimination of double taxation.

**Energy efficiency**
The global steel industry crisis has not only caused large expansion projects to be shelved in Brazil, it is reflected in the investments planned by plants already in operation. According to the BNDES, planned steel company investments of R$10.95 billion for 2015–18 represent only 41.5% of the R$26.36 billion actually spent in 2010–13. Between 2013 and 2014 BNDES funding for the sector fell by more than 51%, from R$972.3 million to R$472.5 million.

Landim believes that the current difficult situation opens a window of opportunity for companies to invest in energy efficiency by taking steps to improve heat recovery, efficiency in electric steelworks, and energy cogeneration. The BNDES is structuring credit lines to meet this kind of demand, and some companies are already applying for credit to reform electric blast furnaces.

“Although Brazilian steelmakers are quite efficient compared to the world average, there is room for gains that BNDES understands can be leveraged,” Landim said. For instance, steel mills fired by coke always have surplus energy from gas recovery. Landim noted that “As electricity is getting more expensive, it is interesting to take advantage to produce not only for one’s own consumption but also to sell.”

“We have to be prepared to go through two to three very difficult years.”

Roberto Araújo
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Subsidies have bankrupted the country

Yoshiaki Nakano
Director of the São Paulo School of Economics, FGV

Former President Fernando Henrique Cardoso has said that the main concern for Brazil today is the political crisis; economic crises, even severe ones, are cyclical. Do you agree?

I agree that there is a political crisis. But I do not agree that the economy is in a typical cyclical crisis, where after recession there is automatically a recovery. This time recovery will not be automatic, because usually recovery after a crisis comes from stimulating demand, and expanding spending to create a stimulus will be

Solang Monteiro
BRAZIL’S ECONOMIC crisis is deep; escaping from it will require more effort than ever before. That is Yoshiaki Nakano’s assessment. Nakano is director of the São Paulo School of Economics of Getulio Vargas Foundation (EESP-FGV); he is a tireless promoter of the role of industry in revitalizing the economy. He believes that Brazil needs the discipline to adopt a competitive exchange rate and lower interest rates to stimulate investment. Nakano also calls for bureaucratic renewal “with more institutional imagination” to create new ways to stimulate production rather than granting subsidies, a policy that he believes has bankrupted the country. Such a change, he says, would encourage the entry of new entrepreneurs. New entrepreneurs and industry restructuring to insert Brazil in the dynamic global value chains will, Nakano says, raise Brazilian productivity: “With this we would reindustrialize the country and begin a new growth path.”
I do not agree that the economy is in a typical cyclical crisis, where after recession there is automatically a recovery. This time recovery will not be automatic. We are in a much deeper crisis—a crisis of [permanent lower] potential growth.

Once you said that Brazilian underdevelopment had a political aspect—an elite who could not create either a development project or a nation. Is that the case in the current political crisis? I think so. The country’s elite has destroyed the educational system, its basic foundation, which is to socialize individuals, instill in them national values, ... the idea that we need to cooperate because we are in the same boat, in the same country. Today we have a country where everybody wants his or her piece. The government budget cannot cover all the claims. Hence inflation.

Would this mean that the social protests and demands do not differ from what congressmen do? Yes, because the formation of Brazilians lacks the basics: that there is something called a nation, a national identity, ethical and moral values. Where people cooperate and are trustworthy you do not need as much government control, as much bureaucracy. Finland’s explicit goal is to educate citizens to cooperate so they know their obligations to the community; education there creates a cooperative society of trusted citizens. You do not need as much government to supervise and regulate when individuals share ethical and moral values ....

Some analysts argue that economic policy coming out of the crisis should promote immediate growth, although there are questions about how to do it. Do you think there could be a reversal of strategy? If that means the return of incentives and subsidies, I think that policy is responsible for bankrupting the country. It did not work, did not increase investment, and did not increase technological progress. ... The crisis is deeper. There is widespread uncertainty in Brazil about a series of questions: First is compliance with the laws, because the tax authorities keep changing how they interpret regulations and ... their interpretations can generate huge fines.¹ Second is the exchange rate, which was R$4 per U.S. dollar, dropped to R$1.5, and is now has soared up to R$3.8; when there is no assurance about the future exchange rate, there is reluctance to invest. This is not just a problem for those who invest in order to export, because all industrial companies are exposed to the possibility of paying more for what they import. The policy of stimulus to the service sector and appreciation of the exchange rate is exhausted. It has destroyed Brazilian industry … Trying to make the economy grow by expanding services in general does not replace the tradi-

¹ MP 685 requires companies to inform the federal tax administration of all operations and acts or legal transactions that result in discontinuation or reduction or deferral of taxes. It authorizes the tax administration to fine illicit operations but does not clearly define what an illicit operation is.
national policy of industrialization and expansion of technology-intensive services.

Correcting the current situation will not be easy. Today Brazilian industry is the result of an industrial policy that gave incentives to substitute domestic products for imported ones. This policy has vertically integrated the industry to produce final goods, but over the last 30 years the world has moved in the opposite direction. Industrial production is spread around the world through value-added supply chains that cross borders, and Brazil is not integrated into this system. To increase efficiency, Brazil needs to insert its industry into global supply chains. We have to import more, and export more. To do this, however, requires a foreign exchange policy. The devalued exchange rate is easing the crisis. But entrepreneurs have no assurance that the exchange rate will stay competitive. When they invest, they want to know what the cash flow will be for at least the next 10 years.

What exchange rate policy would be consistent with economic adjustment?
Exchange rate policy in the hands of the Central Bank is absurd because it will use the exchange rate to hold down inflation. Instead of making monetary policy more potent by reforming its own operating rules, the Central Bank raises the interest rate and the exchange rate appreciates. This is an absurd policy in the middle of a recession. The economic literature found long ago that when the fiscal situation is out of control, it does not produce a high enough fiscal primary surplus. Tightening monetary policy by raising interest rates increases fiscal spending [on interest]…. The big problem when carrying out a fiscal adjustment is to coordinate policies. What is needed are policies that boost the economy without fiscal spending, for example, foreign exchange, which has been depreciating recently and is helping. Also, a large upfront fiscal adjustment can quickly turn the economy around because it boosts confidence and clarifies the future. Successful experiences have established that fiscal adjustment has to be more than 3% of GDP and has to cut current public spending, not raise taxes.

Because it has cash problems the government now wants to bring back the financial transaction tax. That’s not going to work. Fiscal adjustment via tax increases has always failed. If the government made a fast fiscal adjustment of at least 3% and simultaneously reduced interest rates, that would quickly reactivate the economy. Fiscal tightening curbs inflation; in this case exchange rate devaluation changes only relative prices. At the same time, low interest rates encourage consump-

Finland’s explicit goal is to educate citizens to cooperate so they know their obligations to the community; education there creates a cooperative society of trusted citizens.
The subsidy policy did not work, did not increase investment, and did not increase technological progress. There is no reason for Brazil to have higher interest rates than the rest of the world.

You have been a tireless supporter of Brazil’s economic opening, arguing that the import substitution policy lasted too long and government’s subsidies to industry brought about inflation. How does this year’s industrial policy compare to the import substitution policy? It is almost a repetition of an old doctrine called national developmentalism, one I consider to be totally flawed. As I said before, seeking to be self-sufficient through import substitution created a completely vertically integrated industry. If you look at the statistics of the major economies, Brazil’s economy is one of the most closed in the world. We need to open it. While the world went to global supply chains, Brazil insisted on producing everything domestically. … We need to specialize in what we produce best and import what is cheaper. This will reduce the cost of what our industry produces and … if we open the economy industry will have to compete with imports, so that either it innovates or it dies. What will be left of industry will be much more dynamic and competitive.

The new middle class has contributed to growth with consumption, but it also could contribute by expanding the supply of goods and services. There are many who want to start their own businesses, but these potential entrepreneurs do not have access to credit or the means of production. If they had access to credit and the government reduced the bureaucracy and cut taxes, millions of Brazilians would willingly embark on new businesses. And if the exchange rate were competitive, Brazil could mobilize millions of Brazilians to make money and export. This is how you generate a growth boom. We need to release these contained forces. … Summing up, Brazil has two ways to increase productivity: encourage new entrepreneurs, and integrate the most dynamic companies into global supply chains. With this, Brazil would reindustrialize and be on a new growth path.

What would today be a competitive exchange rate for Brazil? This is a hard question. We have to go by trial and error. The stability of the exchange rate is equally or more important than its level. The optimal level must take into account two constraints: we have to export, so the more undervalued the better. But Brazil also has to import, and too much devaluation limits competitiveness. I think a rate slightly higher than today’s R$3.60 per dollar would be enough. Now, if we want to use the exchange rate to quickly stimulate the economy, we would have to devalue more to cover the costs of red tape and taxes. Setting the exchange rate just above R$4 would immediately prompt thousands of entrepreneurs to find out what to do to export. … When there is opportunity, Brazil-
The tax authorities keep changing how they interpret regulations and ... their interpretations can generate huge fines.

Do you think the entrepreneurial momentum of the new middle class will ensure competitiveness, considering that the population is not as well-educated as in other countries?
The appalling state of education is really an obstacle. But look what happened to Brazilian agriculture: it did not need an exchange rate at R$3.60. It had access to credit. In Pará and Piauí states, young people are planting thousands of hectares. If there are incentives, enterprising people will solve the education problem. They would knock on the door of Embrapa [the Brazilian Agricultural Research Corporation] and seek out technical experts and engineers to solve their problems. Entrepreneurs do not know everything, but they search out the knowledge they need. Because unemployment in Europe is huge, there are businesses bringing professionals here from Europe. But do not give subsidies. Instead give credit at competitive interest rates and ensure access to productive resources.

What do you think about the R$5 billion aid the government recently offered the automotive sector?
The Brazilian bureaucracy is incompetent. It has never been able to make changes. And we need to make changes. We need a bureaucracy with more institutional imagination to create new incentive mechanisms. Every innovation in Brazil was absorbed by the bureaucratic machine and turned old. For example, the National Institute of Educational Studies Anísio Teixeira (INEP) was absorbed by the bureaucratic machine of the Ministry of Education. It is now an obstacle to improving education, because it wants to maintain the status quo. Whoever innovates is penalized.

The government promises to reform taxes, including state VATs. What do you think about that?
I do not know what the government is proposing. But I do not think this is the time for such reforms. ... Looking at countries that have grown for long periods, we see that first they recovered growth and then made the reforms because it is easier. With the economy shrinking, everyone will lose. As I said, it is fundamental to unlock the economy and encourage emergence of a new dynamic production structure. But let’s start with the simplest things: bring interest rates down to international levels, keep the exchange rate competitive, and do not increase taxes. It will be a disaster if the government tries to reform taxes. It will face stiff resistance, and eventually the reform will fall apart.
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