

Fiscal policy

Balancing the budget will depend also on how much tax is collected once growth resumes

Urban mobility

Can a consortium's plan ensure a good life for 12 million people in metro Rio?

Interview

Laercio Cosentino
CEO of Totvs



THE BRAZILIAN ECONOMY

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Recovery still uncertain

Improvement in some indicators suggests that the recession may be bottoming out, but there are still many uncertainties about the likely speed of an economic recovery



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THE BRAZILIAN ECONOMY

Economy, politics, and policy issues

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THE BRAZILIAN ECONOMY

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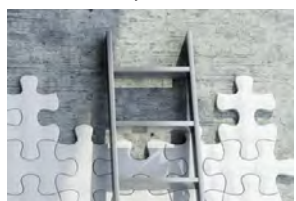


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ECONOMY

8 Recovery still uncertain



Can revived production of capital goods lead a general recovery? Is the capital goods recovery itself sustainable? And what has stimulated the positive news

for capital goods? The consensus seems to be that it's too early to answer such questions: some indicators may be encouraging but others are not. Chico Santos consults the experts to get a three-dimensional view of the situation.

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Balancing the public accounts depends on federal tax revenue, which in turn will depend on its sensitivity to the ups and downs of economic activity—how tax revenues change relative to GDP growth. Researchers who have conducted recent studies talk with Solange Monteiro about their findings, and the implications of those findings.

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What does the future hold for the 12 million people living

in the 21 municipalities in Rio's metropolitan region? A consortium is working on a strategic plan to ensure they have a good quality of life. The World Bank is funding an international tender to draft a strategic plan for metropolitan Rio. Cristina Alves describes the process and the results of the 18 months of preliminary work.

24 "The best mobility solution for a city is for workers to live close to work"

Architect, urbanist, and successful politician Jaime Lerner is



heading up the effort to plan a strategy to make the Rio municipality a more effective and attractive place to live. Here he talks to Cristina Alves about his widely recognized experience in revising the

structure of Curitiba when he was mayor, what cities around the world have been doing that Brazil can learn from, and the importance of getting the public on board with whatever is being planned for their lives.

INTERVIEW

28 "We must work to reduce the size of the government"



As head of the leading business management software company in the Brazilian market, serving sectors ranging from agribusiness to logistics, Laercio Cosentino closely follows the mood of

investors and considers the current crisis the deepest since he founded Totvs in 1983. Here he explains to Solange Monteiro why he is nevertheless optimistic that the Brazilian economy can recover, the reforms needed to make it competitive, and how Totvs has been able to ride out the economic storm.

Editors' Note

SINCE THE BRAZILIAN Senate voted 61-20 to impeach President Dilma Rousseff on August 31, the market has been waiting for action from the new government to ensure that the public budget is adjusted and the economy grows again. The path will be painful. Brazil's GDP fell by 0.6% in the second quarter of this year compared to the first—more than the market expected. And compared with the first half of 2015, through June 2016 GDP had already shrunk by 4.6%.

How fast the economy can recover from such a deep recession is a huge unknown. There are some indicators that recovery could be fast: industrial production grew 0.3% in the second quarter over the first, investments increased by 0.4% after 10 quarters of decline, and confidence indices are going up. As the cover story shows, the capital goods sector of industry could be the main driver of a speedy economic recovery.

Unfortunately, other indicators are not so promising. The service sector, which accounts

for about 70% of GDP, shrank by 0.8% in the second quarter over the first, and for the sixth consecutive quarter, household consumption fell, by 0.7%. The macroeconomic outlook is further clouded by persistent high inflation, soaring real interest rates, a weak labor market, high unemployment, and a severe fiscal crisis.

With the end of the interim period, the new government of (no longer Acting) President Michel Temer is expected to gain the power to initiate the reforms Brazil needs to resume growth. But the political negotiations needed to get there will be delicate and intense. When the interim government granted salary adjustments to public employees and gave states generous terms in renegotiating their debts, the market saw the promise of tight public spending apparently going down the drain.

The expectation now is that the government will send Congress proposals for an austere fiscal adjustment, with reform of social security a major element. That is where the assessment of the new government will begin.



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ECONOMY

Petrobras profit tumbles

Second-quarter profit for Petrobras, Brazil's giant state oil company, was lower by nearly a third from a year earlier as oil prices fell and the company took charges for layoffs and problems with a refinery. Petrobras said net income fell 30%, to US\$118 million, in the three months ending June 3. Part of the problem is Petrobras's huge debt, which requires the company to have enough cash to pay its obligations. (August 12)

Unemployment reaches 11.6%

Unemployment in Brazil rose to 11.6%

in the three months through July, statistics agency IBGE reported. The jobless rate has risen steeply from 6.5% at the end of 2014 as the country entered its worst recession in decades. More than 1.7 million Brazilians have lost their jobs in the last 12 months, according to Labor Ministry data, taking the total number of those unemployed to an estimated 11.8 million. Wages discounted for inflation fell 3.0% compared to the same months in 2015, to an average of US\$615.08. (August 31)

Inflation rises in August

Inflation in Brazil rose 0.44% in August,

when the Rio Olympics added pressure on services prices, statistics agency IBGE said. Consumer prices rose 8.97% in the 12 months through August, up from 8.74% in July and far above the official annual inflation target of 4.5%. (August 9)

Retail sales down 0.5% in July

Retail sales declined by 10.2% year-on-year as 8 out of 10 sectors contracted, reflecting the drop in private consumption. One of the main factors behind the retail sales disappointment was the 0.3% month-on-month contraction in vehicle sales. (September 13)

POLITICS

Temer banned from running for office

A regional electoral court in São Paulo found then-interim Brazilian President Michel Temer guilty of election law violations and declared him ineligible to run for political office for eight years. Thus Temer, at the end of his service as president, is banned from running for reelection. However, he had in any case promised the leaders of the coalition that currently supports him that he would not run. (August 16)

Corruption charges recommended for Lula

Police have recommended that former Brazilian president Luiz Inacio Lula da Silva, and his wife, be charged with corruption and money-laundering as part of a probe into a huge embezzlement scheme at state-oil company Petrobras. A judge must still decide whether to press the charges. Lula founded the Workers' Party and was president in 2003–10 before helping Dilma Rousseff get elected. (August 26)

President Dilma Rousseff impeached

The Brazilian Senate on August 24 voted 61-20 to impeach President Dilma Rousseff for breaking fiscal laws, bringing to an end the tenure of the country's first female president. The impeachment comes after a yearlong high-pitched political battle that paralyzed the nation, helped bring down its economy, and exposed deep political differences among its people. It was as much a vote of no confidence in her



Photo: Marcelo Camargo/Agência Brasil.

Departing President Dilma Rousseff



Photo: Fabio Rodrigues Pozzebom/Agência Brasil.

Inauguration of President Michel Temer

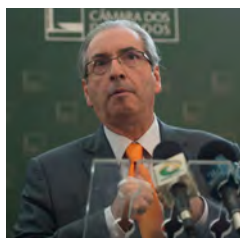
leadership as a conviction for alleged crimes. (August 31)

Temer promises “new era”

Brazil's new president, Michel Temer, promised a “new era” of government for the country shortly after being sworn in following the impeachment of Dilma Rousseff. Speaking at a televised cabinet meeting after taking the oath of office, Temer said his priorities were to fix Brazil's economy, attract foreign investment, reduce unemployment, and begin reform of the pension system. (September 1)

Impeachment leader expelled from the House

Two weeks after Dilma Rousseff was



Former House Speaker Eduardo Cunha

removed as Brazil's president, the lower house of Congress voted (450-10) to expel its powerful speaker, Eduardo Cunha, who engineered her impeachment, for lying about having secret bank accounts in Switzerland. Cunha, whom the Supreme Court has charged with corruption, has been banned from politics for eight years, and faces arrest now that he has lost his congressional prerogatives. (September 13)

Photo:
Marcelo Camargo/
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(September 13)

INTERNATIONAL

China supports the Temer government

Chinese president Xi Jinping expressed confidence in Brazil's ability to maintain stability and continue the cooperation between the two countries during a meeting with President Temer in Hangzhou, the resort hosted the G20 summit. “China has great confidence in Brazil's development prospects, as well as confidence in cooperation between China and Brazil,” Xi said, adding that “we must continue to treat each other as partners in development and strengthen cooperation, and make China-Brazil cooperation a highlight in unity and cooperative relations between developing countries.” Temer told Xi that he wanted to reiterate “the need to maintain the solid relationship that has been built up over time”. (September 2)

ECONOMIC POLICY

Meirelles: Fiscal responsibility law to be updated

Finance Minister Henrique Meirelles said the government will work on a new bill to update the country's fiscal responsibility law to limit current spending by states, though the government will leave unchanged a bill currently before Congress that gives Brazil's states hefty debt relief in exchange for a ceiling on spending and a 2-year ban on wage increases to public servants. The government is pushing for an immediate vote on that bill. (August 8)

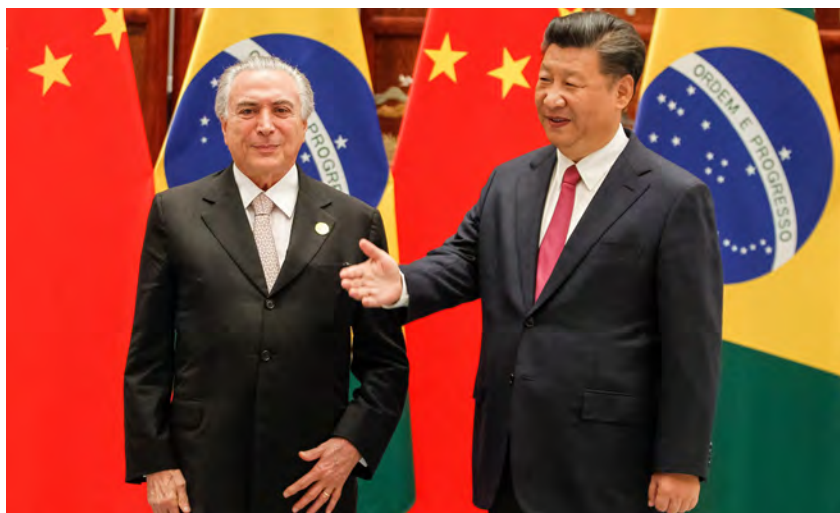
Central bank keeps rates unchanged

Brazil's central bank kept interest rates at a decade high for the ninth straight time on Wednesday, but did not disavow the possibility of a rate cut later this year if stubbornly high inflation subsides. In a unanimous vote, the bank's monetary policy committee kept the policy rate at 14.25%, the peak since July 2006. (September 1)

Ambitious program of concessions planned

Brazil has launched a multibillion-dollar plan to auction off oil, power rights, and infrastructure concessions, in an attempt to bolster private investment in a moribund economy. The government plans to sell licenses to operate airports in the cities of Porto Alegre, Salvador, Florianopolis, and Fortaleza by the first quarter of 2017. Later that

year it also plans to sell rights to operate federal roads in the center-west and south regions. Conservative president Michel Temer has vowed to shift economic policy away from interventionist policies of his predecessor, Dilma Rousseff. “We need to open up to the private sector because the state cannot do everything,” Temer told ministers in a meeting to discuss the plan, dubbed “Project Growth.” (September 13)



President Temer meets Chinese President Xi Jinping during the G20 Summit.

Photo: Beto Barata/PR.



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Recovery still uncertain

Improvement of some indicators suggests that the recession may be bottoming out, but there are still many uncertainties about the likely speed of an economic recovery.

Chico Santos

THE ECONOMY IS MOVING, but slowly. That is how it seems in the Brazilian capital goods industry: production shows clear signs of improvement, but there is a huge pent-up demand for capital goods that will take a long time to get back to normal.

According to the government's monthly industrial survey, in the first half of the year industrial production grew a cumulative 13.9% to June compared to the same period a year earlier—its performance for 2015 as a whole was dismal. André Macedo, manager of industry statistics for government agency IBGE, points out, however, that despite the welcome positive signs, production of capital goods in the first half of this year was still 41.3% below its historical peak in September 2013. He says, "Clearly there is a change in relation to the declining production trend that had been observed, especially in the case of capital goods."

This has to do with an improvement in the mood of entrepreneurs regarding the future direction of the economy.”

Macedo cites numbers that justify caution: in the 12 months through June, production of capital goods, which tells how well investments are doing, had fallen a cumulative 26.9% over the previous 12 months, despite all the hope stimulated by the rising production since January. This is evidence that it would be unwise to bet on the view that has become common among analysts that the economy has reached the bottom and is now being driven by the more stable political situation.

Nevertheless, the positive IBGE capital goods production data, the National Development Bank’s financing for machinery, and IBRE’s economic surveys have brought about more

cheerful expectations of recovery: the better performance of capital goods, especially production machinery and equipment, may indicate that the economy’s recovery is based on a sustainable upturn of investments, in contrast with the post-crisis recovery in 2008-09, which was driven by consumption—and which in the medium and long term had disastrous results.

Caution for the moment

IBRE’s technical manager of macroeconomic projections, Silvia Matos, is still advising caution, both about capital goods leading a general recovery and about the sustainability of the capital goods production recovery itself. When the situation is very bad, she notes, a slight improvement brings back optimism—even though the positive numbers for capital goods are well below comfortable levels achieved in the past.

“Clearly there is a change in relation to the declining production trend that had been observed, especially in the case of capital goods.

This has to do with an improvement in the mood of entrepreneurs regarding the future direction of the economy.”

André Macedo

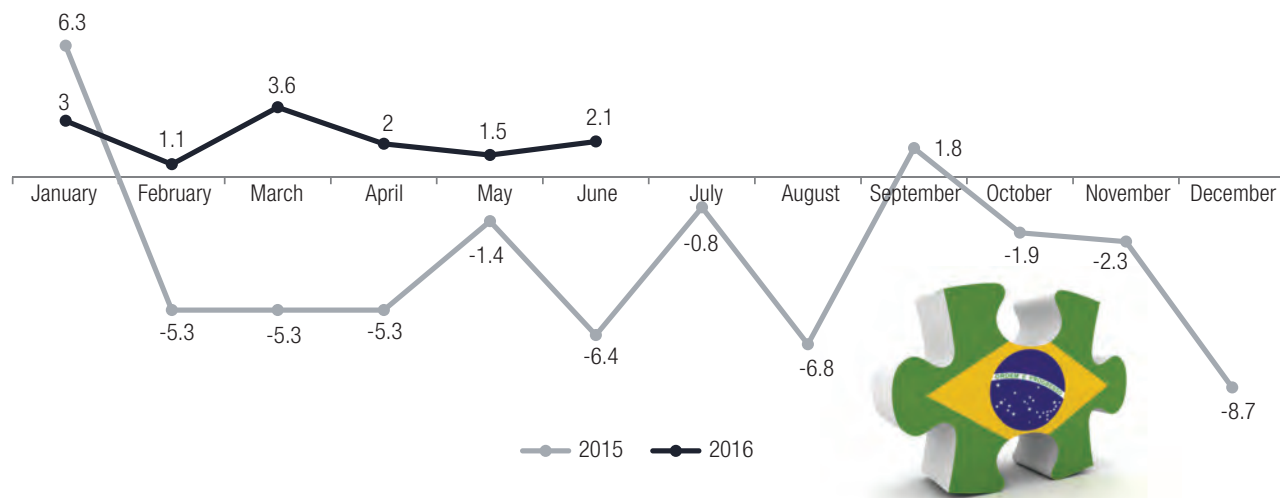
The Matos warning is aligned with recent assessments by representatives of the capital goods industry. The Brazilian Association of

Machinery and Equipment (Abimaq) estimates that compared to May, in June net revenue increased by 4.2%, mostly due to domestic sales, which grew by 10.2%. However, compared to the same period last year, the data for the first half of 2016 suggest caution: total net revenue was 29.3% lower, sales-to-domestic market was 46.3% lower, and only exports went up, by just 1.1%.

Abimaq explained its skepticism: “The high idle capacity observed in the manufacturing industry makes uncertain the resumption of investment in the short term, even after the production peak in June 2016.” Indeed, data from the IBRE survey of industry are not encouraging: Despite its slight increase in recent months, in July the capacity utilization rate of the machinery and equipment industry was still only 66% and for the capital goods industry as a whole 67.4%, the durable goods industry 67%, and the entire manufacturing industry, 74.3%.

Brazil's capital goods production grew for six consecutive months through June 2016.

% change month-to-month, seasonally adjusted in 2015 and 2016



Source: IBGE.

Abimaq asserts that the June rise in domestic demand for capital goods was mainly met by imports of machinery and equipment, which almost doubled in value to US\$2.32 billion—93.5% higher than in May. The association does not consider this reason for celebration. It attributes the more than 46% drop in domestic sales of machinery and equipment in the first six months of the year to double-digit interest rates (the central bank policy rate is 14.25%) that discourage investment. Moreover, this year's appreciation of the exchange rate would have canceled out Brazilian industry competitiveness gains from devaluations in previous years, especially 2015. Abimaq also believes that those gains were not enough to restore industry profit margins, so that prices are below the cost of production inputs.

This analysis agrees with the assessment made by WEG, a leading Brazilian manufacturer of electrical machinery and equipment, in its balance sheet report for the second quarter

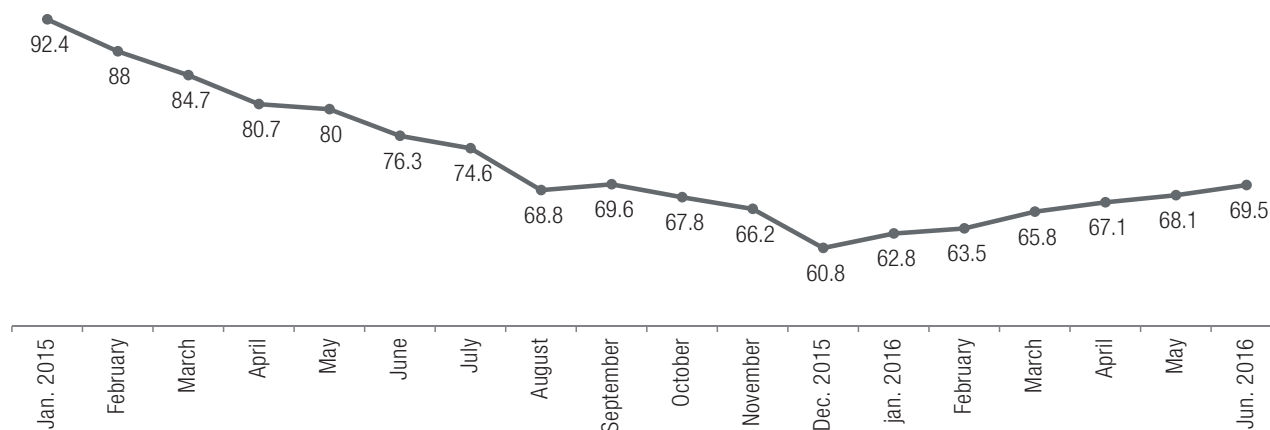
“When the situation is very bad, a slight improvement brings back optimism—even though the positive numbers for capital goods are well below comfortable levels achieved in the past.”

Silvia Matos

2016: compared to the first quarter net income fell by 9.7% to R\$255 million, and net operating income declined by 3.4% to R\$2.34 billion. In the report, Harry Schmelzer Jr., WEG president, said, “The business environment has continued difficult” and the focus of the corporation “remained in operational adjustments to preserve profit margins and returns, and increase generation of operating cash.”

The Brazilian capital good industry is slowly coming out of the crisis.

(moving quarterly average index, seasonally adjusted, base 2012 = 100)



Sources: IBGE and IBRE.

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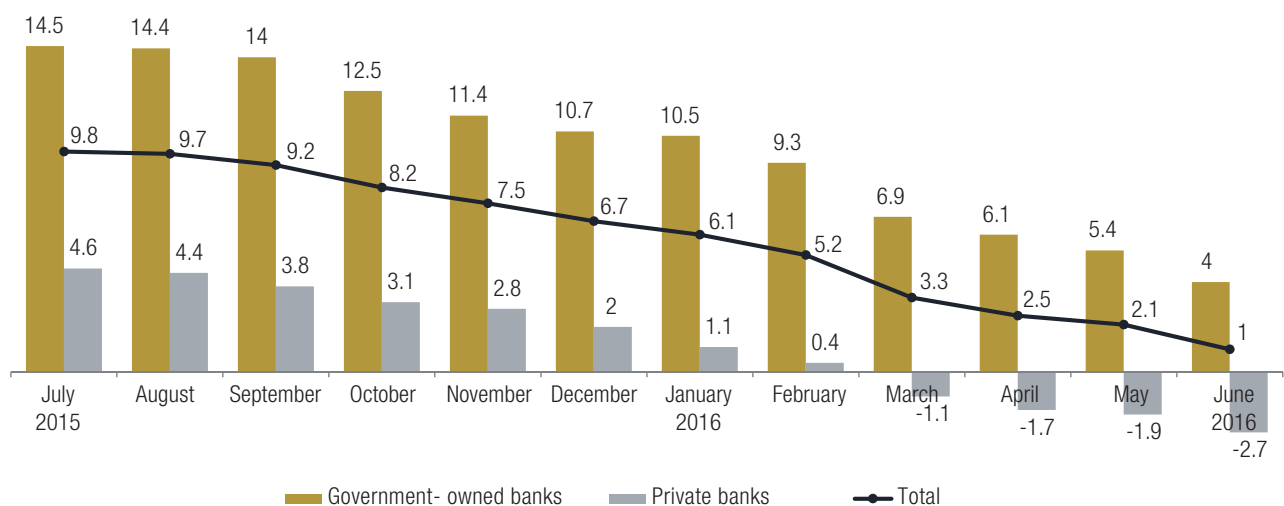
Schmelzer thinks expectations for the Brazilian economy “are not yet clear,” despite signs that the country is rising out of the economic cycle trough. As for foreign markets, which in the second quarter accounted for 59.9% of net WEG sales, he considers the environment not yet favorable to growth. From April to June, WEG’s foreign sales fell by 2.4% and domestic sales by 4.8%.

Though less skeptical than the businesspeople, IBRE’s Matos sees many question marks. She points out that although “exports have helped,” the credit essential for a healthy recovery is scarce. In June this year credit to the productive sector, which in 2012 and 2013 had been growing over 15% a month, increased by only 1%, mostly provided by government banks; so far in 2016 private bank credit has declined.

Matos points out that economic recovery itself could affect the exchange rate, which in turn could affect the incipient capital goods production recovery, noting “If the Brazilian economy improves, the exchange rate appreciates.” Exchange rate appreciation, which in part reflects an improved political environment, makes industrial products made in Brazil less competitive and imports cheaper, intensifying foreign competition in the domestic market.

Credit to the private sector plunges

% monthly growth, July 2015- June 2016



Source: BNDES.

Because the world economy is weak, Matos says, competitiveness is even more essential for countries that wish to maintain their market share. In Brazil, the exchange rate has historically been a central factor in its competitiveness.

Matos points out that investment is driven by the growth outlook and the stability of the macroeconomic environment, adding that lack of credit, corporate debt, high idle capacity (especially in the durable goods and automotive sectors), and high interest rates are not favorable to growth. Moreover, “interest rates will only decline when the fiscal adjustment is clearer,” she says. And, inflation, especially food, has been more resistant than expected to the bitter medicine of high interest rates.

Matos concludes that “The patient has left the ICU, but is still sick.” She does not see economic growth of over 2% in 2017.



“The high idle capacity observed in the manufacturing industry makes uncertain the resumption of investment in the short term, even after the production peak in June 2016.”

Abimaq

Uncertain path

Aloisio Campelo Junior, IBRE’s superintendent for economic cycles, also sees a very foggy horizon where the recovery of the economy and the capital goods sector are concerned. “Investment fell by 18.5% in the fourth quarter of 2015 compared to the same period a year

earlier,” he explains. He also notes that investments have been declining since the fourth quarter of 2013. “The biggest blow from the crisis was to durable goods, which was aggravated by the elimination of incentives to consumption,” Campelo said.

Although idle capacity remains high both in capital goods and the manufacturing industry generally, raising concerns about the sustainability of recovery,

Investment is driven by the growth outlook and the stability of the macroeconomic environment ... lack of credit, corporate debt, high idle capacity (especially in the durable goods and automotive sectors), and high interest rates are not favorable to growth.

IBRE's Survey of the Manufacturing Industry has been more positive: "Industry confidence has improved significantly. Between August 2015 and July 2016 the Industry Confidence Index has risen from 71.9 points to 90.5 in the machinery and equipment segment, 73.8 to 84.0 in capital goods, and 73.5 to 87.1 in manufacturing as a whole. In the same reporting period, the Current Situation Index jumped from 68.7 points to 89.1, 71.1 to 84.0, and 71.4 to 85.2.

Maintaining achievements

Exports were vital to the recent increase in Brazilian production of machinery and equipment and capital goods, according to the Foreign Trade Studies Center Foundation (Funcex). In

July, exports of machinery and equipment grew 10.6% in volume, compared to the same month last year, and by a cumulative 18.9% in the first seven months of 2016.

Carlos Frederico Rocha, professor in the Industrial Economics Institute of the Federal University of Rio de Janeiro (UFRJ), believes the good performance of exports is the main factor in the growth of the Brazilian capital goods industry. "We have some capital goods companies that are active in the external market, especially in the segments in which we are more competitive, such as agriculture and energy," he noted.

Rocha has two explanations for the rise in capital goods exports: a more competitive exchange rate and more competitive companies, with the latter having a more powerful effect. As the domestic market for capital goods contracted, competitive companies went abroad in search of alternative markets. But access to foreign markets is not immediate and has a



high cost, so it will take time. Domestically, he said, the recovery of the capital goods industry generally follows improvement of the general level of economic activity rather than leading it.

Rocha does not consider exchange rate policy to be a way to boost competitiveness—in his opinion, competitiveness is essentially an issue of business strategy. Smaller companies need to understand the importance of maintaining both domestic and foreign markets, and invest in production capacity to support that. “You cannot fix this with government policies,” he says.

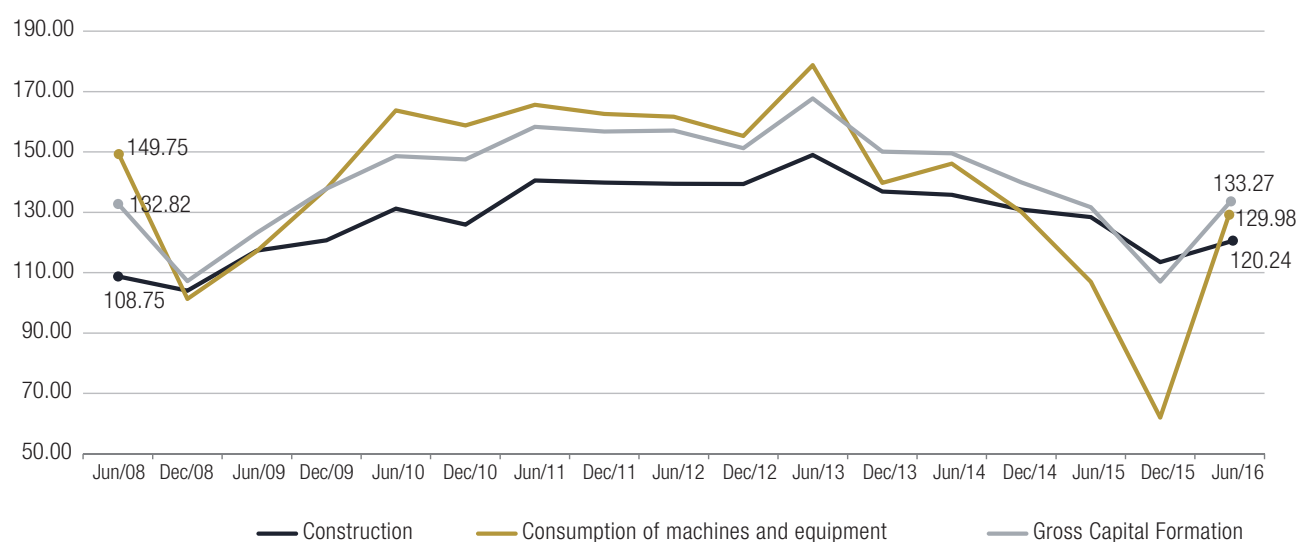
José Ronaldo Castro Souza Junior of the Institute of Applied Economic Research (IPEA) finds it natural that sectors that suffered most from the crisis, such as capital goods, are the first to recover: “Despite the large idle capacity, there is excess capital in many areas,” which would justify the investment recovery now

Smaller companies need to understand the importance of maintaining both domestic and foreign markets and invest in production capacity to support that.

being seen. He also argues that idle capacity does not necessarily mean that a company does not need to invest; the idle capacity may occur in an industrial park of low productivity that needs to be modernized to meet the challenges of competitiveness when demand recovers. In his opinion, companies need to begin to invest in the renewal of their machinery and

Investment shows a timid recovery in 2016

(Base average 1995=100)



Sources: Funcex, Pnad and IBGE.

Idle capacity does not necessarily mean that a company does not need to invest; the idle capacity may occur in an industrial park of low productivity that needs to be modernized to meet the challenges of competitiveness when demand recovers.

equipment first. Souza believes that resumption of construction, whether industrial or residential, will take longer, and it will precede building infrastructure, which depends on lengthy concession tenders or setting up public private partnerships (PPPs).

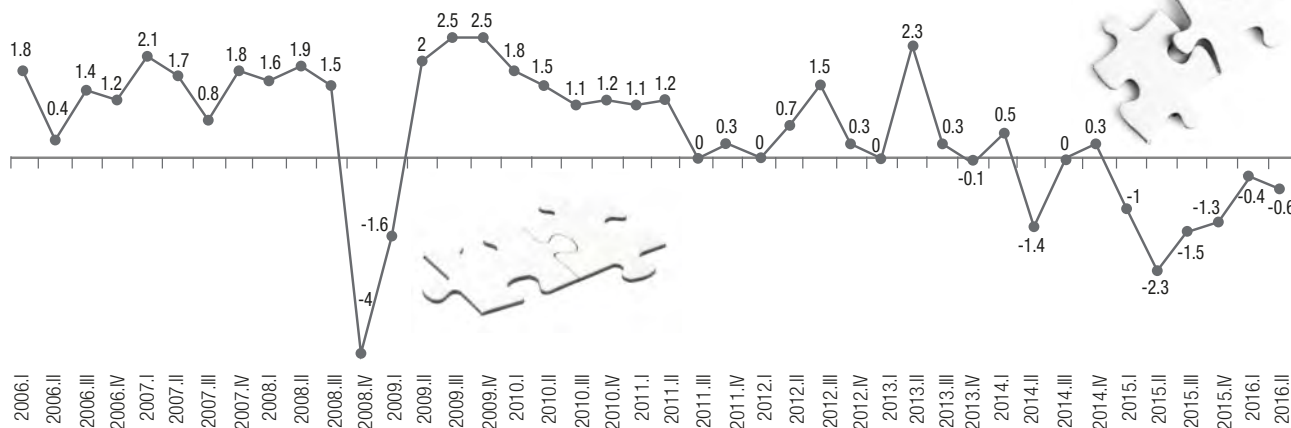
BNDES sees recovery

If exports are at the forefront of recovery for the capital goods sector, there are also signs of recovery in the domestic market, as is evidenced by applications for BNDES credit lines for the purchase of machinery and equipment for domestic production. Data into August show an upward trend, although the cumulative values of R\$12.81 billion are still below the R\$19.63 billion in 2015.

Except for agricultural machinery, BNDES disbursements for the capital goods sector are also somewhat positive but disbursements for capital goods excluding transport continue to show more negative growth than positive, though results were positive in June at 12% and in July at 1%. As for the agricultural sector, BNDES disbursements declined by 16% in June and 31% in July; however, this may be a seasonal phenomenon because in those months farmers are more occupied with financing the next crop than with renewing machinery. ▼

The GDP seesaw

% change quarter-to-quarter




Sources: Funcex, Pnad and IBGE.



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A close-up photograph of a hand holding a pen, pointing at a line graph. The graph is overlaid on a dark background with horizontal dashed lines and vertical solid lines. The line graph itself is composed of several segments, with some points highlighted by blue circles. The overall image has a professional, analytical feel.

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Market Dynamics and Practices

Highly Skilled
Technical Team

Tradition and Experience in Price
Research and Economic Surveys

Cut, grow, and collect taxes

In addition to reducing spending, balancing public accounts depends on how much tax is collected once growth resumes.

Solange Monteiro

BRAZIL'S SEVERE FISCAL CRISIS has directed the spotlight onto the urgent measures being proposed to contain public spending, especially the debate on Social Security reform and the proposal for a ceiling on current spending. These measures also depend, to a considerable degree, on how tax revenues will perform. Federal tax revenue will depend on its sensitivity to the ups and downs of economic activity—how tax revenues change relative to GDP growth.

IBRE researcher Livio Ribeiro has estimated that the elasticity of federal revenues to GDP is close to 1—federal government revenues move approximately in the same proportion as GDP. Another study, published by the Institute of Applied Economics (IPEA), agreed. “We also concluded that neither net debt nor inflation is a statistically significant driver of tax revenue,” adds Mário Jorge Mendonça, co-author with Luis Alberto Medrano.

The conclusions of the two studies may be the same, but they differ on the premises from which they reached it. While the IPEA model indicated that this level of elasticity has been almost constant since the 2000s, Ribeiro identified a structural break between 2008 and 2011 that significantly reduced the sensitivity of tax revenue to GDP growth. He found that before 2008 tax rate



increases and improvements in tax collection storage technology had raised the elasticity of revenue to GDP to 1.59. Because the ratio was lower after 2008, the current resumption of economic activity should be accompanied by less revenue growth than in previous economic recoveries. This makes the recovery of a fiscal surplus “even more challenging,” he says.

Burden of formal employment

But analyzing changes in aggregate tax revenues does not identify the losses and gains related to different taxes that lead to the estimated elasticity. Seeking to filter these effects, Luka Machado Barbosa, an economist at Itaú-Unibanco, conducted a study using a methodology that divides federal revenues into five groups, based on household consumption, wages, corporate profits, GDP, and other nontax revenues such as royalties and dividends that are not as closely related to economic activity. Barbosa wanted to identify what kept the tax revenue-to-GDP ratio constant between 2005 and 2014 despite more tax exemptions and elimination of the financial transactions tax (CPMF).

Barbosa found that wages and consumption contributed significantly to total tax revenue in 2005–14. According to his estimates, growth of wages above productivity accounted for 43% of the growth in federal tax revenue. “During this period,” he says, “wages of workers with a formal contract increased on average 8% a year above inflation.” Household consumption (controlling for indirect taxes) accounted for 30% of the growth in federal revenue.

Federal tax revenue will depend on its sensitivity to the ups and downs of economic activity—how tax revenues change relative to GDP growth.

Barbosa believes resumption of growth will not provide the same favorable conditions for growth in wages and household consumption that helped to sustain federal revenue growth in the past. He estimates that between 2016 and 2020 net revenue will fall annually by 0.3 percentage point of GDP, from 17.6% of GDP to 16%. He also notes that his calculations were made in 2015 on the assumptions that the unemployment rate would be 7.9%, the employed population would grow at the same rate as the working-age population, annual real GDP growth would be 2%, the average wage would fall annually by 1.5%, and annual retail sales, tracking the formal payroll, would be down about 0.7 %.

Although long term the economy’s recovery may bring better numbers than Barbosa expects, and thus more tax revenue, the short-term outlook is less favorable for household consumption and employment. With retail trade closely related to household consumption, IBRE estimates a drop of 6.4% for the former in 2016 and 3% for the latter through 2017.

As for formal employment, IBRE estimates a net loss of 1.12 million jobs. For the first half of 2016, job losses reached 623,000 against 485,000 in

Resumption of growth will not provide the same favorable conditions for the growth in wages and household consumption that helped to sustain federal revenue growth in the past.

the same period of 2015. IBRE's unemployment forecasts are for 11.6% in 2016 and 12.5% in 2017. "The labor market has inertia to fall and to rise, and we are still in the process [of recovering]," says IBRE researcher Fernando de Holanda Barbosa Filho. In terms of income, he says, last year the impact of unemployment was partially mitigated by the migration of contractual workers to self-employed, which does not generate as much tax revenue as contract work. However, while in 2015 the number of those self-employed increased by 1.14 million people, this year through June it has grown by just 20,000. "This suggests that during 2017 we will have fewer people employed, less tax collections, and a reduction in payroll," he says.

The good news, Barbosa Filho says, is that the adjustment of wages to productivity should be positive for the resumption of formalization in the labor market because all elements that promote formalization, such as higher education and electronic tax invoices, are still operating and will have more effect as the economy recovers. However, he does not expect informality to drop as much as in the last ten years, or have the same impact on tax collections.

Itaú-Unibanco's Barbosa adds that an export-led economic recovery will not promote federal revenues as much as domestic demand-driven growth, which is as yet still subdued. "This underscores the need for fiscal adjustment based on spending cuts," he says. If public spending cuts do not materialize, increasing the tax burden is still an alternative to curb the ballooning fiscal deficit. One way to do that is to continue eliminating tax exemptions, says Braulio Borges, IBRE associate researcher. Borges says that in addition to the elimination of tax breaks in the industrial product tax (IPI) already in effect, the government could also eliminate the payroll tax relief. "There was a partial exemption at the end of 2015, which represented a renunciation of R\$24 billion. But we're still talking about R\$15 billion a year that can be reversed," he says. Another possibility, says Borges, is increasing exceptional revenues, as occurred in 1998-2000. Such revenues could come from privatization and debt securitization.

IPEA's Mendonça reiterates the need to cut spending and emphasizes that heightening the tax burden would be the worst option. "What we see in Brazil is that, once taxation is raised, it does not return to its initial level; even if it is temporary, the heavier tax burden becomes permanent," he says. He adds that a higher tax burden has a negative effect on economic growth, and calls for measures to promote growth and increase revenue, such as privatization of state-owned enterprises and measures to make the labor market more flexible. ▾

A vision of the future

What does the future hold for the 12 million people living in the 21 municipalities in Rio's metropolitan region?

A consortium is working on a strategic plan to ensure that they have a good quality of life.

Cristina Alves

ARCHITECT JAIME LERNER—who as mayor of Curitiba in the 1970s revolutionized the state capital with exclusively pedestrian streets in the city center and a bus rapid transit system—and Quanta Consulting have won an international tender, funded by the World Bank, to draft a strategic plan for metropolitan Rio.

In preparing the Strategic Plan for Integrated Urban Development (PDUI), the consortium is calling on experts from such institutions as the Alberto Luiz Coimbra Institute of Graduate Studies and Research in Engineering, the Federal

The new metropolitan region, which now includes Rio Bonito and Cachoeiras de Macacu, has many problems. Average monthly income is a meager US\$300 and only 52% of the population can access a sewage system.

University of Rio de Janeiro (COPPE, UFRJ), and the Federation of Industries of the State of Rio de Janeiro (FIRJAN). Also advising is international consultant Willy Muller, director of the Barcelona Urban Sciences Lab, who has experience in urban transformation projects in Lima, Peru, and Moscow, Russia.

Since March, the planners have received more than 800 suggestions through workshops and municipal meetings and consultation with representatives of the UFRJ, University of Rio de Janeiro State (UERJ),

Catholic University of Rio de Janeiro (PUC-Rio), Getulio Vargas Foundation (FGV), Institute for Labor and Society Studies (Iets), Brazilian Service of Assistance to Micro and Small Enterprises (Sebrae), and the Commercial Association of Rio de Janeiro. "This is one dimension of the methodology [of the plan] that provides for the participation of society throughout the metropolitan area," explains Vicente Loureiro, executive director of the Rio Metropolitan Chamber. Established in 2014, the chamber is in charge of drafting the governance process for the new metropolis.

Suggestions to date relate to such topics as coordination of transport systems, access to water and sanitation for the entire metropolitan



Photo: Armando Paiva

Workshop at the Guanabara Palace to present suggestions to the new Rio Metropolis development plan.

population by 2040, and improving public management. Comments also speak to the importance of environmental preservation of Guanabara Bay and better use of its economic potential.

By mid-2017, the plan should be ready, accompanied by suggestions for enabling laws and proposals for funding projects. The matrix of responsibilities will be gradually put in place through 2040. Part of the mission of mayors elected this year will therefore be to help build this metropolis of the future.

In July, Jaime Lerner and his team participated in the first meeting of the Advisory Board of the Strategic Plan, with representatives from various sectors of society. At an event at Guanabara Palace they presented their preliminary diagnosis of the situation and defined the development strategy.

The new metropolitan region, which now includes Rio Bonito and Cachoeiras de Macacu, has many problems. Average monthly income is a meager US\$300 and only 52% of the population can access a sewage system. Moreover, the UNDP estimates that only 39% of adults in the region have completed high school.

Loureiro summed up the situation in this way:

“We need to reverse the vices caused by the disorderly growth of the metropolitan area. Today, we have excessive concentration of job and service opportunities that could be better distributed. We also need to reduce the time and costs of trips between home and work and between home and school. Currently, 30% of trips on public transport in the metropolitan region of Rio are related to education. Another point is that ... today 85% of health services are concentrated in the capital. People need more options for work, school, and health care that are closer to home. In these discussions, it is important that society have a say—contribute with its vision for the future of the metropolis.”


Management of a new metropolis relies on municipalities sharing responsibilities and an integrated approach to solving problems of common interest, ranging from urban mobility to rules for land use and occupation, sanitation, digital communication, and resilience for dealing with bad weather. 

Photo: Cristina Alves



“The best mobility solution for a city is for workers to live close to work”

Jaime Lerner

Architect and urbanist

You have a long history of thinking about cities. What is the biggest future challenge for metropolises?

Besides the natural priorities of cities, which are health, education, and child care, three points are fundamental to the future of any metropolis in the world today. The first is urban mobility. The second is sustainability. The third is coexistence. Political power in the world today does not give due importance to cities. One cannot think of economic activities without thinking of people, and people are in cities. The city is the last refuge of solidarity. Let me give the example of mobility. Many people believe that mobility is based mainly on technology and performance, but that is not enough. How the city is designed is more important. Today the world is talking about the driverless car. But the fact is that the car continues to occupy the same space. This is not the solution for improved mobility. That must lie in the design of the city: housing, leisure, work, and mobility have to be together. That's the most important.

Improved mobility in Rio is one of the most important legacies of the Olympics, isn't it?

Yes, important investments were made in light rail, bus rapid transit, and metro rail—integrating significant areas of the city, old and new, restoring historic areas, giving access to areas that were previously invisible.

The project to revitalize the city's “Porto Maravilha” (Marvelous Port), however, failed to carry out housing development as planned. Was it a failure?

I would not say so. The crisis in the national economy and in particular the financial difficulties of the state oil company Petrobras had a major impact on large projects planned for the city and the state. I believe that housing development for the Porto Maravilha will happen once the private sector resumes investing when confidence is greater. Moreover, in addition to housing development at Porto Maravilha, there are other housing possibilities in the central area of Rio.

What would the future Rio metropolis look like?

At this early point, our vision of the future city passes through three axes: reinventing Guanabara Bay, rail lines, and Metropolitan Arch Highway. For the bay,

reinventing means cleaning it. It also means creating points of interest on the shores. Some areas need to be recovered. The biggest example is the Gramacho landfill on the shore, which was closed in 2012 after 34 years of operation. After decontaminating the soil, it will be possible to create a park in Gramacho. Other areas are the Mauá Pier in Magé and São Gonçalo. We would have a reinvented bay, clean, a “necklace” with points of interest for both metropolitan residents and visitors. This project could be thought of as a way to involve the population in solving problems. I strongly believe in the power of a motivated population. I lived it. To launch a project, an idea, it is essential that the vast majority of the population understand how desirable it is. However, there is a general lack of communication between governments and their people. We need to involve and motivate citizens. It can be done.

How would the second highlight, the rail line, change?

On both the east and west sides, trains are part of the physical and historical construction of the metropolis. They make up a mobility infrastructure that should be better exploited, with harmonization of transport and urban density, and development of the areas of commerce and services. The train lines are a great opportunity to bring affordable housing together with services, work, and transport. It is necessary to transform the walls along rail lines too. Those walls are scars on the city, they cut apart what should be one city.

And the Metropolitan Arch Highway?

In this vision of the future, the Metropolitan Arch Highway¹ will delimit the boundaries between urban and industrial dynamics, preservation of the

¹ The Metropolitan Arch in Rio de Janeiro city is a highway designed to connect the five main highways that cross the municipality.

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environment and water reserves, and rural activities for food security. The arch itself is an important infrastructure for spatial and economic organization of the metropolis, connecting several municipalities and economic hubs.

There is debate about whether mass transport must be train or metro rail. In Curitiba, you launched bus rapid transit (BRT), which has been copied around the world. Curitiba recently started to discuss metro rail, but the discussion has not evolved. Why?

Metro rail proved unfeasible. Today many want to make metro rail a political issue. In Rio, of course, metro rail access to the Barra da Tijuca region was important, but in general cities that have spent a fortune to build metro rails have not had good results. Nothing has happened; urban mobility has not improved in Salvador, Porto Alegre, or Teresina.

But hasn't metro rail been effective in many great metropolises?

Though the subway is a good solution for mass

The train lines are a great opportunity to bring affordable housing together with services, work, and transport. It is necessary to transform the walls along rail lines too. Those walls are scars on the city, they cut apart what should be one city.

transportation, it requires investments that are inaccessible. Consider cities where this investment is possible, like São Paulo. São Paulo's four metro rail lines are responsible for only 15% of trips; the other 85% of the population uses ground transportation. So it's ground transportation that needs to be improved. The bus can perform as well as metro rail. The BRT proved it, transporting large numbers of people. We started it in Curitiba in 1974; today there are over 250 cities in the world with BRTs. But the city must be committed to innovation.

What cities elsewhere in the world do you think resolved the mobility issue?

At the core of major European cities, the metro rail was positive, but today there are other technologies. Rails are very expensive. Ground electric bus systems can be an alternative. In a BRT, you live more with the city. The system is more friendly. BRTs today are all over Asia, Europe, the United States, and Latin America. Worldwide, the electric BRT can play a significant role in urban mobility because it is less polluting. It is important that mobility be a network, with transport modes that com-

plement each other. However, the best mobility solution for a city is for workers to live close to work—the solution for mobility is to design for the development and growth of cities.

Looking at metropolises like New York, Paris, and Barcelona, what did they do well and what went wrong?

A city is a very specific environment, as a result of its geography, its people, its history, its dreams, and each seeks a different solution. New York, Paris, and Barcelona have been addressing metropolitan issues for more than two decades. New York has been deepening its environmental resilience, Barcelona reinvented itself in the 1990s as a new benchmark in strategic planning, and Paris since the 1960s has been doing the solid work of integration and distribution of opportunities within the metropolitan area.

You have said that the car will be the cigarette of the future as people will be criticized for using it. But the auto industry is still much encouraged by many governments.

The future city will have to eliminate car dependence because of the space it occupies. Even if the person has the most technologically advanced car, if it takes three hours to move between house and work, it is useless. Cities are taking many other paths, such as “non-proprietary” vehicles, policies adopted in some American cities, or like the Autolib in Paris, which functions as a component of urban mobility [these are electric cars that people can pick up at one station and return at another, as people do with bikes in Rio and elsewhere].

How do you believe coexistence can be addressed in big cities? In many cities around the world, for example, immigrants live in ghettos.

An essential element of a city is diversity. Diversity of

income, age, religion. So we need to find solutions that bring urban solutions for quality housing, work, leisure, and culture in a shared infrastructure.

The city is a sharing space. And you have to choose what is a priority. For example, there are eight million vehicles in São Paulo. Each car takes up about 25 square meters in the house and another 25 square meters at work—a total of 50 square meters, exactly the size of a decent apartment. ... If you could put the apartment in the city close to work, we would have solved the problem. It would be a São Paulo city without suburbs.

You have criticized the social housing program, “My House, My Life.” Why?

Because living is more than having a house! “My House, My Life” is a solution for housing, but not for improving the quality of urban life. You have to replace it with “My House, My Life, My City.” Otherwise, we will have what has happened in other countries and even here: people living far from the opportunities, subjected to painful daily trips, exiled from what the city has to offer. I’ll tell you something that may seem counter-intuitive. In Paris, dwellings are quite small, but social life is there in the neighborhood, restaurants, coffee houses, squares, everything is on the street. The street has an important role.


What are the next steps for the Integrated Urban Development Plan of Greater Rio de Janeiro?

The first step, which we are finalizing, was the diagnosis. Note that the work is divided into six main areas, dealing with spatial reorganization of the metropolis, how it will grow, where people will live, how to relate with the environment, their history and their identity, and how these dynamics interweave

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with mobility. After working on this for 18 months, we are now entering the preliminary design stage, for the “Future Vision,” which will be presented to society for discussion and improvement.

In Curitiba, you were able to involve ordinary citizens. How can this be done in Rio?

For every good project that worked, people understood it as an improvement in their quality of life, in which they participate directly. Rio de Janeiro ... already has a strong identity and self-esteem, as was evident at the opening ceremony of the Olympic Games. And that goes not only for the locals but for all Brazilians, so that citizens can feel part of a Brazil of excellence. The project team and government are seeking projects to bring qualitative gains for the life of the metropolis—projects that can encourage all stakeholders—government, the private sector, and civil society—to commit to its execution. 



“We must work to reduce the size of the government”

Laercio Cosentino

CEO of Totvs

Solange Monteiro

AS HEAD OF the leading business management software company in the Brazilian market, serving sectors ranging from agribusiness to logistics, Laercio Cosentino closely follows the mood of investors and considers the current crisis the deepest since he founded Totvs in 1983. “For the first time ... virtually every industry somehow has been penalized,” he says. However, he is optimistic that the economy can recover—provided there is willingness to carry out reforms that will bring the business environment to a par with competitive economies. For the information technology sector, Cosentino says that on the reform agenda there must be laws that allow a more flexible relationship between companies and workers, and tax reform. “What we need first,” he says, “is a clear, definite, and sustainable course, and then create rules that allow Brazil to become more competitive. If the country is competitive, companies will be competitive, and things will happen.”

Before the recession began in 2014, how did the Brazilian economy affect the Totvs growth strategy?

It took over 50 mergers and acquisitions to build what Totvs is today. We understand that when you talk about technology, you talk about scale. So what Totvs did was exactly that: it grew from a turnover of R\$300 million in 2003 to net income of R\$2.4 billion last year. Through this process, we saw the private sector in general learning a lot in order to thrive. We went through all the presidential reforms and plans: one opened up Brazil’s economy, another stabilized the economy,

another passed the Fiscal Responsibility Law, which allowed sustainable growth, another helped to advertise Brazil around the world.

When the economy was opened up, we began to prepare the company to compete in the software development technology market. When the economy was stabilized and companies started to grow, we had products to offer to these companies. When higher growth attracted investors, we opened up our company's capital in 2006 to structure the process of consolidation and grow together.

But then we saw the government increasing its spending without carrying out needed reforms. And now we are at a point where Brazil needs to take corrective actions that the government did not take in the period of abundance. Even as the economy contracted over the past two years, we have been preparing and we feel positive signs that the economy's engines are warming up to a new virtuous growth cycle.

Which sectors show signs of recovery?

We are seeing parts of the services sector starting to move a little more, especially small businesses and startups. Small manufacturers, who are more agile than large ones, have also recorded some growth. In summary, we see that the movement is coming from services and from the bottom of the economy up.

How has the economic crisis affected Totvs demand given that 40% of its revenues come from industry and retail?

Totvs operates in manufacturing, services, retail, transportation, construction, legal, financial, agribusiness—that gives us a hedge because generally not all sectors prosper or decline at the same time. But this time, virtually every industry has been penalized

Totvs operates in manufacturing, services, retail, transportation, construction, legal, financial, agribusiness—that gives us a hedge because generally not all sectors prosper or decline at the same time. But this time, virtually every industry has been penalized.

somehow because this crisis was not only economic but also institutional, with the investigations of major corruption in the state oil company. And the world economy is not thriving either. This resulted in less demand for IT solutions. Meanwhile, the digital transformation in recent years has swept every sector of the economy. First it was the music industry, followed by photography, and now information technology. Software development itself is also going through a digitalization process: instead of selling licenses to use software, we now market subscriptions (which reduces the supply chain and lengthens the period of financial return). ... To Totvs, this change in its business model has deepened—in the first quarter of this year, for the first time subscription revenue surpassed licensing.

How has the recession impacted this change in business model?

Being Brazilian is actually doing whatever it takes. When you look at society as a whole, after

It is logical that the heated labor market in recent years caused wages to rise more than average productivity.

With the crisis since 2014, however, the labor market ended up correcting itself.

people connected to the Internet, they began to change the concept of owning something or rent, subscribe, use it. For example, having a car or taking an Uber. So what is happening with software meets the expectations of this new Internet-connected generation. ... We still have customers who prefer use licenses for certain software, but have a new generation of clients that prefer to have variable cost (use-signature contract) to an upfront fixed cost. The current crisis in Brazil has helped to move demand for software to the use-signature model. When you have to make choices to improve investment, and you look at lower revenues and earnings and at cost increases, a use subscription may allow you to do more with your money than buying something. This is a positive aspect of the crisis: it causes companies and people to think hard about what they really need to have.

The recent period of economic growth was marked by a strong increase in wages above productivity. Has this negatively impacted the operation of Totvs, which has 12,000 employees?

No, but it is logical that the heated labor market in recent years caused wages to rise more than average productivity. With the

crisis since 2014, however, the labor market ended up correcting itself. A positive side to all this is that after dealing with higher costs due to the general lack of infrastructure, Brazil will end up adapting, and I think this new growth cycle will be much smarter.

The issue of labor productivity also involves better training of workers. To what extent does education weigh in the IT sector?

When we talk about innovation, growth, putting the country on another level, the first step is education. And not only education, but a culture of doing things well, having regard to schedules, and the quality of what you are delivering. When we hire someone in Brazil, she usually begins to be productive after 90, 120 days—only after this period of training does she start to pay off for the company.

What would be the ideal period for a new hire to start to pay off?

We have labs in Mountain View, California, and Brazil. There you have someone actually working productively in less than 30 days. Here, it takes twice as long. In California it is also much faster to hire someone already well-trained, knowledgeable; you simply specify what you want. Basically, comparing a newly graduated engineer in the northern hemisphere and the southern, depending on the university, you have a gap that requires effort to bring people to the same work level.

We have to invest big in education, so that we can make the country more competitive. And it is important not only to invest in increasing the number of people enrolled in universities, but also to have a plan that indicates which sectors need professionals with what training and knowledge—to cover Brazil's educational gaps. I am vice president

of Brasscom (Brazilian Association of Information Technology and Communication Companies) and we have mapped what the IT sector needs, what kind of engineers, which educational gaps we have.

What negative aspects of the Brazilian business environment most affect your activity?

Today with the Internet of things we have begun to get things connected to generate information, competitiveness, generating consumption knowledge that can be distributed at any time anywhere in the globe. So to actually make Brazil prosper, all ideas have to be somehow applied within an international environment. It will be hard, but we can do it. The close proximity of both consumption and distribution, access to other markets, knowing other regulations will accelerate Brazilian understanding of the processes that we cannot do differently from what others are doing.

For this reason, we need to address three issues. The first is the lack of flexibility in labor rules. Today, 70% of costs for the IT industry are concentrated in people. Our main asset is people. We work with innovation, creativity, and the moment you say that employee has to work eight hours, she cannot do more than two extra hours, it has a negative impact on productivity. For low-wage, low added-value activities, where the employee may be at a disadvantage, these labor rules seem fine. But when you look at the IT sector, the employee knows what she wants and knows how to produce. If she has tools that allow her to work in the car, at home, or anywhere, these labor rules hinder her productivity. Changing Brazil's labor laws is not a simple thing. But we could evolve, setting a ceiling, for example: that labor laws would apply only

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to jobs paying up to R\$10,000. Above that, free negotiation would apply.

In California, the situation is simple: we propose a challenging task, we define a remuneration, and our employees there work any time they want and whenever they want. For the IT industry, this is fantastic. When it comes to creating disruptive models, digital ideas, turning these ideas into models, it is important that the environment supports the growth of companies in line with how society lives today. Labor relations need to be much more open, frank, transparent, with simpler rules regulating the worker's relationship with the labor market.

What are the other two issues?

The second issue is taxes. When we develop something, it can be in Brazil, but the developer may also be an Indian, a Chinese, an Israeli, a Uruguayan, who works in his country and sends the new code by Internet. It has no border. So for Brazilian companies to compete, the tax issue is important. The issue is not just the tax environment, but the diffi-

it is important not only to invest in increasing the number of people enrolled in universities but also to have a plan that indicates which sectors need professionals with what training and knowledge—to cover Brazil's educational gaps.

culty of calculating what is owed; it depends on the state and the city. There are simpler taxation models around the world.

The last issue is a sustainable business environment. If there are not very clear rules that allow for businesses to be the sustainable, we will see Brazil repeat the poor growth associated with ups and downs every 15 years. We have no time for this. ... IT industry investments to deliver a disruptive technology in three, four, five years, take time. We must have clear rules that support investment.

In your opinion, would you say the service sector is still not considered when it comes to industrial policy?

In talking about policies to incentivize production, we cannot think only of agribusiness, manufacturing, or services. A large country like Brazil has a very well developed agribusiness sector and could have such a manufacturing industry if an enabling environment for it is created. ... We need a national plan that defines what we want to be

in 5, 10, 20, 30 years. Where we want to be in agriculture, industry, and services. And if this works, we will have income and consumption. The policy in recent years to make consumption the driver of growth worked as long as households had little debt. But when people lose income, consumption loses relevance ... Consumption has to be the result of a well-grounded economic structure.

Some argue that services are still taxed little. What is your view?

The services sector may have a lower tax burden, but it has no compensation at all. We first have to talk about reducing the size of government. Until we face the fact that the government is too big, we will not be able to do tax reform. The government must have a budget and stick to it, because we can no longer think of covering budget deficits with tax increases. If we have a deficit at home, we cut spending because we cannot increase our own salary. Companies do the same: if you do not reach a certain level of profitability, you need to decrease the size of the company. But government does the opposite—and this is exactly the discussion now on the government agenda. I see difficulties in both the Senate and the House in getting the constitutional amendment passed to cap primary spending. But we must confront head-on the need to limit state funding for current spending and gradually focus the government on what really matters: education, health, public safety and legislation. The rest should be up to the private sector. The government does not have to own an airport; it does not need anything other than the core activity of a government. If we can limit public spending, we will be able to determine the tax burden to support the government's size. ▣