Regulation
Energy and transport markets in transition

Industry
Early signs of recovery?

Interview
Matias Spektor
Coordinator of the FGV International Relations Center



THE BRAZILIAN ECONOMY

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Addressing the water and sanitation deficit

Brazil needs to address the low efficiency of its investment in costly water and sanitation projects that delay development

FGV IBRE

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THE BRAZILIAN ECONOMY

Economy, politics, and policy issues

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THE BRAZILIAN ECONOMY

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In carrying out its sanitation plan, the metropolitan area of Rio de Janeiro is not afraid of breaking paradigms. Luiz Firmino Martins, Superintendent of the Metropolitan Council of Rio de Janeiro and former president of the National Environmental Institute, explains to Solange Monteiro what the Council's approach entails.

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FGV researchers Raquel de Freitas and Irene Altafin point out that 50% of Brazilians still have no access to sewage services, 17% have no access to clean tap water, and 36% of the water distributed is lost or diverted through illegal connections. They emphasize that although funding for sanitation projects is important, what may be more important is to ensure that the resources are used effectively.

Industry

27 Early signs of recovery?

IBRE researchers Claudio Considera and Lia Valls explain to Solange Monteiro why, although Brazilians are buying fewer imports, it is still too early to identify consistent import substitution in favor of the domestic industry. Though industry representatives are optimist, among the complicating factors is exchange rate volatility.

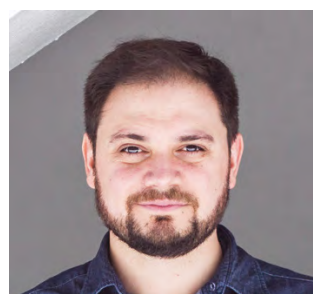
Seminar

29 Markets in transition

As digitalization and decentralization change Brazil's energy and transport markets, the transport and energy sectors are particularly under pressure to change their business models. In both sectors, a powerful force for change is the need to reduce emissions of greenhouse gases to meet international commitments. Solange Monteiro reports on a recent seminar sponsored by the FGV Center for Regulation and Infrastructure and the FGV Rio Law School that discussed the regulation challenges these changes are bringing about.

Interview

37 Why change must come



Matias Spektor, professor and coordinator of the FGV International Relations Center, talks with Solange Monteiro about how the loss of the Brazilian political center of gravity is part of an international phenomenon that originated in the 2008 financial crisis, which caused popular dissatisfaction in many countries that led to the growth of political forces outside the traditional system. He believes that foreign policy can mitigate the effects of the corruption investigations if Brazil adopts global best practice anti-corruption standards.

Editors' Note

GDP FELL BY 0.3% in the first quarter of the year, government statistics agency IBGE announced earlier this month. The fact that this was below market expectations of a reduction of 0.8% may signal the beginning of a tenuous economic recovery. However, there are still many uncertainties as the interim government struggles to establish its popular legitimacy and restore the confidence of investors and businesspeople in Brazil.

In addition to the immediate troubled political situation and the fact that the country as plunged into a major recession — GDP is expected to shrink about 8% in two years — there are serious distortions in the economy that have accumulated for years. One is the very low efficiency with which Brazil uses its resources. One of the most glaring examples of this glaring inefficiency is the infrastructure sector, more specifically, basic water and sanitation services. Poorly designed projects, lack of monitoring and supervision, and missed deadlines as well as misallocation of resources have put Brazil at a disadvantage in relation to other Latin American countries: Among the 16 countries in the region, Brazil ranks ninth in water services and twelfth in sewerage services in urban areas, according to the Trata Brazil Institute. At the current level of investment under current regulations it can only achieve universal basic sanitation by 2052, 19 years after the National Sanitation Plan deadline. On the eve of the Olympics in Rio de Janeiro city, the goal set at the Eco92 conference of reducing pollution of the Guanabara Bay by 80% will not be met.

Inadequate regulation is another obstacle to enhancing productivity and reducing waste. The digitalization and decentralization that are changing Brazil's energy and transport markets hold promise of providing more efficient services while lowering carbon emissions. This transformation would appear to open opportunities for investors, but the opportunities will not be attractive without better regulation and legal security.



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POLITICS

Former president Lula's chief of staff sentenced to 23 years

José Dirceu, once chief of staff for former Brazilian President Luiz Inácio Lula da Silva, was sentenced to 23 years in prison on Wednesday for corruption, money-laundering and conspiracy in a vast bribery scandal at the state-run oil company, Petrobras. The Supreme Court had previously sentenced him to over 10 years in prison for running a congressional vote-buying operation. (May 18)

Temer confident of congressional support

President Michel Temer is pressing ahead with ambitious plans to balance the budget, reform pensions, and draw private money into the energy sector despite the loss of two ministers to a corruption scandal. His chief of staff, Eliseu Padilha, said in an interview that the government enjoys a solid two-thirds majority in both chambers of Congress. Passage last week of the 2016 budget authorizing an unprecedented deficit of R$170 billion (US$47.1 billion) was a signal that Temer's government does enjoy the majority it needs. Brazil could balance its budget by 2018 without having to raise taxes, Padilha said. (June 3)



Photo: José Cruz/Agencia Brasil.

Acting Pesident Michel Temer presses ahead with fiscal reform, confident of Congress support.

INTERNATIONAL

Foreign Minister Serra: Economy outweighs ideology

According to new Foreign Minister José Serra, "Diplomacy will … transparently and firmly reflect the legitimate values of Brazilian society and the interests of its economy, serving Brazil as a whole, and no longer the … ideological preferences of a political party and its foreign allies." Serra stressed that foreign policy will act in defense of democracy, liberties and human rights in any country and political regime, as established in international treaties. He also said that relations with new partners in Asia, especially China and India will be a priority, and will focus on bilateral trade treaties to reduce its dependence on the WTO. Serra is a political heavy weight in Brazil: senator, former mayor of São Paulo city and governor of São Paulo state, and twice presidential candidate. (May 20)



Photo: Valter Campanato, Agencia Brasil.

New Foreign Minister José Serra promises to pursue Brazil's economic interests over ideological goals.

Macri and Temer seal closer relationship

In a brief visit to Buenos Aires, his first overseas trip, Foreign Minister José Serra met privately with Argentine President Mauricio Macri and signed a memorandum of understanding on political coordination with his counterpart Susana Malcorra. The intent is to coordinate regional and global positions, and follow up on strategic bilateral integration projects, particularly in the fields of science, technology and innovation, defense, air industry, energy, trade, Malcorra explained. She emphasized the commitment of the two countries to integration and the role Mercosur plays, and anticipated a common agenda inside the bloc and to advance joint negotiations with third countries, and groups of countries. (May 24)

ECONOMIC POLICY

Parente is new Petrobras CEO

Acting President Michel Temer has named former energy minister Pedro Parente CEO of state-run oil giant Petrobras. He succeeds Aldemir Bendine, who was appointed by suspended President Dilma Rousseff. The new Petrobras CEO had been chairman of the São Paulo stock exchange. Under President Fernando Henrique Cardoso, Parente was chief of staff from 1999 to 2003 and also served as Minister of Planning and of Mines and Energy. Petrobras is the epicenter of a sprawling corruption scandal that has rocked Brazilian politics and the economy since 2014. Parente is its third CEO in less than 16 months. (May 20)

Temer calls for tough austerity measures

Brazil's acting president has announced austerity measures to pull Brazil out of its worst crisis in decades, warning that failure to act would sentence future generations to "extraordinary hardship." Temer said the government would get an early repayment of about US$28 billion from Brazil's state-run investment bank BNDES and immediately abolish a fund created to channel Petrobras oil revenues into education.

Temer is also seeking a constitutional amendment to limit growth in primary government spending before debt payments to the rate of inflation from the previous year. The intent is to bring down high interest rates and restore the country's credit standing. He has also appointed a commission to study reform of the pension system but two of the country's largest unions refused to participate, saying they don't recognize his government. Finance Minister Henrique Meirelles suggested that reform of the pension system should set a minimum age for retirement of current workers of 65 years, in line with that of most countries. (May 25)

Interest rate unchanged at 14.25%

Brazil held interest rates steady for the seventh time on Wednesday, resisting pressure to slash borrowing costs amid recession and near-double-digit inflation. The central bank's monetary policy committee, Copom, decided unanimously at its last meeting, led by governor Alexandre Tombini, to keep the benchmark interest rate at 14.25%, the highest in nearly a decade.



Photo: Fabio Rodrigues Pozzebom, Agencia Brasil.

New Central Bank Governor Goldfajn vowed to bring inflation back to 4.5%.

President Temer has appointed Ilan Goldfajn, a former Wall Street economist, chief economist for Itau Unibanco (Brazil's largest bank), and central bank director, to head the central bank. The nomination was promptly confirmed, but he did not participate in the Copom meeting. (June 9)

ECONOMY

Economy down 5.4% in the first quarter from a year ago

Brazil's economy sank further into recession in the first quarter, contracting 5.4% relative to the same three-month period of last year, the government said Wednesday. Compared with the final quarter of 2015, the economy shrank by 0.3%. Industrial production declined by 7.3% in the first quarter, and output in both agriculture and services shrank by 3.7%. The demand side saw a steep 6.3% drop in household consumption relative to the first quarter of 2015 as rising unemployment and inflation and lower incomes reduced spending. (June 2)]

Inflation accelerates in May

Brazil's consumer-price index, the IPCA, rose 0.78% in May, compared with 0.61% in April, the government statistics agency IBGE said. The rise was driven largely by higher housing-related costs. Items including utilities rose 1.8% in May, after falling 0.4% in April. The rolling 12-month IPCA was up 9.32% through May and is still well above the 6.5% ceiling of its target range. (June 8)

DICOM

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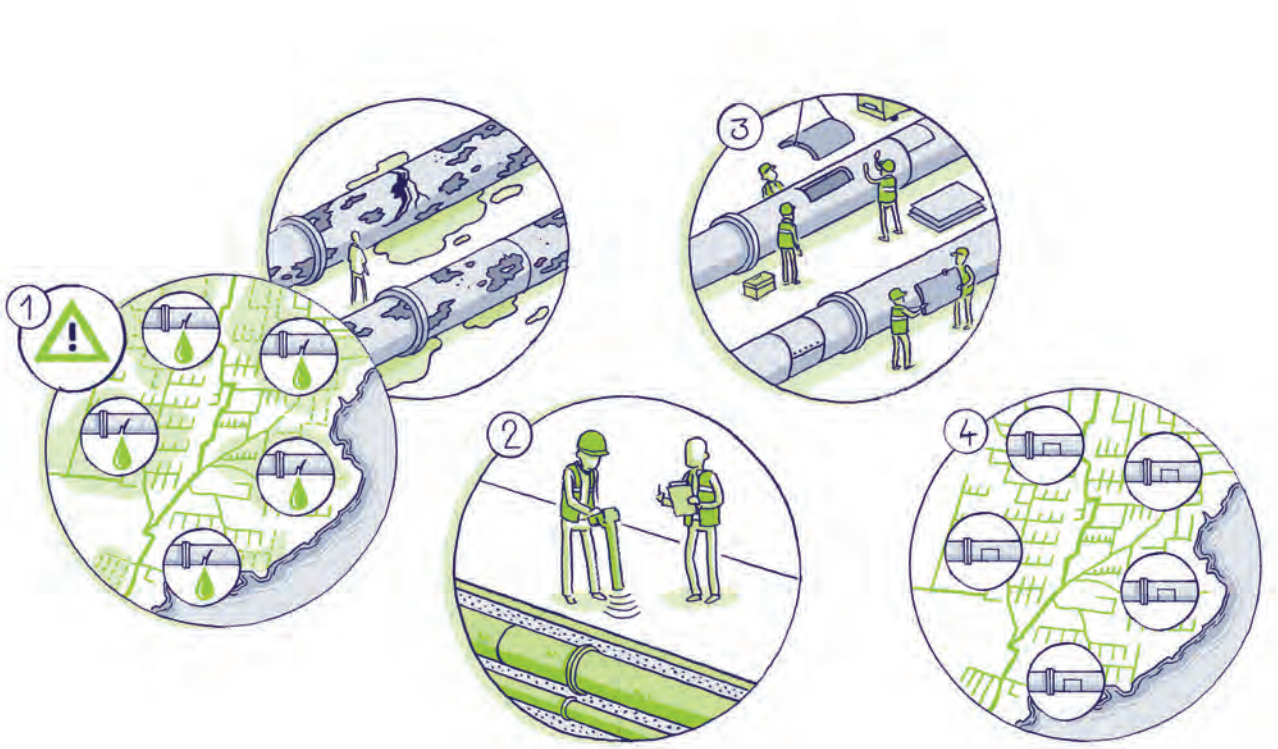
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SUEZ

Addressing the water and sanitation deficit

Brazil needs to address the low efficiency of its investment in costly water and sanitation projects that delay development.

Solange Monteiro

BRAZIL'S WATER AND SANITATION DEFICIT has long been known, but in recent years, its high price for Brazilians has become more evident. In 2015, the water crisis in the Southeast demonstrated how much waste there is in the water distribution network—about 37%—as well as how little has been done to recycle water. The outbreak of the Zika virus carried by the Aedes Aegyptus mosquito underlined the precariousness of urban sanitation: inadequate storage of house water and collection of sewage ensure a breeding ground for mosquitos. These emergencies have not been adequately addressed.

Of 16 countries in the region, Brazil ranks 9th in urban water supply services and 12th in sewage collection and disposal, according to the Trata Brazil Institute. The slow expansion of the water and sewage networks and the low quality of the services are not compatible with Brazil's income level.

Since 2007, when the Growth Acceleration Plan (PAC) was launched, the amount allocated to water projects and sewage has doubled. In these nine years, however, this financial effort proved not only inadequate but also ineffective. Between 2007 and 2014, average annual investment in the sector was R$8.2 billion. To universalize water and sewage services by 2033, however, Brazil must invest an estimated R$15.2 billion annually. "With the current level of investment, we will reach the universalization of sanitation only by 2052," says Marcela Altail, FGV Infrastructure and Environmental Solutions. Moreover, Raquel de Freitas, FGV Center for Studies in Regulation and Infrastructure (CERI), points out, "Since 2007, access by the population to tap water increased by only 2 percentage points, and to sewage disposal systems only 8 points." And according to Trata Brazil, in early 2016, of 337 water and sewage works under PAC in Brazilian cities with more than 500,000 inhabitants, 124 were behind schedule or totally paralyzed.

Widespread inefficiency

IBRE researchers Armando Castelar and Julia Cavalcante point out that, even with changes in the 1990s, such as privatization of infrastructure, investment in infrastructure as a percentage of GDP was lower in the 1990s than in the 1980s, reaching only 3.6% in 2011 and 2.4% in 2013 because of "institutional bottlenecks and other barriers." One of the first actions of Acting President Michel Temer was to set up the Investment Partnership Program (PPI) to encourage private investment in infrastructure.

The outbreak of the Zika virus carried by the Aedes Aegyptus mosquito underlined the precariousness of urban sanitation: inadequate storage of house water and collection of sewage ensure a breeding ground for mosquitos.

CERI researchers de Freitas and Irene Altafin are studying the effectiveness of investments in sanitation. Using data from the federal savings bank (CEF) on investments in and loans for water and sewage infrastructure since 1988, they have found that of total loans of R$39.2 billion from 1988 to March 2016, 73% were contracted in 2007, when the PAC was created. Of investments since 2007, only 14% have been completed and 24% are on schedule. "The result is that about 61% of investments involving R$17.5 billion are considered to be in an inadequate situation," de Freitas says.

Because the study is still underway, as yet there is no definitive information on what steps of the contracting process may cause unnecessary delay, though "In interviews with sanitation sector players, it was possible to identify such factors as the lack of well-prepared projects and institutional capacity to process contracts," Altafin says.

"With the current level of investment, we will not reach universalization of sanitation until 2052."

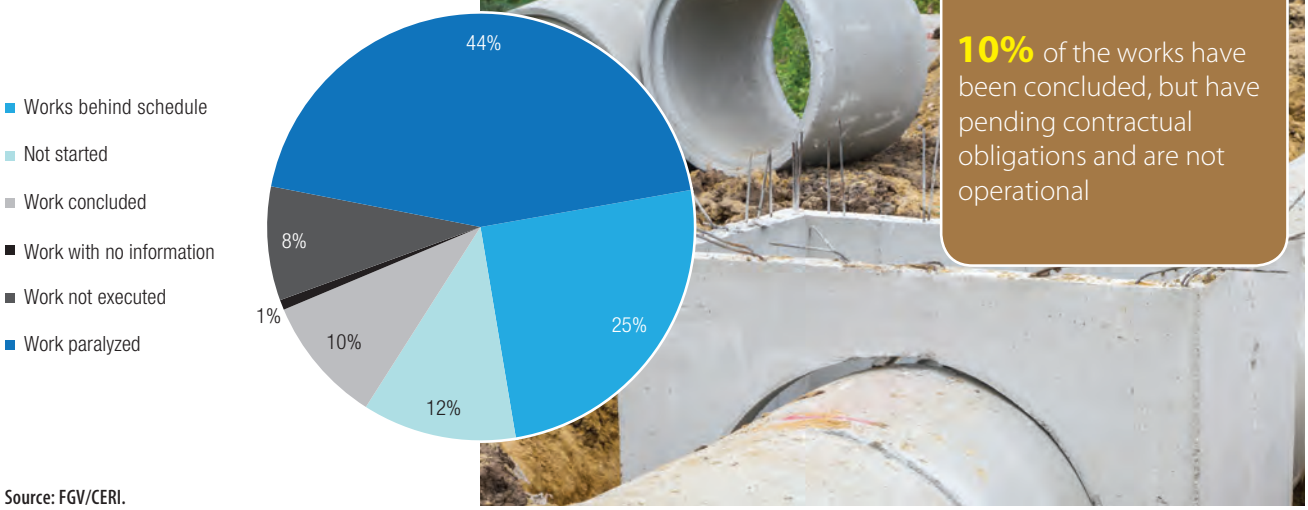
Marcela Altail

At the round table on "Sanitation: High-impact Social Investment," organized by the Brazilian Institute of Economics (IBRE) in early May, Carlos André Lins Rodrigues, national manager of the CEF credit sector for infrastructure, highlighted the disconnect between the rapid rise in financial resources for sanitation and the need to reorganize the infrastructure sector to carry out work: "No one had detailed projects for this money boom. The sanitation projects available were outdated, demanded revision, and this affected execution of the PAC." Edison Carlos, chief executive of Trata Brazil, adds that "Even today we pay the price of the demobilization [in the sanitation sector] in previous decades." Altafin emphasizes the lack of technical capacity at the municipal level to process sanitation projects, in addition to difficulties in obtaining environmental licenses.

Altafin believes that one problem today is that the federal government is not concerned about strengthening project management. "It's no use the federal government providing financial resources and establishing goals without taking responsibility for improving project management, by, for instance, modernizing registries and defining technical and operational efficiency indicators," she explains.

In a letter to Bruno Araújo, the new Minister of Cities, Trata Brazil has argued that without planning and support from the federal government,

Status of sanitation works in May 2016



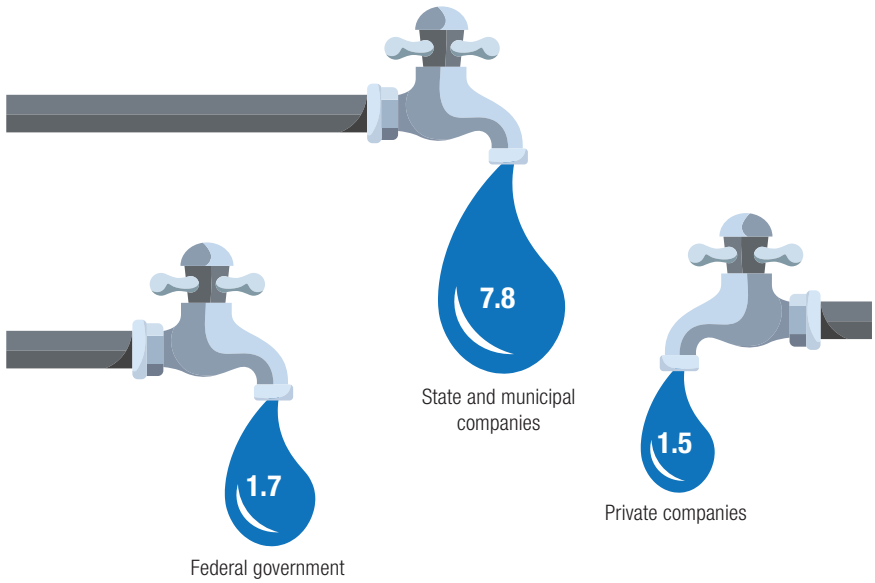
Source: FGV/CERI.

improving sanitation will not be possible, especially in smaller municipalities. The institute supports regionalization of sanitation planning through water basin committees and consortiums. It notes that because some water basin committees were politicized or lost expertise, it is necessary to stimulate their revitalization so that decisions are made regionally to generate economies of scale, reduce equipment and other costs, and streamline project analysis.

In the document published in January, the National Confederation of Industry (CNI) argued that there is a need to build sectoral policies, citing the lack of projects as a symptom rather than a cause of sanitation sector problems. "The deadline for delivering municipal sanitation plans has been extended three times, which shows that simply requiring plans is not sufficient to achieve sanitation goals," says Ilana Ferreira, CNI policy and industry analyst. The CNI recommends creation of an institutional framework for the technical staff of public agencies, establishment of a sanitation project database, and appointment of a Secretary of Planning and Sanitation Projects within the Ministry of Cities. FGV's Altail believes the private sector can also be persuaded to help build technical capacity through such instruments as a sanitation investment fund that would allow investors to participate in the management and operations of sanitation companies.

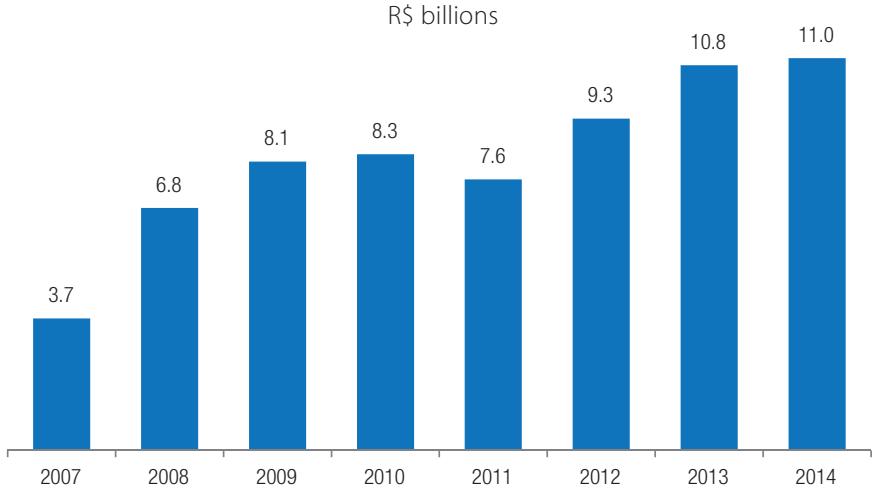
Brazil's investment in sanitation, 2014

R$ billions



Investment in sanitation, 2007-2014

R$ billions



Source: National Confederation of Industries (CNI).te: CNI.

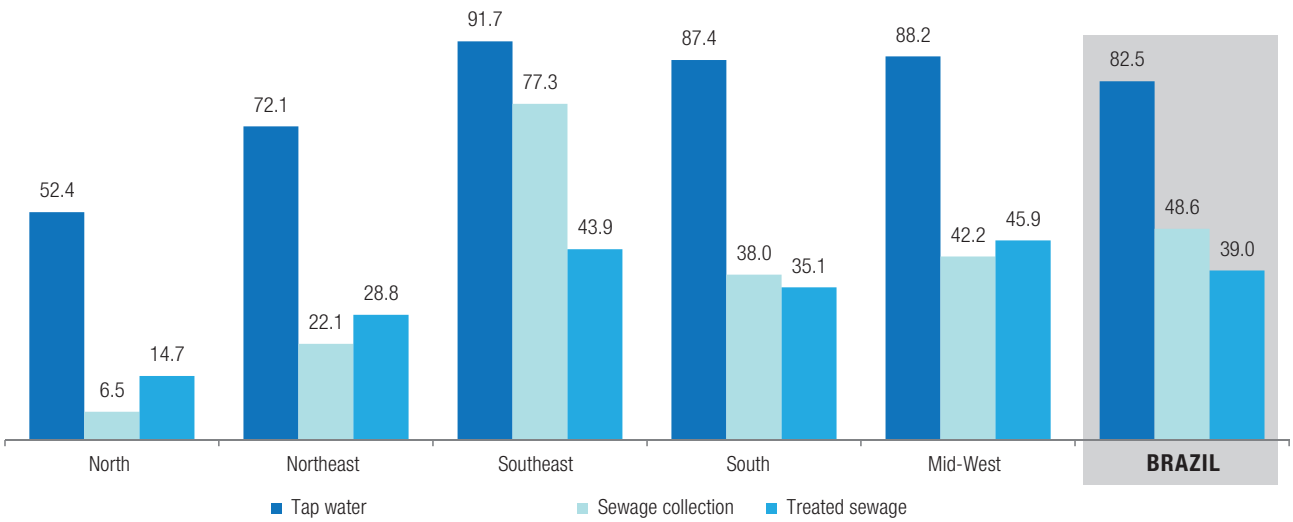
"It's no use the federal government providing financial resources and establishing goals without taking responsibility for improving project management, by, for instance, modernizing registries and defining technical and operational efficiency indicators."

Irene Altafin

More funding

Johnny Ferreira, Acting National Secretary of Environmental Sanitation of the Ministry of Cities, says that in the last 10 years, of 26 state sanitation companies—operating in 80% of Brazil's municipalities covering 75% of the population—only 13 were able to borrow from the National Development Bank (BNDES) and the CEF. "Just three sanitation companies account for almost all available credit," he adds. Gesner Oliveira, partner in GO Associates and professor at the FGV Business Administration School of São Paulo (EAESP), believes that one way to facilitate access to finance is reduce the cost of investments. He advocates for Draft Law 95/2015 establishing the Special Regime of Incentives for Sanitation Development to grant tax credits on investments for sanitation projects approved by the Ministry of Cities.

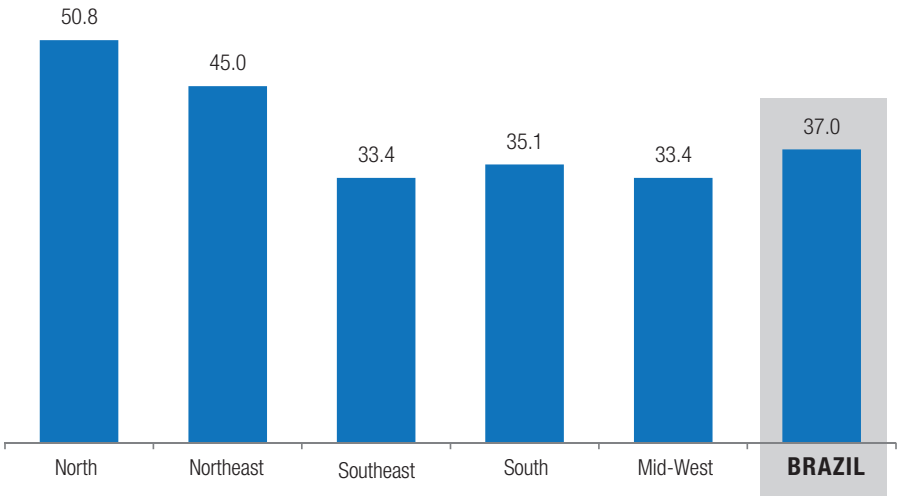
Sanitation indicators by region (%)



Source: National Sanitation Information System (SNIS 2013).

Brazil's water losses are very high

Water losses by region



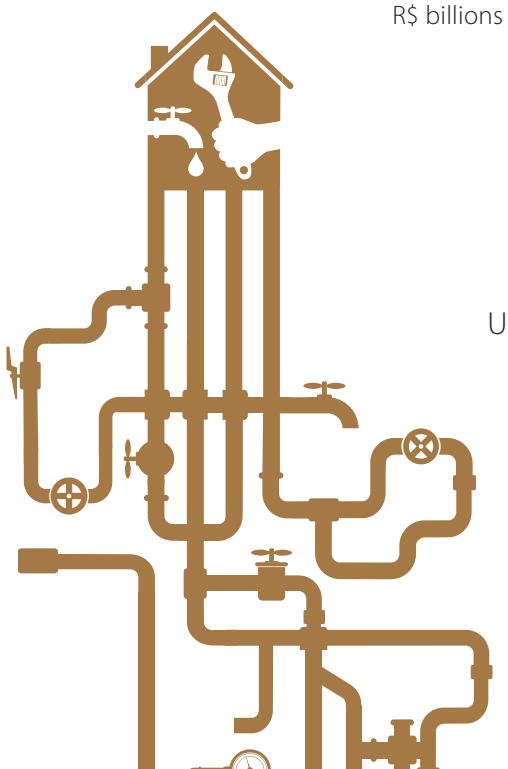
Source: National Sanitation Information System (SNIS 2013).

government department without independence and financial autonomy," says CNI's Ferreira. For the private sector the large number of regulatory agencies is a problem. "Today we operate in 45 cities under 40 regulatory agencies with different technical capacities," explains Hamilton Amadeo, president of Aegea. Gabriel Toffani, CEO of Suez Latin America, cites Mexico's model, where a federal regulator is responsible for setting operating guidelines for the entire country, which ensures consistency in the performance of local regulatory agencies.

Oliveira also calls for more federal government efforts to guarantee the independence and capacity of sanitation regulators. In *Bureaucracy and Impediments to the Sanitation Sector*, CNI points out that the large number of sanitation regulatory agencies in Brazil reduces their technical capacity and effectiveness and calls for assigning regulation to state institutions. According to the Brazilian Association of Regulatory Agencies, Brazil has 26 state agencies, 20 municipal, and 3 consortia of municipalities for a total of 49. "In many municipalities, regulatory agencies simply act as another

Sanitation investment needs over the next 20 years according to the National Basic Sanitation Plan

R$ billions



Total	508
Water	122
Sewage	182
Urban waste solids	23
Drainage	69
Management	112

Source: Ministry of Cities.

[In Mexico] a federal regulator is responsible for setting operating guidelines for the entire country, which ensures consistency in the performance of local regulatory agencies.

Private investment

Streamlined regulation, experts say, is critical to attract private investors to the sanitation sector, which is becoming even more important in view of the limited borrowing capacity of state governments. Trata Brazil's Carlos considers more private sector participation to be essential to make sanitation services more efficient. The CNI survey shows that private companies, which now control about 5% of municipal and state sanitation services, have a service quality index that is 10% higher than the public sector ones.

Oliveira believes the interim government program is positive. "The idea of stimulating public-private partnerships and seeking transparency and greater coordination among government agencies is well-designed; so is the concern with competition and with coordination among regulatory agencies in general," he says. "Now we need to see the details," he says, reflecting the concern of many operators in the sanitation sector, especially about the fate of PAC projects not yet completed.

Aegea's Amadeo is optimistic about attracting the private sector: "If the business is presented with full transparency, there will be no lack of private money. This is the experience of our company, which is getting plenty of funding." The International Finance Corporation holds 2% of the company, which also has as an investor Singapore's sovereign fund, and which recently borrowed R$320 million from the Inter-American Development Bank (IDB).



The metropolitam region of Rio de Janeiro has 21 municipalities that together with the state government will set the rules for new concession sanitation contracts.

Postcard

The metropolitan area of Rio de Janeiro is eager to open up sanitation operations to the private sector. The case of Rio de Janeiro is symbolic. Featured on one of the most popular postcards of Rio de

Janeiro, Guanabara Bay is also the most visible example of the inefficient use of resources to address sanitation problems. During Eco 92, the government announced a project to reduce pollution in the bay, funded by Japanese and IDB resources; today the city is on the eve of the Olympics without meeting its goal of reducing pollution of the bay by 80%.

To remedy the situation, the Metropolitan Council of Rio de Janeiro is planning a sanitation management project for the metropolitan area to ensure fulfillment of that promise. The council will offer concession contracts for water and sewage services for the 21 municipalities in the metropolitan area. This was possible by the 2014 Supreme Court ruling that established that utilities services of common interest of several municipalities should be governed by a municipal council comprising the state governor and mayors.

Jorge Peron, head of the Environment Division of the Federation of Industries of Rio de Janeiro (FIRJAN), points out that concessions have brought about positive results. "In Niterói city, collection and treatment of sewage is close to 93%, almost three times the average for the state," he says. "If the Metropolitan Council can design a good governance model for concessions that harmonizes the different interests of industry, agriculture, and population, it can certainly organize a successful waste management and sanitation operation," he says. Luiz Firmino, superintendent of the Rio Metropolitan Council, acknowledges that today participation of the private sector in infrastructure is not a matter of choice. Last year, Fitch downgraded the investment grade of both the city and the state, and in early June the National Treasury denied approval for Rio de Janeiro to borrow R$989 million from the National Development Bank to construct the fourth metro rail line.

"If the Metropolitan Council can design a good governance model for concessions that harmonizes the different interests of industry, agriculture, and population, it can certainly organize a successful waste management and sanitation operation."

Jorge Peron

Firmino also underlines the importance of the sanitation works for the resumption of economic activity. The Ministry of Cities estimates that investments of R$508.4 billion under the National Basic Sanitation Plan would generate 7.4 million direct jobs, 4.4 million indirect jobs and 17.5 million jobs in the works. The CNI estimates that for every R$1 invested in sanitation, the Brazilian economy would see GDP rise by R$3. If R$12.5 billion a year were invested in sanitation, the annual increase in GDP would be R$22.7 billion. Firmino estimates that the planned sanitation concession contracts would create 2,500 management jobs and 5,000 to 8,000 construction jobs.


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Photo: Luciana Vermell



Speeding up sanitation services in Rio

Luiz Firmino Martins

Superintendent of the Metropolitan Council of Rio de Janeiro and former president of the National Environmental Institute (INEA)

Solange Monteiro

How is the metropolitan area of Rio de Janeiro carrying out its sanitation plan?

We are breaking several paradigms. The first was that only municipalities should grant concessions for water and sewage services. The Supreme Court ruled in 2014 that the metropolitan area authority should do that. There are 201 amendments pending to the State Assembly bill establishing the metropolitan area agency as concessions manager. These cover five functions of common interest throughout the metropolitan area: sanitation, transport, spatial planning, climate change, and digital communication. We hope the assembly will soon pass the bill. The result will be a very large improvement in the legal foundation.

Another paradigm break is the decision of the current government to seek support from the private sector, because we fully understand that there is no way the government can deal with the sanitation challenge alone. Although the state water and sewage company has improved its performance in recent years, it has no ability to borrow funds for investment at the speed we need. This prompted us to design a concessions framework that we intend to refine and discuss with municipal officials soon so that we can start public hearings and road shows with national and foreign companies. We expect that by August or September conditions will be conducive for a vote on the bill on concessions.

What are the goals?

The design we propose also implies breaking paradigms, in this case, on how to reach universal sanitation coverage. Today, even if we had resources, it would take more than a decade to expand sanitation, for obvious reasons: it is necessary to make pits in all the streets to link a sewer system to each household. The data indicate that the metropolitan area of Rio de Janeiro collects 60% of the sewage, but in reality what is collected is not treated and is thrown in the rivers, ending up in Guanabara Bay. The sanitation project recognizes the need within three years to collect 60% of sewage through pipes separate from storm water pipes and directed to sewage treatment plants. The Pollution Abatement Program of Guanabara Bay (PDBG) has built the treatment plants but they are currently operating below their capacity. By the fifth year, the goal is to expand sewage collection to 80%. Building completely separate sewage and storm water systems will take no less than 20 years.

What will be the role of the State Water and Sewage Company (Cedae) in the new framework?

Since it supplies water for all metropolitan area municipalities, we propose that Cedae continue to run the water supply system. Cedae also has a R$3.5 billion project that extends the water supply and improves distribution among the water reservoirs. The private sector is expected to operate 100% of sewage collection and treatment and manage the commercial part of the system: metering, distribution control, registration, and customer accounts. This essential interdependence should guarantee private sector interest.

Is the failure to control pollution of Guanabara Bay due to lack of resources or to planning error?

The cost of sanitation is R$1,800 per capita, so to provide adequate sanitation for 12 million inhabitants of the metropolitan area of Rio de Janeiro we are talking about R$20 billion. So we have to challenge the myth that we had enough money and misused it. The PDBG invested US$800 million. Thinking that this amount would have solved the problem is a mistake, but also the strategy was not right. For a sewage project in general, about 20% of the cost is for the treatment plant and 80% for the collection system. However, the PDBG prioritized the construction of treatment plants, and left it to municipalities to build the collection system, the most expensive part of the project. This was a project design error. In fact, several treatment plants have been closed for decades because they did not have sewage to treat.

What can we expect from the current Environmental Sanitation Program for the Guanabara Bay Area (PSAM)?

We have no illusions that the PSAM will complement PDBG and everything will be resolved. The PSAM will extend the sewage collection system, but it will not solve the problem. The PSAM involves resources of US$600 million. It was begun three years ago, but only now are the first pipes being laid down because it was necessary to modify projects and conduct public bidding—something that cannot be done overnight. It can take years.

Furthermore, the PSAM has several responsibilities. It helps municipalities to prepare their sanitation plans, provides resources for the Regulatory Agency of Energy and Basic Sanitation of the State of Rio de Janeiro to improve its capacity, and also provides resources for Cedae. The PSAM also subsidizes efforts to improve the governance of Guanabara Bay, because the problems are not limited to sanitation and sewage. There are a large number of oil and gas pipes across the bottom of the Bay that create exclusion areas for fishing. There are conservation areas around the bay that raise other problems. There are dredging ports and shipyards for which there is no master plan. The Guanabara Bay has numerous other issues that need governance—a "maestro" to coordinate this orchestra.

What is the likely situation for the Olympics?

It has been voiced that we will not meet the target of reducing pollution of the bay by 80%. The PSAM was once again touted as doing something that would be very difficult. Nevertheless, the government has partnered with more than 10 universities to monitor the bay's conditions …. Several other Olympic sites, such as Sydney in Australia, failed to meet their goals, but after the event they finished what they set out to do. This is the message we have for the population: Even if we are not able to meet the pollution reduction goal, if we can get the concession plan underway, we can announce deadlines for actually improving sanitation and addressing a considerable part of the Guanabara Bay problem.

Obstacles to universal sanitation

Raquel de Freitas and Irene Altafin
Researchers, FGV Center for Studies in Regulation and Infrastructure (CERI)

IN THE FIRST DECADE of the century Brazil's sanitation sector reached major milestones. The approval of Law No. 11,475 in 2007 established national guidelines for basic sanitation. There followed a significant financial stimulus provided by the federal Program for Growth Acceleration (PAC). After a long period of funding shortages, national hope of universal water supply and sewage was revived—something extremely important for socioeconomic development because this sector had shown the least progress in coverage and quality of service.

In the last seven years Brazil has invested about R$67 billion in water supply and sanitation—double the amount invested from 1998 to 2006. However, since mid-2010 the initial optimism has visibly cooled. The results of these investments have been lower than expected and 50% of Brazilians still have no access to sewage services, 17% have no access to clean tap water, and 36% of the water distributed is lost or diverted through illegal connections. Access to tap water has gone up by only 2 percentage points, to 83%, and connection to sewage disposal systems by just 8 percentage points, to 50%.

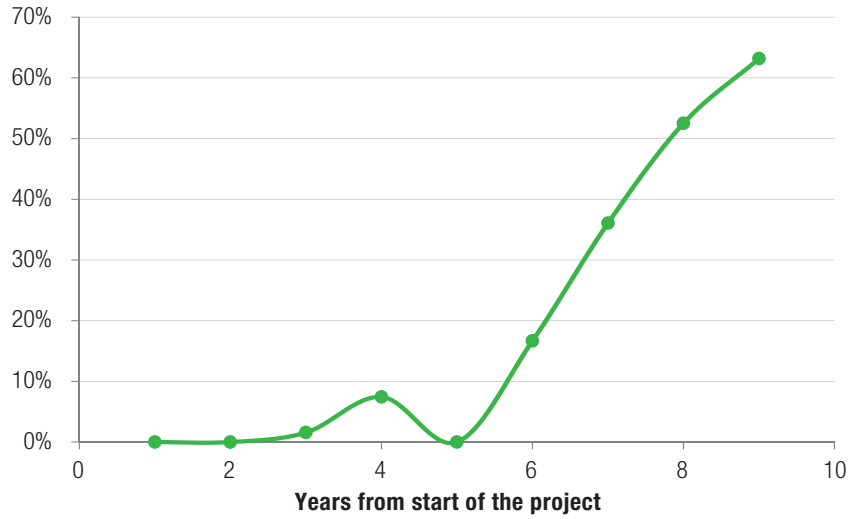
This slow progress demonstrates that barriers are not being addressed with the necessary urgency—something not related exclusively to the availability of financial resources. What also matters for the universalization of sanitation services are the ability to access the funding available, steps required to access those resources, effective management of these projects, and ensuring that they result in systems operating efficiently and families connected to water supply and sewage systems.

A preliminary analysis of information from the federal savings bank since 2007 reveals that water and sewage projects are relatively ineffective. In general, long periods elapse between the signing of a contract and its completion. No sanitation project took less than three years from signature of the contract, 50% took seven years, and of works contracted for nine years ago, 37% still have contractual obligations pending.

In terms of the amounts invested, since 2007 R$28.6 billion has been committed to 851 sanitation contracts. Of these, only 14% have been completed (R$3.9 billion, 289 contracts) and just 24% (R$7.1 billion) are on schedule. This

Brazil's water and sewage projects are ineffective: 50% of projects took seven years to complete.

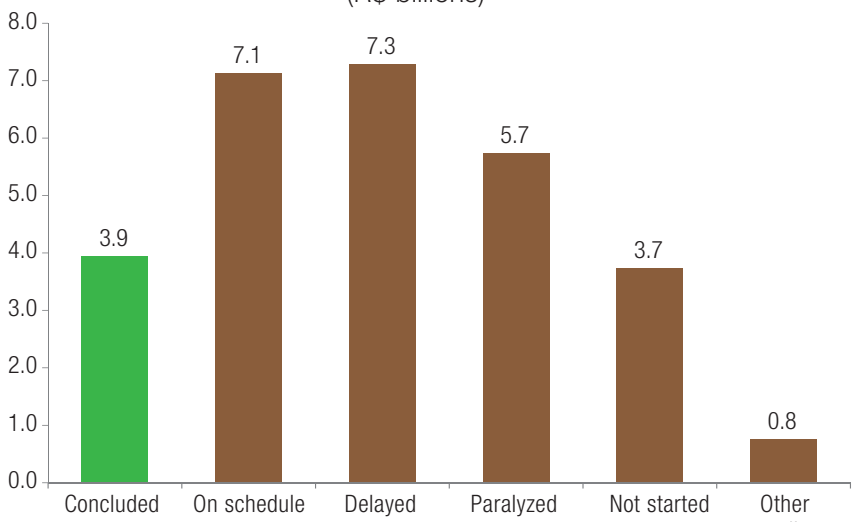
(Proportion of contracted projects concluded, %)



Source: Federal Savings Bank (CEF).

Of the R$28.6 billion invested in sanitation projects since 2007, only R$3.9 billion have been completed, 14% of the total.

(R$ billions)



Source: Federal Savings Bank (CEF).

means that 61% of the 289 sanitation contracts signed since 2007 (R$17.5 billion) are either behind the schedule, paralyzed or has not yet started. Thus, more than half the resources available have not been used because of difficulties encountered in executing contracts.

This preliminary analysis suggests that although funding for sanitation projects is important, what may be more important is to ensure that the resources are used effectively. In particular, it is urgent to define and realize a strategy to improve project management, which involves government agencies investing in delivery of services and coordination with each other and with other segments of the sanitation sector. Inevitably, then, the strategy must emphasize, e.g., businesslike management of service providers, designing and conducting a comprehensive staff training program, and establishing databanks of high-quality engineering projects, among others. For local governments, the strategy should encourage integration between local sanitation, urban development, and other policies that promote coordination between local sanitation agencies.



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Early signs of recovery?

Brazilians are buying fewer imports, but it is too early to identify consistent import substitution in favor of the domestic industry.



Solange Monteiro

ONE OF THE FEW RESPITES Brazilian manufacturing had in the second half of 2015 was the depreciation of the national currency against the dollar, which helped make the exporting sector more competitive and encouraged the fall in imports. According to the Ministry of Industry, Foreign Trade and Services, from January to April 2016 the Brazilian external trade balance was 18.4% lower than in the same period of 2015—a decline of 3.5% in exports but a far larger drop in imports of 32.2%. The share of imports in domestic consumption—defined as the sum of imports and domestic production less exports—was favorable for Brazilian industry. According to an IBRE survey, the share of imports in domestic consumption fell to 24% in March this year, having peaked at 27% in July 2015.

IBRE researcher Claudio Considera warns that it is too early to identify consistent, continuing import substitution that favors domestic production. He points out that the short observation period, persistent recession, and the volatility of the exchange rate prevents accurate analysis. "This is a recent move, and it needs to be assessed in detail by sector. Exchange rate volatility may still generate uncertainty about whether there will be a more decisive change in the production planning of manufacturers," he says.

Visible signs

IBRE researcher Lia Valls agrees but notes that some sectors are showing "signs of a more visible recovery, such as textiles and clothing and auto parts—the latter due largely to the auto industry's high investment program,"

she says. A survey for the National Union of Auto Parts Industry found that in the first four months of the year the sector's trade balance deficit was US$1.42 billion—41% lower than in the same period of 2015. While auto parts exports fell by 16.2%, imports shrank by 28.4%. In 2015, the trade balance deficit in textiles and clothing was US$4.75 billion. The IBRE survey also suggests that there will be a further reduction of the share of textiles and clothing imports in total domestic consumption.

The share in domestic consumption of imported consumer goods fell to 12% in March this year, down from 15.6% in July 2015. The share of imported intermediate goods fell to 26.1% in March, down from a 30% peak in November 2015. The share of imported capital goods declined to 39.6% in March, having peaked at 43.8% in July 2015.

Considera emphasizes that only further analysis can make clear the extent to which the trend observed so far is a positive turnaround of the manufacturing industry. "Regarding final goods, mostly of low quality, the result is good. Regarding capital goods, however, most modern items are imported, and a reduction of their purchases may indicate less industry investment in items that enhance their productivity," he says, noting that the same reasoning applies to intermediate goods. "For example, in the pharmaceutical industry, imported inputs may involve national production of more high-tech products. Reducing imports of inputs may not be a good sign," he explains.

"In the pharmaceutical industry, imported inputs may involve national production of more high-tech products. Reducing imports of inputs may not be a good sign."

Claudio Considera



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Markets in transition

As digitalization and decentralization change Brazil's energy and transport markets, businesses press for review of how they are regulated.

Solange Monteiro

LIKE THE REVOLUTION experienced by the telecommunications sector when cell phones began to embed Internet apps like WhatsApp, the transport and energy sectors are under pressure to change their business models. In transport, new technologies have allowed the consumer to circumvent the rigidities and inefficiencies of the system with alternatives like Uber and carpooling. In energy, expansion of the solar market and the emergence of smart grids have transformed consumers into electricity producers.

In both sectors, another strong force for change is the need to reduce emissions of greenhouse gases (GHGs), as Brazil and many other countries committed to do at the 2015 climate conference in Paris. "Eighty percent of the increase in GHG emissions is due to the burning of fossil fuels, which makes the issue



"Eighty percent of the increase in GHG emissions is due to the burning of fossil fuels, which makes the issue of global warming fundamentally an energy use problem."

Suzana Kahn

of global warming fundamentally an energy use problem," said Suzana Kahn, executive coordinator of Project Green Fund, Federal University of Rio de Janeiro. It is estimated, she says, that to stabilize GHG emissions at an appropriate level would require reducing worldwide carbon dioxide emissions by more than half, from the current 45 GtCO2 per year to an average equivalent of 18 GtCO2.[1] "It will be very difficult. We will have to work very hard to both mitigate and adapt our systems," Kahn says.

Jorge Vasconcelos, president of New Energy Solutions, points out that another significant change is a shift in focus from large energy projects with gains of scale to a decentralized marked with distributed electricity generation in the industrial, commercial, and residential sectors, a result of photovoltaic generation. "Power grid statistics in Germany in the first decade of this century shows growth in high-voltage transmission lines was zero, in medium-voltage lines 8%, and in low-voltage lines 27%," he says. What at first glance appears to be the perfect way to ensure a supply of clean energy, however, also represents a risk to the financial sustainability of the electricity sector if not well regulated. "Consumers who become electricity producers make less use of the power grid, but the grid still needs to be paid for. Otherwise, we have a perverse effect, which inhibits investments in the power grid," says Joisa Dutra, director of the FGV Center for Regulation and Infrastructure.

In May, the FGV Center for Regulation and Infrastructure and the FGV Rio Law School sponsored a seminar to discuss the regulation challenges these changes are bringing about, which are already evident in countries where distributed electricity generation has advanced. One is the United States. In the electricity market that covers 13 US states and the District of Columbia, for example, decentralized electricity generation has reached 14 GW—8.6% of the total electricity produced. Ashley Brown, executive director of the Harvard Electricity Policy Group, says that a balanced pricing model for electricity distributors should take into account three costs: energy, which is variable; the power grid, which is fixed; and ability to meet electricity demand when it peaks. However, Brown says, "We adopted a very common mechanism, net metering, through which my excess energy is sold to the grid at retail price. However, the residential energy producer earns as if he is offering the full service, while the operator who has the obligation to do so, loses out."

[1] GtCO2 = 1 Giga ton of CO2-equivalent (1 Gt = 10^{12} kg).

Challenges ahead

Luiz Barroso, president of the Energy Research Company, points out that these changes have also created new businesses opportunities. "In the US, for example, companies now offer leasing of solar panels; they install, operate, and do maintenance. Solar energy has just been converted into a service that you pay for in easy monthly installments," he says. Barroso emphasizes, however, the need for regulatory adjustments to mitigate erosion of distribution operators' revenue. "Doing so we would avoid measures such as those beginning to emerge in Europe, especially in Spain, where, after a massive commitment to solar energy, a high tariff was introduced that affected the attractiveness of solar and undermined the sector as a whole," he says.

Barroso points out that the expansion of decentralized power generation has also affected other branches of the electricity sector: "In the case of generation, renewable energy reduced average prices because they enter at zero cost. There are countries where large conventional electric power producers are willing to pay to stay connected to the grid because they have higher startup costs." That, he says, has motivated the creation of models to compensate the generation capacity of large power producers in an environment where uncertainty and price volatility are high.

In the wholesale electricity market, in turn, renewable energy is auctioned at ever-lower prices. "Latin America has led these offers; renewable energy prices at auctions in Mexico, for example, reached US$45 MWh. But in May, an auction in Dubai closed at US$30 MWh," Barroso says.

"Consumers who become electricity producers make less use of the power grid, but the grid still needs to be paid for. Otherwise, we have a perverse effect, which inhibits investments in the power grid."

Joisa Dutra

As Brazil takes its first steps on this path, Barroso says there is a "good confusion" as consumers of electricity become producers and respond to prices. "We have focused on the consumer's freedom of choice to open up the electricity market and integrate distributed generation—something the US and Europe already do," he explains. Tiago de Barros, director of the National Electric Energy Agency, points out that Brazil has never been a pioneer in introducing technologies such as wind and solar energy, and when it did, it was necessary to give subsidies to renewable energy. He points out that solar panels have not been adopted in Brazil as in developed countries, largely because prices are higher in Brazil. Residential photovoltaic generation in Brazil is paid for in the same way as in the US (net metering), but an additional fee was introduced

"Today we do not have a regulatory framework consistent with lower carbon emissions goals, and we need to give adequate economic signals so that the market can adjust and has some sort of long-term goal. Otherwise, we will be adjusting to the past, not the future."

Jorge Vasconcelos

to access the grid, though that is still insufficient to cover all costs of the grid, Barros says that the pricing system needs changes to compensate grid costs adequately, but that changes in the pricing system to encourage the adoption of renewable energy will take three and a half years.

Mauricio Bahr, president of the French business group Engie, believes that it is important for adaptation to happen gradually and transparently so as not to bring about negative outcomes and price changes that discourage investments." Experts gathered at the seminar recommended carrying out studies to estimate the impact of renewable sources of energy and of the resulting demand to adjust the operational and regulatory framework, ensuring a good environment for attracting investments in transmission and technologies. "The current changes will require large amounts of capital, and new financing mechanisms. So we need to create mechanisms to ensure adequate return on these investments," Dutra says. Luis Eduardo Barata, director general of the National Electricity System Operator, points out that "We will not have major electricity supply problems in the coming years, which makes this the right time to address and analyze fully the electricity sector business model."

The main challenge, experts emphasize, will be to address the uncertainties brought about by including in the power grid intermittent sources of energy generation, such as wind and solar energy. "Renewables have a different measurement history and time intervals. We are leaving a world in which things were more linear to enter into a more complex environment," Barroso says. Vasconcelos says this requires planning that allows for innovation without compromising power grid reliability and safety. "We should not limit the freedom of electricity market participants, but we should ensure that they coexist with power grid integrity," he insists, while acknowledging that it will not be an easy task.

Vasconcelos argues that regulation is only part of the solution to the carbon emissions problem: "Today we do not have a regulatory framework consistent with lower carbon emissions goals, and we need to give adequate economic signals so that the market can adjust and has some sort of long-term goal. Otherwise, we will be adjusting to the past, not the future."

A more integrated business model



Solange Monteiro

AN EXPANDING TREND in the electricity sector is the creation of production and distribution business models that cross national borders, integrating regions. Jorge Vasconcelos, president of New Energy Solutions, points out that in Europe this process began 20 years ago: First, national wholesale electricity markets were liberalized. Then technical rules for grid codes were harmonized. Today, companies supply electric power to a number of countries and their supply capacity is checked and guaranteed thanks to an algorithm that centralizes operations. Vasconcelos explains that "Electricity supply in the Portuguese market will be integrated from Portugal to Finland, with the allocation of interconnection power capacity between the various systems made automatically. No bilateral intervention, but global optimization."

One of the most enthusiastic and active companies in this integrated electricity system is the China State Grid. Cai Hongxian, CEO and president of State Grid Brazil Holding, says that by 2050 the company sees a global interconnection process consisting of three phases. The first, from 2012 to 2020, will be expansion of clean energy sources and interconnection within China. So far China has achieved hydroelectricity capacity of 320 GW, a connected grid of wind power of 130 GW, photovoltaic power of 42 GW, and a project that is adding 22,000 kilometers

"Brazil and South America have rich resources and great potential, and should play an important role in the development of the global energy interconnection."

Cai Hongxian

of high-voltage lines. In the second phase, by 2030 the plan is to promote continental interconnection, concluding in 2050 with establishment of wind power bases in the Arctic and solar energy in the equatorial region. "Brazil and South America have rich resources and great potential, and should play an important role in the development of the global energy interconnection," Hongxian says.

In Brazil, development of this energy market is still only tentative. Tiago de Barros Correia, director of the National Electric Energy Agency, points out that the commercial potential of the country's energy interconnections with Argentina and Uruguay has not yet been properly explored. "Seldom has this interconnection been used as a business; for that to happen we need a review of the pricing model that harmonizes the markets," he says. Luis Eduardo Barata, director general of the National Electricity System Operator, says that the current context of electric power oversupply in Brazil and shortages in Argentina has stimulated negotiations between the two countries to contract for the supply of electric power. He added that "For some time we have been trying to develop marketing schemes with Argentina, but now we are able to discuss this on a commercial basis."

Luiz Augusto Barroso, president of the Energy Research Company, underscores the importance of this type of agreement in regions like Central America. "A thermal power plant in El Salvador has 500 MW capacity, but the country's peak demand is only 160 MW. This type of marketing is essential to take advantage of spare power capacity and ensure better use of these resources," he explains.

Smart transportation

Solange Monteiro

LIKE THE ELECTRIC POWER SECTOR, the transportation sector has been shaken by the emergence of new business models, either by the diversification of transport services or by digitalization of business. In addition to carpooling and private car rental, the opening up of urban transport by municipal ordinance to services like Uber in São Paulo—upon payment of R$0.10 per kilometer for the roads maintenance—is one of the most striking examples of this trend in Brazil.

On the one hand, experts point out that new initiatives are important because they fit into the objective of bringing more efficiency to urban transport. "Various studies show great losses of productivity resulting from traffic jams. In addition, in a number of Brazilian cities transport accounts for between 60% and 70% of carbon emissions," says Luis Antonio Lindau, director of WRI Brazil Sustainable Cities.



On the other hand, Matthias Finger, director of the Florence School of Regulation, emphasizes the trend of creating business value through digitalization. "Digitalization allows the customer to have more information and be able to compare not only operating companies of the same transport service, but several transport alternatives," he says. In addition, digitalization allows the generation of information about different interconnected services. "The postal service of Switzerland operates 50% of the country's buses. This strategy began five years ago, when the postal service started to offer free Internet in buses, which enabled data collection for a mobility map. So it is not necessary to be a transport company to collect data on transport. You can do a lot with something like this," he says. Finger believes that the digitalization of the information on people's habits now available will allows us to plan intelligent cities and circular economies that produce no waste and pollution.

In Brazil, government efforts to make transport systems more efficient face the challenge of integrating and enhancing the

"Digitalization allows the customer to have more information and be able to compare not only operating companies of the same transport service, but several transport alternatives."

Matthias Finger

spatial planning of cities. Vicente Loureiro, executive director of the Metropolitan Council of Rio de Janeiro, says that the decision that concession services should cover the entire metropolitan area of Rio de Janeiro is still a maturing process. He says the Supreme Court ruling that utility services of common interest to several municipalities should be governed by a municipal council has impacted public services. For instance, public transport decisions are now made jointly by municipalities and the state and governed by state law.

Meanwhile, Goiânia, which has had metropolitan management of public transportation for more than 20 years, now faces challenges resulting from the successful integration of Goiânia and 17 cities. Loureiro explains that "The integrated transport system and single fare rate, along with the low-income housing program, stimulated city sprawl that has compromised transport system productivity. Now local authorities are seeking ways to halt and reverse this situation,"

Daniel Marx Couto, director of BHTrans, said that the challenge in the metropolitan region of Belo Horizonte, which includes 34 cities, is to persuade 70% of the population to use public transport—currently less than 50% do so. "For the World Cup, we invested in bus rapid transit lines that transport 30% of the capital's population, and we are seeking in the current negotiation of the concession agreement a bus fare in line with inflation and compensation per passenger, following a set of parameters such as bus' frequency and maximum capacity," he says.

Photo: Aline Massuca



Why change must come

Matias Spektor

Professor and coordinator of the International Relations Center of the Getulio Vargas Foundation (FGV)

Solange Monteiro

THE LOSS OF THE BRAZILIAN political center of gravity—which for decades was underpinned by the tension between the Workers Party (PT) and the Brazilian Social Democracy Party (PSDB)—involved large-scale corruption in the state-oil company involving both politicians and corporations. But it is also part of an international phenomenon that originated in the 2008 financial crisis, which caused great popular dissatisfaction in many countries that led to the growth of political forces outside the traditional system. "We will only know what the new political configuration is when the people vote for new leaders," says Matias Spektor, coordinator of the Center for International Relations of the Getulio Vargas Foundation (FGV). He believes that foreign policy can help to mitigate the effects of investigations of political corruption if Brazil adopts global best practice anti-corruption standards. In his opinion, "An active role could facilitate and accelerate Brazil's transformation regarding corruption."

Your book *18 Days* shows how the interest of former President Fernando Henrique Cardoso (PSDB) to preserve the achievements of his administration led him to support elected leftist President Lula (PT) in order to calm international markets and promote an orderly political transition in 2003. Today the situation is the opposite; the country is in a severe fiscal crisis and there are wide fissures between political parties. What do you think will determine the political forces up to the 2018 presidential election?

The Brazilian political system has been going through its most intense transformation in over 30 years. The alignment that organized Brazilian

The alignment that organized Brazilian politics, which was the polarization between the PT and the PSDB, is ending because the PT has been chased from power and the PSDB is downsizing.

politics, which was the polarization between the PT and the PSDB, is ending because the PT has been chased from power and the PSDB is downsizing. We will not know what the new political configuration is until the people vote for new leaders. Meanwhile, we will have a political system determined by the state of the economy and people's expectations about it and the investigations of corruption in the state oil company—the great imponderable that is interfering with Acting President Temer's ability to govern.

Why are the political forces beginning to think about reform? Because they have realized that there is no more space in Brazil to keep everything as it was. Something has to change. So the political forces that are threatened today by the corruption investigation and the economic decline are moving to create a new political formula.

Acting President Michel Temer set up a political cabinet, except for the Finance Minister and Central Bank governor, that has cost him political capital. Is he making mistakes?

Temer distributed positions according to the relative weight of the parties in parliament because he knows perfectly well that his great agenda must be a legislative agenda. Without support in Congress, he will not be able to approve the reforms needed to pull the Brazilian economy out of the current quagmire—which is the only thing that will allow him to be a major player in defining what will be his own succession. In this sense, he did what was expected.

Are there international dimensions to the current Brazilian political crisis?

There is development in Europe, the United States, and Latin America related to the lagged effects of the 2008-09 financial crisis. The crisis reversed expectations: the world was growing and suddenly stopped. Every reversal of expectations generates societal displacement, and we are seeing heightened dissatisfaction with the ruling political classes around the world. We see this in the reaction of the American public to the succession of Barack Obama; the growth of the candidacy of Donald Trump, who comes from outside the traditional American political elite; the growth of the right in Britain, France, and Germany, and the growth of the left in Spain. All these instances are reactions to the reversal of expectations.

Brazil witnessed a brutal reversal of expectations after the successful Lula administration that also has generated displacement, and for the first time in our democracy the middle class has taken to the street. But the international context is important because it gives a benchmark beyond Brazil. And here we also note two types of political movement: one that is liberal reformist regarding the economy, and one, gaining strength around the world, that is anti-immigration and socially conservative

Which way is Brazilian politics leaning?

It's still too early to say. We will know in 2018,

when we will see which part of the population will vote for the center-right, the group including centrist Michel Temer, and an eventual candidacy of conservative Senator Ronaldo Caiado (DEM). Whoever the players are, the 2018 presidential election will be a good indication of what takes hold in Brazil. What is important is that we have recently seen the middle class taking to the street with an anti-corruption agenda not seen since the 1950s: the motto of the end of the Vargas government was the "sea of mud."

How might the anti-corruption agenda influence the profile of voters in 2018?

The main left party, the PT, will probably suffer a setback in both the municipal elections in October and the presidential election in 2018. But it is not yet clear who will win the space lost by the PT. The PSDB has not occupied it, and we do not know which political force will. There are signs that the right has room to grow, but we have to wait for elections to confirm that.

How should the interim government deal with the side effects of the corruption investigations?

The only option for the government is to express support for the investigations; here foreign policy has an important role because in recent years there has emerged a huge regime of international standards, rules of transparency, and weapons against corruption that is very sophisticated, which Brazil has accepted only partially. Foreign policy could take an active stance in welcoming these standards to accelerate Brazil's development in this regard.

If the Senate confirms the impeachment of Rousseff, it will close the longest leftist period of Brazilian government, 13 years. How did that affect Brazilian foreign policy?

Foreign policy was the most visible playing field for former President Lula, so naturally it was hugely politicized. Today one of the areas where the PT government has been most criticized is foreign policy, because part of Brazil's economic difficulty is attributed to the significant decrease in Brazil's productivity, and falling productivity is always correlated with isolation of a country from international trade. The whole recent speech of new Foreign Minister José Serra centered on the idea that the PT isolated Brazil from international trade, which had a huge deleterious effect on the Brazilian economy. The critique of PT's foreign policy also denounces Brazil's investment in Africa and geopolitics in the Middle East, and demands the return of diplomacy grounded more on economic merits than geopolitical ambitions.

There is no more space in Brazil to keep everything as it was. Something has to change. So the political forces that are threatened today by the corruption investigation and the economic decline are moving to create a new political formula.

What will be the acting president's main foreign policy challenge?

During President Dilma Rousseff's government, Brazil saw its deepest fall from grace in the international community. When Rousseff succeeded Lula, Brazil was seen as a rising power, and she was considered one of the most powerful

The global crisis reversed expectations: the world was growing and suddenly stopped. Every reversal of expectations generates societal displacement, and we are seeing heightened dissatisfaction with the ruling political classes around the world.

women in the world. When she was suspended from the presidency [by the impeachment process], not only was her political capital non-existent, but more significantly Brazil's collapse was reflected internationally. Today the situation Acting President Temer faces is very comfortable because the implosion of Brazil was so intense that any basic gestures can help the country's image, which is very negative. A few well-done gestures can have a positive impact at least on future expectations of what Brazil's restoration process will look like.

What foreign and trade policy goals should the interim government focus on to have a positive impact?

The first thing is to accelerate negotiations of bilateral trade agreements, that is, sign a number of agreements, which the Rousseff administration had already begun negotiations and now, it seems, Foreign Minister Serra can carry out much faster. Another positive gesture would be to open up trade with the United States, which probably will not include an agreement as that is not in the US interest, but which might include specific measures of trade facilitation. For example, presidents Rousseff and Obama in June 2015 signed a global entry agreement, which allows Brazilian businessmen entry into the US without visas but has yet to be implemented. We have an open skies agreement that allows US aviation companies to operate any route in Brazil and vice versa, which was signed in March 2011 and only awaits the approval of the Brazilian Congress. Brazil could also adhere to the TISA (Trade in Services Agreement) that protects investments, which matters a lot to Brazilian multinationals. … Regarding trade facilitation, these are fast low-cost measures that would allow the interim government to accelerate a new reversal of expectations.

What international players can influence Brazil's macroeconomic rebalancing and governance that President Temer has promised to promote?

The main factor by far is not a country but a set of new rules that arose from the negotiation of the Trans-Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP). These two mega-agreements were negotiated by American leadership with a number of countries in order to control China's rise, creating a series of international trade rules far different from the traditional ones, on such topics as environmental protection, labor laws, transparency, and anti-corruption. With the new rules, things previously unthinkable became conceivable, and very intrusive in the lives of countries.

Why are they important for Brazil? Because from now on, it will be increasingly difficult for a country to participate in international trade without adhering to these rules or negotiating its participation in some way. Brazil is not yet part of this game and it will become ever more costly to stay out of it. This set of rules is the

most important international factor for the welfare of the Brazilian population today. And the interim government has not even begun to deal with this new agenda.

What is the position of the United States today?
The US role in Latin America has been in decline for many years. Today what matters is not so much the country but the international rules that govern global trade flows. And most of these rules were designed by the United States and its allies and evolved mainly from the work of academics, lawyers, and jurists that were educated and practiced their profession in cities like New York, Washington, Chicago, London, Berlin, and Singapore in a network of Anglo-Saxon influence.

What are the risks of Foreign Minister Serra's hard line toward the populist Latin American countries that supported the PT government?
The risk is low. The two main populist countries were Argentina under Cristina Kirchner and Venezuela under Hugo Chavez. Kirchner was not able to get her chosen successor elected and is now entangled in corruption scandals that are far from minor. Kirchnerism has no mobilization capacity. In Venezuela, the regime is imploding; the country is in a social pre-explosion situation with no possibility of recovery. The risk to Serra of criticizing these countries is minimal. Of course, in Ecuador and Bolivia, he will have to use some caution, because Brazil is very exposed there through large investments or gas supply contracts. But this is a relatively minor risk. The populist cycle in Latin America is coming to an end.

The interim government is unpopular president and the situation loaded with imponderables, including the possibility that both President Rousseff and Acting President Temer could be impeached. What is your view on the outlook for 2018?

We have recently seen the middle class taking to the street with an anti-corruption agenda not seen since the 1950s: the motto at the end of the Vargas government was the "sea of mud."

I think no one is confident. There is a lot of uncertainty in the country. Neither the government nor the opposition is thinking on a grand scale, except for a group of PMDB, PSDB, and PT parliamentarians and a group in the Supreme Court who are considering political reform. Justices Gilmar Mendes and Luís Roberto Barroso have both said that they would review their position on the constitutionality of restrictions on political parties that do not reach a certain percentage of votes, which would eliminate tiny parties and consolidate the Brazilian political system in a few parties. Senator Renan Calheiros says there are people thinking about alternative parliamentary systems. These political forces have realized that it is impossible to continue governing Brazil the way it has been done. Something has to change. So the very political forces that are being threatened today by investigations of corruption and the economic decline are beginning to move to create a new political framework. That's where the solution will come. But it is not yet clear, and we are still far from building consensus. The period until October 2018 gives us time to do that.