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Interview
José Júlio Senna
Head of Monetary Studies Center of IBRE/FGV



THE BRAZILIAN ECONOMY

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Not that simple

Expanding the simplified tax system for small businesses may have higher costs and fewer productivity, employment, and income distribution benefits

FGV IBRE

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THE BRAZILIAN ECONOMY

Economy, politics, and policy issues

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Around the world, small businesses are considered an engine of growth, and in some cases innovation. But expanding Brazil's simplified tax system to promote small businesses may have higher costs than expected and fewer productivity, employment, and income distribution benefits. Solange Monteiro consults the experts to look at both sides of the issue.

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Informality is correlated to factors that depress productivity, such as little education, lower value-added per worker, and location in less developed regions. IBRE's latest publication, *Causes and Consequences of Informality in Brazil*, seeks to get a deeper understanding of the problem, which accounts for 38% of Brazil's workers and 66.7% of its enterprises. This review briefly summarizes the book's coverage.

Energy



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Despite the bad news in the rest of the Brazilian economy, the sugar-energy sector is looking forward with enthusiasm, to April, the official start of the harvesting of sugar for ethanol. Although 2016 will see a shortage in world sugar production, in Brazil conditions are favorable for a good harvest. In the not too distant future, biorefineries will be producing products ranging from second-generation ethanol to fine chemicals; many are already contributing electricity to the grid. Chico Santos looks at all facets of the situation.

26 Petrobras, deep sea oil, and competition

In 2009 the discussion of new regulations for the exploration of deep sea oil was mainly concerned with how the revenues were to be shared among the states. It has since become clear how many other aspects of the issue should have been on the table. IBRE researcher Mauricio Canêdo Pinheiro analyzes the problems caused by ignoring them and what is being done to correct the previous mistakes.

Trade

28 Members of Mercosur must use it better

As the 25th anniversary of the Treaty of Asunción, which created Mercosur, approaches, Regis Arslanian, former Brazilian ambassador to Mercosur and a participant in the negotiations of its never-completed trade agreement with the EU, discusses with Solange Monteiro the trade group's problems and opportunities, the directions it might now take, and what is needed to make it more effective.

Interview



31 "The level of inflation may have risen""

José Julio Senna, head of the Monetary Studies Center of the Brazilian Institute of Economics and former director of monetary policy for the Central Bank, talks with Solange Monteiro about the persistence of inflation, the apparent confusion over even conceptual issues, why it takes more than stimulating demand to make an economy grow, the frightening imbalance of public accounts, and how the Central Bank's hands are now tied.

Editors' Note

BILL 125/2015 HAS BEEN IN LINE for a vote in the Senate since the Congressional recess ended. The bill grants benefits to and simplifies the administrative burden on small businesses opting for the national Simple tax system. For instance, it doubles the annual gross revenue ceiling from R$3.6 million to R$7.2 million in 2017, and doubles it again to R$14.4 million in 2018. For individual microentrepreneurs, the ceiling rises from R$60,000 to R$90,000 a year. But according to Brazil's federal revenue service, approval of the bill will slice tax revenues by R$12.7 billion in 2017 and R$16.1 billion in 2018 (the Brazilian Micro and Small Enterprises Support Service contests those numbers). Considering the country's current severe fiscal crisis, some experts believe that tax waivers of this magnitude would be simply disastrous. They also believe the bill would have little impact on persuading small businesses to become formalized and heighten their productivity.

To study the informality issue in more depth, this month the Brazilian Institute of Economics (IBRE) of FGV is publishing *Causes and Consequences of Informality in Brazil*. The book, edited by IBRE researchers Fernando de Holanda Barbosa Filho and Fernando Veloso and by Gabriel Ulyssea of Catholic University, looks at the question from a variety of angles, analyzing, for instance, why informality in Brazil is so high, and what the consequences are for the economy. The contributors suggest that low education and productivity and high taxes are among the main factors that drive low-wage earners and small companies into the informal economy. Policies to reduce taxes and bureaucratic requirements to incentivize participation in the formal economy are not sufficient to ensure that businesses will be more efficient and profitable and worker incomes higher—policies to boost productivity are also necessary.

With the threat of power rationing hanging over Brazilians for much of the past year, the need to expand the share of other sources of energy in our energy matrix, together with the fall in oil prices, could give new impetus to ethanol production as sugar mills become sugar-energy complexes, driven by technological advances from the production of sugar cane ultimately to power generation.



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POLITICS

Former Presidente Lula questioned in corruption probe

Former president Luiz Inácio Lula da Silva was briefly detained for questioning in the Petrobras corruption scandal. His detention threatens the fragile hold on power of President Dilma Rousseff, his protégé, also of the Workers' Party. It is alleged that he and his party received favors from large companies in return for contracts at Petrobras, the state-owned oil company. (March 4)



Photo: Rovena Rosa/Agencia Brasil.

Lula at a press conference at the Worker's Party (PT) Headquarters, São Paulo

Photo: Wilson Dias/Agencia Brasil



Protests in Brasilia, Brazil's capital

Brazilians in 300 cities demand that Rousseff go

As President Dilma Rousseff confronts a massive corruption scandal and the worst recession in decades, protests seeking her ouster have been held in about 300 Brazilian cities, with a million protesters gathering in São Paulo alone. Ms Rousseff may be impeached by Congress over allegations she manipulated government accounts to boost public spending during her 2014 election campaign. Ms Rousseff says there isn't "the slightest possibility" she will resign, although polls show that more than half of Brazilians want her impeached. The magnitude of Sunday's protests could be crucial in persuading a divided Congress to back the impeachment of Rousseff.

Photo: Rovena Rosa/Agencia Brasil



Protests in São Paulo city

ECONOMY

S&P rates Brazil's debt as junk

Citing Brazil's "political and economic challenges," Standard & Poor's has reduced Brazil's long-term rating to BB with a negative outlook—two steps below investment grade—putting Brazil on a par with Bolivia, Paraguay, and Guatemala. "We now expect a more prolonged adjustment process with a slower correction in fiscal policy, as well as another year of steep economic contraction," S&P said in the statement. "We perceive less certainty within the president's cabinet on fiscal policy." S&P added, "Despite government plans to table structural reform, such as on pensions, we expect the political environment after the conclusion of the impeachment process to also limit the viability of reforms—regardless of who is president." (February 17)

Record fall for industry employment and salaries

With manufacturing output low and no immediate likelihood of an increase in demand, the number of people employed in Brazilian industry fell by 6.2% in 2015, according to the Brazilian Institute of Geography and Statistics (IBGE). The real industrial payroll was 7.9% lower than in 2014—the largest annual fall since records began in 2002. (February 19)

… and service sector activity fell in January

The Purchasing Managers Index (PMI) for Brazilian services compiled by research firm Markit fell on a seasonally adjusted basis from 44.4 in January to 36.9 in February. A rating of less than 50 denotes contraction. (March 3)

… but industrial output rose as the year began

A rise in industrial production of 0.4 percent in January ended seven straight months of declines that contributed to an 8.3 percent plunge in activity in 2015, IBGE said. However, it was 13.8 percent lower than a year earlier. Manufacturers and miners have cut nearly one-fifth of their production since a 2013 peak. (March 4)

Inflation eases a bit

Brazil's consumer-price index, IPCA, rose 0.90% in February, compared with 1.27% in January, IBGE said. The 12-month IPCA was up 10.36% through February, compared with 10.71% through January. The slowdown came mainly from easing food and transportation costs. (March 9)

ECONOMIC POLICY

Interest rates again on hold

Brazil's Central Bank has kept interest rates on hold for the fifth time in six months as the country braces itself for data about the depth of its recession last year. As expected by analysts, the Bank's Monetary Policy Committee kept the benchmark interest rate at 14.25%, although two of the eight committee members voted for a 50 basis-point rise. (March 2)

TRADE

Mercosur/EU negotiations back on the calendar

Mercosur and the European Union will exchange trade proposals in April, a major step for the long delayed trade and cooperation agreement, which has gained momentum since the change of administration in Argentina, now led by new President Mauricio Macri. The EU Foreign Affairs and Security High Representative, Federica Mogherini, made the announcement in Buenos Aires after a full day of meetings with her peer Susana Malcorra and President Macri.

"We are working hard in the EU and Mercosur for a positive exchange of offers to happen in April. It's an ambitious but realistic goal. It's an important agreement for both blocs and we want it to happen sooner rather than later," Mogherini said. Mogherini is the highest ranking EU official to visit Argentina in more than a decade. Although Uruguay currently holds the Mercosur rotating chair, the change of focus in Argentina has been crucial, since the administration of Cristina Fernandez was reluctant to advance the negotiations.

"After such a long negotiation, we have to make sure that all the right steps are taken. The offers have to be credible and substantial," the EU chief negotiator said, highlighting the close trade ties between the blocs. (March 13)

DICOM

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Not that simple

Expanding the simplified tax system for small businesses may have higher costs than expected and fewer productivity, employment, and income distribution benefits.

Solange Monteiro

SINCE THE CONGRESSIONAL recess ended, awaiting its turn to be voted in the Senate has been Bill 125/2015, which grants benefits and simplifies tax preparation for small businesses opting for the National Simple tax system. For instance, it doubles the annual gross revenue ceiling from R$3.6 million to R$7.2 million in 2017, and doubles it again to R$14.4 million in 2018. For the individual microentrepreneur (MEI) the ceiling increases from R$60,000 to R$90,000 a year.

On September 2015, the House of Representatives approved the bill unanimously, as is not unusual given the support that small businesses usually attract. Around the world, small businesses are considered an engine of growth, and in some cases innovation. In OECD member countries, for example, businesses with up to nine employees represent 90% of all businesses and account for a quarter of total employment. In Brazil, more than 5 million firms qualify for the Simple option and another 5.6 million for the MEI; in 2015 they paid R$69.5 billion in taxes.

If the bill is approved, however, Brazil's new gross revenue ceilings for small businesses to benefit from the simplified tax system (about

US$1.8 million) will be diverging further from international practice. In 2011, for example, Colombia's gross revenue ceiling for small businesses was is US$60,000; in Argentina US$48,760 (services) and US$73,140 (commerce); and in the United States US$48,900. In addition, in many countries, unlike Brazil, benefits for small businesses are much more focused on reducing red tape to facilitate formalization than on tax cuts, points out IBRE researcher Fernando Veloso. "Spain—where the gross income ceiling to be considered a small business is US$4.7 million, higher than in Brazil—has set a limit for the tax benefits of US$488,000 million," he says.

According to Brazil's federal revenue service, approval of Bill 125/2015 will reduce tax revenues by R$12.7 billion in 2017 and R$16.1 billion in 2018—although the Brazilian Micro and Small Enterprises Support Service (Sebrae) contests those numbers. Fernando de Holanda Barbosa Filho, also an IBRE researcher, advises that to accept a cut in tax revenue of this magnitude, the country should have a clear idea of the costs as well as the benefits. "In Brazil, we have an incorrect view that formalizing small businesses and reducing the tax burden is a good thing in itself, regardless of the fiscal cost," he says. Yet there is already evidence from several countries, including Brazil, that this policy has done little to increase the formalization and productivity on small businesses. Barbosa Filho notes that "First, because unproductive subsidized companies will remain active, more efficient companies cannot replace them, which brings down the productivity of the economy. Furthermore, raising the gross revenue ceiling to be considered a small business will benefit companies that do not need this kind of support—a company with R$14 million gross revenue is not considered small anywhere in the world—and it removes any incentives for these companies to support the broader tax reform Brazil desperately needs."

In many countries, unlike Brazil, benefits for small businesses are much more focused on reducing red tape to facilitate formalization than on tax cuts.

Joana Monteiro, professor at the Brazilian School of Public and Business Administration (Ebape/FGV), agrees with Barbosa Filho: "We live in an incredibly bureaucratic country. The cost of doing business is absurd. Initiatives to cut red tape and reduce taxes are worthwhile. What worries me, in the case of the Simple, is that it is an exception system, which creates a problem for those who are not in it. If we expand the Simple, it will certainly reduce the pressure for more structural reforms that benefit everyone."

Bridge for growth

The Simple was created in 1996. It consolidated six federal taxes and other federal contributions into a single tax. According to the Federal Revenue Service, in 1997 two-thirds of Brazil's formal businesses joined the simplified system. In 2006, the Simple was expanded to cover

Brazil's new gross revenue ceiling for small businesses to benefit from the simplified tax system is far above international practice

	Ceilings in US dollars	Ceilings as multiples of income per capita
Argentina	48,760 (services) and 73,140 (commerce)	5.36 (services) and 8.05 (commerce)
Brazil	1,000,000	132.2
Canada	121,400	2.8
Colombia	60,136	9.7
United States	48,000	1.0
Mexico	148,624	15.9
United Kingdom	114,072	3.2

Sources: Inter-American Development Bank, Central Bank of Brazil, government statistics agency IBGE.
Note: Data for Brazil are based on an exchange rate of R$3.60 per US$ and GDP and population of 2014. For other countries, data refer to 2011.



The construction industry is less sensitive to policies that reduce operational costs such as the SIMPLE simplified tax systems, according to IBRE.

state and municipal taxes. Eight years later, in 2014, the Simple was again revised, to cover regulated professions, such as engineers, lawyers, architects, and economists.

Sergio Gustavo da Costa, who helped to coordinate the FGV study that contributed to the formulation of Bill 125, considers the bill a good initiative that comes at a time when the government is in a difficult fiscal situation. The purpose of the bill, he says, is to improve the growth potential of companies opting for the Simple by reducing distortions in the current system that lead companies to break up into smaller ones to qualify for the simplified tax system and benefit from lower taxes. "The focus of the proposal is not to expand the system (although this is expected to happen), but to coordinate the migration of the company to the estimated profit taxation system or taxable income more competitively," he says.

For Bernard Appy, director of the Tax Citizenship Center, the bill does not address the main problem of the Simple, which is that it taxes gross income. Smaller firms tend to compete directly with informal businesses that do not pay taxes,

and so they have to reduce their profit margins. For companies with low profit margins and low profitability, however, taxing gross income, he says, is much more expensive than taxing value added, wages, and profits. Appy compares two businesses with the same gross income, which spent the same, and are subject to the same tax rate as the Simple: "For the business operating with a lower profit margin of 20%, the tax may be up to 20% of the profit margin; for the business with a profit margin of 50%, the tax is a much lower 8%."

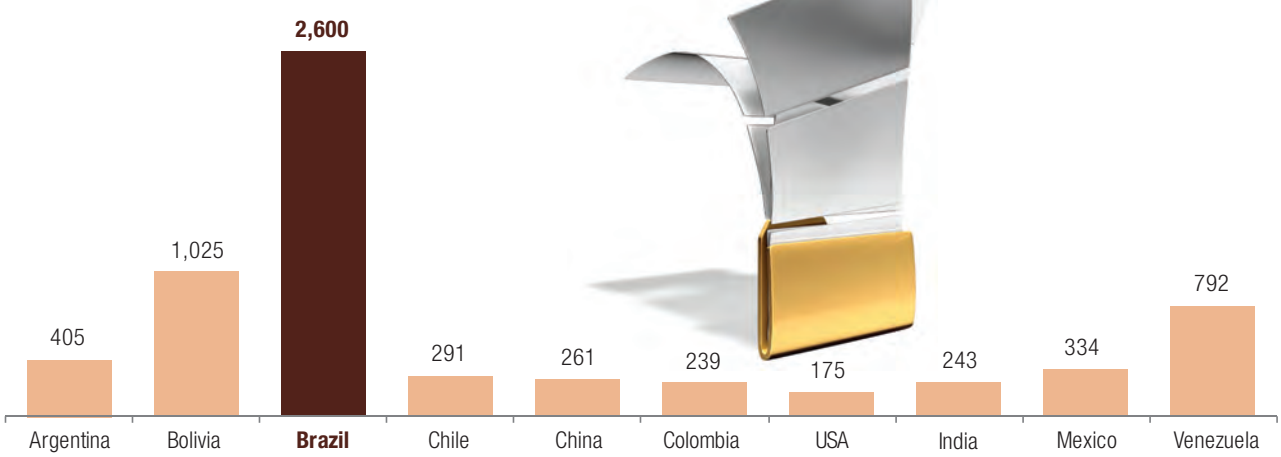
Appy points out that Brazil's tax system today opens a huge space for tax arbitration because of different rules for the MEI, Simple, the estimated profit taxation system, and taxable income—which in general also benefit higher-income people and entrepreneurs. For example, the tax on legal services would be 35.4% in the taxable income regime, 23.3% in the estimated income regime, and 13.5% in the Simple. This encourages people to form companies using arrangements that increase revenue and reduce taxes. Another problem of the Simple is that profits distributed to owners of small business are exempted from the owners' personal income tax. Thus, Appy says, "Employees and civil servants account for

"What worries me, in the case of the Simple, is that it is an exception system, which creates a problem for those who are not in it. If we expand the Simple, it will certainly reduce the pressure for more structural reforms that benefit everyone."

Joana Monteiro

Brazil has one of the highest costs of compliance with tax obligation

Hours per year spent to comply with tax obligations



Sources: IBRE and National Treasury Department.

According to Brazil's federal revenue service, approval of Bill 125/2015 will reduce tax revenues by R$12.7 billion in 2017 and R$16.1 billion in 2018.

47.6% of total income and 69.1% of the income tax paid; business owners account for 22.8% of income and 7.6% of the income tax paid." Other countries give benefits to companies, such as tax exemptions on value added tax (VAT), but the individual's income is still taxed.



Brazil's current tax system encourages professionals such as lawyers, engineers, and economists to form companies, seeking arrangements that reduce the tax costs and increase revenues.

Measuring the policy impact

Ebape's Monteiro believes the Simple, like other public policies in Brazil, needs an impact assessment to support decisions about it. "We design policies on the premise that they will have results, but we don't know if that's true unless we measure their impact. In recent years, we have cut payroll taxes and expanded the Simple—policies that have had a huge fiscal cost—but we have not measured their effects," she says. She has reviewed the Simple's first year outcome using data from the Urban Informal Economy Survey by government statistics agency IBGE and found that in 1997, the Simple pushed up by 13 percentage points the likelihood that a retail microenterprise would formalize, but there was no statistically significant impact in construction, manufacturing, transportation, and services. During that year the policy costs exceeded the benefits by a large margin. In the commerce sector, the estimated benefits in terms of increased formalization (measured by increases in average revenues and taxes) amounted to R$11.8 million—but the tax loss was R$86.2 million.

Carlos Henrique Corseuil of the Institute of Applied Economics (IPEA) and Rodrigo Leandro de Moura of the Federal Treasury Department analyzed the performance of the Simple in 1997, 1999, 2006, and 2007 in terms of total and formal employment, average salaries, and the value of manufacturing as benefit measures.

Again, the Simple had no positive impact on employment and company performance for companies close to the gross revenue ceiling.

Veloso and Barbosa Filho of IBRE and Gabriel Ulyssea of the Department of Economics of the Catholic University of Rio de Janeiro point out that Mexico and several other countries have found that policies to promote formalization are most successful when applied to groups whose characteristics are similar to those of formal employers, especially the level of education. "Today, the evidence is that informality is more the result of low productivity than its cause," Veloso says, noting that in Brazil, less educated people have the highest degree of informality. The Corseuil and Moura study corroborated this. They estimated that informality in the Brazilian labor market between 2002 and 2012 declined by more than 11 percentage points because of greater participation by people with more education and experience—common attributes of the formal labor market. This, says Veloso, suggests that policies to reduce entry and operational costs to participate in the formal economy are not sufficient to ensure more efficient and profitable businesses; policies to boost productivity are also necessary.

While in Spain and France companies with one to nine employees are generating about 25% of value added, those in Brazil are generating only about 10%.



Today, the evidence is that informality is more the result of low productivity than its cause.

Brazil has still much to do to raise productivity. The Organization for Economic Co-operation and Development (OECD) study points out that while in Spain and France companies with one to nine employees are generating about 25% of value added, Brazil's small companies are generating only about 10%. Daniel Barcelos Vargas, professor in the FGV Law School Rio, says that the changes needed in public policy do not necessarily include tax subsidies: "Regarding economic production, the discussion before was largely limited to how to simplify or facilitate the rules for small and medium-sized enterprises. Today, however, there is a more

"[Bill 125] is a palliative. Rather than making a broad tax reform, we are expanding tax privileges to certain groups in an appalling tax structure."

Gabriel Ulyssea

important agenda: upgrading the economy."

Vargas underscores the lack of instruments to supply capital for small innovative enterprises, as well as the obstacles the Simple creates to attracting capital. "The paradox is that venture capital funds can invest in a new business only if it is a corporation, but corporations cannot benefit from the Simple," he says. "So on the one hand, the Simple streamlines and promotes social justice; on the other it gets in the way of upgrading the economy. Brazilian policy to promote formalization is focused on low-skilled entrepreneurs, not on appreciation and inclusion of more sophisticated and highly skilled entrepreneurs."

Costa of FGV Projects stresses that Bill 125 is intended to improve what already exists. "From a tax point of view, we agreed that the best reform would be to improve the VAT. But we have to work with reality. We have discussed this issue for 20 years without success. What we see today is the government seeking approval of the Provisional Contribution on Financial Transactions (CPMF), which is a cumulative tax," he says. Ulyssea of PUC-Rio argues that, instead of expanding the Simple, the country should move to a more horizontal and rational policy: "This is a palliative," he says. "Rather than making a broad tax reform, we are expanding tax privileges to certain groups in an appalling tax structure," he says. Appy argues for the same tax system for both small and large companies based on the VAT, the payroll tax, and income tax: "This choice would limit the scope for injustice in the treatment of high and low profit-margin businesses as well as allow for the possibility of granting specific benefits for businesses with high payroll taxes." Monteiro is convinced that, despite the difficulties it entails, what is needed is a broad tax reform to promote efficiency and proper fiscal management, and reduce taxes on production as a whole.



A study published by IBRE points out that in the first year of the SIMPLE simplified tax system in 1997, only retail showed increased formalization.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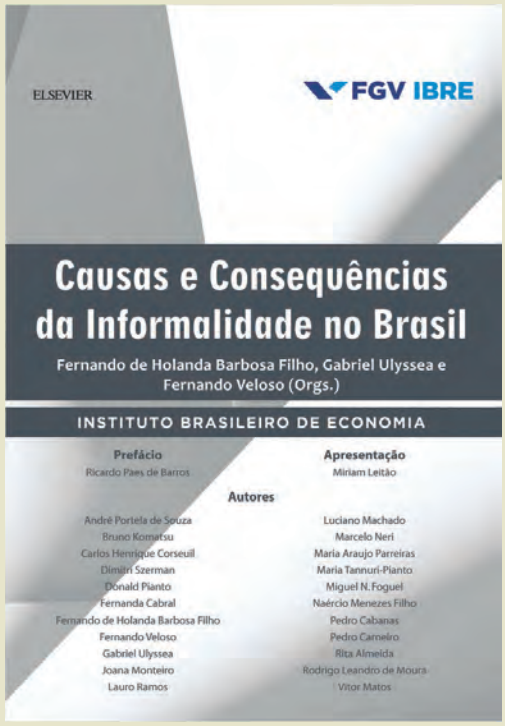
How informality affects Brazil



Solange Monteiro

SINCE 2000 POLICIES TO REDUCE informality in the economy have been one of the factors that helped to significantly reduce income inequality in Brazil. As more workers and entrepreneurs entered the formal economy, labor income grew, which helped lift millions of poor into the middle class.

However, there is still considerable informality in Brazil. The 2013 National Household Survey (PNAD) found in 2013 that the informal economy accounted for 38% of workers and 66.7% of enterprises. That makes it a prominent item on the country's policy agenda, especially at a time when severe recession is threatening the social gains Brazil has achieved.

"We sought to systematize the knowledge produced on the subject to get a deeper understanding of the problem."

Gabriel Ulyssea

IBRE's latest publication, *Causes and Consequences of Informality in Brazil*, deals with this precise issue. It was edited by IBRE researchers Fernando de Holanda Barbosa Filho and Fernando Veloso and Gabriel Ulyssea, of the Department of Economics of the Catholic University of Rio de Janeiro. "We sought to systematize the knowledge produced on the subject to get a deeper understanding of the problem," Ulyssea says. The book contains 15 articles by 23 economists from different institutions that analyze why informality is still so high in Brazil, its consequences, and the impact of public policies on informality.

The first part of the book addresses what characterizes informality in Brazil. Barbosa Filho and Veloso show how informality is correlated to factors that depress productivity, such as

little education, lower value-added per worker, and location in less developed regions. These factors explain most of the likelihood that a person will be self-employed, the researchers say. Next Marta Tanuri-Pianto and Donald Pianto , of the University of Brasilia discuss how workers may benefit from informality, pointing out that in the formal sector low-wage workers may pay as much as 55% in payroll taxes. Then Ulyssea, Dimitri Szerman of Catholic University, and Fernanda Cabral of Petrobras demonstrate that on average the performance of informal firms is 57% lower than that of formal ones, and that more long-lived companies with better educated owners generally perform best.

The second part of the book analyzes the determinants of informality. Carlos Henrique Corseuil and Miguel Foguel of IPEA relate the evolution of formality to the expansion of the economic cycle, demonstrating that informality is reduced after a reduction in unemployment. They also evaluate the results of such policies as incentives to migrate to formality, especially the impact of greater access to credit for small businesses, increased inspection of work places, and facilitation and reduction of entry and operational costs by, e.g., such as streamlining the tax system. For each policy they evaluate its costs and its benefits.

The final section looks at the consequences of informality for the Brazilian economy. Barbosa Filho and Veloso point out that in Brazil the 2003–2009 period was characterized by productivity growth and the formalization of economic activities, which contributed about 58% of the total growth in labor productivity. This occurred as workers moved from informal low-productivity sectors to formal higher-productivity sectors. Ulyssea offers a reminder that informal companies are characterized by low productivity, so that reducing the degree of informality should be an end in itself.

"Continued reduction of informality "depends on public policies based on a proper understanding of the causes of successes, and the mistakes we have made over the past decade."

Ricardo Paes de Barros

In the foreword to *Causes and Consequences of Informality in Brazil*, economist Ricardo Paes de Barros, professor at Insper, says that continued reduction of informality "depends on public policies based on a proper understanding of the causes of successes, and the mistakes we have made over the past decade." In his opinion, studies like this bring together valuable evidence to improve policies.

The future of sugar energy

Chico Santos

AMID ALL THE BAD NEWS that has been deluging the Brazilian economy since the beginning of 2015, the sugar-energy sector is looking forward to April with enthusiasm. April is the official start of the harvest of sugar for ethanol in the Center-South of the country, and with resumption of investment, the outlook is for continuing favorable conditions for sales, and thus continuing economic and financial recovery, which began in 2015.

According to a study for the Center for Advanced Studies in Applied Economics (CEPEA) by Agricultural School Luiz de Queiróz of São Paulo University, 2016 will see a shortage in world sugar production, but in Brazil conditions are favorable for a good harvest. With the price of sugar recovering, ethanol now encouraged by the end of government price controls on diesel and gasoline last year, reintroduction of the Contribution on Intervention in the Economic Domain (Cide) tax on gasoline and diesel, and the amount of ethanol added to gasoline increased to 27%, leading industry analysts are looking forward to the sugar crop with optimism.

After four years of difficulties that swept away at least 40 sugar mills and put another 79 into judicial

recovery, according to Elizabeth Farina, president of the Cane Sugar Industry Union (UNICA), the sector is now introducing technological advances that should promote efficiency, productivity, and product diversification.

Currently sugar mills and ethanol plants are also producing electricity from sugarcane bagasse, and in the not too distant future biorefineries will be producing products ranging from second-generation ethanol to fine chemicals, in response to Brazilian commitments to reduce carbon emissions. "Of course there are many challenges for developing new technologies, but we believe this is how the industry can start growing again," says Artur Yabe, sector manager of the Department of Biofuels of the National Bank for Economic and Social Development (BNDES).

"Business risks are intrinsic to capitalism. Political and institutional risks are more difficult to deal with."

Elizabeth Farina

According to Roberto Rodrigues, former Minister of Agriculture and coordinator of the Agribusiness Center of the São Paulo School of Economics of the Getulio Vargas Foundation (EESP), the future of the sugar sector will depend on technological advances and that will require funding to revitalize company investment



Brazil's ethanol production is approaching 30 billion liters

(Harvest 2014/2015; products and major producing states and regions)

State/Region	Sugarcane (Millions of metric tons)	Sugar (Millions of metric tons)	Anhydrous ethanol (Billions of liters)	Hydrous ethanol (Billions of liters)	Ethanol total (Billions of liters)
Alagoas	23.1	1.9	0.4	0.2	0.6
Goiás	66.3	2	1.3	2.9	4.2
Mato Grosso	13	0.4	0.5	0.7	1.2
Mato Grosso do Sul	43	1.3	0.6	1.8	2.4
Minas Gerais	59.3	3.3	1.2	1.5	2.7
Paraná	43.1	2.9	0.5	1.1	1.6
Pernambuco	14.5	1	0.2	0.2	0.4
São Paulo	337.8	21.9	6.5	7.3	13.8
South-Central Region	571.3	32	10.8	15.4	26.2
Northeast Region	60.8	3.6	1.3	0.9	2.2
Brazil	632.1	35.6	12.1	16.3	29.4

Source: UNICA.

2016 will see a shortage in world sugar production but in Brazil conditions are favorable for a good harvest.

capacity. Rodrigues believes that the most appropriate way to capitalize the sector is to raise the Cide tax from R$0.10 per liter of gasoline and diesel to R$0.30 to R$0.35.

The controls on fuel prices in 2011–14, say Rodrigues and most other experts on sugar energy, were primarily responsible for the disinvestment in sugar mills and ethanol plants, along with the drop in international sugar prices, and the problems of state-owned oil company Petrobras, which is grappling with the largest debt in its history and unable to make the investments necessary to exploit deep sea oil.

For economist Adriano Pires, director of the Brazilian Infrastructure Center, what determined the ethanol supply crisis in the late 1980s and throughout the 1990s was declining oil prices and the resulting general lack of interest in ethanol as a fuel.

Consultant Roberto Villa, a former director of Petrobras, said the lack of ethanol in the market for several years in the 1990s was usually associated with good international prices for sugar itself.

Investing in technology to grow more

The current crisis, exacerbated by severe drought in 2013 and 2014, bottomed out last year partly because of favorable hydrology. Also, changes in economic policy ended the price controls on gasoline and diesel, allowing Petrobras to restore its profit margin, which favored the recovery of the sugar-energy sector. However, the plunge in international oil prices, from US$111 a barrel in June 2014 to about US$35 currently, has slowed gasoline and diesel re-pricing.



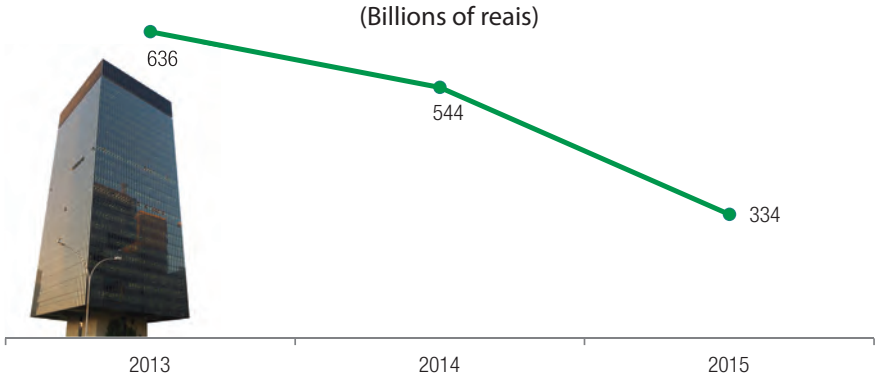
Production of flex engines since 2003 has given a new boost to consumption and production of ethanol fuel in Brazil.

The government has moved to make ethanol more competitive and raise demand for it by reintroducing the Cide tax on gasoline and diesel, realigning fossil fuel prices, and

raising the ethanol content of gasoline from 25% to 27%.

Given Brazil's commitments to the 21st UN Conference on Climate Change to reduce emissions 37% by 2025 and 43% by 2030, the sugar-energy sector sees a new path opening for use of biomass for energy. With oil prices expected to stay low for some time, Rodrigues believes that this is the time for an injection of income so the sugar-energy sector can leave crisis behind. He believes raising the Cide tax on gasoline and diesel would allow sugar mills to widen the profit margins on ethanol sales. Nevertheless, he says, many sugar mills in difficulties will not be able to survive; he expects a new round of consolidation like that experienced in the early years of this decade.

The National Development Bank disbursed over R$1.5 billion to improve technology in the sugar-energy sector in the last three years.



Source: BNDES.

Rodrigues has identified "a silent technological effort" among sugar-energy producers to achieve greater efficiency, productivity, and added value. The initiatives are both agricultural and industrial. For instance, now in an advanced stage of development is planting pre-sprouted seedlings instead of the traditional pieces of sugar cane. In Ribeirão Preto in São Paulo, the Sugarcane Center of the Agronomic Institute of Campinas (IAC) has found way to cultivate seedlings in nurseries, which substantially reduces the amount of cane required for traditional planting, and thus increases crop productivity and the amount available for sale. The cost of using seedlings, Rodrigues says, is almost the same as traditional planting, which should favor its rapid dissemination.

In the not too distant future biorefineries will be producing products ranging from second-generation ethanol to fine chemicals.

Mechanized harvesting is another advance that makes agricultural labor more productive and reduces the need to burn the straw, a practice that is gradually being eliminated.

Rodrigues also highlights the advance of transgenic sugarcane and "energy-cane," a variety that is richer in fiber than sucrose and is thus more suitable for producing ethanol, chemicals, and electricity than sugar. In addition to the "green plastic" produced by petrochemical giant Braskem, yeasts and

The government has moved to make ethanol more competitive and raise demand for it by reintroducing the Cide tax on gasoline and diesel, realigning fossil fuel prices, and raising the ethanol content of gasoline from 25% to 27%.

enzymes from sugarcane have been bred to replace petrochemicals as raw materials for fine chemicals.

Sustainability is central

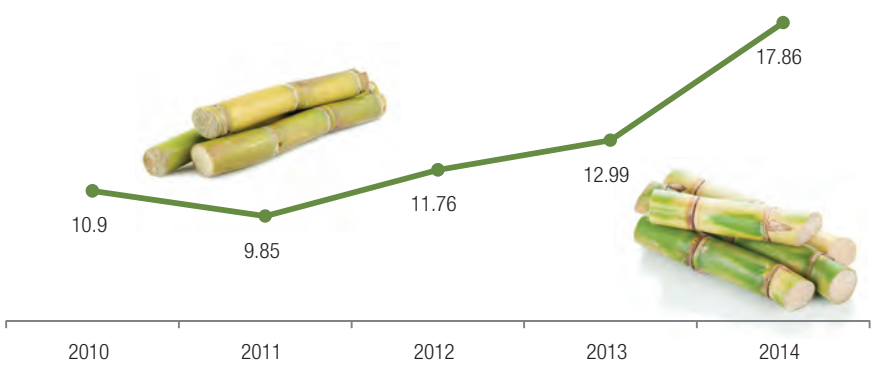
UNICA's Farina considers sustainability to be central to advancing the sugar-energy sector. She believes Brazil's international commitments to reduce carbon emissions make it imperative to give biofuels a larger share in the country's energy matrix.

"The biggest challenge of this international agreement is to put in place public policies consistent with those agreed targets. The struggle now is to define those policies," Farina said. One related problem is what she calls the "tax gap." Farina argues that the tax gap between renewable energy and fossil fuel should be calculated by pricing in "the positive externalities of renewable energy and the negative externality of fossil fuels." Currently subsidies to fossil fuels are still "huge," she says—an estimated US$3 trillion, according to the International Monetary Fund.

To meet Brazil's commitments to reduce carbon emissions, the Ministry of Mines and Energy (MME) has set a goal of producing 50 billion liters of ethanol a year, almost double 2014/2015 production. Farina notes that one favorable measure in 2015 was the increase in the share of ethanol in gasoline, making fossil fuel cleaner and increasing the price and competitiveness of ethanol. Last year consumption of ethanol went up by 37.5%.

Consumption of ethanol has grown 63.8% in four years.

(Billions of liters)



Source: Unica.

Farina said that the recovery of the sugar-energy sector will eventually attract more investment, but warns that recovery will not be fast until Brazil escapes the political and institutional crisis responsible for depressing business

confidence in all sectors. "Everyone is waiting to see what will happen. Business risks are intrinsic to capitalism. Political and institutional risks are more difficult to deal with," she said.

Innovation and BNDES

Farina also highlighted advances in production of electric power by the sugar-energy industry. All 380 active sugar mills are now self-sufficient in electricity, and 177 supply power to the grid, lighting up 11 million homes—16.4% of Brazilian households.

BNDES and the Financier of Studies and Projects (Finep) are the two main government agencies that support industrial development. Artur Yabe of BNDES says that the conditions that favored ethanol in 2015 are expected to continue in 2016, reinforced by a favorable market for sugar and contributing to continued improvement of the financial health of companies in the sector.

Given Brazil's commitments to the 21st UN Conference on Climate Change to reduce emissions 37% by 2025 and 43% by 2030, the sugar-energy sector sees a new path opening for use of biomass for energy.

Yabe says "the sector's profit is key." The worst of all worlds, he thinks, would be a scenario of low prices combined with currently expensive credit. But in his opinion, "The resumption of investment will come sooner than we expect, first by expansion of installed capacity and then by construction of new plants."

Yabe said in this sector BNDES, in partnership with Finep, has in recent years been concentrating on stimulating technological advances in both sugar farming and industry. The Program of Support for Technological Innovation in the Sugar-Energy and Sugar-Chemical Sectors (PAISS) disbursed more than R$1.5 billion in 2013–15. Yabe said



Government controlled prices of gasoline and diesel and more recently the fall in international fuel prices have hurt the profitability of ethanol producers.

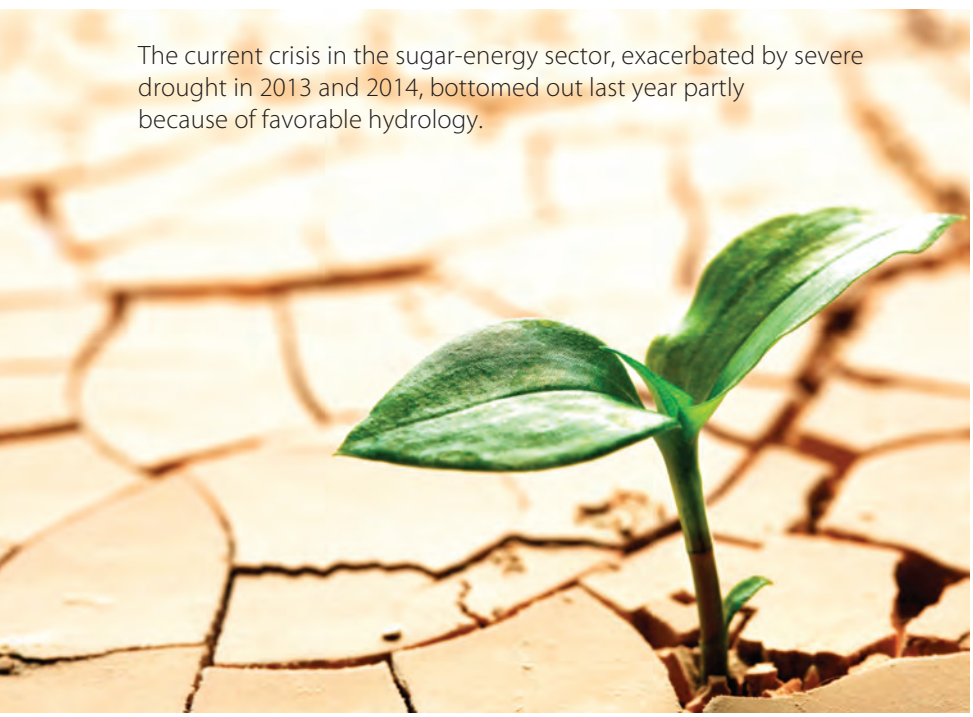
In addition to the "green plastic" produced by petrochemical giant Braskem, yeasts and enzymes from sugarcane have been bred to replace petrochemicals as raw materials for fine chemicals.

that energy sugarcane could produce as much as 200 tons per hectare; crops of current varieties are just below 100 tons.

In the area of transgenic sugarcane, most of the work is being done by the Center for Sugarcane Technology (CTC). The CTC, created in 1969 as a nonprofit research institution, has been transformed into a corporation controlled by sugar-energy companies. BNDES underwrote R$300 million in CTC bonds to finance acquisition of state-of-the-art genetic technology equipment. CTC will launch its first variety of transgenic sugarcane in 2017.

In the industrial area BNDES has concentrated its support on encouraging new technologies for second-generation ethanol plants and biorefineries, which Yabe considers the future of the industry. For cellulosic ethanol, Yabe points out that already three industrial plants are operating in the country, two on a commercial scale, Granbio and Raizen, and one a CTC prototype. As for biorefineries, two plants, Paraíso Bioenergy and the Bunge group, are up and running.

Mirian Bacchi, a Cepea specialist in ethanol, believes that new technologies will be the main way to reduce production costs and make the sugar-energy sector more competitive, but in the short and medium technological advances will not occur on a large scale, because of either financial limitations or lack of a clearly defined national fuel policy.



The current crisis in the sugar-energy sector, exacerbated by severe drought in 2013 and 2014, bottomed out last year partly because of favorable hydrology.

Sugar and equipment

The favorable outlook for ethanol and sugar does not yet excite machinery and

equipment suppliers. "The outlook for the sugar-energy sector is the same as for other crops: the harvest is good, profitability is good, but sales of machines and equipment do not grow," explains Pedro Estevão Bastos, president of the Brazilian Chamber of Machinery and Agricultural Implements of the Brazilian Association of Machinery and Equipment (Abimaq).

Bastos believes the problem is that entrepreneurs lack confidence in the sector and in the direction of Brazil's economy—the same problem that afflicts companies throughout the economy. According to Abimaq, in 2015 sales of machines and equipment dropped by 27%.

Building new markets is an arduous task that takes time. The devaluation of the Brazilian currency, which has made Brazilian industry more competitive and brings in more revenue per unit sold, is not yet reflected in heightened exports, which amount to only about 20% of total production. Selling little, the sector can invest little—and in Bastos's opinion, last year the government eliminated the incentives for innovation.

"The resumption of investment will come sooner than we expect, first by expansion of installed capacity and then by construction of new plants."

Artur Yabe

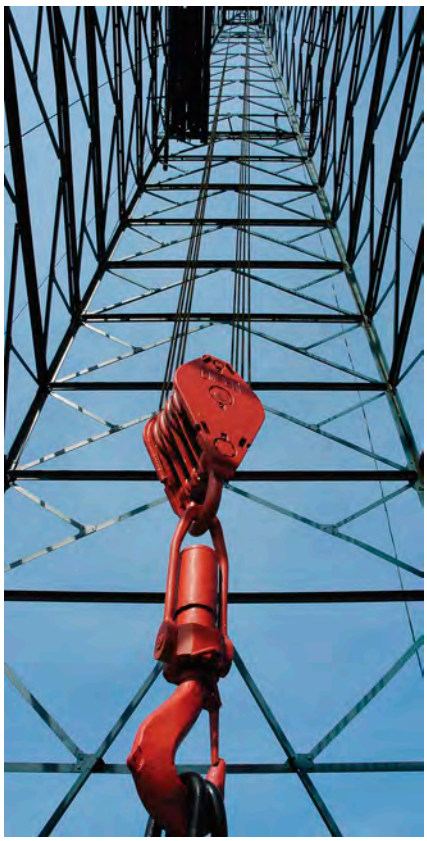


In the 21st UN Conference on Climate Change last year, Brazil committed to reducing emissions 37% by 2025 and 43% by 2030.

Petrobras, deep sea oil, and competition

Mauricio Canêdo Pinheiro
IBRE researcher

IN 2009 NEW REGULATIONS for oil and gas exploration in the deep sea reserves were proposed. Among several changes, two stand out: The first relates to how the exploration rights are auctioned and how the government defines its share of the resources generated. The exploration contracts changed from a system in which companies compete for the right to operate primarily through cash bids (signing bonuses) and pay taxes and royalties on their production to a system in which the winning company shares the oil produced with the government. The second major change was the identification of state-owned oil company Petrobras as sole operator of the deep sea oil fields, with participation of at least 30%. Currently there is a bill in Congress (Draft Senate Law No.131, 2015), which would remove Petrobras as the exclusive operator of deep sea production.



At the time few of the consequences of these changes were discussed. The debate was limited to how the revenues from deep sea oil exploration would be divided among the states of the federation. Although that question is relevant, aspects related to the incentives embedded in the new framework are also important and have been largely neglected in the discussion.

Appropriate incentives make all the difference. There is an extensive literature showing that, depending on how the incentives are designed, a winning ticket can turn into a curse. The fact that Petrobras must be the operator for deep sea oil has implications for the companies and consortia bidding in the auctions. When companies must deal with uncertainty, bidding is less competitive, which means the revenue the government can obtain is lower. For

instance, only one consortium participated in the auction of the Libra field, and the block was awarded for the minimum bid.

But for society there is another important dimension to the relationship between competition and the results of deep sea oil exploration: how competitive pressure from other companies affects the performance of Petrobras. Certainly one of the most important aspects of deep sea oil production is technology. Extracting oil at such depth and so far from the coast is a huge challenge that demands intensive efforts at innovation. Although there is not much empirical evidence specific to the oil and gas sector, the economic literature indicates that competition—whether from established firms or newcomers—stimulates innovation, especially where companies are close to the technological frontier, as is true for exploitation of deep sea oil. Thus, it seems plausible that concentrating operations in a single company may have negative effects on the development of technological innovations that will allow safe and economically viable deep sea oil operations.

Also, there is solid evidence that competition heightens business productivity. A less competitive environment, such as a single operator, tends to reduce the efficiency of enterprises, which is undesirable in terms of allocating economic resources. Considering the typical production-sharing contracts, reduced efficiency generates less government revenue, because every increase in cost reduces the oil production that government and enterprises share.

Even if the government wants to keep part of the oil and gas industry under state control—whether through a public or a mixed capital company—it is important that it does not eliminate the competitive pressure on its companies. It is this competitive pressure that provides incentives for a state-owned company to operate efficiently, adopting technological innovations that keep costs competitive. Persuasive evidence in favor of this argument is how much the performance of Petrobras improved after it opened up its capital structure, and especially after it was exposed to competition.

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Previously Petrobras maintained its lead in oil exploration in Brazil even after the Petroleum Law ended its legal monopoly. The company knows Brazilian geology like no other and is at the technological frontier for deep-sea oil production. But that is not enough. To maximize the gains that it could gain, the regulatory environment must be appropriate. Among other things, it is necessary that all companies in the sector, including Petrobras, be exposed to competition, which is a powerful incentive for greater efficiency and productivity. Keeping Petrobras as the exclusive deep sea oil operator is not a good strategy.

Photo: GO Associados



Members of Mercosur must use it better

Regis Arslanian
Former Ambassador

Solange Monteiro

THE END OF MARCH WILL MARK the 25th anniversary of the Treaty of Asunción, which created Mercosur—and yet again Mercosur celebrates an anniversary under criticism of its trade and economic ineffectiveness: it still has little to show in terms of trade agreements and encouragement of regional value chains. For Regis Arslanian, however, it does not make sense to belittle the importance of the bloc. He describes Mercosur as a club that has well-structured norms but they depend on its members being willing to use them productively. In speaking to *The Brazilian Economy* about Mercosur's prospects and problems, Arslanian—who was Brazilian Ambassador to Mercosur from 2007 to 2012 and Brazil's representative in the negotiations for a trade agreement between Mercosur and the European Union in the early 2000s—warned that the bloc will not make advances with European countries if it does not modernize its negotiation model.

What are the prospects of Mercosur celebrating 25 years by making progress toward a trade agreement with the EU?

Mercosur and Brazil have an outdated negotiating model from the 1990s that is based on tariffs. We have offered the EU an agreement that covers 87% of the tariffs—a good initial offer—but in my opinion, the Europeans do not want to make a deal on those terms. For them, concessions on tariffs and quotas will not matter unless there is regulatory convergence.

After all, how important are tariffs today? The Brazilian currency has been devalued by over 40% since last year. Brazil's highest tariff on cars in Mercosur's Common External Tariff (CET) is 35%. So the tariff was totally neutralized by the exchange rate devaluation. Moreover, with the Innovation Auto program, European factories have settled in Brazil, so EU countries have no interest in exporting cars to Brazil anymore. In contrast, at the time the agreement with the

EU was being negotiated (negotiations were suspended in 2004), Europeans were interested in Mercosur's motor vehicle and parts market.

Today, mega-deals like the Transpacific and Transatlantic (TPP and TTIP) trade agreements are much more comprehensive. The cost of not changing is that we are not part of global value chains. Today there is no way to imagine productive integration, a partnership between countries, without a legal instrument and a regulatory model that is more or less homogeneous, and without intellectual property protection and similar rules on industrial production. Even with all its problems, the Mercosur market is very attractive to Europeans and Americans. Venezuela alone is a very important market, and there will come a day when it will have a more stable political situation. But to negotiate effectively, we must be more open and have more comprehensive and ambitious proposals.

Where should this change come from?

We need consensus from the business sector and Congress, which has to approve all agreements that Brazil negotiates—but also from civil society, trade unions, and academia—to carry out negotiations to modernize our industrial policy and open doors for greater trade. Today, for example, we are not participating in such multilateral negotiations as the agreement on trade in services (Tisa), which covers areas like transportation, energy, finance, and e-commerce. The service associations in Brazil desperately want to participate, sit at the table, and discuss what is being negotiated. Brazil needs to review obsolete laws like the general telecommunications law and restrictions on coastal shipping so that we can integrate our economy [into global markets]. And Mercosur needs to encourage this. I guarantee that Argentina, with its new government, Uruguay, and Paraguay will be willing to change the approach and adopt a more open negotiating model.

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In trade, the assessment of Mercosur tends to be negative, and some argue for ending the customs union. Do you agree?

No, that is not the fault of Mercosur, which has very well-structured rules. The bloc is like a club: You can have wonderful rules, but if the partners do not follow them, do not respect time schedules, and so on, the club goes down the tubes. The mandate that the European Commission received from the EU countries was to negotiate with Mercosur, create a free trade agreement between the two largest customs unions in the world, and not negotiate with individual countries. The problem now is that the political agenda has superseded the commercial and economic agendas. Mercosur worked very well during the Fernando Henrique Cardoso

Even with all its problems, the Mercosur market is very attractive to Europeans and Americans. … But to negotiate effectively, we must be more open and have more comprehensive and ambitious proposals.

administration and grew a lot during the Lula administration. For example, the agreement on elimination of tariffs on imported goods moving within Mercosur was signed in 2010. That had been a major complaint of the Europeans; after all, what kind of customs union did not have free movement of people and merchandise? This item is also a major obstacle to productive integration within Mercosur. At first, the 2010 agreement was moving forward, but momentum stopped because Mercosur's agenda for integrating production among countries stopped.

Do you think the change of political parties in the region and the end of the supercycle of commodities may encourage Mercosur's revival?

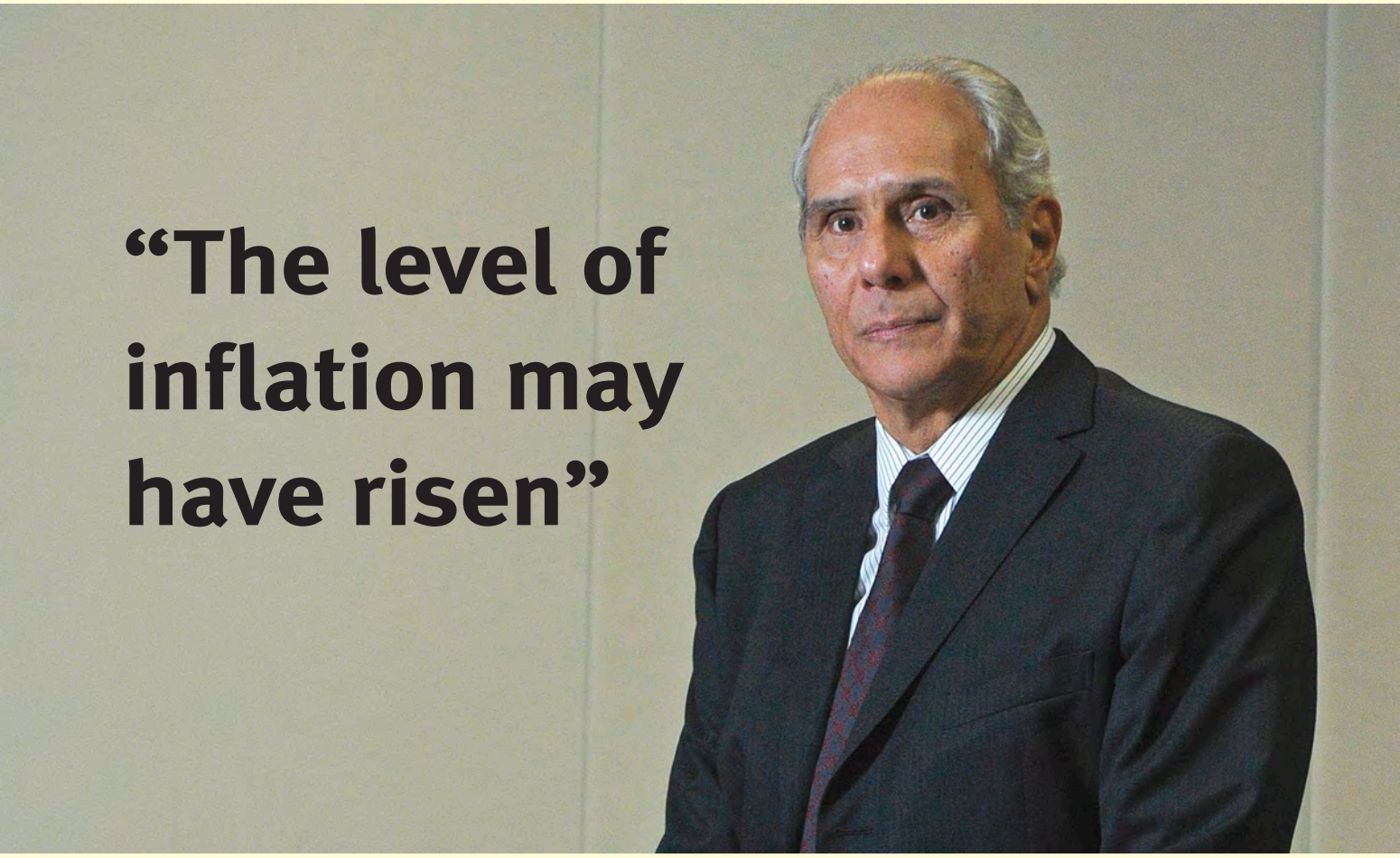
The more change occurs, the more members will be attracted to using Mercosur more productively. The ideological U-turn in Argentina helps. The Argentina–Brazil bilateral monitoring committee, which was inactive for a year and a half, is now meeting again. All this can create a better environment [for Mercosur].

What agenda does Mercosur require today?

We do not necessarily need to be innovative. We have to resume the agenda that was started and never completed. Mercosur is a powerful tool for everyone. Used properly by the partners, it can be very helpful. But Brazil needs to be more active. Otherwise, there will be no game. In the 35 years I was in the Foreign Ministry, I never saw an instruction even indicating that Brazil had to take leadership in South America. But of course it must. And in South America, it is presidential diplomacy that opens doors.

Because of Brazil's domestic political and economic crisis, however, our government has not been able to focus on foreign policy issues and I find it unlikely that it will have any capacity in the next two or three years to promote the needed changes in Mercosur. Agreements on facilitation of investment, for example, are extremely important. Other initiatives, such as negotiation of a fast track for examination of patents between Brazil and the U.S. (the Patent Prosecution Highway Program, started in January) are good signs. But they are still isolated initiatives—not part of the consistent proactive and productive policy that Mercosur needs to not be left behind.

Photo: Valor



"The level of inflation may have risen"

José Julio Senna

Head of the Monetary Studies Center of the Brazilian Institute of Economics (IBRE, FGV)

Solange Monteiro

THE BRAZILIAN CENTRAL BANK is struggling today with the persistence of inflation above the ceiling of the inflation target range, and its hands are tied by a severe recession, a high fiscal deficit, and a difficult political scenario. José Júlio Senna, head of monetary policy studies at the Brazilian Institute of Economics and former director of monetary policy for the Central Bank, says that recent monetary policy is likely to result in a change of the inflation level of the economy from 6% to 8%–8.5% and the consequence will be more unstable inflation. "The only chance we have to make inflation targeting work properly is a true fiscal adjustment built on a consensus of the political parties about reform," he says.

How do you see the current situation of the Brazilian Central Bank?

It's a delicate situation. In fact, the situation is difficult not just for the central bank but also for anyone concerned about the current predominant scenario. There is confusion even over conceptual issues. Since Brazil has an inflation targeting regime, some argue that the only task of the central bank should be to calibrate its policy so that the target can be met in a reasonable time: in other words, the central bank should set the real benchmark interest rate sufficiently high to keep inflation at 4.5% per year.

The central bank chose to postpone meeting the inflation target when recession was already deep; it would be even worse if the central bank had forced convergence of inflation to the target in the short term.

This way of looking the problem seems to me incorrect. Inflation targeting has not just one exclusive goal but a hierarchy of objectives. The priority is to fight inflation, but not at any cost. You must take into account the pace of economic activity, spare production capacity in the economy, and unemployment. Brazilian history shows that the central bank chose to postpone meeting the inflation target when recession was already deep; it would be even worse if the central bank had forced convergence of inflation to the target in the short term. The most appropriate policy is to define an adjusted inflation target to be met immediately, without abandoning the original target in the medium term. This allows convergence to the original target to occur gradually, which should minimize the cost in terms of economic activity and employment. This view is supported by the economic literature on inflation targeting. In my view, the great difficulty at the moment is that the central bank is not in a position to follow the recommended path or adjust the targets.

Did the loosening of interest policy in 2011 contribute to the worsening inflation outlook?

Since 2011 there has been a certain aggressiveness in interest policy. The central bank has adopted a strategy to bring the interest rate down to a very low threshold, less than 2% in real terms—and without doubt that helped to raise inflation. In fact, this decision was part of a broader policy strategy, a strategy based on an incorrect view of economic growth. In general, economic growth is a supply, not a demand, issue. The government sought to promote expansion of the economy by higher public spending, subsidized interest rates for investment, credit for consumption of durable goods, and discretionary tax cuts. Regardless of where the economy was in the economic cycle, the government tried to boost it by stimulating demand. That is not what an economy needs to grow. What is needed is to stimulate supply by encouraging people and companies to mobilize resources for productive purposes. The government needs to provide businesses with better infrastructure and reduce bureaucratic costs. The tax system needs extensive reform and simplification. With such measures supply tends to expand and significant gains in productivity appear, especially when governments also improve the quality of education.

The combined result of the policies the government adopted, not just the forced fall of interest, was the frightening imbalance of public accounts, which affects the perception of the Brazil risk. The consecutive downgrades in the country's credit ratings are a good example. Of course, there are entitlements in the Constitution that make the situation worse … . Public spending in Brazil has been growing about 0.4% of GDP a year for over 25 years. Many argue that the legal provisions make it impossible to control government spending. If you really want more balanced public accounts, and a tax system that causes less distortion and productive inefficiency, there must be reforms that change such legislation. Is it difficult? There's no doubt it will

be. Will there be resistance? Without a doubt. But if Brazil wants to generate more wealth and more jobs, and lower inflation, there is no alternative. … The old way of raising taxes is closed. Thus remains only one alternative to correct the fiscal imbalance: cut expenses. If this does not occur, uncertainty will continue to be excessively high.

One of the most serious economic policy mistakes of recent times, I believe, was to stimulate household borrowing: regulations to facilitate consumer credit, discretionary reduction of taxes on durable goods (particularly cars), and political discourse all encouraged household indebtedness. Many families borrowed more than would be recommended to purchase durable goods. Now the bill has arrived. The economic downturn and high unemployment have forced families to adjust. Consumption fell more than 4.0% in 2015, and will fall by about the same in 2016. This is unprecedented.

In short, we are experiencing a hangover from several years of excessive demand stimulus. The recession is the result of the low quality of recent economic policy. And that escaped the control of the Central Bank. From the start of the recession early in 2014 through the end of this year GDP is likely to shrink by 8%. Faced with this situation, it is understandable that the central bank feels the need to raise interest rates.

Does this mean the central bank's hands are tied?

In general, yes. Today there are three restrictions on what the central bank can do. The first is the recession. The second is the magnitude of the fiscal deficit; the nominal deficit is close to 10% of GDP and interest payments are high. … When an interest rate adjustment

Regardless of where the economy was in the economic cycle, the government tried to boost it by stimulating demand. That is not what an economy needs to grow.

is concerned, anywhere in the world, generally the fiscal stance is not a concern of the central bank governor. In Brazil, however, the perception of risk is reflected in the rate on 5-year certificates of deposits as almost 500 points. This is something that should not be ignored. …

The third restriction relates to the environment we live in. When inflation is low, 2 to 3% a year, the monetary authority adjusts the interest rate smoothly. But in Brazil adverse reactions to an increase in interest rates tend to be more pronounced than in other countries, because the interest rates here are already very high. In the credit market, there are so many distortions that interest rates are absurd. You need to have a minimum of acceptance by society to raise the interest rate. And in the long run it discredits monetary policy.

So there is no room to increase interest rates in Brazil today?

The moment for it is not favorable. Inflation is a problem, but so is the recession. And we are in the midst of a political crisis. For monetary tightening to have good results, society must believe that monetary policy will not suddenly be reversed. Moreover, the central bank alone cannot do much. There is a direct relationship between the potential

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growth of an economy and the equilibrium real interest rate. Since potential growth has declined significantly, it is likely that Brazil's equilibrium real interest rate has also fallen. Therefore, a real interest rate of almost 7% is a significant monetary tightening. The problem is that, while monetary policy is far from being loose, it will not solve the problem because the fiscal imbalance is dramatic, and there are no initiatives to correct it.

Is it possible to remove the threat of high inflation?

An inflation targeting regime operates to anchor the price system. If the target is credible, the central bank is reliable, and economic policy supports the bank's actions, society has a base on which to adjust prices and wages. But the inflation target must be met. … However, the government began to consider the acceptable range of 2.5 to 6.5% to be the target, instead of 4.5%. When inflation is close to 6.5% and the government says it is meeting the target that confuses people. For the last six years, inflation has been well above 4.5%, so people believe that is not the target and adjust accordingly.

Another great lesson from the recent period is never control prices—because down the road all repressed inflation becomes corrective inflation. The Brazilian government controlled urban transport prices, gasoline, and electricity tariffs, and yet average inflation was high. But now reality imposes itself. In 2015 all controlled prices increased up to 18% and inflation closed the year at 10.7%. The problem now is that society sees the upward trend of prices as the new reality and the way forward.

A demonstration of this is the IBRE/FGV consumer survey, which asks people what inflation they expect for the next 12 months. For the three years ending early in 2015, the expectation averaged 7.1%. This February, expected inflation is 11.4%—in line with the minimum wage increase and 2015 inflation of 10.7%. Entrenched inflation expectations are a problem for the central bank. What to do to anchor expectations? There is nothing the central bank can do. The recession is very serious, the fiscal imbalance very serious, and the political situation very bad.

The only chance we have to make inflation targeting work properly is a consensus of the political parties around reforms and a true fiscal adjustment.

Is it possible to position the economy on the path of convergence to the inflation target?

With the current recession and high unemployment, inflation should fall. To understand why it does not fall, consider that inflation is determined by three main factors: shocks, such as exchange rate changes, which affect the price of tradable goods and the very expectation of inflation; unemployment, which when it is high brings down inflation; and inflation expectations. What we had in 2015 was a corrective price shock. In countries where inflation expectations are anchored, these shocks are just a transient disturbance

in the economy, dissipate in a few months, and inflation is back to its previous trend. But when expectations are not well anchored, the shock causes the level of inflation to change. I fear that Brazil's inflation level is rising from about 6% to 8 or 8.5%. It is difficult to be more precise than that. If the level has really changed, it will be even more difficult to reduce inflation, despite the brutal recession. Can it be 8% for three years in a row? Yes. But the international evidence is clear: the higher the inflation rate, the more unstable it is.

How would you evaluate the economic deceleration in developed economies?

The world is going through a very strange phase. I do not believe there are economists who can explain what is happening. The world economy is growing less than its historical average, particularly the developed world. … Generally, economies grow slowly because they have modest gains in productivity, have less physical capital for companies to work with, and there is a shortage of labor. Now, however, some speculated that low growth might be related to a chronic deficiency of demand. Several hypotheses justify this thesis. One is the increased inequality in the developed world. To the extent that income and wealth are concentrated in the hands of people who are less willing to spend, consumption is hurt. Another hypothesis involves demographic changes. When the population is growing fast, many are mobilizing to invest because a larger population will demand more power generation, more housing, and more infrastructure in general. None of this is needed when the population shrinks. Moreover, in the modern world, technological advances have meant that entrepreneurs do not need to mobilize large sums of money to invest. … In the developed world, investment rates are declining, and this may explain the current modest growth, or stagnation.

We are experiencing a hangover from several years of excessive demand stimulus. The recession is the result of the low quality of recent economic policy.

And without demand, there is no inflation...

True. Inflation is running below the historical average throughout the developed world. And central bankers are flabbergasted. In the acute phase of the financial crisis in 2008-2009, central bankers were able to correct it immediately …. They managed in the short term to unlock financial markets and put credit to work. But they failed to stimulate the economy. Quantitative easing is not producing the desired effect. … Now, with new shocks to prices, particularly the fall in oil prices, it is natural that inflation expectations would decline further. Central banks have come to understand that there is no room to raise interest rates.

Does the international scenario help or harm the Brazilian recovery?

This weakness of the developed world, and incredibly low inflation, could be seen as something that could help us, give some hope. But I see no channel through which lower inflation abroad and slower growth would actually help us. Our problems are domestic. They were manufactured here and require domestic solutions.