What's driving the automotive industry?



Chico Santos

THE BRAZILIAN CAR INDUSTRY had a difficult 2014. Despite strong encouragement from the federal government through reduction of the Tax on Industrialized Products (IPI), vehicle production fell by 23% in 2014. Although we do not have numbers for the whole year of 2014, numbers for the first half of the year suggest that possibly Brazil's car industry lost seventh place among the world's largest car producers to Mexico. According to the National Association of Vehicle Manufacturers (Anfavea), last year Brazil produced 3.2 million vehicles compared to 3.7 million in 2013.

Although Anfavea president Luiz Moan Yabiku Jr is optimistic that the improvement in sales in the second half of 2014 will continue in 2015, the car industry is very sensitive to credit, and monetary and credit conditions are likely to tighten in 2015. At year end in 2014 central bank's

basic interest rate was 11.75%, having risen 0.50 percentage points in October and 0.25 in December.

The challenge for the auto industry is to continue growing and, as the government wishes, lead innovation and technology development in the Brazilian industry, and become more competitive in the global market. The controversy is about whether this can be achieved.

The National Development Bank (BNDES), the largest lender for long-term investments in Brazil, has been pouring financial resources into car industry modernization. From 2008 to September 2014 the institution approved R$44.8 billion to fund sector projects, of which more than 10% was for research and development (R&D) and engineering projects. According to BNDES, the outcomes so far justify its support for the car industry.

For instance, the number of engineers in relation to all employees in the car industry grew from 3% in 2008 to 4.3% in 2012, reducing the gap with the United States, where engineers constituted 5.9% of total car industry employees.

Another outcome, BNDES reported, is that carmakers themselves invested R$58 billion in 2010–13 and they are expected to invest another R$59 billion in 2015–18. According to Anfavea, auto and auto parts manufacturers committed to invest R$77 billion in 2013–2018 under the federal Program for Incentives to Technological Innovation and Densification of the Motor Vehicles' Productive Chain (Innovate-Auto). The Innovate-Auto program, created in late 2012, allows a reduction of up to 30 percentage points in the IPI tax on goods used for investment in innovation and production of motor vehicles and parts.

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Luiz Carlos Mello

"What we need is a determination to move forward with technological development, not just with government stimulus but also Brazilian entrepreneurs embracing full-heartedly competitiveness," says Luiz Carlos Mello, former president of Ford Brazil (1987-1992) and today director of the Automotive Research Center (CEA Autodata). He believes the car industry has great growth potential.

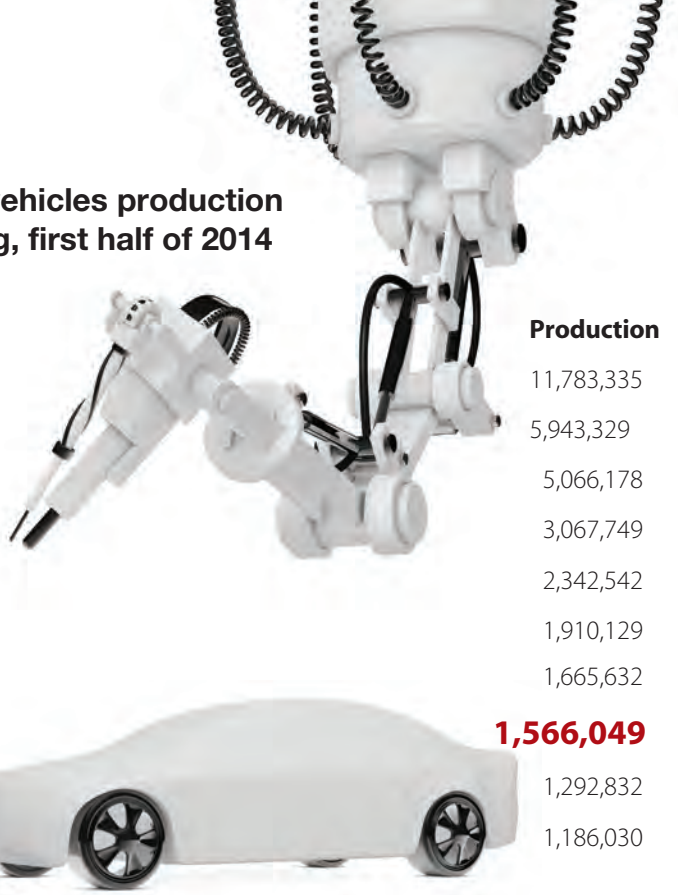
"Brazil, like China, India, and Russia, is a virgin market," he says, with great potential for growth and development. Anfavea estimates that by 2034 the Brazilian market will expand from the current annual 3 million vehicle licenses to 6.9 million. Mello points out that it took Brazil less than two decades (1992–2010), to achieve annual production of some 3 million vehicles, while France, Germany, and the UK took much more time to reach that production.

Although China, now the world's largest carmaker, has been advancing dramatically since the 1980s, Mello believes that Brazil has some advantages, such as the fact that it is the only emerging country to have accumulated car manufacturing experience over 50 years.

Thus, the current economic situation of the Brazilian car industry, Mello says, has nothing to do with a shrinking car market. However, he points out that "the market must live with a new attitude among Brazilian consumers, who closely compare cars produced here with cars produced in Europe."

Mello points out that automakers took the risk of increasing their capacity, supported by government tax incentives and cheap BNDES financing, because they recognize that the domestic market has vast potential.

Externally, vehicle exports fell by 41% from January to November 2014 compared with the same period a year earlier, mainly because of the economic crisis in Argentina, Brazil's principal car market. Mello sees no prospects of a short-term



World vehicles production ranking, first half of 2014

	Country	Production
1st	China	11,783,335
2nd	US	5,943,329
3rd	Japan	5,066,178
4th	Germany	3,067,749
5th	South Korea	2,342,542
6th	India	1,910,129
7th	Mexico	1,665,632
8th	**Brazil**	**1,566,049**
9th	Spain	1,292,832
10th	Canada	1,186,030

Source: International Organization of Car Manufacturers (Oica).

alternative that can replace Argentine vehicle purchases. Also, "the headquarters of international carmakers do not allow their affiliates in Brazil and elsewhere to export wherever they want," he says. He points out, for example, that Ford EcoSport cars sold in Europe are manufactured in India, although the model was developed in Brazil.

Employment policy

Carlos Frederico Rocha, director of the Economics Institute of the Federal University of Rio de Janeiro and a specialist in the industry, has a more critical view of the auto industry: "The Brazilian automotive industry is important for generating employment and economic activity but will not lead technological development ," he says, adding that government tax incentives constitute "employment policy, not industrial policy."

Given the legal and bureaucratic difficulties in carrying out an employment policy through public investment during the current economic slowdown, Rocha believes that stimulating the auto industry is "a simple way" to increase jobs.

"Would it not be better to transfer these investments to urban mobility?" Rocha asks, noting the problems piling up in big cities as the private vehicle fleet expands faster than roads. But in general, he notes, public works are subject to bids and extensive control mechanisms, and they generate few permanent jobs.

With regard to developing technology for itself and stimulating technical development in the economy as a whole, Rocha believes that in the automotive industry domestic capital has failed to partner with foreign capital to reach that goal.

What happened was that large international companies absorbed domestic R&D initiatives and centers for creating technology remained outside the country. Rocha said there had been technologically important national companies, such as Metal Leve, a maker of pistons and bearings that was sold to German Mahle in the 1990s. "Maybe if we had done 'joint ventures' as was done in the petrochemical sector ..." Rocha speculates.

"We were able to create an aircraft industry, why were we not able to have a car industry?"

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Rocha asks. He thinks that, with few exceptions, such as the current innovation policy, which he considers good, Brazil's industrial policy has not been effective.

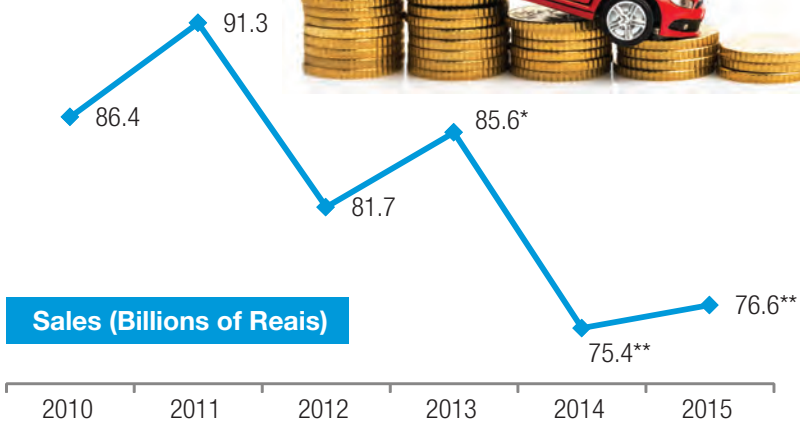
However, "Overview of Automotive Engineering in Brazil: Innovation and BNDES Support," a study by BNDES staff members Bernardo H. Ribeiro de Castro, Daniel C. Barros and Luiz Felipe H. Vaz, argues that automotive R&D and innovation is ahead of Brazil's manufacturing industry as a whole. According to government statistics agency figures, while manufacturing as a whole invested only 0.7% of net operating revenues in R&D and 2.5% in innovative activities, automakers invested 1.4% and 2.8%. Among suppliers of parts, investments in R&D were also above the average for all industry, accounting for 1.2% of net revenue.

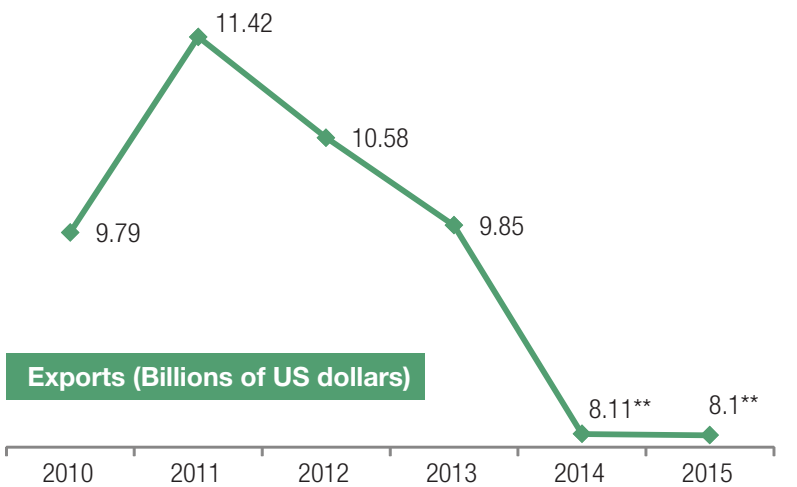
Though the study argues that the BNDES is doing the right thing in supporting the build-up of a sophisticated auto industry that can lead to technological advances, the authors admit that "Although one can cite examples of vehicles designed in Brazil, such as the Volkswagen Fox and the new Ford Ka and Ford EcoSport, most engineering effort continues to focus on adapting global car models to local conditions"—development of components and complex systems remains at the headquarters of international companies.

After highlighting current auto industry achievements, the study also cites such deficiencies as the low number of Brazilian engineers in relation to the population as a whole and insufficient engineering infrastructure to support development of the auto industry.

Brazil: Sales and exports of auto parts



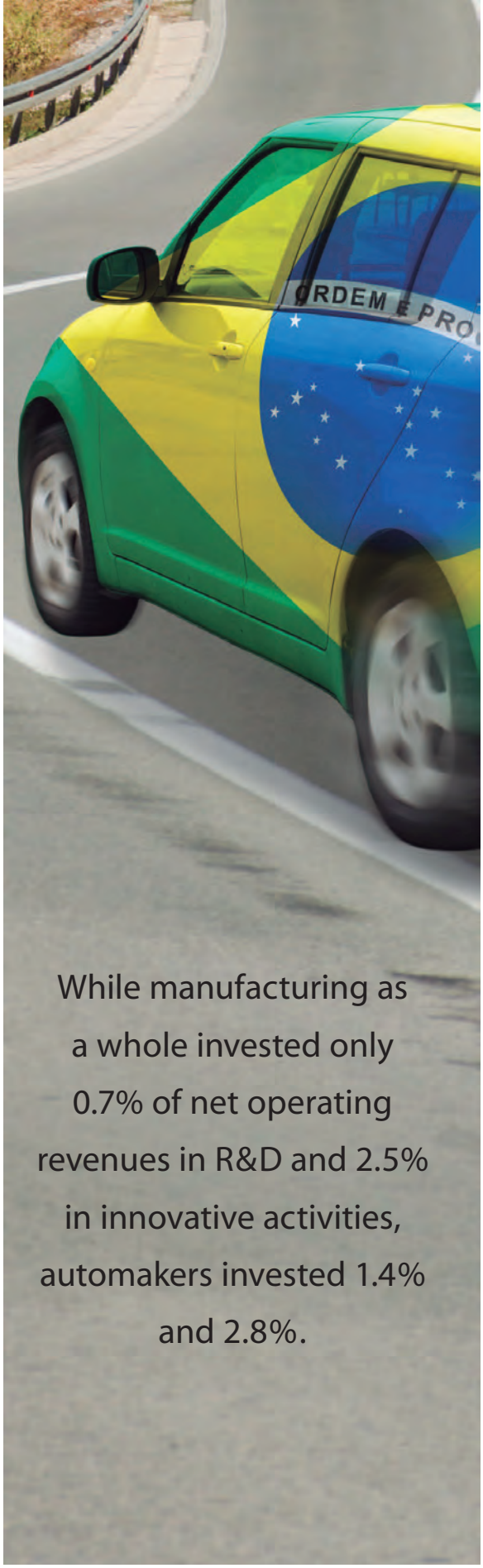




*Estimate **Projection.
Source: National Union of Auto Parts Manufacturers (Sindipeças).

Costs and benefits

Rogério César de Souza, chief economist, Institute of Studies for the Development of Industry, believes 2015 will be as difficult a year for the auto industry as 2014 was. The need for intensive fiscal and monetary tightening to control inflation and regain the confidence of investors will have a negative effect on the auto industry.



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However, he also believes the auto industry has to address specific factors to contribute more to development of Brazil in the future. One is that there is no longer much room for such tax incentives as reduction of the IPI tax. "The positive effects of tax incentives are no longer as clear as they were in 2009 and 2010," he says. Before granting future incentives to the sector, he recommends assessment of the costs and benefits to society as a whole. "The costs everyone knows. What is not clear is the expected benefit to society," Souza says. He believes a new industrial policy may emerge from the Innovate-Auto program, which will allow society to see the benefits and know how the auto industry fits in the larger industrial context. Though not as populous as China, he points out Brazil's per capita income is still well above China's, making it a market where everyone wants to be.

The Innovate-Auto program is also seen as a way to stimulate recovery of the auto parts supply sector. According to Paulo Butori, president of the National Union of Auto Parts Manufacturers, 2015 will be about the same as 2014. Sales of auto parts dropped by R$10 billion to R$75.4 billion because of the decline in car production and fewer exports of spare parts to Argentina.

"The obligation for automakers who want the benefit of reduced IPI tax [through the Innovate-Auto program] to buy parts in Brazil can bring good results for our companies," Butori said. He said government tracking of auto parts will make it possible to verify whether parts are actually bought from domestic suppliers, who now also have a more favorable exchange rate.

Buroti said the auto parts sector "innovates little because the costs are high." To ensure sector growth without bumps, "we need a realistic industrial policy that takes into account all the effects that external and domestic markets have on the auto industry as well as investments in technology and machine modernization ... That's what happened in Japan, which China and India are copying."