Why has Brazilian R&D STAGNATED?

Solange Monteiro

FUNDAMENTAL FOR RAISING productivity in general and labor productivity in particular is adopting new technologies. Yet the 2011 Survey on Innovation conducted by government statistics agency IBGE shows that in Brazil spending on research and development (R&D) has been stalled since 2005; in 2011 it accounted for just 0.59% of GDP, compared with 1.83% of GDP in the United States.

Industry, which accounts for over 70% of business R&D, is the focus of government programs to stimulate innovation. Paulo Mol, director of

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innovation of the National Confederation of Industries (CNI), believes that such programs have improved. He says, "The success of initiatives such as the Inova Empresa—the innovation program established in 2013 with funding of US\$13 billion to support companies working on innovative projects—and the Brazilian Agency for Industrial Research and Innovation have made it possible to undertake more complex projects."

He and other experts point out, however, that government support for innovation is still procyclical. "Today," Mol says, "we have a policy that offers incentives to companies when the economy is doing well, which is just when the private sector would be willing to invest." He adds that "One of the concerns is that the large Brazilian fiscal deficits force budget cuts on grants that finance complex long-term innovation projects."

Mol cites as another problematic example the Good Law of 2004, which authorizes tax rebates for expenses incurred for innovation. The problem is that in periods when companies do not have profits, they cannot benefit from the law. "We should create a tax credit so that expenditures could be recovered over two or four years," he argues. That would allow companies to continue to invest in innovation regardless of economic conditions.

The barrier of protectionism

According to Mauricio Canêdo Pinheiro, IBRE researcher, a major barrier to adoption of new technologies is excessive protection of the domestic market. "With a relatively closed economy and a guaranteed market, there is no incentive to invest in technology and innovation," he says. "No multinational company will transfer its best technology to another country if that is not essential to increase its market share and profits," he adds. The lack of openness in the Brazilian economy is reflected in the low level of imports of production components. Diversification of the supply of inputs would help raise productivity and competitiveness, Pinheiro says, noting that "In 2011, only 13.5% of the intermediate inputs of Brazilian manufacturing were imported, while the United States imported 20% and Mexico 30%.."

Carlos Arruda, manager of the Center for Innovation and Entrepreneurship at the Dom Cabral Foundation, believes that the technological gap is the result of a business culture in which innovation is a low priority. Arruda explains that "Because companies are dominated by a shortterm view, they do not develop products with higher added-value. Their pursuit of lower sunk costs turns them away from developing new products and expanding markets." In a Don Cabral Foundation survey, he found that "most of the entrepreneurs said their strategy was to remain in the same market, reducing costs and increasing efficiency."

On the one hand, industry's concern with productivity gains has led some firms to reduce

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deficiencies that affect their supply chain as a whole. "Examples include Embraer, which has a training program for suppliers, and Massey Ferguson, which has invested in improving the performance of providers of after-sales services for the company," Arruda says. On the other hand, the culture of seeking efficiency gains helps to accentuate the negative view among international corporations established in Brazil that do not to identify the country as a potential hub for R&D. "Apart from segments such as ethanol and agribusiness, which are well-regarded internationally, the prevailing image is that Brazil has no universities that are internationally recognized and exports few products with higheradded value," he says. International corporations view Brazil only as a market for selling their products rather than as a potential center for R&D. He concludes that "Brazilian leaders have to work to place Brazil more prominently in the strategic plans of these international corporations." **N***