The problem of managing natural resource revenues

Experts discuss the resumption of Brazilian growth from the perspective of the commodities sector.

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AS THE CHINESE ECONOMY SLOWS and oil prices fall, countries that export commodities are rethinking the role of these products in their economies. Falling commodities prices have already had a painfully negative effect on Brazil's external accounts: the 2011 trade surplus of US$29.8 billion turned into a US$3.9 billion deficit in 2014. This has fueled debate on how much the previous commodities boom was responsible for Brazil's current economic crisis.

In general, the hypothesis of a natural resource curse in which abundant natural resources invariably lead to excessive specialization and in the long run to stagnation has not proved conclusive, any more than has "Dutch disease." The latter term was coined by *The Economist* in the 1970s to describe



what happened to the country's economy when the Netherlands discovered natural gas in the late 1950s; gas exports appeared to force a currency appreciation, a decline of manufacturing, increased unemployment, and lower growth. "This is a polarized debate, but there is already some consensus that expansion of commodities may limit growth," said IBRE researcher Regis Bonelli. He believes that the Netherlands itself has set a good example, however, by correcting its economic imbalances since the 1970s; today its productivity is near U.S. levels and manufacturing accounts for about 60% of total exports.

To discuss the relationship between natural resources and growth, in July the Getulio Vargas Foundation (FGV) held a meeting in Rio de Janeiro of researchers from Brazilian universities and research institutes.[1] The meeting followed up on discussions initiated in São Paulo in 2010. At the time, experts pointed out that among the differences between countries that were able to manage the advantages of natural resources, such as Australia and Norway, and countries that were not, such as Nigeria and Venezuela, were good governance, higher-quality institutions, and careful management of the income generated when commodities prices were high.

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Roberto Castello Branco, professor, FGV Graduate School of Economics, and member of the board of state-owned oil company Petrobras, cited Chile as a successful example of management of natural resources income. In Chile, he said, "The focus was on a countercyclical fiscal policy with the creation of a sovereign wealth fund, which enables stable macro management." Castello Branco pointed out that Chile has two separate economic councils. One estimates the effective potential output of the entire economy; government policy is designed to produce a fiscal surplus when economic activity is above potential or to be expansionary when activity is below potential. The second council is dedicated to copper, comparing market prices in the short term with the long-term estimates: copper revenue, which comprises 13% of the Chilean budget, must be spent on the basis of

[1]University of Campinas (Unicamp), University of São Paulo (USP), The Institute of Applied Economic Research (IPEA), Pontifical Catholic University of Rio de Janeiro (PUC-RIO), and Brazilian Institute of Economics of FGV.

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a long-term, independently verified planning price; revenues above that are accumulated in a fund to be drawn upon when copper prices dip. "Between 2003 and 2008, Chile accumulated a fiscal surplus of 9% of GDP, which generated social pressures for more spending. But the government chose to use some of that surplus to pay down debt and set up a sovereign wealth fund, which was then available to draw on during the collapse of commodities prices in 2008-09 as well as paying for the damage caused by 2010 earthquake," Castello Branco explained.

Edmar Bacha, director of think tank Casa das Garças, pointed out that in Brazil, the commodities supercycle was not accompanied by careful monitoring of domestic spending: "In 2003 we had an evident lack of spending relative to GDP. That has changed. In 2013 we spent 7% more than we brought in, because of both better export prices and external financing." He noted that "Between 2005 and 2013, Brazil earned 10 percentage points of GDP with the external bonanza; we spent 5 points on consumption and invested 5. Because consumption is more difficult to reduce than investment, today fiscal adjustment is necessary." He also demonstrated that Brazil is increasingly vulnerable to the "natural resource curse." Bacha's estimates confirm the close relationship of exchange rate appreciation and the decline in the share of industry in GDP between 1988 and 2011; he also noted the influence of the terms of trade on total productivity, which he estimates to have declined from annual average growth of 2% in 2004–10 to 0.2% negative growth in 2011–14—a worrying factor for growth sustainability.

Educate and diversify

IPEA researcher José Feres pointed out that the risk caused by concentration on export commodities can be mitigated with good institutions and pro-diversification policies. Research has found that, when factors such as stock of knowledge and trade liberalization are accounted for, there is no correlation in Latin American countries between commodities exports and growth. In his opinion, the problems of Latin American exporters of commodities are related much more to a lack of economic integration of their economies and the ability to use such leverage to promote the emergence of innovative sectors. "This

has to do with the region's low investment in education and research, and its isolationism," he said. Ultimately, such deficiencies prevent diversification of the economy and better utilization of the commodities sector, which during periods when prices are low needs to enhance its competitiveness.

Claudio Frischtak, president of InterB consultancy, saw agricultural commodities recovering somewhat in coming years, still sustained by Chinese demand. "The fact is," he said, "that in the short term there is no economy that can replace the Chinese engine in all sectors. Even though India this year is expected to surpass China in GDP growth, it would take at least a decade for it to eventually drive a new commodities supercycle."

Unicamp's Mariano Laplane pointed out that reversing specialization of the economy has become increasingly complex with the emergence of increasingly autonomous structures for intermediate goods and services that compete in global supply chains. Frischtak commented that diversification of the productive system of countries with abundant natural resources requires development of innovative clusters around natural resource activities, noting, "For this, we will have to address significant educational deficits in Brazil, especially those related to science and engineering education; reform immigration laws to attract skilled professionals; and improve the business environment, especially for small and medium enterprises that can develop these clusters."

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The experts reiterated that comparative advantage in natural resources can also be created. "Just remember that the success of the coffee exports for decades derived not only from adequate soil, but from the railway and the Imperial Agronomic Station of Campinas, created in 1887," recalled João Furtado, USP, underscoring the importance of investment in research and development (R&D) if Brazilian agriculture is to become more competitive. PUC-Rio's Elói Fernández y Fernández who is CEO of the National Petroleum Industry Organization (Onip), emphasized the importance of efficient allocation of R&D resources: "Since the relaxation of the monopoly 15 years ago, the oil and gas sector has invested about R$15–20 billion in technological development. However, almost the entire amount was

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directed to research universities; very little went to companies, which was not positive." He highlighted the growing importance of technology and innovation for the oil and gas sector, especially to reduce operating costs. "When deep sea oil exploration began, drilling a well cost about US$300 million. Today it costs a third of that. That's technology," he said.

The mining sector, particularly oil and gas, is confronted by significant institutional obstacles. A February survey of nearly 500 CEOs by the Canadian Fraser Institute ranked Brazil 87th among 122 countries in terms of national policies for the mining sector. "Why are we behind?" Castello Branco asked. "Because of the institutional environment and the difficulties in obtaining environmental licensing; as a result Brazil was not able to fully exploit the commodities supercycle." He also acknowledged that the oil and gas situation is particularly fragile: "We had too much government intervention in an attempt to transfer resources from the oil and gas sector to domestic industry by requiring oil and gas operators to buy from local shipbuilding, construction and equipment suppliers. This plus the controls on domestic fuel prices, which favored the auto industry, caused huge losses to Petrobras." He pointed out that for Petrobras to meet its more modest investment target—in June, the plan for 2015–19 was reduced from the previous 2014–18 goal of US$220.6 billion to US$ 130.3 billion—the company will have to rely on discipline and rigor.

Castello Branco also said that the sharing contracts for oil exploration do not help: "The auction system with oil in payment does not maximize government revenues. Today, if we were exploring the deep-sea oil under concession contracts, the government would be collecting oil revenues, which would be extremely important for balancing its budget."