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Cabinet chief Palocci resigns, succeeded by Gleisi Hoffmann

The departure of Antonio Palocci in the wake of allegations of financial impropriety has prompted concerns about Rousseff administration policy prospects. Palocci was seen as the strongest voice of economic orthodoxy in Rousseff’s cabinet, advocating tighter monetary and fiscal policy to tame continuing high inflation. Analysts see his loss as making it more difficult for Rousseff to get her economic agenda (including pension reforms) through a fractious legislature.

The president’s decision to appoint Senator Gleisi Hoffmann (PT) as Cabinet Chief surprised many. Some representatives of coalition parties complain that she has no political experience, and the decision does not end problems in articulating government policy. PMDB, the main party in the coalition, is pressing the president for a greater voice in government decisions. Allies from other parties have advised Rousseff to give Vice President Michel Temer (PMDB) more say in government decisions and appoint more PMDB members to government posts. (June 8)

Internal dispute for PSDB leadership continues

The national convention of the main opposition party, PSDB (Brazilian Social Democratic Party), failed to build a consensus on candidates for the 2014 presidential election. Former governor of São Paulo state José Serra and Senator Aécio Neves both want in. The convention elected Congressman Sergio Guerra as president until 2013. The Serra group managed to get Alberto Goldman the party vice-presidency, and Senator Neves’s group got Congressman Rodrigo Castro in as secretary general. Former President Fernando Henrique Cardoso continues as honorary PSDB president. (May 28)

Uruguay and Brazil offer support for Mercosur and Unasur

Uruguay and Brazil presidents pledged in Montevideo to tighten bilateral relations and regional integration through Mercosur and Unasur. The two countries signed 15 cooperation agreements. In a joint declaration the two leaders ratified their “firm commitment to strengthen” Unasur and their “priority commitment to the consolidation of Mercosur as an instrument for improving living conditions for their peoples.” The presidents also agreed on the need to reform the United Nations, particularly to make the Security Council “more representative, legitimate, and efficient” and ensure that the coming UN General Assembly will deliver concrete results. (May 30)
ENVIRONMENT

PT and PMDB clash on forestry code
A PMDB amendment to the forestry code provides for amnesty for those who had cut down native forest in the Permanent Protection Areas (PPAs) before 2008; it benefits small farmers affected by harsh environmental rules imposed in 1990. President Rousseff warned she would veto the proposal if it passed the Senate. It did, 273 to 182, mainly because of support from its sponsor, the PMDB. The rift in the governing coalition may affect future votes or result in more PMDB pressure for government appointments. (May 24)

INFRASTRUCTURE

Tender for airport announced for December
A tender for upgrading airport infrastructure and management at Guarulhos, Campinas, and Brasilia is planned for December. Infraero (Brazilian Company of Airport Infrastructure), which manages the main airports, will hold no more than 49% in partnership with a private company. The soccer governing board, FIFA, has raised concerns about the transportation infrastructure of World Cup host cities, especially airports. (May 31)

ECONOMY

Consumer confidence falls again, says FGV
Between April and May, the consumer confidence index fell for the third straight time — from 118.2 to 115.4 points, the lowest level since January, according to the Getulio Vargas Foundation (FGV). Consumer assessments worsened for both the current situation and the near-term outlook. (May 25)

Unemployment holds at 6.4% in April
Unemployment fell very slightly, to 6.4%, in the six main metropolitan areas, interrupting the steady increase in unemployment since the beginning of the year. The results of the Brazilian Institute of Geography and Statistics (IBGE) survey nearly equal the 6.5% recorded in March. (May 26)

April industrial production fell 2.1%
The 2.1% decline in industrial production was led by a 10% drop in durable goods production — the largest contraction since December 2008. The decline indicates that monetary policy measures are already cooling the economy, although competition from imports contributed to the fall. (May 31)

Retails sales declined by 0.2% in April
Weak retail sales reinforced the perception that domestic demand is decelerating somewhat. (June 10)

ECONOMIC POLICY

Brazilian economy overheating, IMF says
The Brazilian economy is close to overheating and the authorities should raise interest rates and consolidate the budget, the International Monetary Fund’s Olivier Blanchard told O Globo newspaper, adding that Brazil needs to be ready for negative shocks like a drop in raw material prices. He also suggested taking measures to limit appreciation of the Brazilian real, such as reserve accumulation and capital controls. (May 22)

Central Bank policy rate rises to 12.25%, as expected
In announcing the 25 basis point rise, the Monetary Policy Committee said that continuing monetary adjustment for a sufficiently long period is the best strategy to bring inflation back on target in 2012. In May CPI inflation reached 6.55% year-on-year, above the top of the 2.5–6.5% target range. Brazil’s high interest rates and promising growth prospects continue to draw capital, making it difficult for the Central Bank to control liquidity. In May net inflows were US$5.3 billion, about double those of May 2010. Since January, foreign reserve accumulation has totaled $47 billion, about triple that of the same period in 2010, bringing the total to US$335 billion. (June 6)

Budget surplus equals 2.3% of GDP
Brazil’s primary surplus (excluding interest payments) was R$18.1 billion in April, according to Central Bank data released in May. The 12-month primary surplus reached $119.6 billion (3.14% of GDP), but when doubtful revenues from an operation to capitalize Petrobras are excluded, the surplus was R$87.7 billion (2.30% of GDP) according to Fator Bank economist José Francisco Gonçalves. (May 27)

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New ideas open up new pathways to success for most businesses. True, in some fields like metallurgy companies can get along comfortably doing the same old thing just a little bit better every year, but is that success? Maybe now, but success in 10 or 20 years?

A few Brazilian companies are not afraid to break new ground, try new things, take on competitors head-on. Natura and Embraer are two obvious examples. But why are they so far out in front of their peers?

For one thing, neither is typical of Brazilian businesses. Businesses in areas like mining are less dependent on technology or research, and most of Brazil's products, like oil and soybeans, sell themselves because there's so much world demand. That's one of the reasons BNDES vice president João Carlos Ferraz cites for Brazil being so far behind in innovation.

Another is a risk-aversion that's a legacy of all those years of a closed economy — but how long should a business or a country be controlled by the past? And how long before businesses and their associations leave behind protectionist ideas that proved to be less than productive decades ago?

Another barrier to innovation is that today companies spend so much time dealing with currency fluctuations and bureaucratic red tape that it takes a superhuman effort to escape long enough to think well into the future. Companies find it hard to help themselves when government, though occasionally doing something helpful, keeps erecting more barriers. Take FINEP (Funding for Research and Projects). It was a sound initiative that has been doing a fairly good job in supporting technological innovation. In 2010 it invested R$4.2 billion in about 2,000 companies. But for 2011, in an inflation containment move, the government has slashed the budget for FINEP’s main source of funds, the National Fund for Scientific and Technological Development (FNDCT), by 22%. Such inconsistency in government policy may well explain why Brazil applies for fewer international patents than the other BRICs, and why Brazilian incentives for innovation amount to one-fourth of those in the United States.

One major factor is that the government’s left hand often does not know what the right hand is doing, stifling innovation. Brazil needs an industrial policy that coordinates all programs and government agencies to promote innovation. But each agency has its own culture, so finding common ground will not be easy.

Access to credit is another innovation deterrent, especially for smaller companies. It is charged that academics who are out of touch with markets have too much influence on decisions about credit lines. What can be done about that?

Celebrating one area that has great promise for Brazilian business and economic growth, Natura's Marcelo Cardoso predicts that “Brazilian biodiversity will become our Silicon Valley.” But that will not happen automatically. “Today,” he says, “the law is unclear, the rules for accessing these extraordinary assets are confused, so we have trouble attracting investors and researchers.” Ambiguous law and red tape are not new complaints. Breaking these chains that prevent innovation holds the promise of great riches. But how much longer must Brazil bear sub-optimal policies before the government pays attention?
How much longer will Rousseff’s honeymoon last?

In its first six months, the Rousseff administration was beleaguered by coalition parties’ friendly fire, allegations of illicit conduct by its chief political coordinator and his resignation, and administrative paralysis. The president is running out of time. Rousseff will have fewer political resources at her disposal to hold her coalition together and govern as the likely slowdown of economic activity and looming inflation take their toll on her popularity.

João Augusto de Castro Neves

The concept of the first 100 days is often applied to a new administration as a measure of its productivity and early success. The concept does not work well for the Dilma Rousseff administration — even if we double the time span to almost a full six months of political activity.

Looking at it in the most favorable light, what many perceive as political inactivity may in fact be the careful political strategy of an administration in its early days. When a handpicked technocratic president who lacks political experience replaces a highly popular and charismatic leader, a change of pace might be expected in the political dynamics in Brasilia. The transition from former President Lula’s personal anointed candidate to leader in her own right may take a while for Rousseff to carry off. Caution may seem like the way to go.

But anyone who waits for political capital to accumulate must realize that in the meantime political capital is also being spent. The elements of a political honeymoon rapidly erode.
that will tip the balance, pro or con, are delicate. Economic growth, low inflation, and public opinion are obvious factors at play. But in Brazil’s brand of “coalitional presidentialism,” the relation between the executive branch and Congress can say a lot about the nature of an administration ... and its prospects.

There are three related reasons that might explain the congressional stalemate of the past several months. The first is the intricacy of the legislative agenda. For over a decade, for example, common ground has been lacking in congressional negotiations on tax reform and political reform, and any major overhaul would require a qualified majority to pass. But even on issues that need less support to be approved, such as inviting the private sector to take on airport concessions, the government seems unwilling or at best slow to push ahead.

Which brings us to a second reason for the near-paralysis of legislative activity so far in the Rousseff administration: a governing coalition that ideologically is unusually heterogeneous. On paper President Rousseff enjoys a larger congressional majority than President Lula ever did. But her own party, the left-of-center Workers’ Party (PT), is only the second largest party represented in the coalition, behind the centrist PMDB. Add to the mix smaller conservative forces, evangelical groups, more traditional socialist parties, and swarms of landowners, and the result is almost inevitably discord. The recent vote on the new forestry code was an obvious example of how the political dynamics of Rousseff’s coalition can work against her administration’s agenda.

The third reason for the stalemate is Rousseff’s slow and uncertain progress on executive branch appointments. In a nutshell, a stable coalitional presidentialism dictates that the parties in the congressional coalition should have corresponding shares in top and second-tier executive positions. As coalition parties do not have direct access to policymaking and the public treasury, pork-barrel spending usually becomes very difficult. The likely consequences: dissatisfaction, disloyalty, deadlock, and eventually defection. What holds a broad and diverse coalition together is not ideology but power and money.

President Rousseff seems to have a more serious underlying political vulnerability: she is noticeably unwilling to do politics.
These reasons alone demonstrate the challenges any Brazilian president can usually expect in dealing with Congress. But President Rousseff seems to have a more serious underlying political vulnerability: she is noticeably unwilling to do politics. So far she has preferred to govern mostly by decree, and unlike her predecessor she shies away from public exposure. Compared to Lula's style, so far Rousseff’s silence has been interpreted as a sign of a more hands-on approach to governing. But that is likely to change with time. As the president’s popularity fades and the difficulties persist, her silence will be increasingly considered a sign of frail political leadership.

Congressional stalemate aside, so far the Rousseff administration has been able to muster the support it needs for its most immediate goals. As a matter of fact, the strategy for containing the recent political crisis that led to dismissal of the chief political coordinator of the administration, Antonio Palocci, suggests a savvy political instinct for survival. But survival is not the same as strength. Unless she has the political will to bind together the governing coalition, Rousseff’s support base will become the main source of risk to her administration. In a sense, the Palocci affair is an example of damage caused by friendly fire.

At this juncture, time is still a reasonable cover for President Rousseff’s shortcomings — a prudent start, testing the waters of governing, assessing loyalties, and actually deciding on the specifics of major policies. But the president is running out of time. As the likely slowdown of economic activity and looming inflationary pressures take their toll on her popularity, Rousseff will have fewer political resources at her disposal to hold her coalition together and govern. The clock is ticking.
The credibility of the primary surplus

In recent years the government has promoted many creative changes to the most important element of fiscal consolidation, in place since Fernando Henrique Cardoso’s second term: the primary surplus, which is the balance of fiscal revenues and expenditures minus interest payments on public debt.

Some very doubtful operations have been used to change how the primary surplus is calculated, such as doubtful revenues arising from an operation to capitalize the Petrobras state oil company. The changes have increasingly complicated interpretation of how the primary surplus affects the economy.

The fact that the government itself has contributed to discrediting the primary surplus has created a precedent that encourages irresponsible Congressional fiscal behavior and clouds budget negotiations between government and legislature. The government should recognize that there is in Congress a tendency to overestimate budget revenue to make room for raising expenditures. The loss of respect for the primary surplus may encourage legislators to rely on creative accounting when they vote on the budget.

Which calculation?
The practical result of the government’s neglect of the primary surplus as fiscal indicator is that today the surplus coexists with a variety of official estimates of “effective” fiscal outcomes, calculated by a number of private institutions. A first step to recovering and improving primary surplus accounting would be to restore its credibility, clearing it of creative accounting gimmicks.

But it is also time to analyze in depth the characteristics of the primary surplus and the reasons it is sensible to make it as useful as possible for policy making.

There are two distinct ways to calculate the primary surplus. From “above the line” it is calculated as the difference between revenues and expenditures, excluding interest payments. From “below the line” it is calculated as the change in net debt, excluding interest payments.

Note that if all the resources that go into the Treasury are considered public revenues, including changes in equity (capital gains) of public debt, the below- and above-the-line calculations of primary

Some very doubtful operations have been used to change how the primary surplus is calculated.
surplus will be equal. This is purely accounting. With regard to economic policy, however, depending on the state of the economy the two ways of calculating the primary surplus may have different results.

When the public sector has serious solvency problems and is selling public assets (privatizing), the below-the-line primary surplus will be the higher of the two unless proceeds from the sale of state-owned companies are considered budget revenue. When the policy issue is the long-term solvency of public finances, revenue from privatization is useful and legitimate. If therefore the major challenge of economic policy is to reduce public debt, the below-the-line surplus is a good indicator. An alternative if the question is public sector solvency would be to use the above-the-line primary surplus but include revenues from privatization. This is not wrong; nor should it be considered unorthodox.

However, when the policy issue is how the public budget supports central bank efforts to curb inflation, the priority becomes what the public sector contributes to reducing domestic demand. In other words, what matters is whether the government is helping to increase domestic demand and to what extent. In this situation, the primary surplus is useful as an indicator of the public contribution to domestic demand, so it should not include revenues from selling public assets, which does not reduce private income the way taxes do. In this case the above-the-line primary surplus, including only tax revenue, would be the more relevant fiscal indicator for policy making.

**Sovereign funds and dividends**

A government contribution to a sovereign fund, as in 2008, should not be considered an expense. The contribution had actually been saved beforehand and was transferred to an investment fund whose sole shareholder is the government. Though this operation was considered a public expenditure, it did not increase domestic demand in any way.

Similarly, dividends from state-owned companies may be recorded as revenue because they subtract from income generated in the economy. The anticipation of dividends, however, cannot be treated as income when nothing has as yet been produced. Thus, the anticipation of dividends is equivalent to government debt. This practice was common in the public sector before the Cardoso administration curbed it.

In Brazil today the major concern of economic policy is not public solvency but control of demand to curb inflation. In this case a primary surplus above the line with traditional rules is probably the most relevant fiscal indicator.

Besides restoring the credibility of the primary surplus, the government should take this opportunity to reformulate its main barometer of public demand, especially since the timing is favorable. The latest Treasury data suggest that the primary surplus target of 2.9% of GDP will be met without creative accounting. In other words, we are at one of those rare and happy moments when the messenger brings good news, and the barometer is showing what any government would like to see.
REINVENTING INNOVATION

Brazil has all the tools to stimulate innovation. What is needed now is to articulate policies, reduce bureaucracy, and speed up the process.

After more than 20 years of free trade, Brazilian industry has realized it needs to compete to win lasting market share. The fact that innovation drives competitiveness is now generally recognized by both policymakers and businesspeople. But despite widespread consensus about its benefits and as the government prepares to release a new industrial policy, innovation is still far from driving the national economy.

Paulo Mol, executive manager for industrial policy and research and innovation, National Confederation of Industries (CNI), gives one explanation for this. “In our surveys, innovation always appeared as one of the three strategic themes for productivity growth — but no one sought to organize themselves to encourage it.” However, in 2008, 40 major companies, among them Braskem, Ford, Gerdau, and Vale, created Entrepreneurial Mobilization for Innovation (MEI); its goal was to double the number of innovative companies in Brazil in four years. The initiative is bearing fruit: the American Chamber of Commerce and the Dom Cabral Foundation recently surveyed 300 managers of innovation and strategy for medium and large companies in Brazil. Of these, 78% said they plan to invest more in innovation. Yet 40% of the sample said their companies currently invest less than 1% of sales in innovation, and 9% have not begun to invest.

“A business that innovates opens markets and expands, grows ahead of competition, and is more profitable, which creates dynamism in production,” comments João Carlos Ferraz, vice president and director of planning, the National Bank for Economic and Social Development (BNDES).

Brazilian competitiveness may be at risk. For example, Brazil applies for fewer international patents than the other BRICs, and about two-thirds of total research and development (R&D) comes from Informatics Law tax exemptions. If these are excluded, Brazilian incentives amount to one-fourth of the United States, and one-third of Japan.
Incentives
Competitiveness requires a constant search for new products and productivity gains. The Natura company operates in the third largest health and beauty market in the world (Brazil is behind only the United States and Japan); every year, it launches about 200 new items, discontinuing a similar number to keep its offerings balanced here and in the five other Latin American countries where it operates. “About 60% of our revenue comes from products launched in the past two years; the main source of company growth is the ability to innovate,” says Marcelo Cardoso, vice president. In 2010 Natura invested 3% of its net sales (US$5.1 billion) in R&D, 21% more than in 2009 and well above the national average. “And that doesn’t count investment in management and innovation in sales,” Cardoso adds.

Why is Natura not the rule in Brazilian industry? Ferraz cites three reasons. The first is structural: the country’s productive sectors require little technology, research, and sales effort. The second is that Brazilian businesspeople are highly risk-averse, having had to deal with considerable economic uncertainty in the not too distant past. The third relates to industrial policies: “Both during the era of import substitution and more recently during the opening up of the economy, innovation was relatively unimportant,” Ferraz says. “In the former period, it was thought that industrialization alone would stimulate innovation; in the latter, it was believed that markets alone would do it.”

The CNI’s Mol points out that systemic factors and unresolved macroeconomic issues impede innovation, explaining that companies spend so much time dealing with currency fluctuations and bureaucracy that they have little time and energy to plan for the long term. Glauco Arbix, the new president of Funding for Studies and Projects (FINEP) of the Ministry of Science and Technology, reinforces this point: “Brazil does not pay for innovation the way it should. It’s more expensive, slower, and riskier — so why change?” He adds the private sector has had difficulty putting past industrial policies behind it: “Associations and business representatives, even as they move toward innovation, ... slip into protectionist ideas, dating back to the 40 years we had of a closed economy. That will take a long time to overcome.”

Credit and research
Ferraz of BNDES notes that since 2001 there has been more effort to promote innovation, using proceeds from Cardoso’s privatization of state-owned companies and facilitated by funds from the Lula administration’s Law of Innovation and Productive Development Policies and Science, Technology and Innovation: “The funds represented a radical change in the way of giving incentives .... Lula’s policies give a sense of order and continuity to the [innovation] process.”

FINEP is responsible for supporting technological
innovation and administers sector funds. Early in his administration, Aloisio Mercadante, Minister of Science and Technology, even proposed transforming the agency into a bank; in 2010, FINEP investments totaled R$4.2 billion, benefiting about 2,000 companies. Yet the government has cut the agency’s budget for 2011 to maintain a budget surplus as a way to contain inflation, slicing 22% from the National Fund for Scientific and Technological Development (FNDCT), the main source of FINEP funds.

When financing is restricted, small businesses, the weakest link in the innovation supply chain, suffer most. Evandro Cunha, commercial manager of Jevin, which provides communication services for oil and gas companies, says, “We have identified many businesses with the ability to solve problems and meet specific industry demands, but it is difficult to secure the needed financial resources.” CNI’s Mol adds that “Channels are necessary, like the BNDES Card, that are dedicated to small businesses.”

Cesar Rogerio de Souza, chief economist, Institute for Industrial Development Studies (Idesi), thinks that one problem is the heavy influence of the academy in the design of tools to support business innovation; he thinks academicians should focus on knowledge that creates value for the market. Hilton Marinho, director of TS Soluções, a small industrial automation company, agrees: “When we seek funding, what seems to matter is not reality, but the academic knowledge you bring to your business, because projects are evaluated from that point of view, not the market.”

About five years ago, for example, Marinho decided to take advantage of certain similarities between sanitation and oil production and offer its products to the oil sector. In 2008, he presented a computer program of oil and gas flow, which was certified in 2009. But TS Soluções was not able to sell its product because the regulations changed. The National Petroleum Agency (ANP) set new requirements for certifying the project that cost more in both money and time. “We do research without a formal R&D department, but that does not satisfy those who make decisions about credit lines, because the evaluation is done by academics, not [those within] the industry,” Marinho says.

Lack of clarity
Mauricio Canêdo Pinheiro, a researcher at the Brazilian Institute of Economics, Getulio Vargas Foundation (IBRE / FGV), points out that financing for innovation projects has improved with flexible use of sector funds, the setting aside of a percentage of FNDCT funds for activities not connected to the universities, pursuant to the Law of Innovation, and the availability of venture capital. But, he says, “The problem is to articulate a program bringing together different levels
“The company, whether private or public, is the legitimate protagonist of innovation, being the most interested in the commercial application of a solution or a new beginning.”

DAVID KUPFER

of government to make this system of innovation work and make it a focus of industrial policy, since it is competitive pressure on companies that encourages the search for innovation.”

Economist David Kupfer, coordinator of the Industry and Competitiveness Group, Institute of Economics, Federal University of Rio de Janeiro (UFRJ), also believes initiatives in the field of innovation are not clearly articulated. “Supposedly, there is a National Innovation System that involves more than merely physical assets or the proper infrastructure for science and technology. It is a set of behaviors, rules, incentives and institutions that foster innovation ... . We are behind in terms of what happens in the United States and some European and Asian countries.”

**Trailbreakers**

Kupfer identifies in Brazil some business segments and supply chains that, one way or another and regardless of incentive policies, have managed to forge an efficient innovation system, forming a critical mass. These are areas of excellence that are comparable to some elsewhere in the world, among them exploration and production of oil deep in the sea, aviation, pharmaceutical biotechnology, and agricultural research. Led by the state oil company, Petrobras, he says, oil exploration and production in deep waters is a niche where Brazil had to invest in training and the projects matured in a positive way, with an expanding research program. Kupfer points out that “The company has advanced to become a world leader in this technology.”

The same is true on a smaller scale of the aircraft industry. With Embraer (the Brazilian Aerospace Company), Brazil has managed to leverage the capacity of air force science and technology — the Institute of Aeronautical Technology (ITA) and the Technical Center for Aeronautics (CTA). Its innovations spill over into the fields of motors, communication technology, and new materials, among others. Late in 2010, Embraer split up its defense division, bought a stake in smaller companies, and now seeks to expand beyond aircraft into communication, computing, command and control, and intelligence.

But aeronautics know-how is not the only factor that has made Embraer one of the most competitive companies in the world market. “Embraer is often cited as a successful case of industrial policy, but it only became competitive when its orientation changed and it began to enter into partnerships and buy supplies more efficiently,” says FGV’s Canêdo Pinheiro. “An industrial policy that focuses on innovation and
local content only makes sense if companies are competitive. In Korea, for example, protection [of local industry] was a counterpoint to meeting competitiveness and penetration goals in the international market.

Petras Amaral Santos, coordinator, Marcopolo Design Development Center, fully agrees: “The possibilities for innovation by large companies rely heavily on the innovation capacity of their supply chains. It does not help forward-thinking research and development if the production network is not ready to meet technological challenges in a competitive way.”

In pharmaceutical biotechnology, UFRJ’s Kupfer stresses that innovation is restricted to one noncommercial area, genetic research and production of vaccines and serums. “Fiocruz [the Oswaldo Cruz Foundation] has a strong element of innovation, but that does not extend to other segments of the industry, such as medicines, where Brazil is still heavily dependent,” he says. But he notes that Embrapa (Brazilian Agricultural Research Corporation) and other research institutions have made major contributions to the agricultural sector, citing adaptation of soybeans to the Brazilian savannah, innovations in farming techniques, and basing a cellulose and paper industry on eucalyptus. Kupfer believes “the great secret of Brazilian competitiveness is the agricultural sector.”

Threats to comfort
Although the success stories are different, they have one element in common: companies and institutions that can anchor innovation systems in their market segments. “The company, whether private or public, is the legitimate protagonist of innovation, being the most interested in commercial applications,” Kupfer says. “Without this interest, a sector will have little capacity to innovate.”

Unfortunately, he says, the pattern of specialization in more mature sectors shows that innovation is not central to competitive capacity. Thus, companies that could catalyze innovation operate in environments where technological opportunity is limited, and they feel no need to adopt innovative behavior. For example, production is efficient and competitive in metallurgy and chemistry but there is no innovation system around them. “Metals production generally requires modern processes, which may be acquired or absorbed. [And] it needs large-scale production, which means capacity to invest in large plants, to press suppliers, and to penetrate markets. In other words, it has to dominate production processes ‘Brazilian biodiversity will become our Silicon Valley. But the law is unclear, rules for accessing these extraordinary biological assets are confused, so we have trouble attracting investors and researchers.’”

MARCELO CARDOSO
“Few areas provide as generous a space for the convergence of public, private, and social interests as innovation does.”

JOÃO CARLOS FERRAZ

— but not necessarily the technique to design them.” This, Kupfer says, is a structural dimension explaining the low capacity for innovation in Brazilian industry.

When change does not come, Kupfer notes, the comfort zone in which a large part of the Brazilian industry operates can be threatened. “We are losing ground in cost-based competition,” he says, “mainly due to the advancement of production systems in Asia, a champion of low cost.”

**Competitiveness**

To make innovation a source of competitiveness, Kupfer advocates replacing the traditional concept of sector — assets derived from similar production techniques — with market segments and product families. “Currently, productive activity is organized in a fluid and complex way, very different from what happened decades ago. Gone is the rigid concept of industry fixed to territory or a linear production chain from raw material to final product. This makes it more difficult to identify which field is experiencing competition, who are the competitors, and what should be the objects of our attention.”

Kupfer is also concerned about sustainability. For instance, he says, “Brazil today has a natural competitive advantage, the availability of water, which is becoming scarce and therefore more expensive. Thinking about our advantage from the standpoint of sustainability means investing immediately in processes that reduce use of this resource for production.”

Another sustainable advantage could be the biodiversity of the Amazon region. “Brazilian biodiversity will become our Silicon Valley,” Natura’s Marcelo Cardoso predicts, but he warns, “Today the law is unclear, the rules for accessing these extraordinary biological assets are confused, so we have trouble attracting investors and researchers.”

**Steps forward**

No public initiative to stimulate innovation will be successful, however, without a convergence of the interests of all the government agencies whose activities are relevant. “The great challenge facing the government in this new version of industrial policy,” according to Dyogo Oliveira, deputy executive secretary of the Ministry of Finance, “is to improve coordination of programs among the various ministries, with all that implies in terms of reconciliation and management of cultures, and different habits and rituals.”

Business expectations are focused on what will arise from the expected new government policy. A CNI document relates fiscal incentives to innovation proposals. Another measure, widely supported, is coordination of policies for innovation and exports. Iedi’s de Souza thinks that “In so doing,
we can boost trade in high technology.... In many countries, export policies become a stronghold for innovative companies.”

The new measures are expected to allow for exploitation of market opportunities as they present themselves. Natura’s Cardoso points out that with Brazil’s emerging middle class and a demographic dividend that means that in 30 or 40 years the economically active population will still outnumber those not working, there is an additional impetus for growth and social inclusion. He adds that “we have an advantage over many countries, with a clean energy matrix and well-preserved biodiversity. These factors are bigger than our limitations.”

João Carlos Ferraz of BNDES notes that few areas provide as generous a space for the convergence of government, private, and social interests as innovation does: “Companies can compete and grow, and there are positive externalities, such as more qualified suppliers and customers. Employees have access to more and better jobs. And the government gets more tax revenues from the increase in wealth.”

Kupfer of UFRJ believes all that is lacking now is political action to define which areas will receive more resources: “Innovation requires choice, but it has to be judicious and socially perceived as legitimate. If I have a passive economy that simply floats like a leaf on the ocean of global changes ... without a vision of the production system I want for the next 15 or 20 years, I cannot make technology policy.”

INDUSTRY’S PROPOSALS FOR INNOVATION

- Improve the legal framework to support innovation.
- Eliminate sources of legal uncertainty.
- Integrate more fully with the international trade agenda.
- Support internationalization of Brazilian companies.
- Attract R&D centers of multinational companies.
- Set an agenda for discussion of
  - Intellectual property
  - Human resources training
  - R&D funding
  - Innovation for small enterprises
  - Sectoral innovation programs

Source: CNI
Riches from garbage

Kalinka Iaquinto, Rio de Janeiro

We have to change the way we think of solid waste. In 2010 Brazil’s population increased by 1% over 2009 and produced 61 million tons of municipal solid waste — 7% more than in 2009. Usually the waste ends up in dump sites and landfills, a solution that has heavy environmental, social, and economic costs. But Sabetai Calderoni, president of the Brazilian Institute for Sustainable Development, says, “What we mistakenly call garbage is actually precious raw materials, which can bring social, economic and environmental benefits. … It makes no sense to bury or burn money: For industry, scrap can generate wealth. And reuse of waste can be a source of jobs and income for those working in various stages of the recycling process.”

The new recycling markets will boom for two reasons: better logistics for collecting and recovering solid waste for reuse, and shared responsibility, with the public and private sectors and consumers all participating. Both are incorporated into the National Solid Wastes Program (PNRS) enacted in 2010.

Logistics

A survey by the Institute of Applied Economic Research found that Brazil loses R$8 billion annually by sending waste to landfills and dump sites instead of recycling it. New logistics methods, to be in place in the second half of 2012, should change the situation. “We believe better logistics will enhance recycling in Brazil and offer such advantages as environmental preservation, energy saving, and less use of natural resources for new products and jobs,” says Nabil Bonduki, Ministry of Environment Secretary for Water Resources and Urban Environment.

The new logistics will deal with both materials that were never consumed, such as cancelled orders and surplus goods, and
products that have exhausted their useful lives. Prof. Paulo Roberto Leite, chairman of the Brazil’s Reverse Logistics Council (CLRB), says an estimated 5% to 6% of used products are currently recycled into goods worth R$15 billion, adding “With the introduction of the new law, the used goods market may increase dramatically.” The market for used goods is just opening. Right now, Leite says, “Returned used products generally contain raw material of special economic interest, such as iron and aluminum. The aggregate value allows companies to buy junk to reuse the raw material.”

Process
Pesticide containers are a successful case in point. Since 2002, the National Institute for Processing Empty Containers (Inpev) has coordinated recycling logistics. João Cesar Rando, Inpev president, explains the process: The invoice shows where packaging should be returned. The farmer washes containers three times and returns them to brokers (retailers and cooperatives) and ultimately to manufacturers. Trucks that deliver filled containers collect empty ones. With 421 collecting units across the country, in 2010 Inpev returned 31,266 tons of packaging; 92.5% was recycled, 9% more than in 2009. In the first quarter of 2011, 8,092 tons were processed, 17% more than in the same period a year earlier.

Growth
The electronics industry is halfway to meeting the new mandates. Some companies have embraced sustainability to meet market demand and comply with state and local laws. Itautec, which sells computers and related equipment, began recycling electronics in 2003. Volume surged from 527 tons in 2009 to 3,842 tons last year. Of all the waste the company produces (5,100 tons, including organic waste), 92% is recycled.

But, says João Carlos Redondo, Itautec sustainability manager, there is no correlation between what Itautec produces and what it gets

“What we mistakenly called garbage is actually precious raw materials, which can bring social, economic, and environmental benefits for the country.”

SABETAI CALDERONI
back. This is an important point. Although the PNRS has set recycling targets, the manufacturer is not able to collect obsolete products from homes and businesses. Redondo explains that “Consumers decide to purchase and dispose of products. In Brazil, computers have more than 10 years of use, and there is a social network in which one person hands the product off to another.” He believes that to improve recycling, Brazil needs a public education program so that consumers understand how to use and dispose of products, and state recycling policies must be aligned with national policy because manufacturers cannot afford different recycling systems for each state.

The government committee for monitoring the PNRS has discussed both alignment of recycling policies and tax differences. Bonduki says, for instance, that the National Solid Waste Policy establishes that companies will be entitled to a federal value-added tax credit on solid waste bought for use in manufacturing.

**Exemption**

To prevent taxation of recycled goods as raw materials, for instance, Itautec takes two steps. First, customers state that they delivered the product voluntarily and not in return for new products, and the company sends the product to an appropriate destination for either recycling or reuse. Second, individuals sign a disclaimer of exemption receipt. Redondo says that because the volume is small, the company generates destination certificates honoring the client’s wishes and makes a photographic record as donated equipment is dismantled.

TGerstiona has recovered modems, cell phones and other electronic equipment since 2006. Then it collected 7,000 items a month, today it collects 70,000. The company schedules collection, screens the materials, cleans and reuses parts deemed usable, and sends the rest to a repair shop or to be destroyed.

Is recycling worthwhile? Clóvis Travassos, TGerstiona director general, says yes. But success depends on recognizing that recycling generates costs to users and busi-
“We hope that the guidelines of the National Solid Waste Policy will bring about a shift in how we conceive the product right up to environmentally sound disposal.”

NABIL BONDUKI

nesses. Redondo says the investment in recycling pays off for Itautec because besides being more environmentally sustainable it costs the company less than what it would cost to dispose of the materials in landfills.

The ideal, says Tgestiona’s Travassos, would be to combine sustainability with income generation, but that will require profound changes. “There are companies that only care about recycling because of the legislation. We have to change this culture,” he says. Bonduki thinks that will come: “We hope that the guidelines of the National Solid Waste Policy will bring about a shift in how we conceive of the product right up to environmentally sound disposal.”

National Solid Waste Policy (PNRS)

Waste Groups
At first, the law states, recycling systems should comprise actions and procedures for collecting, recycling, reusing, and disposing of waste from five groups: electronics, packaging in general, medicines, fluorescent lamps, and packaging for lubricating oils.

Innovation
The PNRS brings together modern concepts of solid waste management: shared responsibility, integrated management, inventory, sectoral agreements, product life cycle, reduction, reuse, recycling and waste treatment, and environmentally sound waste disposal. It also calls for national, state, and municipal waste management plans. It provides for social inclusion by strengthening cooperatives and associations of collectors of recyclable materials.

Penalties
Consumers who break the law with respect to recycling materials and selective collection will first be warned. For later incidents, they may be fined R$50 to R$500.

Imports
The law sets fines from R$500 to R$10 million for importing hazardous solid waste that may damage the environment and public health.
One moment a soda can is thrown away; 30 days later it is back on supermarket shelves in a new form. From the time it is gathered by a collector who sells to recycling depots for reprocessing, the cycle is fast, and not by accident: aluminum earns the highest price per ton of all materials currently recycled on a large scale in Brazil. The average value pressed and clean is R$2,800 per ton, according to Business Commitment to Recycling (Cempre). This is 143% higher than for PET (polyethylene terephthalate) bottles, the second most highly rated at R$1,150 per ton. “Aluminum is one of the few solid wastes that easily pays for its whole chain,” says Enio de Nicola, recycling coordinator, Brazilian Aluminum Association.

To stimulate collection and alternatives for reusing less profitable wastes, such as plastic, glass, paper, tires, and electronics, experts say that Brazil needs a good policy for selective collection and incentives to find sustainable economic patterns for each material. “Where the value of salvaged material does not cover the costs of recycling, the government must release funds to support the recycling chain,” de Nicola argues.

Innovation and tax issues are also barriers to recycling in Brazil. “Depending on the material, raw material can cost less than scrapped,” says Victor Bicca Neto, Cempre president. He ascribes the problem to high taxes on recycling companies and technological bottlenecks to recycling certain materials due to lack of equipment and knowledge.

The sustainability challenge
For some companies environmental sustainability problems have made it necessary to find new ways to manage waste. One example is multinational food processing and packaging giant Tetra Pak. Fernando Von Zuben, its executive director of environment, reports that “With the 2009 crisis, we were not able to achieve our goal of recycling 40% of packaging consumed by the end of 2011. But we managed to recycle 25% in 2010 and we expect to recycle 40% by 2014.” How did they do it? Tetra Pak’s Route Recycle site, launched in 2008, encourages selective collection and recycling by helping people find collection sites for long-life packaging close to their homes, using a proprietary search tool that uses the Google Maps platform. Von
Zuben explains that “The initiative, which also helps collector cooperatives and companies that buy recyclable materials to locate each other, helps identify demand, showing cities and regions that lack such initiatives.”

With global guidelines for waste disposal (Reduce, Reuse, Recycle), the transformation of used material into new should involve more and more materials beyond current leaders aluminum, PET, and paper. “For recycling to be economically viable for businesses, they need to think in the medium term.... Without investment there is no way to make profits, whether through energy savings in production or added value,” Bicca Neto says.

High taxes on recycling companies and technological bottlenecks to recycling certain materials are barriers to recycling progress.

Electronic materials, such as computer, phone, and appliance cases and used batteries, are, Bicca Neto says, one of the most serious solid waste disposal problems on the global environment agenda. “The few initiatives for recycling electronic devices junk are abroad for lack of a recycling industry here,” he says.

Selective collection

Kalinka Iaquinta, Rio de Janeiro

Not all garbage is equal. Yet not all cities advise their residents to separate different types of waste, and many municipalities do not yet have selective collection systems. The “Overview of Solid Waste in Brazil in 2010” published by the Brazilian Association of Public Hygiene and Special Waste (ABRELPE) shows that only 58% of the 5,565 Brazilian municipalities have such initiatives. “Of that percentage, many do not serve the entire population. Some are partnerships with recyclers, nothing more,” says Carlos Silva Filho, ABRELPE executive director.

That may change soon. The National Policy on Solid Waste (PNRS) requires presentation in two years of plans for state solid waste and municipal integrated solid waste management that promote selective collection. The purpose is to recover contaminated areas so that by 2014 there are no more dump sites.

But enforcing the law and achieving the goals require systematic change. “Cities need a municipal plan and creation of charges for services. Only a few municipalities do this and resources are scarce for sensitizing people and getting them to accept these policies,” Silva Filho says.

The solution the PNRS suggests, says Nabil Bonduki, Ministry of Environment Secretary of Water Resources and Urban Environment, is to “form public municipal consortia to provide for sustainability of services and sharing of costs; help generate employment and income by including collectors of recyclable materials; and deactivate landfills that pollute soil and water.”
Emboraer: Always thinking ahead

Mauro Kern
Embarer executive vice president of engineering and technology

Solange Monteiro, São José dos Campos

If you ask an executive of the Brazilian Aerospace Corporation (Embarer) what is the company’s strategy for success, he might well point to an iPhone. Like that coveted technological device, the success of Embraer aircraft is not based on research and development alone. What also matters is knowing how to integrate into one product advanced technology scattered throughout the world to meet market needs as they arise. “You have to be at the right time with the right product for the right market segment,” says Mauro Kern, executive vice president of engineering and technology. Today, the company earns in a year the combined total of what it made from 1969 through 1994, when it was privatized. And it might have made more if it had not had to dismiss 4,200 employees when the crisis hit global markets. The US$5.3 billion the company recorded in 2010 came from contracts around the world and from a burgeoning private jet market, where in five years Embraer shot up to third, behind Bombardier and Cessna. Kern explains how Embraer got where it is and how it intends to sustain its success.

The Brazilian Economy — Embraer is often cited as an example of an innovative company. What puts the company among the top global competitors in a high-technology market?

Mauro Kern — Embraer’s success is due to producing the right product at the right time for the right market segment. In the 1970s our first airplane, the Bandeirante, took advantage of the deregulation of U.S. air transport, and later deregulation in many other countries, which stimulated development of regional aviation. Then in the 1980s and 1990s the growth of regional aviation required a 50-seater plane, and the big debate was whether it should be a turboprop or a jet. After several studies, we decided on a jet, and the ERJ 145 aircraft was an outstanding success, particularly in the U.S., because agreements between pilot trade unions and airlines limited plane size to 50 seats for regional lines. Embraer actually arrived in
this segment a little after Bombardier. But we were able to increase ERJ 145 production fantastically to meet demand, and our competitor was not. To do that, we had to do some things differently. For example, we decided to paint the fuselage separate from the wing and not wait till the entire aircraft was assembled.

Is that when sharing the risk of new projects with suppliers started?
Yes, it started even before Embraer was privatized when we began work on the ERJ 145. The practice then was to pay for the development of each component or system and then hire different suppliers, something Embraer could not afford. Some partners agreed to bear the cost of development in exchange for a stake in our program. Without such partnerships the aircraft would not have been possible. It was something different, and driven by necessity. This model expanded in the late 1990s and early 2000s. At that point, the agreements between pilot trade unions and U.S airlines began to

“Brazilian industry and foreign firms located here are still finding it difficult to develop fully.”
limit airline growth, so we made the bold decision to build a family of low-cost aircraft from 70 to 110 seats and began to market to leading companies. The Embraer 170 and 190 airplanes have been successful — we have delivered more than 700. Meanwhile, our supplier partners have brought in increasingly integrated solutions. This has become the standard business model for the entire market.

Even though Embraer has been consolidating its domestic supply chain, its dependence on imports is still high — 85% of the components are bought abroad. What are the big problems in attracting foreign suppliers and developing local suppliers?

Brazilian industry and foreign firms located here are still finding it difficult to develop fully. We have undertaken initiatives to bring outside vendors to settle in Brazil, such as Belgium’s Sonaca and German’s Liebherr. But it is not easy, mainly because of the tax issues, though there have been major steps in exemptions — for example, an imported component is tax-exempt if it is used in a plane that is exported. However, foreign companies have difficulty operating in Brazil because of the complexity of fiscal operations, logistics, and customs and the “Brazil cost” (high airport and usage fees, Siscomex, infrastructure, etc.).

“It is not just a matter of making bigger aircraft indiscriminately; the edge lies in creating smart solutions for specific market segments.”

Also, our competitive advantages are negatively affected when the Brazilian real appreciates against other currencies, particularly the U.S. dollar, even though increasing the domestic content is good for everyone, Embraer and the country. We need a consolidated system for developing technology for the entire supply chain, using all the mechanisms for promoting and supporting it, such as Funding of Studies and Projects (FINEP); different tax treatment; and measures to lower the Brazil cost.

How likely is it that, like Bombardier, Embraer will produce larger aircraft (130–150 seats)?

Today’s family of aircraft is still quite young and doing well in the market. Bombardier devised regional aircraft in the early 1990s, Airbus in 1980, and Boeing in 1960. We are able to wait to see how our competitors position themselves before launching a new product. One factor that stimulates all manufacturers to bring new aircraft to market is the new generation of engines with substantial fuel economy. After studying alternatives, we will make the right choice to have the right product for the right business segment.

Competitors are emerging in markets where Embraer is a leader, like Japan’s Mitsubishi and companies in Russia.
and China. How are you preparing for increased competition?
In a way Embraer has become the main adversary for all these companies. The most successful 100-seat aircraft worldwide is the Embraer 190. Other countries that decided to produce aircraft have decided not to compete with Boeing and Airbus but enter the market segment immediately below, where we operate. China has an extraordinary captive market for aircraft. Russia also has a large protected market, with barriers to entry for imported aircraft, and has significant knowledge and aeronautical technology for both commercial and military aviation. Japan has no tradition in the industry but has great technological strength. So we look at all of them with great respect. These are national, not company, projects with very strong government support.

What is Embraer’s competitive edge?
We operate in a market segment that tends to grow organically over time, though other players will take market share — the commercial aviation market is quite competitive. We need to keep at the technology forefront. We wait until we have a good reading of the market and a differentiated product. It is not just a matter of making bigger aircraft indiscriminately; the edge lies in creating smart solutions for specific market segments. That’s how in a few years we have grown in the executive private jet market. The Legacy was our first product, and then the Phenom 100, the most economical plane for eight passengers. We are designing the Legacy 500 and 450 and already have the Legacy 650 and the more sophisticated Lineage for up to 19 passengers.

How is your strategy supported by the factory you just opened in the U.S. to produce the Phenom, and the decision to build the Legacy in China after the attempt to produce the Embraer 190 was shot down?
The Phenom 100 is quite small, the customers are often individual users, and the U.S. is its main market. It makes sense to do final assembly there because the transportation cost from factory to customer is a considerable factor in total cost.
In our plant in China we produced 41 Embraer 145s for local airlines — a success for us and our partner, Avic. It was Embraer’s first step in that thriving market. China’s fast growth requires larger aircraft for regional transport. We could not get approval to build the Embraer 190 there; the Chinese government wants to eventually reserve that market for domestic products. This does not prevent us from selling the Embraer 190 in China now, and we will continue doing so. Another market surging
in China is executive jets. Our first agreement has not yet been finalized; there are a lot of details to be worked out with our partner there and the Chinese government, but the market is very favorable for the Legacy.

Where is Embraer currently directing its research and development?

We want to understand future geopolitics and economic, energy, and environment scenarios — how air travel demand will evolve in 5, 10, 15, and 20 years, issues of infrastructure, air traffic control, airports, bottlenecks. We are also monitoring likely technology developments. Our technology development strategy is to consider all these dimensions.

Some issues are obvious: climate change, which is increasingly constraining aircraft emissions; oil shortages; security issues, in terms of both flight safety and criminal activity. Of course, we also are concerned with technology, comfort and convenience for passengers, and financial issues related to key customers. With all this in mind, in 2010 we invested US$150 million in research and development.

Embraer has significantly expanded its defense and security products. Last year, it spun off its defense unit into a separate company, which then bought stakes in companies concerned with communications systems, surveillance, and protection of such strategic areas as borders. What are your expectations for this new business?

We see great potential in the areas of defense and security. Aircraft are highly complex systems, and there are synergies with the defense and security markets. It is a natural process of diversification to increase the technological content of products the company can market using its core capabilities.

“Aircrafts are highly complex systems, and there are synergies with the defense and security markets.”
Lower inflation, higher interest rates

As monthly rates of inflation continue to fall, the temptation will be to shorten the monetary tightening cycle. Nothing would be more imprudent. The Central Bank should keep interest rates high for longer than it envisaged at the beginning of the year.

Salomão Quadros

Inflation is falling every month. The May results show that the most acute price pressures have subsided. Prices of alcohol, gasoline, and fresh food are declining significantly and will help reduce inflation next month. This will bring relief especially for lower-income families — but it would not prevent 12-month inflation from breaching the government target for at least one quarter, jacking up inflation expectations.

Neither declining monthly inflation nor the still-increasing 12-month inflation are reliable indicators of future inflation. Even if inflation rates fall substantially next quarter, it is legitimate to

Coordinator of the Price Indexes of IBRE
ask what the rate will be at year-end. If inflation levels off at about 0.3%, the convergence to the center of the inflation target will be relatively quick and can be verified before year-end. But if it is higher, 0.5% to 0.6%, 12-month inflation may exceed the 6.5% top bound of the inflation target at year-end.

Food and Services
There is a possibility that food prices will decline because of better supply and less demand — unlike 2010, when prices rose over 10%. With the strong production response, stimulated in Brazil and in most producing countries by compensating levels of pay, prices of agricultural raw materials are falling, which has not happened since early 2010. Moreover, with competition from imports and an appreciating exchange rate, prices of durable consumer goods are barely moving. For the 12 months ending in April, new cars were only 0.22% more expensive.

The main obstacles to deceleration of inflation are services and administered prices: 12-month services inflation reached 8.6% in April. Services are not subject to competition from imports and respond primarily to increases in domestic demand, which mainly reflects an overheated labor market. As for prices administered by the government, little can be done in the short term because they are defined without direct relation to domestic demand.

Given the inflation crossroads envisaged for the end of the year, the Central Bank should do what it announced in the minutes of the last meeting of the Monetary Policy Committee: keep interest rates high for longer than was expected at the beginning of the year. With monthly rates of inflation falling, there is a great temptation to shorten the monetary tightening cycle. Nothing would be more imprudent than premature relaxation of monetary policy.