BRAZIL: CONFRONTING THE PRODUCTIVITY CHALLENGE
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The past decade was extraordinary for Brazil. The country surpassed the $10,000 GDP per capita mark and became the world’s sixth-largest economy. The most liquid Brazilian publicly traded companies created substantial value, yielding average annual total shareholder return—stock price appreciation plus dividends—of 19 percent from 2004 through 2011. These returns were largely the result of rapid revenue growth in most sectors of the Brazilian economy.

However, the demand that fueled past growth is changing. Consumption expansion is expected to lose steam as Brazil closes penetration gaps with developed economies in several categories, as well as in consumer-credit stock levels. A sluggish global economy will weaken demand for Brazilian commodities.

On the supply side, productivity has emerged as the key challenge for Brazil and companies operating in Brazil. Our analysis shows that approximately 74 percent of the GDP growth over the past decade was due to the increase in the number of people working and only about 26 percent was attributable to productivity gains. This is very different from the productivity-driven growth of other rapidly developing economies. As the workforce expansion weakens, it will be critical for Brazil to increase productivity significantly to meet its aspiration of growing GDP by more than 4 percent per year.

To prosper in this new environment, companies must look for new ways to create shareholder value that are less dependent on growth. The right strategy will be different for each company. However, adjusting business portfolios and improving productivity will be important value drivers in most cases.

The next decade in Brazil will impose new challenges but also offer high rewards. What worked in the past may not be a recipe
for the future. Companies able to meet these challenges—particularly by boosting productivity—will be well positioned to serve Brazil’s sizable domestic market, take advantage of the country’s advantaged position in natural resources, and continue to create value.
During the past decade, Brazil experienced a virtuous economic cycle: growth led to higher employment, which in turn led to increased domestic consumption and more growth. (See Exhibit 1.) The country surpassed the $10,000 GDP per capita mark and became the world’s sixth-largest economy. This cycle was driven primarily by the following three factors:

- **Favorable Macroeconomics.** Brazil’s public debt as a share of GDP fell from 60 percent in 2002 to 36 percent in 2011. The country’s budget deficit declined from 5.2 percent of GDP in 2003 to 2.6 percent in 2011. Meanwhile, inflation has been in the single digits since 2005. This macroeconomic stability paved the way to lower nominal interest rates, which fell from 19 percent in 2001 to 11 percent in 2011 and 8 percent by mid-2012. Together, these factors formed the foundation for more investment, which grew from $275 billion in 2001 to $458 billion in 2011.

**Exhibit 1 | Brazil’s Growth in the Past Decade Was the Result of a Virtuous Cycle of Domestic and Global Forces**

Source: BCG analysis.
• **Domestic Market Expansion.** The wider availability of consumer credit (credit grew fivefold from 2001 through 2011) and the increase in consumer purchasing power (with the help of lower inflation, higher minimum wages, and distributive social policies such as Bolsa Família) fostered the growth of Brazil’s internal market. Another factor that contributed to Brazilian market growth was the country’s demographic bonus: the working-age population became larger than the dependent (young and old) population. (See Exhibit 2.) This expansion of domestic consumption made Brazil an important market for many global industries. For example, ten years ago, Brazil was the tenth-largest automotive market in the world, the eighth-largest PC market, and the third-largest mass market for cosmetics. Today, Brazil is in fifth, fourth, and first place, respectively.

• **Demand for Commodities.** Global economic growth driven by emerging markets spurred demand for Brazil’s commodities. From 2001 through 2011, exports of key commodities grew significantly. Iron ore exports increased at a 30 percent compound annual growth rate, reaching $42 billion; soy exports grew at a CAGR of 16 percent, reaching $24 billion.

This virtuous economic cycle laid the foundations for companies in Brazil to experience significant growth and value creation in the past decade. The Brazilian population also benefited greatly from this positive cycle. In a recent study, The Boston Consulting Group found that during the past five years, Brazil did a better job than all other countries analyzed of translating economic development into sustainable improvements in the well-being of its population. (See *From Wealth to Well-Being: Introducing the BCG Sustainable Economic Development Assessment*, BCG report, November 2012.)

![Exhibit 2 | Brazil’s Working-Age Population Will Remain Larger Than the Dependent Population Until 2040](chart)

**EXHIBIT 2 | Brazil’s Working-Age Population Will Remain Larger Than the Dependent Population Until 2040**

Total population (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Young (0 to 15 years old)</th>
<th>Workforce (15 to 65 years old)</th>
<th>Old (65 and older)</th>
<th>Dependency ratio 1 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>85</td>
<td>251</td>
<td>54</td>
<td>20</td>
</tr>
<tr>
<td>1980</td>
<td>79</td>
<td>235</td>
<td>53</td>
<td>30</td>
</tr>
<tr>
<td>1990</td>
<td>73</td>
<td>209</td>
<td>51</td>
<td>35</td>
</tr>
<tr>
<td>2010</td>
<td>60</td>
<td>161</td>
<td>48</td>
<td>40</td>
</tr>
<tr>
<td>2020</td>
<td>66</td>
<td>124</td>
<td>44</td>
<td>45</td>
</tr>
<tr>
<td>2030</td>
<td>54</td>
<td>96</td>
<td>42</td>
<td>47</td>
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<tr>
<td>2040</td>
<td>51</td>
<td>86</td>
<td>46</td>
<td>49</td>
</tr>
<tr>
<td>2050</td>
<td>48</td>
<td>79</td>
<td>54</td>
<td>51</td>
</tr>
</tbody>
</table>

**Sources:** Euromonitor; Brazilian Institute of Geography and Statistics; Itaú macroeconomic projections; BCG analysis.

1The dependency ratio is the ratio of those typically not in the labor force (the dependent) to those of working age (the productive).
For shareholders of companies operating in Brazil, this virtuous economic cycle led to significant value creation, with growth as the key driver. To illustrate that, we analyzed the value creation of Brazil’s most liquid publicly traded companies for the period 2004 through 2011. This time frame spans the expansion phase following the crises that occurred early in the first decade of this century (the bursting of the Internet bubble and Brazil’s political transition) and the global turbulence that followed the global financial crisis in 2008.

For these eight years, the average total shareholder return was 19 percent per year (calculated in local currency and not adjusted for inflation, which averaged 5.3 percent). This return is significant when compared with the average return for companies worldwide during the same period—4.8 percent according to the MSCI World Index.

Our analysis of the six components of TSR (revenue growth, changes in profit margin, changes in valuation multiple, dividend yield, changes in the number of shares outstanding, and changes in leverage) revealed that the leading value driver was revenue growth, which accounted for approximately 80 percent of the value creation in the period.

This held true for most of the top performers. For six of the ten companies that generated the highest TSR—ranging from 24.7 to 36.6 percent per year—revenue growth was the primary force behind value creation. (See Exhibit 3.)

Our analysis of the top performers also showed the importance of dividend yield, which contributed 6 percentage points to this group’s returns and was the main driver for three of the top-performing companies.

All sectors of Brazil’s economy had high average returns during the period 2004 through 2011. However, there was significant variation within sectors. For example, the average TSR in the industrial goods sector was 13 percent, but the TSR for individual industrial-goods companies ranged from –3 to 32 percent per year.

Also, we found significant variation among sectors when we looked at the different phases of the eight-year period. (See Exhibit 4.) During the turbulence phase following the global credit crisis (from 2008 through 2011), Brazilian companies in the financial services and industrial goods sectors and those with high exposure to international markets faced value creation challenges.

Thanks to the resilience of the domestic market, however, the TSR for Brazilian consumer-goods companies was 29 percent per year during this phase.
EXHIBIT 3 | Revenue Growth Was the Key Driver of Shareholder Returns for Most of the Period’s Top Performers

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AES Tietê</td>
<td>36.6</td>
<td>11</td>
<td>0</td>
<td>5</td>
<td>14</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Grupo CCR</td>
<td>34.9</td>
<td>21</td>
<td>1</td>
<td>7</td>
<td>6</td>
<td>-3</td>
<td>2</td>
</tr>
<tr>
<td>BRF-Brasil Foods</td>
<td>33.9</td>
<td>26</td>
<td>2</td>
<td>13</td>
<td>3</td>
<td>-14</td>
<td>5</td>
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<tr>
<td>Marcopolo</td>
<td>31.6</td>
<td>13</td>
<td>18</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>CTEEP</td>
<td>30.6</td>
<td>16</td>
<td>3</td>
<td>3</td>
<td>11</td>
<td>0</td>
<td>-5</td>
</tr>
<tr>
<td>Ambev</td>
<td>28.2</td>
<td>16</td>
<td>16</td>
<td>18</td>
<td>9</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Souza Cruz</td>
<td>27.1</td>
<td>17</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Tractebel Energia</td>
<td>26.5</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>9</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Banco Bradesco</td>
<td>25.0</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Randon</td>
<td>24.7</td>
<td>18</td>
<td>-2</td>
<td>4</td>
<td>14</td>
<td>-1</td>
<td>2</td>
</tr>
<tr>
<td>Top ten</td>
<td>29.3</td>
<td>16</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>-4</td>
<td>2</td>
</tr>
<tr>
<td>Sample average</td>
<td>19.2</td>
<td>15</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>-4</td>
<td>0</td>
</tr>
</tbody>
</table>

Key TSR driver

Sources: Economatica; BCG analysis.

Note: Our analysis covers December 2003 through December 2011; the sample included 38 companies present in the IBrX (an index that comprises the most liquid securities in Brazil’s market) in 2003 and 2011. Companies whose IPOs were after December 2003 or that were not in the IBrX in either 2003 or 2011 were not included in the analysis. For companies with multiple equity securities, the most liquid was used; for companies that had merged, the acquiring company was analyzed. Grupo CCR, BRF-Brasil Foods, Banco Bradesco, and Randon were involved in significant M&A activity. NA = not applicable.

1For Tractebel Energia, the impact of revenue growth (11 percent) was higher than that of dividend yield (9 percent). However, to determine key drivers, we subtracted the inflation rate (5.3 percent was the average for the period according to the Índice Nacional de Preços ao Consumidor Amplo, Brazil’s national consumer-price index) from revenue growth. Inflation-adjusted growth for Tractebel Energia (approximately 6 percent) was lower than dividend yield (9 percent).

2The factors contributing to company and bank returns differ. The value drivers for Banco Bradesco were growth in equity (20 percent), change in return on equity (2 percent), change in the number of outstanding shares (~1 percent), change in the price-to-earnings ratio (0 percent), and dividend yield (4 percent).

3Weighted average.

EXHIBIT 4 | TSR Patterns Differed by Sector in the Two Recent Phases of Brazil’s Economy

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP components</td>
<td>GDP components</td>
</tr>
<tr>
<td>Consumption</td>
<td>Consumption</td>
</tr>
<tr>
<td>Investment</td>
<td>Investment</td>
</tr>
<tr>
<td>Exports</td>
<td>Exports</td>
</tr>
<tr>
<td>Financial services</td>
<td>Utilities and infrastructure</td>
</tr>
<tr>
<td>Financial services</td>
<td>Utilities and infrastructure</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>Financial services</td>
</tr>
<tr>
<td>Consumer goods</td>
<td>Financial services</td>
</tr>
<tr>
<td>Industrial goods</td>
<td>Financial services</td>
</tr>
<tr>
<td>Commodities</td>
<td>Financial services</td>
</tr>
</tbody>
</table>

Value creation > cost of capital | Value creation ~ cost of capital | Value creation < cost of capital

Source: BCG analysis.

Note: TSR (equity appreciation + dividends) was analyzed for companies included in the IBrX-100 in 2003 and 2011.
WHEN WE LOOK AT evolving economic conditions, productivity emerges as the key challenge for both individual companies and Brazil’s economy as a whole.

To grow its economy in the past decade, Brazil relied to a great extent on the expansion of its employed population (which we define as the economically active population minus unemployed workers). Our analysis showed that the increase in the number of people employed explains approximately 74 percent of Brazil’s average 3.7 percent annual GDP growth. Only about 26 percent was attributable to productivity increases (which we define as value added per employee). This contrasts starkly with the growth patterns of other rapidly developing economies in this period. For example, productivity accounted for more than 90 percent of China’s 10.6 percent annual growth and more than 70 percent of South Korea’s 4.2 percent annual growth. (See Exhibit 5.)

Productivity has stagnated. Brazil has emerging-market productivity levels but developed-market productivity growth. (See Exhibit 6.) Our analysis of Brazil’s approximately 1 percent average productivity gain per year in the past decade showed that sectors linked to natural resources—such as mining, oil extraction, and agriculture—accounted for about half

<table>
<thead>
<tr>
<th>EXHIBIT 5</th>
<th>Productivity Contributed Less to Growth in Brazil Than in Other Rapidly Developing Economies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakdown of value-added growth, 2001–2011</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>CAGR, 2001–2011 (%)</th>
<th>Employment growth (%)</th>
<th>Productivity gains (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>10.6</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td>India</td>
<td>7.8</td>
<td>82</td>
<td>18</td>
</tr>
<tr>
<td>South Korea</td>
<td>4.2</td>
<td>72</td>
<td>28</td>
</tr>
<tr>
<td>Mexico</td>
<td>2.3</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>Russia</td>
<td>4.6</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>Chile</td>
<td>4.1</td>
<td>74</td>
<td>74</td>
</tr>
<tr>
<td>Brazil</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Euromonitor; BCG analysis.
Brazil: Confronting the Productivity Challenge

Productivity growth reflects a combination of gains from more investment and a better use of capital, from improvement in the average efficiency of workers, and from changes in the mix of employees (that is, the movement of workers from sectors or industries with lower productivity, such as agriculture, to others with higher productivity, such as services). We identified four key factors contributing to the stagnation of productivity in Brazil: a talent shortage, infrastructure limitations, low investment, and an underdeveloped institutional framework.

**Talent Shortage**

Labor in Brazil is becoming scarcer and more expensive. The unemployment level has fallen steadily from 12.3 percent in 2003 to 6 percent in 2011. It’s not surprising, then, that salaries have been growing fast. For example, from 2005 through 2009, average annual salary gains in real terms exceeded the Índice Nacional de Preços ao Consumidor Amplo inflation rate by 6 percent in construction, 4.5 percent in manufacturing, and 9.2 percent in mining. Driven by public policies, minimum salaries went up 66 percent from 2002 through 2012.

Higher costs, however, are not the only talent challenges companies operating in Brazil face. In many cases, it is very difficult to find and retain the right talent at any salary. In a 2010 Manpower survey of labor availability in 36 countries, Brazil ranked second behind Japan in the percentage of companies that had difficulty finding talent. The labor shortage in Brazil is affecting all types of jobs, from operating and maintenance technicians and administrative assistants to engineers and sales representatives.

This shortage is due partly to Brazil’s deficiencies in education. Although the number of people in Brazil who have a basic education and those who pursue postsecondary education continues to grow, there are still significant quality issues at all levels.

In basic education, the percentage of children aged 6 to 14 who are in school rose from 80.9 percent in 1980 to 96.7 percent in 2011. However, quality is still subpar. Brazil ranks fifty-fourth among the 65 countries in the Program for International Student Assessment’s analysis of quality of basic education. (Still, Brazil did show the highest level of improvement since 2006.)

The number of students enrolled in higher education rose from 2.4 million in 1999 to 5.1 million in 2009, according to the National Institute of Educational Studies and Research. However, a recent study by Instituto Paulo Montenegro, an education-focused nonprofit
A recent study by the Brazilian Institute of Public Opinion and Statistics showed that the percentage of students in higher education who are fully proficient in reading (the *nível pleno*) that students are expected to reach before high school) dropped from 76 percent to 62 percent over the past ten years. This suggests that about half of the growth in higher education is associated with people whose reading ability is below high-school level. It is very hard to maintain quality in higher education when the number of places for students is growing quickly and incoming students are poorly prepared.

**Infrastructure Limitations**

Economic growth and underinvestment in infrastructure have led to bottlenecks in Brazil’s ports, roads, airports, and telecommunications networks. This adds costs and reduces the efficiency of supply chains. Anyone who has disembarked at the Galeão airport in Rio de Janeiro, been stuck in São Paulo’s traffic jams, or tried to move cargo through a Brazilian port understands the magnitude of Brazil’s infrastructure limitations.

Brazil’s infrastructure limitations impose large obstacles even in industries in which the country has natural advantages. For example, it is 10 percent less expensive for the U.S. than for Brazil to grow and ship soybeans to Germany, even though soybean production costs are roughly 20 percent lower in Mato Grosso than in Iowa. Most of Brazil’s higher shipping costs are incurred moving the crop from farm to ship.

There is, however, a glass-half-full view of Brazil’s infrastructure gaps: although they mean higher costs and complexity for companies trying to export and serve the internal market, the gaps also represent a growth opportunity for investors and companies in the infrastructure sector.

**Low Investment**

Although Brazil’s investment level grew from 17 percent of GDP in 2001 to 19 percent in 2011, Brazil, during the past decade, has consistently invested less as a percentage of GDP than most other emerging economies. For example, in 2011, China, India, and South Korea invested 47 percent, 30 percent, and 27 percent of GDP, respectively. Investment is key to growing productivity: equipment and information technology provide leverage to workers and increase efficiency.

**Economic growth and underinvestment in infrastructure have led to bottlenecks.**

Brazil’s relatively low level of investment coupled with the growth of the employed population has led to a stagnant level of stock of capital per employee. This means that over the years, investment has been sufficient only to mitigate the depreciation of earlier investment and grow the stock of capital to accommodate new workers. This is very different from the situation in China and South Korea, where the stock of capital per employee is growing at 7 percent and 3 percent per year, respectively. (See Exhibit 7.)

**Underdeveloped Institutional Framework**

The limitations and burdens of Brazil’s institutional framework also affect the country’s productivity. Doing business in Brazil is excessively complex and costly. Companies there need to deal with complex legislation (for example, labor laws), a slow judicial system, and inefficient regulatory processes (for example, to obtain environmental licenses).

According to a recent study by Federação das Indústrias do Estado de São Paulo, the state’s industry association, executives see taxes as the main barrier to growth. This perception is due to both the high level of taxation and the complexity of the tax system. According to the World Bank’s assessment of 182 countries, Brazil has the sixteenth-highest ratio of tax revenues to commercial profits (67 percent compared with a world average of 45 percent). The tax system’s complexity is particularly challenging for foreign companies looking to start operations in Brazil or trying to assess the potential tax liabilities of acquisition targets.
Brazil cannot meet its aspiration of more than 4 percent GDP growth per year without significant improvement in its productivity. The number of people employed is expected to increase more slowly as the growth rate of the economically active population declines (from 2.1 percent in the past decade to 1.6 percent in the next ten years). The unemployment rate is now at historically low levels. Whereas the increase in the number of people employed contributed 2.7 percent of the 3.7 percent average economic growth in the past decade, it is expected to contribute only an average 1.6 percent to economic growth in the next ten years. (See Exhibit 8.) Going beyond this will require sustained productivity growth.

Companies operating in Brazil are already feeling the impact of these trends. Lower unemployment is driving up labor costs. As these costs increase faster than employee productivity, companies’ margins suffer.

Our analysis showed that companies in seven out of eight manufacturing sectors currently get less value for each Brazilian real invested in labor than they did ten years ago; the primary-metals industry was the only exception. (See the sidebar “Government and Policy-makers Can Address Structural Barriers to Productivity” for a discussion of how the public sector can help address Brazil’s productivity challenge.)

**EXHIBIT 7 | Brazil’s Stock of Capital per Employee Is Low and Stagnant**

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<tbody>
<tr>
<td>China</td>
<td>16</td>
<td>18</td>
<td>34</td>
<td>1990</td>
<td>2000</td>
<td>2010</td>
</tr>
<tr>
<td>South Korea</td>
<td>60</td>
<td>101</td>
<td>133</td>
<td>1990</td>
<td>2000</td>
<td>2010</td>
</tr>
<tr>
<td>United States</td>
<td>169</td>
<td>188</td>
<td>245</td>
<td>1990</td>
<td>2000</td>
<td>2010</td>
</tr>
<tr>
<td>Brazil</td>
<td>41</td>
<td>43</td>
<td>44</td>
<td>1990</td>
<td>2000</td>
<td>2010</td>
</tr>
</tbody>
</table>

**Sources:** APO Productivity Databook; Brazilian Institute of Geography and Statistics; BCG analysis.

**Note:** Stock of capital comprises construction, machinery, and equipment accumulated over the years, corrected for depreciation. All figures are in constant U.S. dollars at fixed exchange rates (2010).

**EXHIBIT 8 | Productivity Improvement Will Be Key to Brazilian Growth as Other Levers Weaken**

<table>
<thead>
<tr>
<th>Economic growth (supply side)</th>
<th>CAGR, 2001–2011 (%)</th>
<th>CAGR, 2011–2020 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economically active population</td>
<td>2.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Employment rate</td>
<td>0.6</td>
<td>~0</td>
</tr>
<tr>
<td>Productivity</td>
<td>1.0</td>
<td>?</td>
</tr>
</tbody>
</table>

**Sources:** Euromonitor; BCG analysis.

The economically active population will continue to grow, but growth will slow. Unemployment is already at its lowest level. Productivity is a key lever for ensuring sustainable GDP expansion.
GOVERNMENT AND POLICYMAKERS CAN ADDRESS STRUCTURAL BARRIERS TO PRODUCTIVITY

Here are 15 ways that Brazil’s government and policymakers can address structural barriers to increasing productivity. These fall into four categories: talent, infrastructure, investment, and institutional framework.

**Talent**

- Establish a human capital strategy that supports growth aspirations. Rigorously assess supply and demand to identify and mitigate gaps. In Malaysia, the government developed such a strategy as a foundation for its Vision 2020 national goals, and Japan has increased funding to science and engineering students to raise enrollment.

- Improve the management and governance of education by encouraging collaboration among federal entities and establishing rules that govern the responsibilities of municipalities, states, and the federal union.

- Assign a higher priority to investments in basic education than to other levels of education. If the quality of basic education is not high, the return on investment at other educational levels will be disappointing. In OECD countries, the mix of investment in education is starkly different from that in Brazil: in Brazil, the ratio of spending per student in primary versus postsecondary education is 1 to 5.9 compared with an OECD average of 1 to 1.3.

- Promote teaching careers, revising their value proposition through, for example, attractive career-development plans, consistent and high-quality training and development programs, and promotional campaigns that raise the profile of teachers. Singapore recruits teachers from the top 5 percent of college graduates. By contrast, only 5 percent of Brazil’s teachers rank among the top 20 percent of graduates. Teach for America taps high-achieving college graduates for two years of teaching in low-income communities across the U.S.

- Promote technical education and careers by implementing clear standards for technical degrees and actively directing students to vocational education. Germany’s three-tiered school system directs students early in secondary school to college-preparatory education, vocational training, or on-the-job apprenticeships.

- Facilitate access to international talent pools by designing immigration programs that will attract the needed talent, accelerating the granting of work visas, and simplifying the foreign-degree validation process.

**Infrastructure**

- Develop a master plan for improving the nation’s infrastructure. Such a plan should identify the development needs and potential of each region, create detailed development scenarios and definitions of economic sectors, and establish concrete action plans for industries.

- Strengthen regulatory agencies by expanding agency independence and investing in the further development of the technical expertise of agency professionals.

- Promote teaching careers, revising their value proposition through, for example, attractive career-development plans, consistent and high-quality training and development programs, and promotional campaigns that raise the profile of teachers. Singapore recruits teachers from the top 5 percent of college graduates. By contrast, only 5 percent of Brazil’s teachers rank among the top 20 percent of graduates. Teach for America taps high-achieving college graduates for two years of teaching in low-income communities across the U.S.

- Promote technical education and careers by implementing clear standards for technical degrees and actively directing students to vocational education. Germany’s three-tiered school system directs students early in secondary school to college-preparatory education, vocational training, or on-the-job apprenticeships.

- Facilitate access to international talent pools by designing immigration programs that will attract the needed talent, accelerating the granting of work visas, and simplifying the foreign-degree validation process.

**Investment**

- Develop a master plan for improving the nation’s infrastructure. Such a plan should identify the development needs and potential of each region, create detailed development scenarios and definitions of economic sectors, and establish concrete action plans for industries.

- Strengthen regulatory agencies by expanding agency independence and investing in the further development of the technical expertise of agency professionals.

- Continue to partner with the private sector to accelerate infrastructure investments through public-private partnerships (PPPs). Indonesia has developed an infrastructure and PPP development plan founded on three pillars: careful project prioritization, a balance of private and public interests, and adaptable contracts that are designed to cope with uncertainty.
GOVERNMENT AND POLICYMAKERS CAN ADDRESS STRUCTURAL BARRIERS TO PRODUCTIVITY (continued)

Investment
- Continue to promote an environment favorable to low interest rates.

- Provide greater visibility and predictability of industrial policies by identifying high-priority industries for Brazil and making clear the level of protection from imports specific industries can expect—and for how long. When Chile identified high-potential industry clusters and developed a long-term plan to promote them, investors were assured of clear visibility on industrial policy.

- Promote an environment favorable to entrepreneurship and R&D by encouraging business-university collaboration through science parks and business incubators. China’s more than 100 science parks nationwide support the country’s manufacturing transition up the value chain.

Institutional Framework
- Develop an end-to-end public-sector talent-management strategy to attract, assess, develop, and motivate public-sector employees. Singapore’s public-service system recruits top graduates, offers competitive compensation, rigorously assesses employees’ performance, and fast-tracks top talent.

- Improve the overall efficiency of public services to raise quality, and do more with existing resources by adopting lean-process techniques, strengthening measurement and monitoring systems, and encouraging the adoption of e-government programs. South Korea’s government e-portal offers more than 400 public services and, by requiring information sharing among government agencies, minimizes the need for repeated document submission.

- Simplify the legal and fiscal systems by streamlining the tax structure and labor regulations and expediting regulatory processes.
The imperative to improve productivity is not the only challenge Brazilian companies face. There will also be significant changes on the demand side.

Although some of the drivers that fostered demand growth in the past decade will continue to be relevant—particularly income redistribution and the demographic bonus—some important drivers will lose steam. In the domestic market, growth of consumer credit is expected to slow as Brazil closes the gap with other countries. (See Exhibit 9.) Furthermore, in many industries the consumption gap with developed economies narrowed in the past decade, reducing growth prospects. In the external market, the world economy is expected to go through a period of

**EXHIBIT 9 | Brazil Is Closing the Consumer Credit Gap**

Consumer credit growth rates are likely to slow in Brazil as its GDP penetration reaches mature market levels.

**Sources:** National central banks; Euromonitor; European Credit Research Institute; BCG analysis.

**Note:** Does not include mortgages; 2010 data.
slow growth that will affect demand for Brazilian commodities.

In this new context, we believe that the relative importance of various value-creation levers will change, and revenue growth will no longer be the dominant driver for many industries. Especially in those industries highly dependent on the expansion of consumer credit or on developed economies with which the consumption gap has narrowed in the past decade, companies will have to look for new avenues of growth and for efficiency improvements to sustain value creation.

Revenue growth will no longer be the dominant driver for many industries.

As the differences in value creation within industries during the past decade illustrate, the path to future value creation will be specific to each company. (See “Value Patterns: The Concept,” BCG Perspectives, May 2012, for a discussion of how a company’s starting position affects value creation.) However, we expect to see the following trends:

- **Growth.** The period of rapid expansion is over for many industries, but it is still in the future for others. Many companies in consumer-related businesses will see volume growth slow. To sustain top-line growth, such companies will need to innovate and develop new markets and segments. However, for companies that are linked to infrastructure and operate in industries with delayed take-up curves (for example, insurance), revenue growth is expected to be a key value driver.

- **Profit Margin.** Despite gains in scale, profit margin was not a key value-creation driver from 2004 through 2011. Margin is expected to grow in importance as many companies shift their focus from growth to efficiency. Enhancing productivity will be key to taking advantage of the profit margin lever.

- **Valuation Multiple.** This was a key driver of value in the expansion phase from 2004 through 2007, when the average valuation multiple increased from 5.2 to 8.4. However during the global-turbulence phase from 2008 through 2011, the average receded to 6.3. Variability will likely continue, given the uncertainty in the external economic scenario and a potential slowdown of the domestic market.

- **Cash Management.** In the past decade, dividend yield was the second-most-important TSR driver behind revenue growth. Dividend yield will likely gain importance, particularly in industries experiencing slower growth. As companies find fewer investment opportunities that offer high returns, returning cash to shareholders can be an important value-creation lever, eventually driving up valuation multiples and premiums as well. (See “Back to the Future: Investors Refocus on Yield,” BCG article, April 2012.)
To adjust to the new environment, most companies that operate in Brazil or that have plans to enter the market will need to consider two main priorities to create value. (See Exhibit 10.)

Defining Where to “Play”
Companies need to reevaluate which businesses and markets to pursue. Future growth may be very different from that of the past decade. While high growth may be in the past for some industries, it is still in the future for others. There are several reasons for this: for example, the consumption gap between Brazil and developed markets has narrowed in many industries, the growth of consumer credit is expected to slow, families that recently entered the middle class are redifining their consumption patterns, infrastructure investments are expected to rise, and growth expectations for the international economy have declined.

In this context, companies in Brazil should evaluate—and, where necessary, adjust—their business portfolios to make sure that they direct future investments at high-potential businesses and that they deprioritize or divest businesses with limited potential. Addi-
tionally, many companies based in Brazil should take advantage of opportunities to further explore international markets through exports or through the establishment of international production, leveraging internal competencies and Brazil’s advantaged position in natural resources.

**Enhancing Productivity**

The second priority is to gain competitive advantage by enhancing productivity.

A focus on growth at the expense of efficiency has left many companies in Brazil suffering from a “growth hangover.” For example, significant numbers of companies trail their international peers in the adoption of lean techniques. Surging labor costs and lower interest rates make the case for increasing investments in automation. Companies should reassess their product mix, innovate, and explore opportunities to move to higher-value segments.

The appreciation of the Brazilian real—which has gained approximately 70 percent in real terms against the U.S. dollar since 2001—makes gains in productivity critically important for companies looking to export and for local companies facing competition from imports.

Enhanced productivity can be achieved by a variety of methods. Although this is a challenge primarily for companies, government can play an important supporting role. Singapore provides a specific example of how government can help companies become more productive. (See the sidebar “A National Productivity and Continuing Education Council.”)

**Talent Management.** The severe talent shortage in Brazil is a challenge for most companies, but it can also be a source of sustainable competitive advantage for those able to deal with it effectively. Our experience shows that leaders in talent management take a long-term approach and look at the issue from end to end: identifying current and future talent needs, assessing and developing talent within the organization, building a strong employee proposition to attract and retain top talent, and engaging and increasing the affiliation of the team.

**Lean Processes and Technology.** Many Brazilian companies are far behind their international peers in the adoption of lean

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**A NATIONAL PRODUCTIVITY AND CONTINUING EDUCATION COUNCIL**

The government of Singapore has fully embraced a productivity agenda, setting up a National Productivity and Continuing Education Council despite the fact that the country already boasts one of the world’s highest productivity levels. Meeting its goal—to achieve an average 2 to 3 percent growth in labor yield over the next ten years—will enable the country to sustain its impressive growth record.

The tripartite council connected members of the public, government, and business, asking them to define high-growth priority sectors and identify the skill sets needed to be competitive in these industries. To support productivity growth, the government has established four approaches:

- Productivity roadmaps with industry-specific targets and initiatives
- A comprehensive system for continuing education and training to meet demand in new growth sectors
- A tax deduction for investment in activities along the innovation value chain, including R&D, intellectual-property registration and acquisition, automation, and workforce training
- Industry-specific grants to fund productivity-enhancing initiatives
processes, which means lower utilization of assets and labor, more waste, longer lead times, greater working-capital needs, and lower quality. Automation is another powerful productivity tool that is significantly underutilized in most Brazilian companies. Surging labor costs and lower interest rates make the business case for automation even stronger. Furthermore, R&D investments can be key drivers of productivity. An example is the development by state-owned Embrapa, the Brazilian Enterprise for Agricultural Research, of seeds adapted to the country’s Cerrado region. This and investments in other technologies have led to steady productivity gains, and Brazil’s production of sugar cane and soybeans has risen to world-class levels.

**Product Value Management.** Productivity can also be enhanced by increasing the value of each product or service sold. One way to do this is to move to higher-premium segments of the market through product innovation and brand positioning. Once a product for the low-income market, Havaianas flip-flop sandals have successfully moved into the premium segment, and today they are must-haves in the wardrobes of the rich and trendy in Brazil and beyond.

Product value can also be raised through re-engineering that reduces costs. This is a particularly important option for companies that have grown by serving Brazil’s emerging middle class with low-price products. Many such companies have cut prices without reducing product costs at the same rate. For example, a study of the low-end line of a consumer goods company showed that although the line was generating most of the company’s revenue growth, future growth would destroy value because the additional margin was not sufficient to cover the necessary investments. In fact, the only low-end aspects of the line were its brand and price: the products and their production process were almost identical to those of the company’s premium line.

A third way to manage product value is through reassessment of in-house versus outsourced or offshore production. Changes in labor costs and exchange rates can have distinct effects on the competitiveness of different elements of the product or the value chain. By focusing on places where they have remained competitive and reducing costs (by, for example, discontinuing local production of simple components that can be cheaply sourced from abroad), companies can, in many cases, increase their return on investment.

**Value Chain Efficiency.** For many Brazilian companies, becoming more productive will not be enough to succeed in the new context: competitive advantage requires being part of a productive value chain. Companies that lead in value chain efficiency take an active role in shaping their ecosystem (by, for example, selecting and nurturing their partners) and in supporting weaker links in that system (by, for instance, acting as guarantors to lower the cost of loans, providing technical assistance, and opening access to their own training programs).

**Automation is significantly underutilized in most Brazilian companies.**

Investments in infrastructure limitations upstream and downstream also help increase value chain efficiency. This is relevant particularly for natural-resource companies that have been actively investing in infrastructure either directly or through partnerships.

**A Holistic Program.** The four levers discussed above, as well as the mix of businesses and new markets, are interdependent and should be approached as a holistic program. Consider, for example, the interdependency of automation and talent. A talent shortage and rising costs are key reasons to increase automation, but more automation requires more skilled labor and demands longer learning curves of new employees. This implies that efforts to increase automation may need to be coupled with programs for changing a company’s skill profile and reducing churn in the workforce. (See the sidebar “Key Success Factors for Multinational Companies Entering Brazil” for a discussion of four concerns that should be consid-
Reassessing the role of growth in value creation will present significant challenges to companies in Brazil. Those companies able to meet these challenges—particularly by boosting their productivity—will be better positioned to serve the sizable domestic market, take advantage of Brazil’s advantaged position in natural resources, and continue to create value.

The right value-creation path will be different for each company. For many, it will involve focusing on productivity and returning cash to shareholders. For others, value will come from investing to establish defendable positions in new growth areas such as infrastructure. Many companies will need to adjust their mix of businesses to succeed in the new environment. The right path for each company will depend on its starting competitive position, the growth potential of its markets, its ability to respond to Brazil’s productivity challenge, the attractiveness of available investment opportunities, and ultimately, its ambitions.

The opportunity is clear, but so are the challenges.

KEY SUCCESS FACTORS FOR MULTINATIONAL COMPANIES ENTERING BRAZIL

Multinational companies need to deal with characteristics specific to operating in Brazil.

**Regulatory Tax Expertise.** Brazil has a very complex tax structure that seems to encourage competition from the informal sector in some industries. MNCs should consider hiring top legal and tax experts to help them monitor and navigate these complexities and any informal-sector challenges to their business.

**Supply Base Approach.** Supply bases in Brazil can be undependable and inefficient, particularly in remote areas of the country. MNCs should carefully assess what they should import and what they should source locally, considering whether they ought to rely more on in-house production in Brazil than they would in other markets. MNCs entering Brazil should include, as part of their plans, programs for developing local suppliers.

**Logistics.** Companies planning to enter Brazil should not underestimate the logistical challenges they might encounter. In addition to higher transportation costs, companies should anticipate that logistics limitations will add business complexity and the need for higher levels of stock and working capital. In industries with high product-innovation rates, logistics problems can lead to obsolescence. MNCs should consider building their own infrastructure where necessary—on their own or in partnership—and ensuring that their business plans account for Brazil’s logistics reality.

**Production Methods.** MNCs entering Brazil have the opportunity to differentiate themselves from local competitors by leveraging international experience and starting operations with a higher level of automation and better use of lean techniques. To achieve this, they must ensure that their production methods are suited to the available talent. MNCs need to be realistic about talent needs and availability for key roles—particularly those roles that require technical expertise.
The Boston Consulting Group publishes extensively on topics related to economic development. Recent examples include the publications listed here:

**From Wealth to Well-Being: Introducing the BCG Sustainable Economic Development Assessment**
A report by The Boston Consulting Group, November 2012

**Value Patterns: The Concept**
BCG Perspectives, May 2012

**Back to the Future: Investors Refocus on Yield**
An article by The Boston Consulting Group, April 2012
NOTE TO THE READER

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