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What Business Must Do To Reignite Brazil's Productivity Growth

By Athena Peppes and Armen Ovanessoff

Brazil's productivity growth has been stagnant since the boom of 2000-2008. Its business leaders have viewed this as a problem for government to solve, but they can no longer remain on the sidelines. Instead, they must now focus on the four business-level actions they can take to drive up national productivity growth.



Brazil's impressive economic growth between 2000 and 2008 was based primarily on rising domestic consumption and growth in commodity exports. This improvement in economic trends took the pressure off business and government to fix fundamental structural problems in the economy.

However, Brazil experienced stagnation in 2014 and economic contraction, rather than a recovery, is forecast for this year. In the last four years, "total factor productivity" growth, which indicates how well economic inputs such as labor and capital assets are being used, was negative. In simple terms, growing inefficiencies in Brazil's economy are actually sapping the productive capacity of capital and labor.

Businesses have been relying on a policy-led, top-down approach to fix this problem. Their expectation is that low productivity is a matter for the government to solve. Once public leaders do what they can to improve productivity levers such as education and infrastructure, companies expect they will be able to do their part.

The pressure is on for more immediate action, however. Government efforts will likely take many years to have an impact, but Brazil's businesses are already facing intense competition at home and abroad. At home, industry sectors ranging from energy to retail to consumer goods have seen a boom in revenues but have struggled to translate that into higher profitability. Abroad, new competitors, especially from China, are exerting pressure on Brazil's exports to key markets, mainly in technologically sophisticated products and knowledge-intensive goods.

In short, Brazil's government will indeed need to play a major role in addressing economic and structural challenges, but companies must amplify this with business-level productivity improvements.

Brazil's past business success stories demonstrate that business-led action can be a valuable approach.

Companies such as regional-aircraft leader Embraer, food processors BRF and JBS Friboi, and paper and pulp makers Suzano and Fibria already produce high-quality products with great efficiency.

What are the keys to high productivity for companies in Brazil?

Through extensive research on Brazil's economy and the leading practices of its successful businesses, we identified four critical actions that companies can take to improve national productivity through change at the business level: pinpoint the productivity bottlenecks, extract more value from their assets, digitally boost their employees and plug the information gaps.

In this report we urge Brazil's businesses to implement these actions both to improve their own productivity and to contribute to Brazil's overall prosperity.

Economic warning signs

Brazil's economy has reached a turning point. Gross domestic product (GDP) growth has come to a halt. Industrial output has fallen, and investors and businesses are worried about the nation's long-term economic stability and prospects.

Our research highlights how Brazil has come to this point. The country's recent economic growth has been built largely on adding *more*—more employees to the workforce, more investment in capital assets. What's been lacking is the growth that comes from greater efficiency—more output from the same or fewer inputs. Higher productivity, in other words. (For a more detailed look at this issue, see the Appendix Part I, "Falling productivity.")

Brazil's productivity crisis is no secret to the country's political and business leaders, but action to address it has been too slow, and this is reflected in the country's chronic underinvestment. A key concern is that many businesses see productivity as a macroeconomic issue. Accordingly, they expect that the government first must fix what is within its power, and then businesses will be able to also do their part. Thus, few businesses have made significant investments to address the country's stunted productivity growth. For example, investments in technology can help companies reduce costs and improve customer engagement, but in 2014 Brazil's banks—one of the country's most productive sectors—spent far less on enterprise IT than their peers in other countries—only about one-fifth as much, per bank customer, as banks in the UK and US spent.

Intensifying pressures on business

Brazil's businesses can no longer afford to wait for government to raise productivity on its own. Moreover, government action in critical areas like education and infrastructure require many years to bear fruit. In the meantime, low productivity growth is already affecting the ability of firms to cope with the heightened challenges they face at home and in global markets. (For a more detailed look at this issue, see the Appendix Part II "Competitive pressures at home and abroad.")

Consider the automotive industry. In 2010 Brazil's auto market was making headlines for record sales. However, since then the macroeconomic environment has weakened

and vehicle sales have contracted, by 0.9 percent in 2013 and 7.1 percent in 2014, according to ANFAVEA (Brazilian Association of Automotive Vehicle Manufacturers). Exports also fell, by 30.4 percent in 2014, owing to a combination of eroding competitiveness and weaker demand from global buyers. By contrast, investments by Mexico's automotive industry boosted productivity and competitiveness, and as a result in 2014 it surpassed Brazil as the world's fourth-largest exporter.

To fight back against these growing pressures, Brazil's business leaders must act now to improve their companies' productivity.

“Brazil must increase its productivity through additional investment in both fixed capital and worker skills and through reforms, thereby reducing the so-called ‘Brazil cost.’”

Ilan Goldfajn, Itaú Unibanco chief economist

“Our objective is to structurally improve the Brazilian economy, thus making it increasingly competitive... [through] measures to reduce bureaucratic requirements... [and a] strong increase in infrastructure, education and innovation.”

President Dilma Rousseff, presidential address at the World Economic Forum 2014

“Brazil is caught in a vicious circle of low investment and low productivity. Both government and business need to change their expectations and act in parallel to shift Brazil’s economy to a higher growth trajectory.”

Naercio Menezes-Filho, IFB professor and director of the Center for Public Policy, Insper

“The private sector in Brazil suffers from short-termism. It is not investing sufficiently in innovation.”

Lourdes Casanova, academic director at the Emerging Markets Institute, Johnson Graduate School of Management, Cornell University

Four actions toward higher business productivity

“Brazil’s success stories show that Brazil’s companies can, and do, overcome the multiple and complex barriers they face to become successful. This is an encouraging story.”

Professor John Van Reenen, Director of the Centre for Economic Performance, London School of Economics

While low productivity growth is a countrywide problem, it doesn't hit all companies or industries equally. Successes in some Brazilian firms reveal the benefits of strengthening productivity-boosting capabilities. Embraer maintained high-quality products while also lowering costs through asset and operational efficiency, keys to its success in the market for regional aircraft. These success stories must multiply, becoming the rule and not the exception.

In fact, as they become more widespread the positive benefits will feed up through the economy.

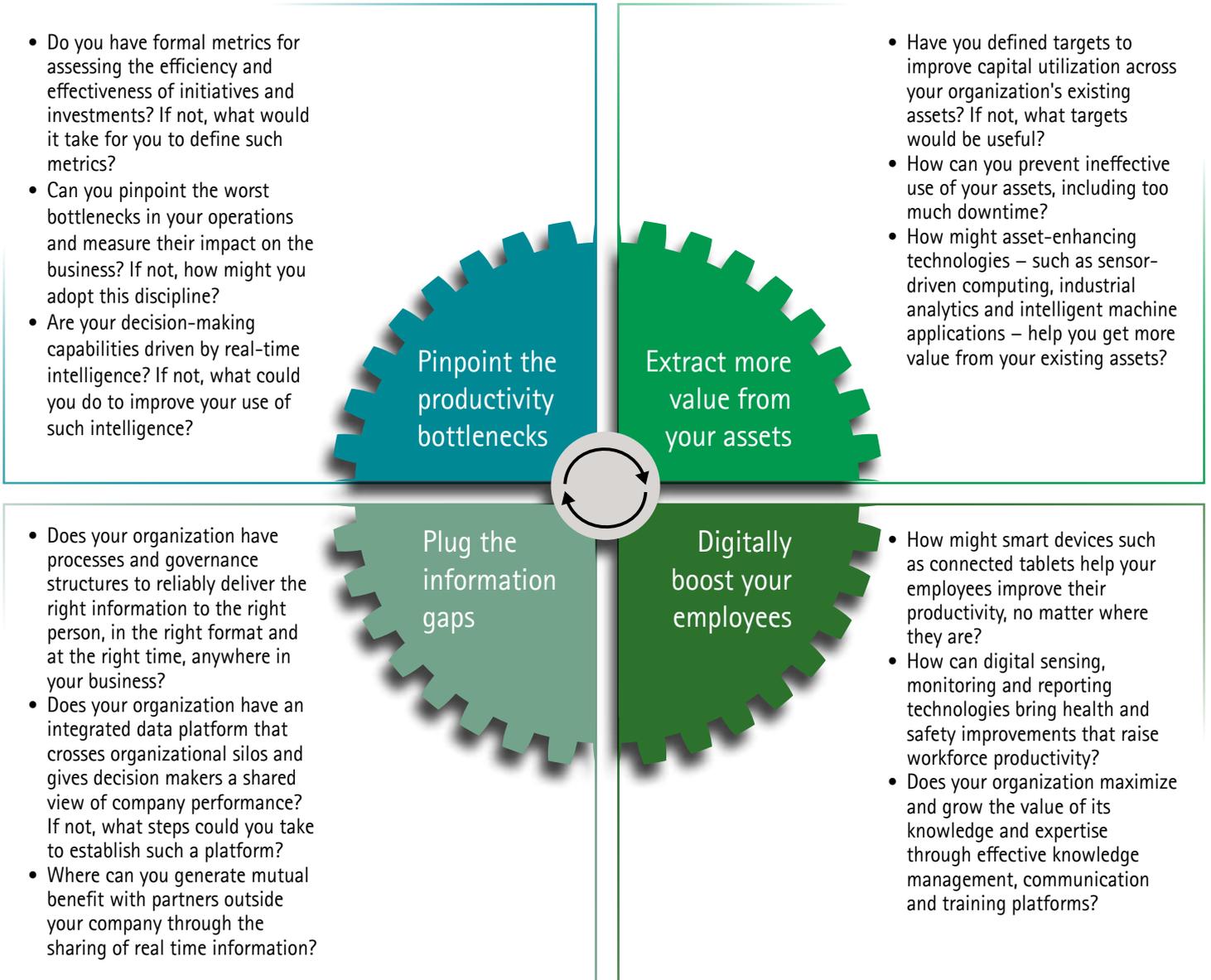
Where can Brazil's businesses start their productivity-improvement efforts?

Our interviews with productivity and industry experts, along with our case study research, suggest four actions that could prove especially potent (See Figure 1).



FIGURE 1: FOUR ACTIONS FOR HIGHER BUSINESS PRODUCTIVITY

The diagram summarizes the four actions and the questions that business executives in Brazil can ask now to start their journey to higher productivity.



1. Pinpoint the productivity bottlenecks

One reason for low productivity in Brazil identified during our interviews: a tendency to react to change without discipline and without sufficient data to assess the best course of action.

This was true for the mining sector in the 2000s, when during the commodity super-cycle miners were trying to cope with the quick pace of rising demand—so the response was to buy assets or hire more people in order to increase output and satisfy demand as quickly as possible. However, this happened without an assessment of the longer-term impact of this response on the firm's productivity. Fast growth was prioritized above efficient growth.

We have seen this more recently regarding mobility-related investments that companies are making. Accenture research found that 87 percent of Brazilian executives believed mobility technology was important for their firm and were willing to invest money on this. However, there is a lack of emphasis on defining key performance indicators and using assessment techniques to ensure efficient and productive investment in new initiatives. Just 13 percent of Brazil's executives said they had identified key performance indicators. This means they will not be able to measure, report, analyze or act on the impact that mobility is having on their organization, a sure path to inefficiency.

In the absence of an upfront assessment of where productivity problems lie, companies often take a trial-and-error approach to diagnosing and removing bottlenecks. This can lead to costly mistakes or unintended consequences, adding to the already high cost burden that companies face.

All of this points to the need for greater rigor in assessment and measurement of business success, as well as other areas of concern. Better use of data analytics can help. Companies can conduct deep and rapid performance assessments across operations and create a report card to show what's working, where improvements are needed, and how they can become more efficient.

Take TNT, a global logistics company, and how it responded to Brazil's infrastructure deficiencies. TNT found that a key problem facing its automotive clients in Brazil was the inbound route for automotive components coming into Brazil from Europe. Lead times were very long, and original equipment manufacturers (OEMs) could never be certain of when the needed parts would arrive. If a part was late, in many cases the OEM would need to fly it in from another country at substantial additional cost to meet agreements with its own customers.

TNT found its solution by examining Brazil's automotive supply chain. It created a detailed map of all the points that a part would follow in its journey from Europe to Brazil, including warehousing and different transport modes. Through this process, TNT identified 25 "breakpoints" in the supply chain—problems that could cause an automotive company to lose track of a part.¹ This systematic approach required significant data collection and analytics and as a result specific actions could be taken to improve traceability, communication and handover of parts from one section of the supply chain to the next. In this way, reliability across the entire supply chain was enhanced.²

Other companies have experienced how rigorous measurement can be an essential first step to driving productivity growth. AB InBev, the global brewer, is a leader in this field. The company implemented a global operations management system called Voyager Plant Optimization (VPO). This system, along with the company's focus on managing performance and its ownership culture, has enabled AB InBev to achieve its ambitious sustainability goal of a 5.4 percent water use reduction in 2013, generating US\$2.5 million in savings.³

These examples underline the value of performance measurement tools as a critical way to identify system weaknesses that are a drag on productivity growth.

QUESTIONS FOR YOUR NEXT MEETING

- Do you have formal metrics for assessing the efficiency and effectiveness of initiatives and investments? If not, what would it take for you to define such metrics?
- Can you pinpoint the worst bottlenecks in your operations and measure their impact on the business? If not, how might you adopt this discipline?
- Are your decision-making capabilities driven by real-time intelligence? If not, what could you do to improve your use of such intelligence?

2. Extract more value from your assets

Though Brazil is faced with under-investment at the macroeconomic level, at the microeconomic level many Brazilian companies actually spent the last decade buying more assets or hiring more people. The question facing them now is whether they are getting as much value as possible out of their existing assets.

In an era of constrained budgets, improving the productivity of existing assets offers a route to new efficiencies for relatively little cost. Investments in emerging technologies can help to achieve this. This is especially important for Brazilian companies in industries facing the worst cost pressures—such as mining and consumer goods and services. Accenture industry analysis shows that the cost burden for Brazil's mining industry has risen by 16 percentage points in the last five years; for the consumer goods and services industry, by 78 percentage points.⁴

One promising trend is the rise of the Industrial Internet. Estimates show that manufacturers globally could boost capital productivity by as much as 30 percent by introducing automation and more flexible production techniques.⁵ Asset usage planning and maintenance can be improved through the simple use of sensors and connected devices that provide real time, accurate data directly to whoever needs it. Such solutions are becoming cheaper and easier to implement, and multiplying the productivity of existing capital assets. Already in Brazil there are 130 million connected devices.

As digital technologies advance and costs fall, new tools and solutions are becoming available at an alarming rate. Take real-time visualization tools like 'smart-glasses'. It is estimated that the field service industry (companies that repair and maintain manufacturing plants, oil rigs and so on) could save an estimated US\$1 billion annually by 2017 if employees used "smart-glasses" (glasses with augmented reality and head-mounted cameras) to diagnose and fix on-site problems.⁶

These technologies also have significant potential in the oil and gas industry. For example, revamping an oil refinery may require a week-long shutdown of a plant or rig. The process can take even longer if an

unexpected problem arises. To use the assets more efficiently, some energy companies are using 3D models to plan large and potentially costly maintenance programs. Simulations can show them the fastest way to dismount and re-mount equipment.

Vale, the Brazilian mining multinational, is investing in technology to improve capital efficiency. Having experienced serious pressures on their capital and R&D expenditure for three consecutive years, leadership took the decision to focus on capital efficiency during 2014.⁷ As part of their plans, they announced that they will be investing in immersive visualization software throughout the supply chain. This technology can be used for mine management (such as tracking mine output remotely) as well as employee training on how to use new equipment.⁸

Not all solutions need to be high-tech. Sometimes an assessment of established processes can reveal undiscovered value in existing assets. For example, retailers can optimize the use of expensive real estate by re-assessing inventory flows across stores and distribution centers. In the manufacturing sector, industrial machinery can be rented out to other firms during downtime, which can generate new revenue streams.

In fact, the concept of "shared asset usage" business models is becoming increasingly attractive as digital tools allow cheap and simple ways to manage and monetize assets throughout their lifetime. For example, many Brazilian consumers are seeing the value of digitally-enabled, car-sharing services like Zazcar. Equivalent asset-sharing business models in the B-to-B sphere would offer important productivity gains as more value can be generated from capital assets. For example, the Netherlands-based Floop2 enables companies to rent out unused resources ranging from trucks to excavators and forklifts. We see evidence of strong appetite for such models in Brazil's high-cost environment.

QUESTIONS FOR YOUR NEXT MEETING

- Have you defined targets to improve capital utilization across your organization's existing assets? If not, what targets would be useful?
- How can you prevent ineffective use of your assets, including too much downtime?
- How might asset-enhancing technologies—such as sensor-driven computing, industrial analytics and intelligent machine applications—help you get more value from your existing assets?

3. Digitally boost your employees

Employees are more productive when they have the right tools to do their jobs. Today, these tools include internal social media, connected mobile devices, business analytics and customized applications.

Digital tools can bring dramatic improvements by overcoming some of Brazil's perennial problems, such as complex regulations, heavy traffic and poor infrastructure.

For example, many companies around the world are deploying geo-tracking tools to help salespeople optimize their routes. These solutions are highly relevant in Brazil. Digital tools enable salespeople to map their journeys, identify points of sale to visit and better calculate the time it takes to travel between points. Based on the priority and complexity of client needs as well as their geographic distribution and traffic density, salespeople can continuously optimize their plan for the day. Result: they will have more time to spend actually visiting clients.

These tools do not always have to be sophisticated. Even when they seem relatively basic, they can have a major impact on employee productivity if they are truly targeting sources of frustration for employees. This means that companies must take a user-focused approach to implementation of new technologies—or they risk making such tools “the new bureaucracy” rather than “the new solution.”

When Itaú merged with Unibanco to form one of Brazil's largest banks in 2009, they experienced an explosion in the number of internal web pages, portals, blogs and other online discussion sites commonly used by employees to find information and exchange ideas. Boasting a 100,000-strong global workforce after the merger, the company discovered that employees had grown frustrated with the internal support tools available in the organization. The existing system was not designed in a way that enabled employee productivity. On the contrary, it was causing ineffective communication and loss of valuable information. For employees the existing technology became yet another problem they had to grapple with, rather than a tool that helped them excel in their role.

The company identified the most frequently used and most important sites—and then redesigned them so that they are integrated into a single corporate intranet. The new system freed up employees' time, empowering them to do their work more effectively and efficiently. Analysis shows that it saved 45 minutes each month per employee—generating yearly benefits equivalent to 4 times the total investment.

Beyond the incremental improvements that these tools can have on an employee's day to day role they can also have a transformative impact on the way they perform their job.

In the upstream energy industry continuously upgrading the skills of maintenance personnel is an essential boost to employee productivity. However, many firms find that their training is constrained by the requirement of physical interventions, which disrupt the normal routine on the plant or oil rig. Furthermore, the types of situations that an employee can be exposed to during training are also constrained, as even a small mistake by a trainee could have costly consequences and cause disruptive delays.

Digital simulation techniques address these challenges. In immersive virtual environments, learners can control an avatar that goes inside the plant and sees all the procedures involved in changing a valve, maintaining a pipeline or preventing or managing common accidents. They can also try out different behaviors and assess the impact, without disrupting the normal routine of the real plant or oil rig.

In an industry where effective employee training is crucial for the efficient and safe operation of sites, this kind of learning tool can literally save lives, never mind millions of reais for a company.

QUESTIONS FOR YOUR NEXT MEETING

- How might smart devices such as connected tablets help your employees improve their productivity, no matter where they are?
- How can digital sensing, monitoring and reporting technologies bring health and safety improvements that raise workforce productivity?
- Does your organization maximise and grow the value of its knowledge and expertise through effective knowledge management, communication and training platforms?

4. Plug the information gaps

When the flow of information stops in a company, so does productivity. This is a big problem in Brazil.

Imagine how this might play out in a mining company. You have a very effective plant manager. You also have a competent railway operator. But who is looking at the optimum production flow from mine to plant to railway? Our research shows that productivity in Brazilian companies often degrades during the transition from one operation to another, owing to a lack of efficient information flow and management.

Similar truths apply to any industry. The good news is that we have entered an era where data management solutions are simpler, cheaper and faster to implement than ever before. Some firms are proactively addressing information gaps, even when the problems lie outside the strict boundaries of the firm. We are beginning to see progressive firms in Brazil working collaboratively with their suppliers, distributors, customers and other external stakeholders. They are able to gather data and information from across their ecosystem and identify opportunities to improve the efficiency and productivity of the system as a whole.

Consider the role of a multi-channel bank. Many Brazilian consumers have a strong preference for face-to-face interaction with their bank branch manager. In other cases there is an intermediary involved. For example, Banco Bradesco has more than 50,000 Bradesco Expresso outlets which offer basic banking services via pharmacies and supermarkets. At the same time, Brazil's increasingly connected consumers are engaging with banking services via their personal computers and smartphones. In Bradesco's case, their active mobile users reached 5.7 million in December 2014, compared with 200,000 in December 2018.⁹

The rise of multiple customer interaction points is generating a wealth of data on customer finances, preferences and behaviors. But it is also increasing the risk that valuable information might be lost between different channels. To close this gap, high-performance companies are using segmentation analytics to aggregate and integrate customer information and based

on their insights develop faster, more personalized services. They are also able to anticipate the consumer's product needs, by analyzing changes in their spending patterns. In addition, all this information can be collated and used to allocate company resources more productively, for example by tailoring the investment needed for each channel.

The issue of enabling effective information flows is also particularly important in large capital projects, such as those in Brazil's energy industry. Traditionally, productivity has suffered on such projects with severe delays and budget over-runs, owing to the scale, complexity, multiple technology platforms and diversity of stakeholders.

Cross-functional collaboration is essential for successful management of such projects. For instance, during the engineering stage of a project, if all suppliers have the same 3D model of a planned oil rig and can assess the soundness of the design in real time, the information involved is more reliable. Everyone can then quickly agree on the engineering model and incorporate it into the project management tools that will be used. An energy company gains control over project changes and can more easily assess the impact of such changes on the engineering stage—thus avoiding scope creep, delays and budget over-runs. In addition, executives can anticipate potential delays in delivery of products or services from suppliers and work with suppliers to prevent delays. Our analysis suggests that use of technology in these ways can translate into cost savings of two to five percent during the engineering phase and three to six percent in the construction phase of a capital project.

QUESTIONS FOR YOUR NEXT MEETING

- Does your organization have processes and governance structures to reliably deliver the right information to the right person, in the right format and at the right time, anywhere in your business?
- Does your organization have an integrated data platform that crosses organizational silos and gives decision makers a shared view of company performance? If not, what steps could you take to establish such a platform?
- Where can you generate mutual benefit with partners outside your company through the sharing of real time information?

Fulfilling Brazil's potential



Brazil's economy continues to have great promise, but productivity growth is critical. It's the key to rising standards of living and long-term prosperity.

Too many businesses have wasted time, waiting for the government to resolve the country's productivity crisis. This report is a call to action.

We urge business leaders in all industries to step up to the challenge of raising productivity levels. The recommendations outlined here can be put into practice quickly and often inexpensively. Yet the cumulative impact of such measures promises to be transformative for the Brazilian economy as a whole.



APPENDIX PART I

Falling productivity

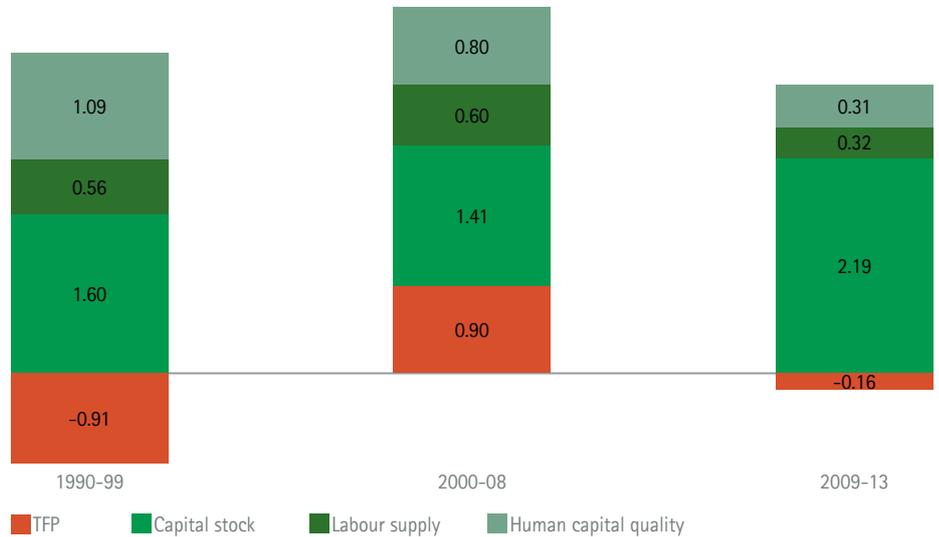
Brazil's productivity growth is now lower than it was 10 years ago. In many of those years, Total Factor Productivity (TFP) growth has even been negative, indicating that inefficiencies in the economy have been destroying the productive capacity of labor and capital. In fact, in total since 1990, Brazil's TFP has been negative—a result that lags well behind that of other leading emerging markets (See Figure 2).

This is particularly worrying because productivity growth is an important contributor to increasing incomes and standards of living for Brazilians. This is one of the reasons why the income gap between the US and Brazil has widened, and at the same time, the gap between Brazil and other emerging economies has narrowed as Brazil's peers catch up (See Figure 3).

FIGURE 2: SHRINKING PRODUCTIVITY GROWTH

We decomposed Brazil's GDP growth over the last two decades and assessed the drivers behind it, including labor supply (number of people in the workforce), human capital (improvements in schooling, used as a proxy for the quality of the labor pool), physical capital (the stock of assets), and the remaining so-called total factor productivity (TFP), which measures how efficiently labor and capital are used. Through the boom years of 2000-2008, higher productivity was a major contributor to the country's increasing prosperity. Since then, however, TFP growth has been negative—a worrisome trend for Brazil's long-term prospects.

Brazil: Contribution to GDP growth (percentage points of Compound Annual Growth Rate)

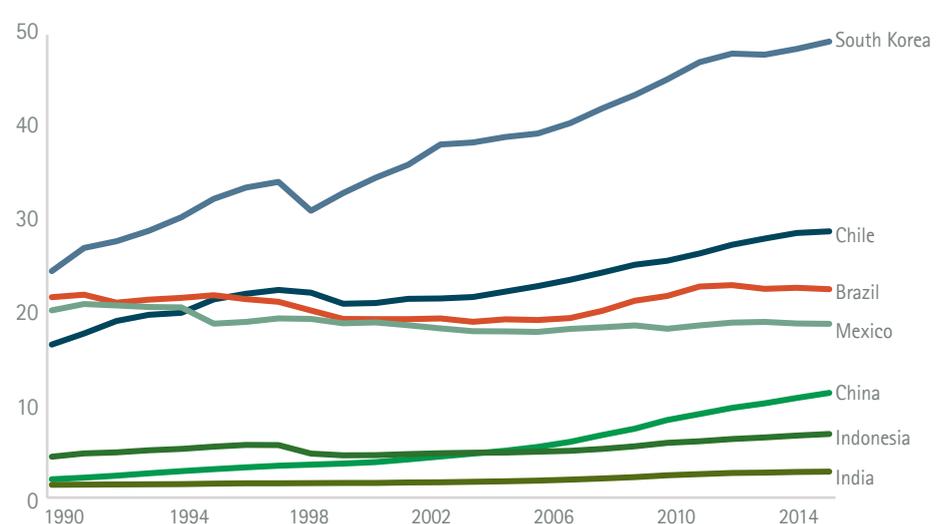


Source: Oxford Economics, Accenture analysis

FIGURE 3: SLOW PROGRESS IN LIVING STANDARDS IMPROVEMENTS

We can use US GDP per capita levels as a representation of the global productivity frontier. In 1990 GDP per capita in Brazil was at 21 percent of US levels but this has hardly improved since then and it is now at 22 percent. By comparison, South Korea's GDP per capita was at 24 percent of US levels in 1990, and it is now at 50 percent of current US levels.

GDP per capita as a share of US levels (percent)



Source: Oxford Economics, Accenture analysis

Moreover, weak productivity growth acts like a leaking irrigation pipe, allowing only a portion of the investments made in future growth to bear fruit. To illustrate this, let's look at our analysis of the future economic benefits of the Industrial Internet of Things (IIoT) (See Figure 4). It shows how the country's low productivity is holding back investments from efficiently achieving their full impact on boosting economic growth. This highlights why improving Brazil's productivity growth is about positioning the country for the future.

What's behind Brazil's weak productivity growth? Many well-known challenges hold the country's businesses and entrepreneurs back. Consider, for example, that it takes 84 days to start a business in Brazil—compared with just 4 days in South Korea, 29 in India and 32 in China.¹⁰ Complex and high taxes are another problem. The tax burden for companies in Brazil is 35 percent of GDP. By comparison, the number is about 20 percent in Chile, 11 percent in Mexico, and the other BRIC countries (Russia, India and China) average 18.5 percent.¹¹ And it's not just domestic business that is hampered: The

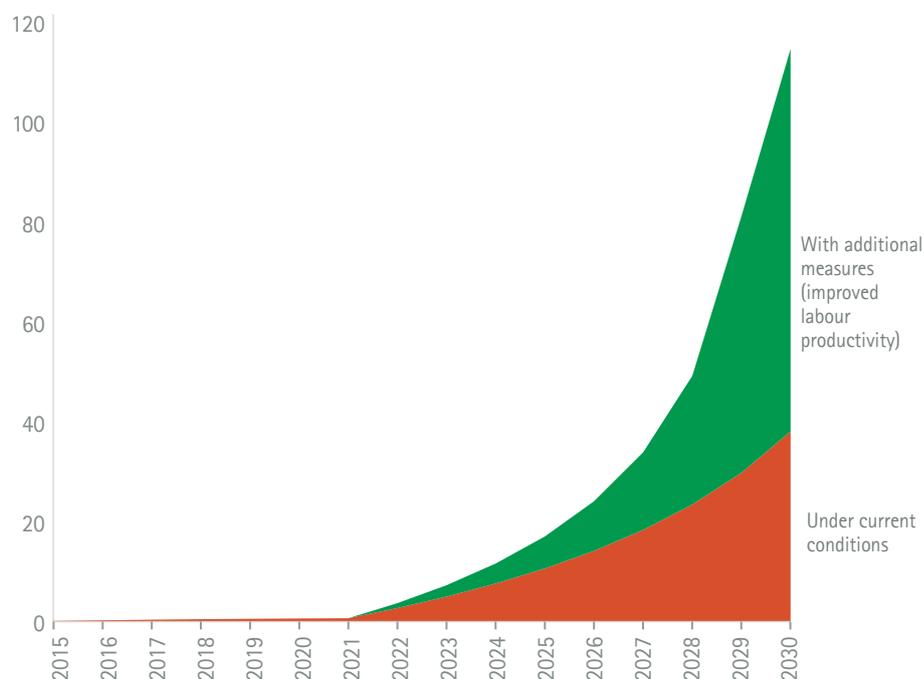
average cost of exporting a container is US\$2,323 for a company headquartered in Brazil, US\$1,332 for one in India, US\$1,224 for a US business, US\$823 for China and US\$670 for Korea.¹²

Persistent underinvestment means that the high costs of doing business in Brazil remain unaddressed (See Figure 5). Perhaps it should come as no surprise that Brazil's productivity growth has lagged behind that of its peers since 1990 (See Figure 6).

FIGURE 4: WEAK PRODUCTIVITY IS A DRAG ON FUTURE GROWTH

In theory, Brazil should be well positioned to benefit from the IIoT, thanks to the importance of sectors that can accelerate its uptake, such as manufacturing, consumer goods and government services. Our "business-as-usual" estimates show the IIoT can add roughly an additional US\$40 billion to Brazil's GDP by 2030. However, low productivity, especially in manufacturing and government services, means that many of the potential benefits are actually leaking out of the system. We ran a scenario in our model to see what would happen if Brazil's productivity levels were closer to global averages. In this case the additional GDP would nearly triple, to US\$116 billion.

Cumulative GDP impact of IIoT (US\$ billion)

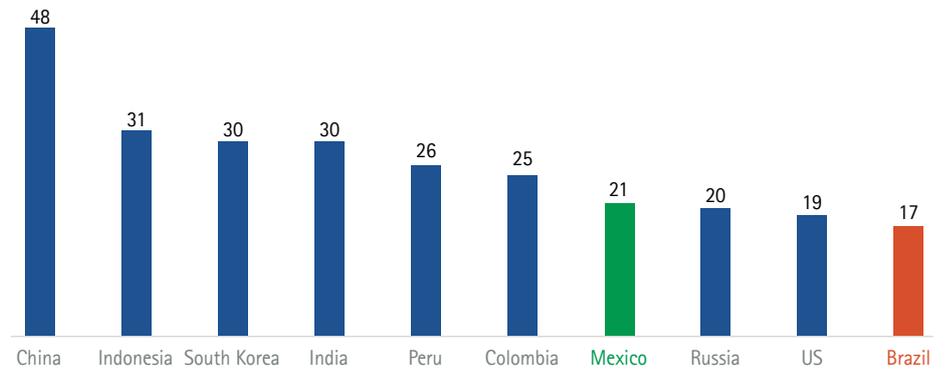


Source: Accenture and Frontier Economics

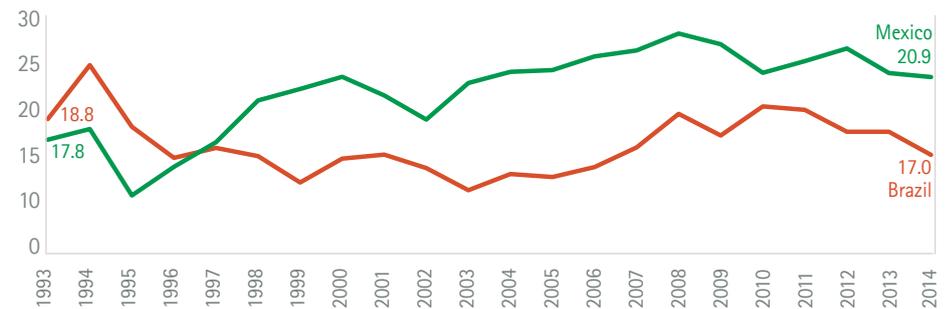
FIGURE 5: PERSISTENT UNDERINVESTMENT

Chronic underinvestment in capital accumulation by both the public and private sectors jeopardizes Brazil's productivity growth. Brazil invests only 17 percent of its output in fixed assets such as roads, buildings, machinery and other infrastructure, while other emerging economies invest an average of 25 percent. This rate is not high enough to fulfil both the need to replace depreciated capital and also significantly add to the new stock, indicating a real opportunity for growth through investments in the country's assets.

Investment rate as a percentage of GDP, 2014



Investment rate as a percentage of GDP

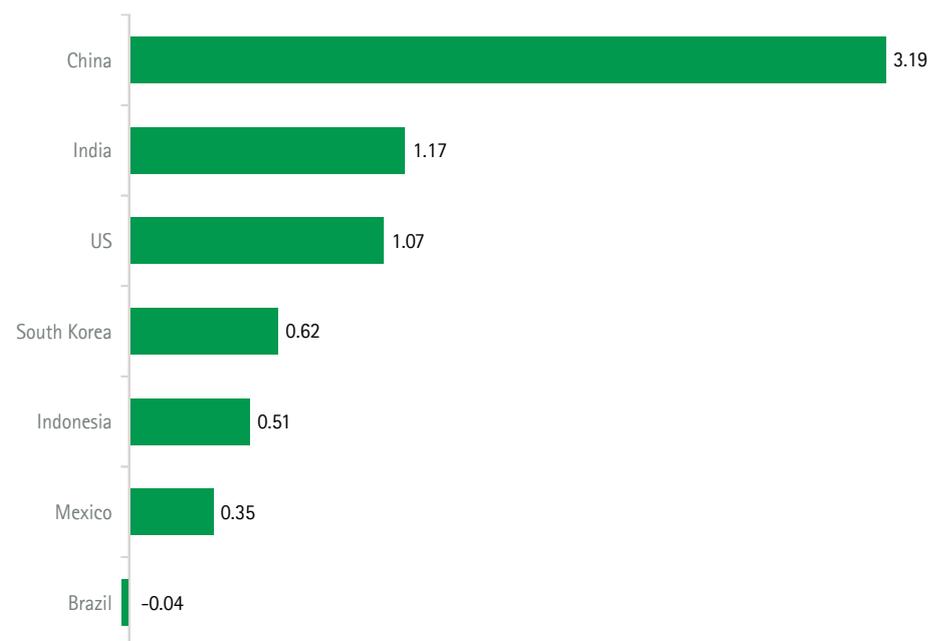


Source: Oxford Economics

FIGURE 6: FALLING BEHIND

When stacked up against other emerging market economies, Brazil's performance on average growth in total factor productivity is discouraging. TFP Compound Annual Growth Rate (CAGR) declined in Brazil during 1990-2013 while growing in other high-profile developing economies and in the US.

TFP growth 1990-2013 (CAGR, percent)



Source: Oxford Economics, Accenture analysis



APPENDIX PART II

Competitive pressures at home and abroad

When we examined key industries in Brazil—such as banking, consumer goods and services, retail, mining and energy—we learned that major businesses have been able to thrive for some time on high revenues and thin profit margins thanks to rapidly expanding demand. (For further information on these five industries, see the Appendix Part III “Productivity imperatives for 5 major industries in Brazil.”)

But the demand drivers, including high employment and easy credit, have now run out of steam. Retail, an industry whose fortunes are directly linked to these factors, saw a decline in sales during 2014. Similarly, commodity sales, especially in mining, have seen a decline in sales as the Chinese economy has begun to rebalance away from construction and investment. At the same time, the structural problems that existed during the boom years remain unaddressed—and this is making it difficult for companies to adapt. For example, Brazil's companies face high labor costs and they also report significant shortages of needed skills, particularly managerial and technical skills.¹³

Structural problems are also visible in the supply chain. Take the cosmetics and beauty market. It is a vibrant market: there are home-grown players such as O Boticário and Natura, long-established foreign players such as Unilever and L'Oréal, and new entrants such as Sephora and The Body Shop. The market is one of the largest in the world, and despite a weaker economic environment the fundamentals for long-term demand growth remain promising. But there is a brake on company profitability in this sector: the ability to get products to market and fulfil orders. Frequent supply chain problems lead to delays and prevent companies from quickly and effectively responding to changes in demand. This is not only costly, but also affects consumer satisfaction and results in lost revenue.

In addition, the entry of new competitors into Brazil will make it more difficult for Brazilian companies in their own market. It is true that domestic firms may have an advantage, with their experience of the local market. But new foreign entrants will bring the scale and efficiency of global enterprises and many will be leaner, more competitive and ready to take on existing players.

Weaker demand, rising costs and greater competition are visible today. But there are also significant longer-term changes underway. Over the 2000–2008 period when the economy was booming, Brazil's major firms tended to take on large numbers of new employees, whilst overlooking the opportunity of getting more value from their existing workforce. As the labor supply grew rapidly for many years, improving workers' efficiency did not necessarily need to be the top priority. This is no longer true. In the next decade, growth in labor supply in Brazil will drop to 1 percent per year from 2.5 percent in the 1990s and 1.98 percent in the 2000s (See Figure 7). This reinforces the need for Brazilian companies to shift their investment focus to improving labor force quality rather than quantity.

LOSING COMPETITIVENESS ABROAD

Brazil's ability to compete abroad has been eroding. Despite its success in some higher-value added products, such as aircraft, apparel and agricultural machinery, it still struggles when it comes to exports of most sophisticated, knowledge-intensive products. For example, between 2000 and 2010, the country's international sales of high-tech products expanded by only 36 percent, versus 873 percent in China and 389 percent in India.¹⁴

In addition, Brazil faces intense export competition from Chinese companies, even in markets close to home.¹⁵ According to the World Bank, Brazil faces the stiffest competition in its exports to the Mercosur trade bloc, where over 45 percent of all products exported there from Brazil are under competitive pressure—that is, the current market share is declining or not growing as fast as China's. And China is especially competitive with technologically sophisticated and knowledge-intensive goods (See Figure 8).

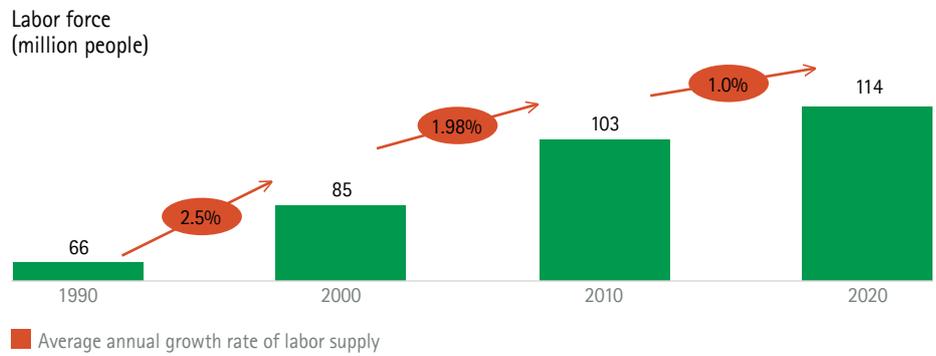
This dynamic is partly due to Argentina's increasingly favorable trade policy towards China. However, rising labor costs and stagnant or falling labor productivity in Brazil are two of the main culprits for this loss of competitiveness. Over the last 10 years, the labor cost to produce one unit of output has risen much faster in Brazil than in other economies (See Figure 9). Although labor productivity has increased 12 percent in Brazil since 2005, labor costs have doubled in the same time period. By comparison, in Mexico though labor productivity also stagnated, labor costs have been consistently falling.¹⁶

Brazil essentially faces a “paradox of thrift”:

For companies, the natural reaction to slow growth is tightening belts and reducing investment, but at the economy-wide level, this spells disaster. It's estimated that every 10 percent drop in commodity prices leads to a decline of 1.2 percent in the levels of investment in Brazil.¹⁷ Clearly, a great deal of responsibility lies in the hands of Brazil's businesses. Companies must have the confidence to invest in Brazil's future—to improve their own performance and boost the nation's productivity in the process.

FIGURE 7: THE END OF THE LABOR BOOM

Labor force expansion in Brazil is slowing, mainly due to demographic factors. As a result, in the longer run Brazilian companies will not be able to rely on rising numbers of people to fulfil changes in demand.

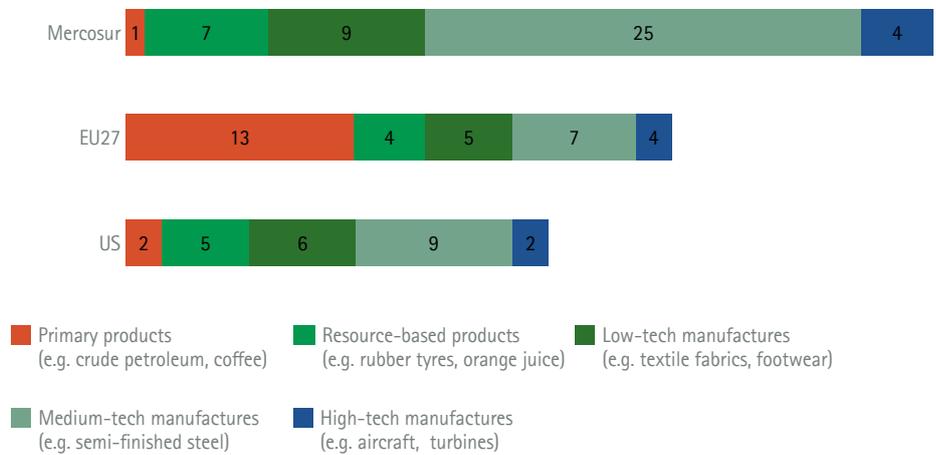


Source: Oxford Economics

FIGURE 8: INTENSIFYING EXPORT COMPETITION

Brazilian firms' exports are facing intense competition in international markets. For example 45 percent of Brazil's manufactured products that are exported to the Mercosur are facing direct competition from China. Similarly, 17 percent of the commodity-based trade with the EU27 is under threat from China's exports.

Share of Brazil's exports where China exerts strong competition, by market and product (percent)



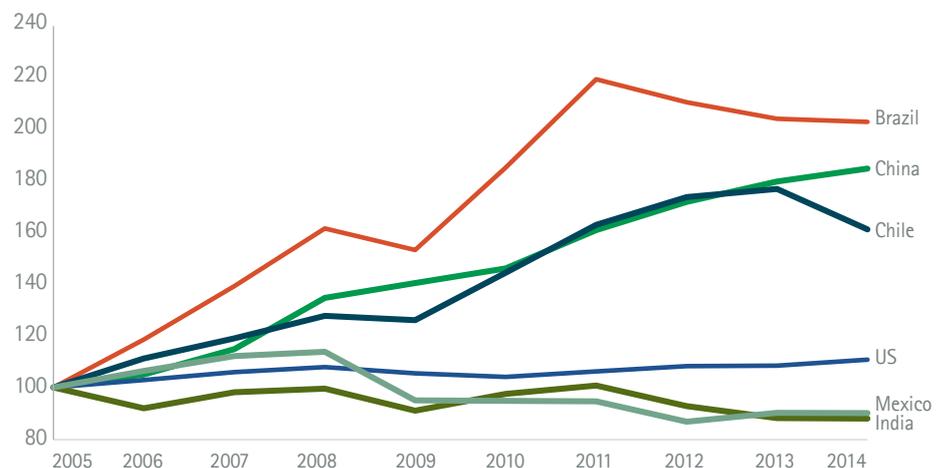
Source: UN Comtrade, World Bank.

NB: Strong competition is defined as "Direct Threat", where China's share is growing and Brazil's is declining and "Partial Threat" where China's share of exports is growing faster than Brazil's.

FIGURE 9: HIGH LABOR COSTS HURT COMPETITIVENESS

In the previous decade, Brazil's cost competitiveness, as expressed by unit labor cost, eroded significantly compared to other markets. The average unit cost of an employee in Brazil is now twice what it was in 2005. By comparison, labor costs in Mexico have fallen in the same time period. The Real has depreciated against the dollar this year, which might provide some relief for exporters positioned to take advantage of this opportunity.

Unit Labor Cost Index (2005=100)



NB: Unit labor cost represents the average employee cost for a unit of output. Source: Economist Intelligence Unit.

APPENDIX PART III

Productivity imperatives for five major industries in Brazil

Discussions on Brazil's productivity are dominated by references to government policy and macroeconomic assessments. The macro perspective is necessary but not sufficient. Productivity is a real business issue, across industries. Infrastructure shortages, bureaucratic burdens and high taxation are realities for banks as much as they are for retailers and miners. But the impact on each organization is also influenced by the industry context, as well as the industry's structure, dynamics and specific challenges. In this section we look at five of Brazil's industries, the different pressures they face, and the common need for actions targeted at their productivity growth.

BANKING

Brazil's banking industry is performing well compared with other industries in Brazil as well as other global banks. But that doesn't mean it's a beacon of efficiency.

In 2013 Brazil's major banks had high pre-tax profits relative to their assets, but they also had high operating costs.¹⁸ And the industry's EBITDA margin—an indicator of profitability—dropped from 45 percent in 2008 to 34 percent in 2013, partly owing to fluctuations in the benchmark Selic interest rate.¹⁹

A falling cost burden over the past five years fails to brighten the picture. Banks focused on short-term superficial gains rather than long-term transformation efforts, such as implementing new technologies to improve efficiency. In 2014, average enterprise IT spending per Brazilian bank customer was US\$90, compared with US\$230 in Germany, US\$472 in the UK and US\$484 in the US.

Labor productivity growth has also suffered in this industry, though banking counts among Brazil's most productive industries. Growth in labor productivity peaked in 2008 with a 15 percent improvement, which by 2013 had dropped to 1 percent.²⁰

The next wave of productivity improvements in the banking sector should come from use of technology to better serve customers, rather than from operational changes.

ENERGY

Brazil's energy industry has the potential to benefit from the country's rich natural reserves. For example, Brazil seeks to become one of the world's largest producers of oil by 2020, when it expects to be producing more than 4 million barrels a day.

However, the industry faces many challenges. Production has been declining in more mature oilfields and hope lies in newly discovered but hard to penetrate "pre-salt" fields. The industry is also highly cyclical. When oil prices are high, energy companies can afford to run high-cost operations. With oil prices on a downward trend, that cushion disappears. At the time of writing oil was trading at an average of US\$60 per barrel, half the US\$100 per barrel average world price that many energy companies have used in their strategic plans.²¹

As oilfields currently in use become less efficient, the future of Brazil's energy industry hinges on the ability to extract oil from pre-salt, offshore fields. This process requires costly, specialized technical expertise and higher capital expenditure. As the International Energy Agency highlighted, Brazil is a country where a significant portion of oil production has a breakeven price of US\$80 per barrel, higher than that of other major oil-producing countries.²² Securing the required level of financing will be a significant challenge, given the existing high debt burden in Brazil's energy industry.

In the longer term, competition from shale gas and renewable energy sources will mean that Brazil's oil-based energy industry faces even greater pressure to develop more sustainable operations while also satisfying rising domestic demand. The combination of cost pressures and soaring demand puts the spotlight on the need to invest in productivity improvements.

CONSUMER GOODS AND SERVICES

Brazil's consumer goods and services sector has done well in terms of revenues and sales in the last few years. Net revenues, for example, increased fourfold between 2007 and 2013. This growth stemmed in part from the provision of easy credit, relatively brisk economic growth in Brazil and rising employment. However, profitability has not been improving at the same pace. The EBITDA margin has declined over the last five years, from 14 percent in 2007 to 12.6 percent in 2013, with a small uptick in 2011.

If we look at operating costs in relation to net revenues, it becomes clear that companies in this industry have not succeeded in reducing their cost burden. Weak infrastructure and inefficient supply chains are at the root of this problem. Though sales processes are functioning well, fulfilment processes are not. Those processes are ripe for improvement, as in many cases although there is strong demand for products, companies are not able to fulfil it. This is hurting their bottom line, as they have to cancel orders that they are not able to meet.

The industry's longer-term outlook looks more positive, thanks to an emerging middle class that aspires to greater ownership of consumer goods. But the short-term outlook is more sobering, given a deceleration in Brazil's economic growth, accompanied by rising inflation, interest rates and uncertainty. To remain competitive, consumer goods companies will need to find new sources of growth, and productivity improvements can be a critical source.

RETAIL

In Brazil, the retail industry's dynamics resemble those in the consumer goods and services industry. For example, net revenues tripled between 2007 and 2013, jumping from US\$38 billion to US\$107 billion. Yet forces in the macroeconomic environment—such as price volatility, currency risks and inflation—pose challenges for the industry. During 2014, retail sales recorded a 1.7 percent drop in sales volume in seasonally adjusted terms, breaking the growth trend of the previous four years. Moreover, financial performance varies across segments in this industry. For instance, the personal care and sporting goods segments are faring better than grocery and electronics in terms of revenues.

In the short term, retail sales will likely remain sluggish owing to weak job creation and high interest rates—two forces that will also affect consumer behavior. Shoppers, for example, might wait for promotions before buying, shop around more to compare prices and hold off spending on more expensive items. This will in turn put greater pressure on retailers to attract shoppers and also ensure they make better use of their existing resources to cope with the sluggish demand.

By taking action to improve their productivity, industry players can strengthen their ability to cope with these changes. For example, companies can look for ways to capitalize on Brazilians' love of social media and shopping, by making more strategic use of the e-commerce channel and engaging with them through online platforms to boost consumer loyalty.

MINING

Brazil's mining industry has flourished thanks to the country's natural endowments of iron ore, coal and other metals and minerals. In the last decade it has benefited from urbanization and a construction boom in emerging markets, particularly in China. Now these trends are slowing. China's policymakers are focused on rebalancing the economy away from investment in infrastructure and buildings, and toward boosting personal consumption.

Data on the Brazilian mining industry's top 10 companies shows that the EBITDA margin decreased by 12 percentage points from 2008 to 2013. Capital efficiency (revenue-to-equity ratio) also declined during that time period. The main reason for this decline: investment in production expansion has not yet matured, as new assets are either still being built or are getting ramped up. This suggests that it's now time for the large capex investments of the past few years to start paying off.

Meanwhile, the cost burden rose 16 percentage points in those years. It is true that Brazil's mining industry is heavily influenced by global factors, such as the commodity price cycle and demand and supply patterns around the world. However, by undertaking initiatives to improve mining productivity, the industry will be better equipped to face external challenges such as price fluctuations and currency risks, as well as the unavoidable decline in the quality of the mineral resources.

About the research

The research for this report included economic analysis and growth decomposition for Brazil as well as comparison economies, in collaboration with Oxford Economics. It also included case study research of high-performance businesses in Brazil, industry analysis for five key industries and discussions with subject-matter experts, who we would like to thank for their guidance:

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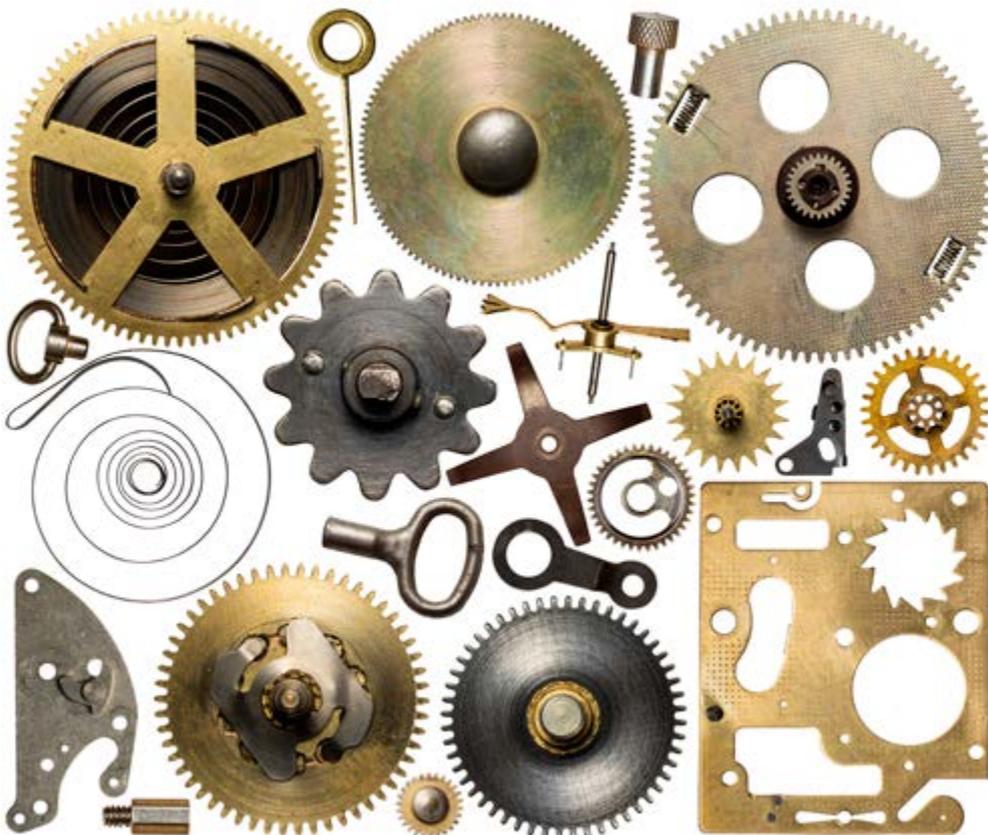
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