

BRAZIL: HAS THE FUTURE FINALLY ARRIVED? ¹

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Abstract: This paper evaluates whether Brazil is finally realizing its long-term potential, reversing the long history of choppy economic growth. Scholars have provided many explanations regarding why Brazil has been unable to match the extraordinary growth rates of China and other East Asian economies. We believe none of these factors alone can explain the whole story and thus, we examine four critical and interrelated pillars or foundations for economic growth: *Policy, Macro Stability, Human Resources, and Openness*. We conclude that Brazil has made significant progress in constructing the second and fourth pillars, but that more progress will be required on the other two if it is to fulfill its destiny as the “country of the future.”

Key Words: *Economy, Growth, Reforms, Stability, Potential.*

Resumo: Este artigo avalia se o Brasil está finalmente concretizando seu potencial de longo prazo, revertendo sua história de crescimento irregular. Acadêmicos vêm fornecendo explicações do porquê o Brasil não conseguiu fazer frente às extraordinárias taxas de crescimento da China e outros países do extremo Oriente. Nós acreditamos que nenhum desses fatores isoladamente consegue explicar a história por completo, e por isso, examinamos quatro pilares inter-relacionados: Política, Estabilidade Macroeconômica, Recursos Humanos e Abertura de Mercado. Concluimos que o Brasil fez progressos significativos na construção do segundo e quarto pilares, mas ainda será necessário muito progresso nos outros dois pilares para cumprir com seu destino de ser o “país do futuro”.

Palavras-chave: *Economia, Crescimento, Reformas, Estabilidade, Potencial.*

JEL Classification: E02, O11, O54

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Introduction

“Brazil is the country of the future – and always will be.” Of course, Charles DeGaulle did not mean this as a complement. He also said, “Brazil is not a serious country.” The question for Brazil’s policy makers is how to eliminate the last part of DeGaulle’s wry remark and turn Brazil into “the country of the present.” With its huge, seemingly unlimited natural resource base, the fifth largest country in the world holds so much promise, yet it has experienced a long history of on-again, off-again sideways growth, entrenched inflation, authoritarian politicians, financial crises, widespread poverty and unequal distribution of income.

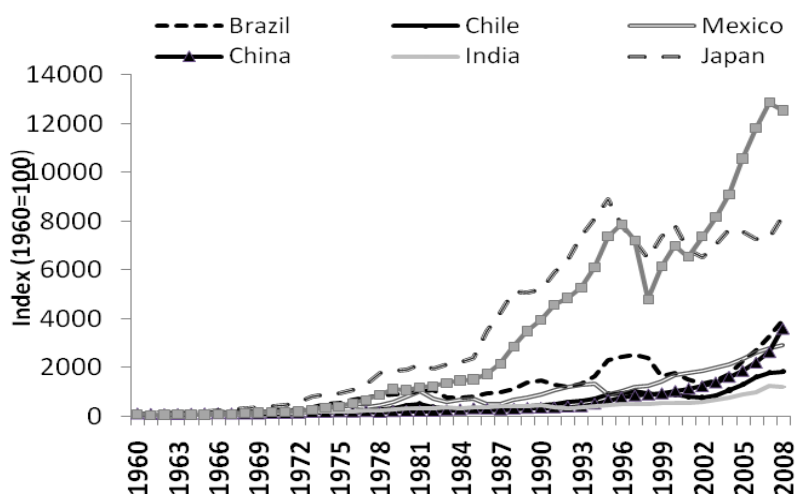
To a large extent Brazil’s growth has been tied to the ups and downs in commodity prices – “booming” when prices rise and busting when they fall. However, today there is hope that Brazil has finally overcome the curse of commodity exporting nations around the world. Largely due to improved macro economic and political fundamentals, under Presidents Cardoso and Lula, Brazil has emerged largely unscathed from the financial and commodity markets crash that ushered in the worst worldwide recession since the Great Depression. Investors around the world now consider Brazil as a part of the BRIC (Brazil, Russia, India, and China) markets – the markets with the greatest chance for success over the next fifty years.

The question this paper addresses is whether this confidence is justified and whether Brazil finally is starting to realize its long-term potential, with its vast human and natural resources. We examine reforms we believe are needed to fulfill its destiny as the “China” of the Western Hemisphere. In Section II we briefly discuss Brazil’s historical growth performance and offer some explanations for why it has failed to match the growth of East Asia, Emerging Europe, and even Chile. Since no single factor can explain the entire story, Section III develops an analytical framework with what we believe are four key interrelated pillars of growth – Policy, Macro Stability, Human Resources, and Openness – that can solve the “growth puzzle”. Finally, Section IV shows how Brazil can come close to East Asia’s growth rates – growth rates which achieve a doubling in China’s GDP every nine to ten years or less. At this rate Brazil’s per capita income levels could reach those of the world’s most advanced economies within the next 15 to 20 years.

1. A Choppy Past and The Growth Puzzle

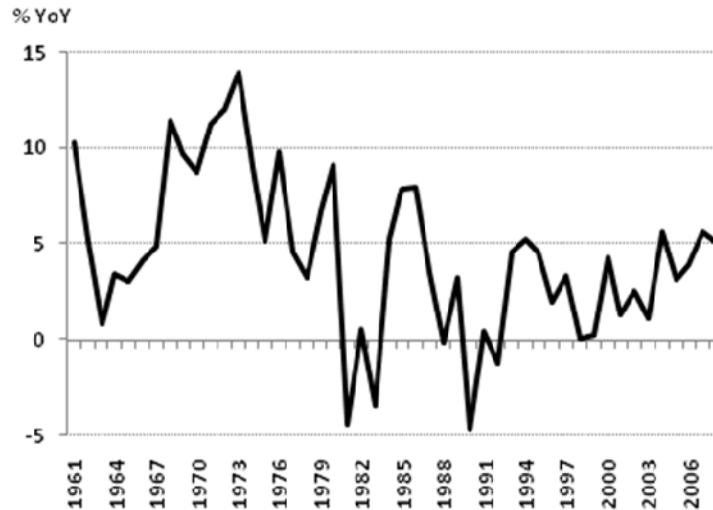
A Choppy Past: Typical of Latin American countries, Brazil's growth has been highly uneven throughout its history. As Prados (2007) points out, Brazil's performance was mostly solid from the late 1930s to 1980, being the only Latin American country to outperform the richest OECD countries. During the 1960s and 1970s, on the back of economic liberalization, Brazil's GDP grew at impressive rates, averaging above 7%. By then, Brazil was poised to become the world's next economic power. Unfortunately, dark times arrived in the 1980s, with the era appropriately called the "lost decade". Between the 1980s and 1990s, growth rates sank to an average of 2.2%, largely due to a series of external shocks and poor policy responses amidst a political transition from a military regime to a democracy. As a result, Brazil's GDP per capita lagged behind that of Japan and Korea, with China quickly catching up in recent years (Figure 1). In this decade, the economy struggled before finally improving over the past several years with above 5% growth (Figure 2).

Figure 1: GDP Per Capita (1960=100)



Source: World Bank

Figure 2: Brazil Real GDP Growth (2002=100)



Source: WDI, IBGE, Haver Analytics

The Growth Puzzle: Given its splendid resource endowment, Brazil's historical long-term growth performance is something of a puzzle and subject to much academic debate. Colonial cultural legacy, an import-substitution growth strategy, income inequality, macroeconomic mismanagement, poor education and infrastructure, corruption and political instability, etc. have been offered as explanations of Brazil's underperformance as compared with successful growth stories in East Asia, Europe, and even Chile. We believe none of these factors alone can explain the whole story. Likewise, to gain a better understanding of where the country is headed, we need to examine various interrelated factors, which we roughly break down into four key pillars: Policy, Macro Stability, Human Resources, and Openness.

2. Four Key Growth Pillars

Policy: Broadly, we define the term *Policy* as a set of government institutions and policies that provide incentive to invest, work and save in a free and competitive market. Two-thirds of Brazil's productivity growth deficiency can be tackled by changes in government policies. Thus the

question is how much public institutions and government ideologies in Brazil have improved and will continue to make progress.

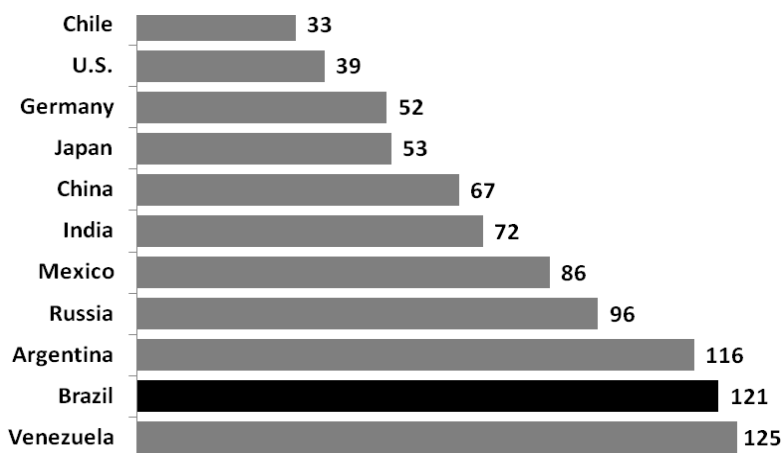
According to Przeworski (2008), a key reason for the historic poor economic performance in Brazil can be attributed to the disruption caused by political turmoil. He estimates that if Brazil had become independent the same year as the United States (1782) and had the same degree of political stability, the income gap between the two markets could be less than ten thousand dollars per person today versus the actual gap, i.e., more than thirty thousand dollars. The delayed independence retarded growth and held back the gains other countries enjoyed during the Industrial Revolution. He also concluded that Brazil's closed markets were another major impediment. (Please see our discussion of the fourth pillar below.)

We recognize that Brazil's political structure has come a long way since the 1988 constitution, and Brazil is now a stable democratic nation without serious disputes with its neighbors. Recently, under Lula's administration, Brazil became a net foreign creditor, achieved investment grade and received praise for improving its economic fundamentals. Nonetheless, substantial bottlenecks remain, especially in areas where the government is chiefly responsible. Scholars generally agree that institutional weakness including excess bureaucracy, excessively centralized decision making, and high levels of corruption must be addressed for the market to lift its long-term growth potential.

According to the World Economic Forum's 2008-09 Global Competitiveness report, out of 134 markets, Brazil ranks 133rd on excessive government regulation and dead last in the high levels of taxation. The report highlights that the Brazilian government has not been successful in abolishing the culture of "cordialidade", which means the primacy of personal bonds over rules, which results in corruption and high bureaucratic costs. The bureaucracy is the third largest spending category for the government (The Economist 2007). Brazil's labor laws remain extremely rigid, with many limitations for businesses to hire and fire workers, leaving companies vulnerable to fluctuations in the business cycle. As a result, the World Bank's 2009 Doing Business report ranks Brazil in the bottom one-third of 180 markets on the ease of doing business. When those surveyed were asked "what are the most problematic factors of doing business in Brazil?" more than 80% answered high taxation, inflexible labor conditions, excessive bureaucracy and corruption (see Figure 3).

Why have the institutions affecting business performance and competitiveness in Brazil been, historically, so weak? Some have argued that institutional quality depends on religious beliefs and culture; others emphasize the role of history, and others state the importance of vested interests and the struggle over power, income and wealth distribution. While all of these theories have played a role in shaping Brazil's institutional base, we believe that it all reverts to political dynamics. In our view, altering the balance of power through structural reforms could help de-centralize decision making, enhance the rule of law, lower poverty levels, help reduce income inequality, and strengthen the institutional framework in which businesses can thrive. However, without a major social upheaval it is extremely difficult to wipe out entrenched interest groups and create a "new beginning" as it did in Japan after the World War II and in South Korea after the Korean War (Olson, 1984).

Figure 3: Rankings based in 10 aspects for which the government is responsible.



Rankings based on key aspects including wasteful govt. spending, burden of govt. regulation, transparency of policymaking, total tax rate, and easiness to start a business

Source: World Economic Forum: 2008-09 Global Competitiveness Report

The best chance for Brazil's business sector to attain world class competitiveness is for a new administration to make positive strides soon after entering office. If they do not, by their third year in office, traditionally, the

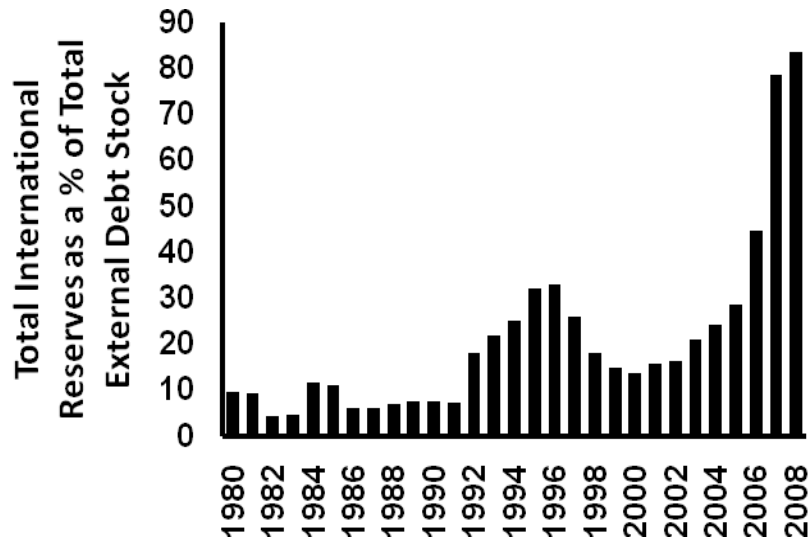
government starts to become more concerned with being re-elected, or with the term limit, positioning a potential replacement. So, the next chance for a structural reform push would likely need to occur in 2010-11. But, the probability of occurrence is limited as it will meet strong political resistance. Strong support for reform occurs traditionally under turbulent times, and not so much when all is going well. Somehow, this dynamic must be changed.

Macro Stability: Ultimately, *Macro Stability* means price stability, fiscal sustainability, financial market sophistication, and personal financial safety and security. It means stable social and macroeconomic conditions for growth. While macro stability alone cannot increase the wealth of a nation, macro instability prevents economic success. Businesses are unable to make informed decisions when a country's currency is collapsing and inflation is surging; governments cannot provide sufficient services when they face severe budget deficits; innovators cannot turn their ideas into profitable products and services when financial market sophistication is lacking; and consumers and business confidence is at risk when there are personal financial safety and security concerns.

Brazil has made substantial strides in building this critical pillar. First of all, following the gains made by the Cardoso administration, the Lula administration has made still further progress in macroeconomic stabilization. As a result, Brazil was granted investment grade credit rating in 2008. The 1980s and early 1990s hyperinflation times feel like the distant past today. Following the 1994 *Real* Plan implementation and adoption of inflation targeting and the flexible exchange rate in 1999, Brazil's prices have stabilized, with the Central Bank meeting its inflationary target in every year since 2004.

Second, Brazil is now a net foreign creditor; the government lowered its debt burden from 64% of GDP in 2002 to 36% of GDP in 2008, and its foreign exchange reserves grew close to 450% in the same period. According to Barbosa (2001), the ratio of international reserves to total external debt, or "liquidity ratio", has tended to lead and be positively correlated with Brazil's GDP growth performance since the 1960s. Also, Velasco (1999) finds that an improving liquidity ratio limits the downside risk of macroeconomic disarray. With that said, Brazil's liquidity ratio has surged from an average of 8% in the 1980s and 20% in the 1990s to 84% in 2008. In 2008, Brazil's ratio only lagged Peru's 89% ratio in Latin America. However, it still remained below other BRIC markets, i.e., China (520%), India (155%) and Russia (106%). (Figure 4)

Figure 4: Liquidity Ratio: International Reserves as % of External Debt



Source: Economist Intelligence Unit

In 2008, Brazil's government expenditures as a percentage of GDP were the highest among all Latin American markets at 20% of GDP, also almost twice as much as Asian countries such as China and South Korea. High government expenditures tend to be associated with waste and corruption and thus an unnecessarily large tax burden on the private sector (Loyaza, 2005). Moreover, according to the Brazilian Institute of Tax Planning, only 6% of Brazil's population is over the age of 65, but Brazil spends 11% of GDP on pensions, a burden on fiscal accounts. As a mid-income country, Brazil has a social welfare system similar to that of rich Western European countries.

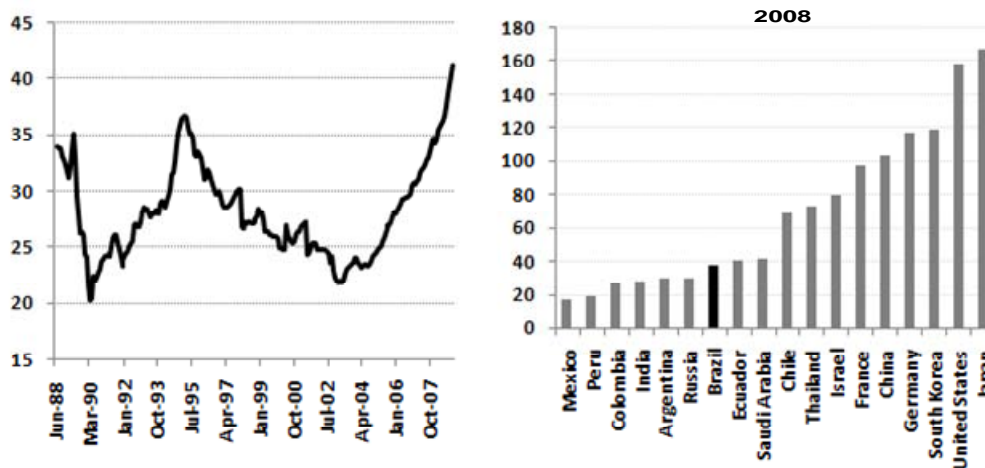
Fiscal accounts have improved from having budget deficits of closer to 9% of GDP in the late 1990s to having a budget deficit of less than 2% of GDP in 2008. However, Brazil must become fiscally responsible and lower the level of spending and taxation, which in turn will bring a sustainable reduction in interest rates. In 2008, Brazil's bank lending rates were 50%, twice as high as the second highest rate among Latin American markets, i.e., Peru's 24%. Still further progress is possible through tax and pension reform,

and through simplification of the tax code. More incentives to invest and save in the market will result.

Third, in terms of financial market sophistication, Brazil ranks in the top 15% in the world, according to the World Economic Forum's 2008-09 Global Competitiveness report. The banking system ranks 24th and it is 2nd in Latin America, after Chile. However, there are items that need significant improvement. For example, Brazil ranks just below average regarding the difficulty for entrepreneurs with innovative ideas to find venture capital and 119 out of 134 on market restrictiveness of free capital flows. Of course, this is mainly a problem of *Policy* and needs the institutional reforms we have discussed.

According to Levine and Zervos (1996), a strong positive correlation exists between financial development, measured by the ratio of credit to GDP, and economic growth. Brazil's ratio of credit to the private sector as percentage of GDP has lately grown robustly, averaging 10% annual growth since 2004. However, it lags far behind other parts of the world outside of Latin America. In 2008, Brazil's ratio was close to 40% of GDP, significantly less than in the U.S., Canada, Western Europe and some Asian markets such as China, and South Korea (all of which are above 100% of GDP). Visually, it can be seen in Figure 5.

Figure 5: Private Sector Credit as % of GDP



Source: Economist Intelligence Unit, BACEN.

Following the Levine and Zervos (1996) principle, Brazil's elasticity of private sector credit to real GDP was 0.1 in the 1990s. But, in the past five years the elasticity has averaged 0.6. That is, for every one percentage increase in the credit ratio, GDP increased 0.6%. But, could we expect Brazil's credit ratio to continue growing at similar rates and eventually reach Asian markets' levels? If so, what could be the potential economic impact?

Brazil's credit provided by the banking sector to the overall economy is much higher than the domestic credit available to the private sector. In fact, in 2008, credit provided by the banking sector to the overall economy was above 100% of GDP. According to Viana (2006), there is a strong potential for private sector credit to grow vigorously. However, the sizeable amount of credit directed to the government has a significant crowding-out effect, which drives interest rates upwards and makes long-duration loans difficult to obtain.

According to Gray (2007), mortgage credit has the largest growth potential given the huge pent-up demand and demographic trends. In 2008, Brazil's housing credit reached only 2% of GDP, far behind China's 11%, Chile's 15%, and Mexico's 8%. In fact, Mexico has 60% of Brazil's population but builds four times the number of houses.

If the government becomes less involved and allows the private sector to take economic charge, it is not unrealistic for credit to the private sector to continue to grow at rates of the past few years before the crisis. History shows it is possible. For instance, Chile's ratio grew 88% over the past 10 years, and India's ratio more than tripled since 2000. If Brazil can pull that off, by 2019 credit to the private sector could break the 100% of GDP mark, reaching the levels that the Asian countries currently enjoy. Applying an elasticity of 0.5, Brazil's GDP could then almost double in the next decade, growing on an average around 5% per year.

Fourth, in order for consumers and businesses to pursue economic activities in a market, they need to have a sense of safety and security. Thus, we measure Brazil's performance employing the 2009 Global Peace Index (GPI) from the Institute for Economics and Peace. Brazil ranks below average, 85 out of 144, with the most peaceful market ranked first. The GPI index is composed of 23 indicators which utilize internal and external factors including the level of military expenditures, country's relations with its neighbors, income inequality, and the level of crime and violence in a market. The two key items that contribute to Brazil's mediocre performance are: 1) crime and violence and 2) large income inequality.

As for crime and violence, Brazil ranks in the bottom 10% according to the World Economic Forum's 2008-09 Global Competitiveness report. It is only two spots above Mexico, four above Venezuela and eleven spots out of last place, which is held by South Africa. Soares and Naritomi (2007) highlight that rising crime is detrimental for long-term growth as it causes lower investment in human and physical capital. They estimate that Brazil's crime costs are approximately 9% of GDP annually.

Regarding income inequality, Brazil's Gini index of 56.6 is one of the highest in the world. To put it in context, the Gini index varied from a maximum of 74.3 for Namibia (the most unequal country) to a minimum of 24.7 for Denmark (the most equal country). While much development is needed, the Gini index improved from 59.6 earlier in this decade, translating into noticeable real GDP per capita growth: in the 1980s and 1990s Brazil's real per capita income stayed flat; whereas, in the past five years, it averaged more than 3% annual growth.

Most experts (Chen, 2003; Barro, 2000) believe there is a negative correlation between economic growth and inequality. Alesina and Perotti (1996) highlight that income inequalities could lead to social unrest, lowering the propensity to invest and diminishing growth potential. So how can Brazil continue to reduce income inequalities and crime? We believe one solution is to promote education and limit the extent of informal labor markets, as we note in our discussion of *Human Resources* below.

In summary, Brazil's "Macro Stability" pillar is solid and in our view gets a "B+". Inflationary pressures are under check, Brazil's government debt ratios have improved, and financial market sophistication is on the right track. However, government is still crowding-out private sector credit and Brazil must continue to address the legacy issues of income inequality and crime. It must learn from the East Asian experience and promote education.

Human Resources: Another essential pillar for economic growth is the quality of a country's labor force. We define *Human Resources* broadly to include not just skill sets, but also the efficiency with which they are applied to a job. Going beyond the number of people available for work, it also reflects people's attitude and attainment of education and people's work habits and employment patterns. On the first front, many studies have found a strong relationship between schooling and economic growth. Higher education and training allows markets to move up the value-added chain, and prepares workers to handle a rapid changing global environment and new technologies. On the second front, educated people may not be willing to

work hard, and a larger informal sector removes the incentive for businesses to invest in new technologies, and to improve their customer service and productivity. This is associated with the high taxation as we discussed earlier.

Brazil's education system has come a long way since the 1990s when the federal government started distributing money to states and municipalities on the basis of enrollment in primary school. In 2008, Brazil achieved almost universal net primary enrollment at 94.4%, and ranked 58th out of 134 markets according to the World Economic Forum's 2008-09 Global Competitiveness report. However, the quality of its primary education ranks 119th, with the quality of math and science being ranked in the lowest 10 percentile.

The limited amount of educational funding, 4.3% of GDP, and inefficient utilization of that source are key reasons for the poor performance. Other countries such as Argentina, Chile, China and South Korea spend much less on education but have a much higher quality of primary education.

Whether Brazil can tackle the structural issues remains to be seen. The government launched the Program to Develop Education (PDE) in 2007. The program attempts to attract new teachers by offering them higher salaries; promises to invest in infrastructure; and provides support for poor families. If successfully implemented, Brazil's primary educational quality can be expected to improve substantially, paving the way for a new generation of more highly educated workers.

With respect to higher education and training, Brazil ranks above average at 58th, improving its ranking by six positions from 2007 to 2008 in the Global Competitiveness report. Its ranking is comparable to Argentina (56th) and Chile (50th) in Latin America, and above East Asian countries such as China (64th) and India (63th). A key driver to the latest success has been the improved level of local availability of specialized research and training services, which rank in the top 20th percentile, placing Brazil as the highest performer in Latin America and best out of BRIC markets.

Higher educational levels are needed for long-term success, and Brazil is increasingly improving a critical component of *Human Resources*, increasing its average schooling years by more than 3 years since 1990. Brazil's mean years of schooling are approximately 14 years, comparable to those of other Latin American markets such as Chile, Peru and Argentina, however still below the approximately 16 years average schooling in developed markets.

Based on Wilson and Purushothaman (2003), an additional one year of schooling contributes to 0.3% faster growth. If Brazil's current GDP potential is close to 4% per year (its GDP growth average since 2000), reaching an average 16 years of schooling, which is not an unrealistic assumption based on proven history, Brazil's long-term GDP potential could be lifted above 4.5% per annum.

Regarding work habits and employment patterns, Brazil's informal economy is the biggest obstacle to productivity growth, according to McKinsey & Company (2006). It accounts for an estimated 40% of gross national income. The World Economic Forum's 2008-09 Global Competitiveness report ranks Brazil 91 out of 134 markets for the prevalence of its informal sector. It is far below Latin America's best performer, Chile (22nd), and also below China (56th) and India (72nd). The OECD's (2008) finds that close to 55 % of Brazil's total workforce works in the informal sector – a huge drain on efficiency and thus productivity.

A large informal sector is detrimental for productivity, given that the nature of the jobs are unstable, poorly paid and with diminishing returns. It also reduces the tax payer base, making tax cuts unfeasible. But of course this is a chicken-and-egg problem. High taxes are at the root of many small businesses staying in the informal sector. According to the BBC, a Brazilian's typical entrepreneur needs to work 2,600 hours per year to pay all taxes while a typical entrepreneur in Ireland needs just 76 hours. With a complex and high tax system and strong labor rigidities, it is difficult to convince Brazilians to support formal employment.

The interconnected structural issues require a threefold round of structural reforms. On the fiscal front, in addition to simplifying the tax code, an option would be to abolish charges currently equal to 25.5% of employee's wages that companies have to pay into Brazil's welfare system. On the labor front, easing labor rigidities would allow room for business to quickly adjust to shifts in the business cycle, i.e., allowing temporary work, engaging in labor deals that overrule rigid labor market regulations. Lastly, as Ulyssea and Szerman (2006) suggest, higher schooling could prepare more workers for the formal sector, which the educated workers prefer.

Lejour and Tang (1999) established that a shift of labor from low (informal) to high (formal) productivity sectors is an important engine of economic growth. They found that a shift of 20% of total labor supply raised economic growth by one percentage point per annum. If Brazil lowers the size of the informal sector's workforce to close to 35%, reaching Chile's current

labor informality stage, Brazil's GDP growth potential could be lifted to around 5% per year. In summary, Brazil's growth potential will be lifted significantly if the government continues to push for higher education and implement systematic structural reforms to reduce labor informality.

Openness: For this pillar, we analyze the role that free trade agreements, major trading partners, natural resources, and the size of the domestic market have on influencing productivity and export growth. We cover the potential of Brazil as a foreign direct investment destination and as enabler; we discuss Brazil's hard physical infrastructure attributes such as roads, ports, and power stations and its impact on economic development.

Brazil erected high walls of protection as part of import-substitution policies for more than a half century. It has not been very proactive to open its economy, other than to some regional market integration. While there are signed and sealed free trade agreements (FTAs) with key Andean markets, Chile and Mexico, negotiations with the European Union and South Africa are moving too slowly and with India and South Korea they have been extremely difficult.

According to the World Competitiveness 2008-09 report, Brazil ranks in the bottom 20 percentile regarding the prevalence of trade barriers and in the bottom 30 percentile as to the average rate of duty per imported value unit. Its tradable goods sector is almost six times smaller than in China, when measured by imports plus exports. And, if we measure openness by the ratio of total external trade to GDP, Brazil lags both developed and emerging markets.

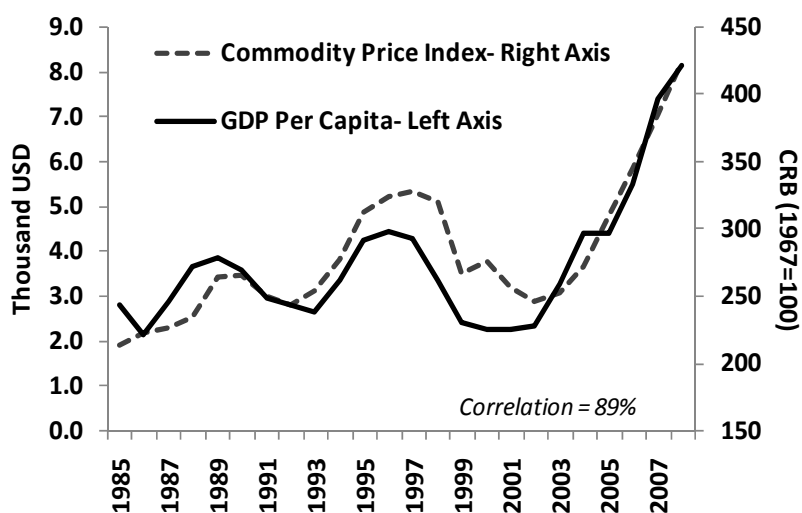
However, Brazil has become more integrated with the world economy in recent years. For instance, its ratio of trade to GDP has almost doubled from 14% a decade ago to 24% in 2008. This is part of the reason that GDP growth has picked up, since there is a positive relationship between openness to trade and growth. In addition to its rich natural resources, Brazil's large domestic market is an attraction for foreign business. Brazil ranks among the ten biggest global markets in regards to its domestic market size, and it has the fifth largest population in the world, with close to 200 million people.

From soy bean to sugar cane, from oil to iron ore, Brazil is well positioned to cash in on the so-called commodity Super-cycle as global economic growth accelerates—particularly in China and India — and the demand for natural resources could reach unprecedented levels (Figure 6). Brazil has sizeable unused fertile land, warm climate, abundant water, and a

number of the world's largest and most competitive mineral deposits. While energy and commodity prices can be volatile – witness the surge and plunge during 2008 and 2009, structurally higher prices is a realistic possibility as supply constraints persist for political, economic, regulatory, and technological reasons.

More than half of Brazil's exports are commodity related. They range from crude oil and processed minerals (petroleum products and ethanol) to metals, chemicals, and agricultural commodities. According to the World Bank, Brazil is the third largest agricultural exporter in the globe – having more than 25 agricultural commodities where it ranks at or above fifth place globally- and it is also a major exporter of mineral commodities.

Figure 6: Commodity Prices vs. Income Per Capita



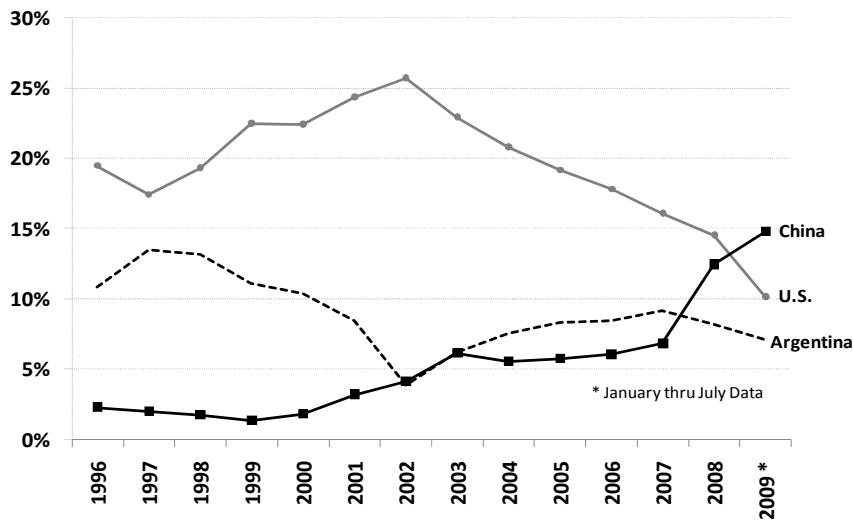
Source: International Monetary Fund, CRB, Haver Analytics

Being ethanol rich paves the way for Brazil to be a key global player in the renewable energy sector. Brazil has an estimated 180 million hectares of pasture that could be used to produce additional sugarcane for ethanol without reducing the food sugar crop. According to Mia (2009), the share of renewable energy by 2020 as percentage of total consumption is expected to be 85% in Brazil, compared to 15% in the rest of the world. Brazil has

increased its oil reserves by almost 50% since 2000, and given its latest oil finding (Tupi field), Brazil has the potential to become a major oil exporter. According to Petrobras, Brazil oil reserves could reach Venezuela-like levels and lift its ranking from 17th place in the globe to the top five.

China is now Brazil's largest trading partner, eager for Brazil's exports (Figure 7). China has been the key global contributor to global demand in the last decade. Since 2003 its purchases of copper, steel, aluminum, soybeans, and coal constituted an amazing 30 percent of total global demand, with the highest metal-to-GDP intensity ratio in the world. China's GDP growth averaged 10% over the past 30 years, and we expect strong growth to continue over the next decade. Over the longer term, India's appetite for energy and commodity will have a significant further impact as its economy continues to grow.

Figure 7: Export Destination as % of Brazil Total Exports (Top 3 Markets)



Source: BACEN, Haver Analytics

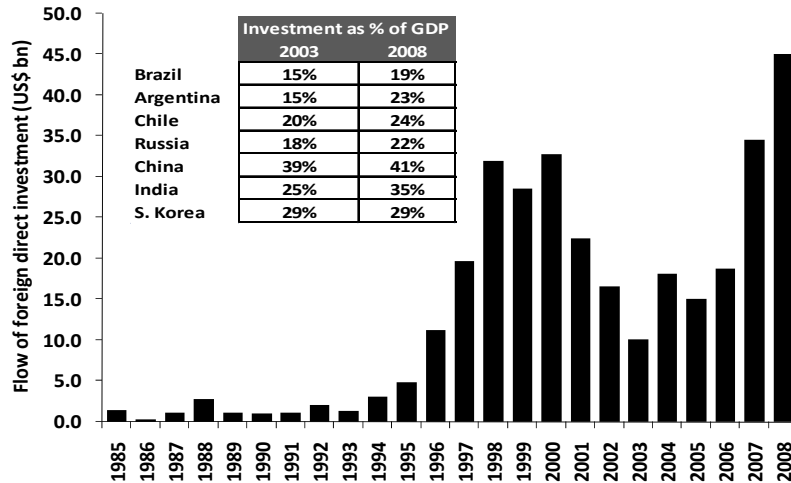
As global growth returns, Brazil is likely to profit from having nature on its side. But, in order to maximize its profits and make its development sustainable, it needs to continue to pursue an agribusiness model to be

innovative and adapt new and improved technologies, which, in turn, would boost productivity in the sector, and in the overall economy. In this regard, vast room for improvement exists and Brazil must make additional efforts in eliminating the bottlenecks mentioned in the first three pillars.

Brazil is increasingly becoming a major foreign direct investment (FDI) destination, adding fuel to its growth. As illustrated in Figure 8, FDI inflows have surged over the past five years from \$10 billion in 2003 to \$45 billion in 2008 (an increase of 30% over 2007). Brazil is now the largest host of FDI in Latin America and second only to China among developing countries. It is ranked fifth in the world as the most attractive FDI location according to the 2008 edition of UNCTAD's World Investment Prospects Survey, only behind China, India, the U.S., and Russia. Among the most important factors for investors are Brazil's large and growing market potential, its natural resource endowment and the relative openness to foreign investment.

But Brazil could be attracting even more FDI. The lack of government effectiveness has been the most problematic area of the business environment. As noted, our discussion of *Policy* and *Macro Stability*, there is notable room for improvement in the areas of paying taxes, starting and closing a business, employing workers, dealing with construction permits, etc. If the government addresses the needed structural reforms, Brazil's FDI could sustain the last decade's growth rate, or even higher. Using conservative estimates, if FDI grows at just one-half the pace of the past five years, Brazil could reach Russia's current FDI levels in three years and surpass the \$100 billion mark by 2013.

Figure 8: Foreign Direct Investment and Investment as % of GDP



Source: Economist Intelligence Unit

In recent years, physical infrastructure investment in Brazil has been on par with other Latin American countries, but it has substantially lagged investment in the East Asian growth economies. According to the World Economic Forum’s 2008-09 Global Competitiveness report, Brazil’s overall infrastructure ranks below average, with quality of roads being ranked 110 out of 134, railroads 86, ports 123 and air 101. The poor quality levels of ports and air infrastructure translate into higher export costs, and are economically detrimental; especially since the U.S. and China are Brazil’s largest trading partners. Transportation costs currently consume close to 13% of Brazil’s GDP, 5 percentage points more than in the U.S. On a positive note, Panama Canal’s lane expansion project slated for completion in 2014 will lower substantially Brazil’s export costs to Asia.

According to Correa (2007), the long-term elasticity of GDP to infrastructure investments is between 0.5 and 0.6. Brazil’s investment in infrastructure is currently below 3% of GDP and it may need to reach 9% of GDP to bring Brazil to the current levels of coverage in Korea. If Brazil were to boost infrastructure investment to 9% of GDP, it could add more than 3 percentage points to GDP per year. But, is it realistic for that to occur?

History proves these types of gains are achievable, e.g., Indonesia, Korea and Malaysia did it in the late 1970s and late 1990s. South Korea's infrastructure 25 years ago was substantially lower than Brazil's current endowments. Back in 1980 Brazil and South Korea's GDP per capita were less than \$400 apart and as of 2008, the gap has widened to \$11,000. Given its natural resources and growth opportunities, Brazil's potential to attract private infrastructure investment is substantial, only lagging Chile as the most attractive Latin American market. The primary objective of public authorities should be to enable more and better private investments in infrastructure and restrict public funds only to circumstances where social returns are substantial.

Yet another source of Brazil's growth potential is the overall level of investment, which in turn is highly correlated with FDI and economic growth. Fixed investment as percentage of GDP has grown robustly over the past five years, averaging close to 5% annual growth and 6% in the past three years. However, Brazil's 2008 ratio (19%) in comparison with other markets is somewhat of a disappointment. For instance, the investment-to-GDP ratio is much higher in other emerging markets – Chile (24%), Argentina (23%), Mexico (22%), China (41%), India (35%), and South Korea (29%).

If Brazil's investment-to-GDP ratio were to grow at 5% per year, which could be conservative based on recent performance and historical comparisons, in ten years, Brazil's ratio could be at similar levels to India, and in fifteen years, it could reach China's ratio. According to Wilson and Purushothaman (2003), adding 5 percentage points to the investment ratio in Brazil could boost the long-term GDP growth potential by about 0.2% a year. If in fact, investment-to-GDP ratio consistently grows at close to 5%, Brazil's GDP growth potential could be lifted by 0.5% in ten years and by 0.9% in fifteen years.

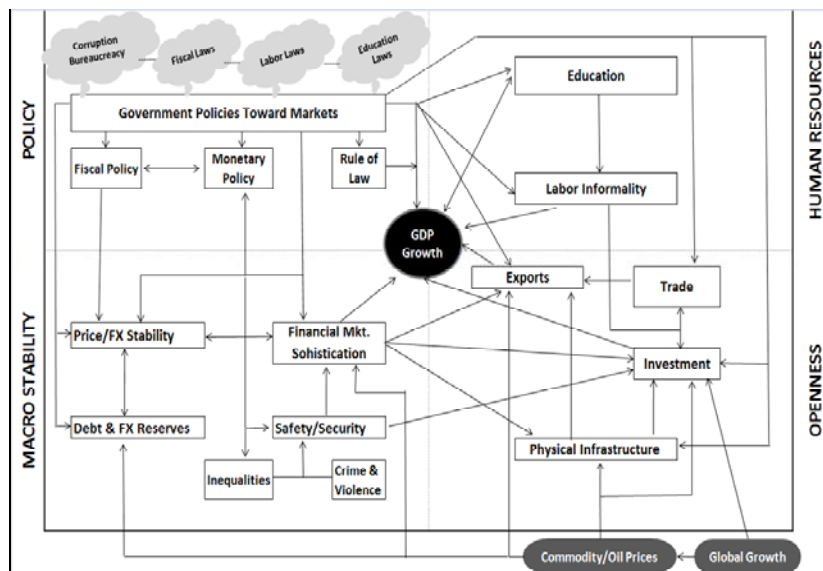
Conclusion

Brazil's economic growth picked up significantly since 2004 and its surprising resiliency amidst the Great Recession are the result of favorable external factors and steady improvements in domestic fundamentals. However, history suggests that many times economic gains in Brazil have been only temporary. Brazil repeatedly has been caught in the middle income trap by experiencing short periods of growth, offset by periods of decline,

and, overall, with GDP per capita simply moving up and down. However, recent history suggests that solid and sustainable economic growth can be achieved. Brazil's world leading performance during the worst recession since the Great Depression offers cautious hope that Brazil may have finally turned the corner. What type of story would we tell about Brazil's economic performance five, ten, twenty years from now? Would it be the "choppy growth" story of the 1980-90s or the "sustainable growth" story of the 1960-70s?

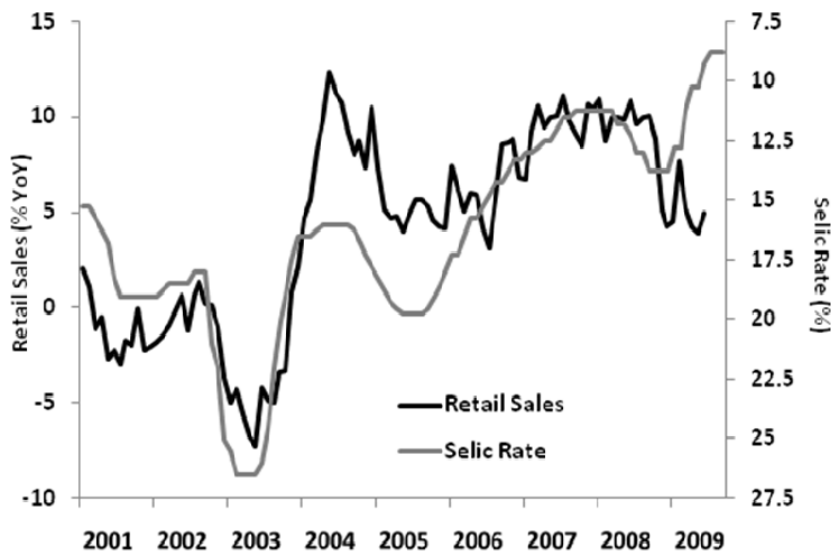
We look back at the key factors that scholars have offered as explanations of Brazil's underperformance, and we suggest that none of these factors alone can explain the entire story. Instead, it is the interrelation of various pillars of growth that provide insights to solving Brazil's growth puzzle (Figure 9). Our research suggests that, finally, "tomorrow" seems to be arriving after many decades of empty promises, even though it is not rushing in. Much of what Brazil has achieved in recent years is here to stay, particularly in the area of *Macro Stability*, where there seems to be a consensus among all political parties that this is the right thing to do. The days of galloping inflation, high risk of foreign exchange devaluation, limited credit availability, and fiscal unsustainability are behind us.

Figure 9: Interrelated Pillars of Growth



The economy has recently seen a significant increase of the middle class. In fact, between July 2003 and July 2008, the middle-class and high income households grew by 35% and 23%, respectively. That is, during this period, 27 million individuals were incorporated into the high- and middle-income brackets. We believe that with the ongoing expansion of the middle class, the allure of populist experiments will diminish, cementing the current conventional and market friendly policy mix. Moreover, the consumption surge of the last few years was only slowed down during the crisis. It did not interrupt the expansion –an expansion that, remarkably, continued in spite of the Great Recession. Drivers such as lower interest rates, restoring credit, and a firm Real will almost certainly lead to the return of a consumption boom (Figure 10).

Figure 10: Selic Rates vs. Retail Sales



Source: BACEN, Haver Analytics

Brazil is well positioned to benefit greatly from energy and commodity prices that will trend higher, especially as global economic growth accelerates—led by growth in China and India – countries that together account for one third of the planet’s population and where the demand for natural resources could reach unprecedented levels. The market

has started to become more integrated with the global economy, and it is expected to continue to remain a major FDI destination, adding fuel to its growth. Brazil is a highly attractive market for infrastructure investments, and with time, its physical infrastructure attributes are likely to continue to progress. Education levels are rising and some steps are already in place to be a global leader, especially when referring to higher education. That, in turn, could not only support economic diversification, but specialization in production and thus provide an upside for growth.

But, there is still vast room for improvement if Brazil is to match the economic performances of Asian emerging markets. With two-thirds of Brazil's productivity growth deficiency attributed to mismanaged government policies, authorities must focus on a "determined marathoner" philosophy. That is, to consistently and steadily pursue their objectives over the long haul; and not a "sporadic sprinter" philosophy that periodically puts a burst of reforming zeal when things are going wrong and reacts to external stimuli rather than internal drive. We highlight throughout the paper that a round of structural reforms, ranging from fiscal, pension, labor, and education, could help de-centralize decision making, create a re-balance of power, and thus eliminate the most important and long standing bottlenecks, including crime, violence, poverty, education, labor informality. The dilemma, of course, is that most of the profits from structural reforms are primarily realized in the long-term, making it hard for policy makers with short-time horizons to set them as priorities.

We believe that, on balance, Brazil can sustain the performance of the past few years at around four to five percent growth per year, which implies a doubling of its economy in every 14 to 18 years. Yet, with a reform push, the market would be able to sustain still higher growth. If sound rounds of reforms are implemented, the sky is the limit, and reaching growth rates of seven to eight percent and a doubling of GDP in every 9 to 10 years is well within reach. Within the space of 15 to 20 years, Brazil's per capita income levels could easily match or exceed those of the world's most advanced economies.

History proves it can be done and Brazil's recent positive strides in the area of "*Macro Stability*" and "*Openness*" give cause for considerable optimism. The next challenge for the authorities is to further address the pillar of "*Human Resources*"; but most importantly to concentrate on "*Policy*". The overall grade of the latter two pillars would be lifted markedly if the government takes a proactive approach, instead of the passive stance that only

concentrates on keeping the market afloat. Authorities should not settle for good (as seen lately) but for greatness. With these four pillars in place Brazil will be the country of the future – and the future will be now.

REFERENCES

- Alesina A. and Perotti, R. (1996); Income Distribution, Political Instability and Investment. **European Economic Review** V. 40, N. 2, Pg. 1203-1228.
- Barbosa Filho, Nelson (2001); **International Liquidity and Growth in Brazil**. Center for Economic Policy Analysis CEPA, New School University.
- Barro R. (2000); Inequality and Growth in a Panel of Countries. **Journal of Economic Growth**. V. 5, N. 1, Pg. 5-32.
- Chen B. (2003); An Inverted U-Relationship Between Inequality and Long-Term Growth. **Economic Letters**. V.78, N.2, Pg. 205-212.
- Cline, William A. (2005); **Long-term Growth Prospects for Brazil**. Institute for International Economics report to GM.
- Correa P. and Andres A. (2007); How to Revitalize Infrastructure Investments in Brazil, Public Policies for Better Private Participation. **The World Bank**. Report No. 36624-BR.
- Edwards S. (2009); **Latin America's Decline: A Long Historical View**. National Bureau of Economic Research. <http://www.nber.org/papers/w15171>
- Cortes Neri M. (2009); **The New Middle Class**. Fundação Getulio Vargas. <http://www.fgv.br/cps/ms>
- Gray C. (2007); **Latin American Mortgage and Consumer Loan Market Ready for Sharp Growth**. Merry Lynch Guide to Emerging Mortgage and Consumer Credit.
- Lejour A. and Tang P. (1999); **The Informal Sector: A Source of Growth**. CPB Netherlands Bureau of Economic Policy Analysis, The Hague.
- Levine R. and Zervos S. (1996); **Stock Markets, Banks, and Economic Growth**. The World Bank Policy Research Working Paper No. 1690; A1.213 Working Paper No. 297.
- Loayza N., Fajnztlber P., and Calderon C. (2005); **Economic Growth in Latin America and the Caribbean, Stylized Facts, Explanations, and Forecasts**. The World Bank.
- Mia I., Estrada J. and Geiger T. (2009); **Benchmarking National Attractiveness for Private Investment in Latin America Infrastructure**. World Economic Forum, Geneva.

- McKinsey & Company (2006); **How Brazil Can Grow**. The McKinsey Global Institute.
- Olson, M. (1984); **The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities**. Yale University Press.
- Porter M., and Schwab K. (2009); **The Global Competitiveness Report 2008-2009**, World Economic Forum, Geneva.
- Prados de la Escosura L. (2007); **When did Latin America fall behind?** The University Chicago Press.
- Przeworski A. (2008); Does Politics Explain the Economic Gap between the United States and Latin America? In Fukuyama F. (2008); **Falling behind: Explaining the Development Gap between Latin America and the United States**. New York: Oxford University Press.
- Soares R. and Naritomi J. (2007); **Understanding High Crime Rates in Latin America: The Role of Social and Policy Factors**. *Paper presented at the Conference "Confronting Crime and Violence in Latin America" at Harvard University.*
- The Economist (April 12, 2007); **The Land of Promise**.
- Ulysea G. and Szerman D. (2006); **Job Duration and the Informal Sector in Brazil**. Instituto de Pesquisa Economica Aplicada.
- Velazco A., and Rodrik, D. (1999); **Short- Term Capital Flows**. Paper presented at the ABCDE Conference at the World Bank.
- Vianna, D. (2006); **Cost and Access to Credit in Brazil**. MA dissertation, Center for International Studies of Ohio University.
- Wilson D. and Purushothaman R. (2003); **Dreaming with the BRICs: The Path to 2050**. Goldman Sachs, Global Economic Paper No. 99.