

IS DEMOGRAPHICS
DESTINY?
HOW DEMOGRAPHIC
CHANGES WILL ALTER
THE ECONOMIC FUTURES
OF THE BRICS

SIEMS MONTHLY BRIEFING SKOLKOVO Institute for Emerging Market Studies September 2009







#### INDIA: THE JEWEL IN THE DEMOGRAPHIC CROWN

India's improved economic conditions in recent years can be partially attributed to better demographics. Fortunately, this demographic dividend is just starting and will last at least twenty years. For India to "cash in" on this favorable demographic shift, however, they must fundamentally overhaul and reform their labor markets and educational system.



#### CHINA: CAN IT GET RICH WHILE GETTING OLD?

China's "demographic deficit" is just starting. It is currently aging faster than any other country in the world and this trend seems irreversible for decades to come. The growing scarcity of cheap labor in the coming years will threaten the competitiveness of Chinese manufacturers and shortly begin trimming economic growth.



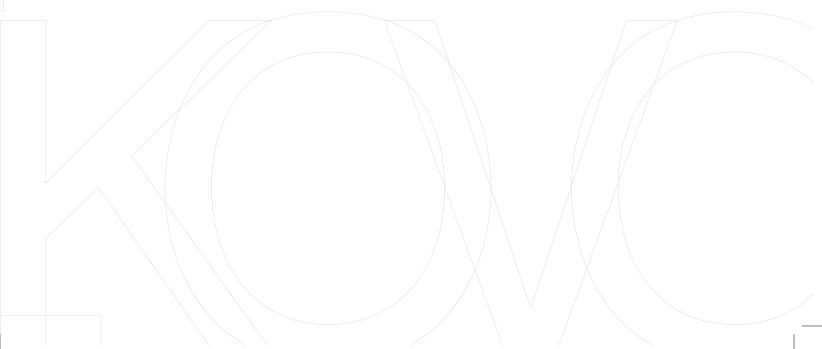
#### BRAZIL: A WASTED DEMOGRAPHIC GIFT

Brazil has had some of the most favorable demographics of any nation in the world over the past three decades but has little to show for it. Immigration and a relatively high birth rate, however, will keep Brazil's population relatively young and growing until mid-century.



#### RUSSIA: WHERE HAVE ALL THE PEOPLE GONE?

Nothing positive can be said about Russia's demographic profile. It's a time bomb that is already exploding. A shrinking workforce with declining standards of health will most certainly rob Russia of the human capital it will need in the coming decades.







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The day is coming when great nations will find their numbers dwindling from census to census.

-Don Juan in George Bernard Shaw, Man and Superman, Act 3, 1903

## INTRODUCTION



Ever since Thomas Malthus' apocalyptic vision of overcrowding and starvation, a debate has raged over population growth and its links to economic development. Views on this topic have shifted numerous times over the past four decades. During the 1960s and 1970s, consensus opinion favored the Malthusian view that high fertility rates hindered economic growth because large families were unable to save, which resulted in low domestic investment and per capita income growth.

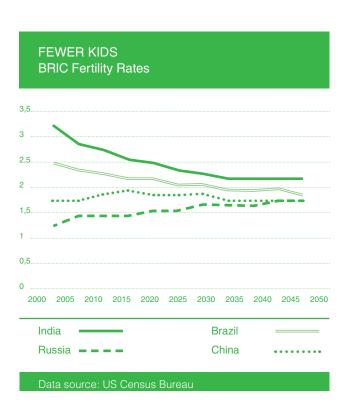
During the 1980s, empirical research began to discredit the neo-Malthusian view. New evidence seemed to show that human capital and technological change, rather than physical capital accumulation and domestic investment, were the primary drivers of growth. Population growth, it seemed, had little impact on economic growth compared to factors such as education achievement, rule of law or openness to trade and foreign investment.

The past decade, however, has witnessed economists reverting to the view that population does matter. More specifically, the changing age structure of the population, rather than population growth itself, can significantly alter economic development. The source of population growth and its timing are the critical factors.

High rates of population growth are temporary consequences of the decline in mortality preceding the decline in fertility. This leads to a critical change in the age distribution of the population from two sources. First, an initial decline in mortality is concentrated among infants and young children, thereby concentrating its effects at the lower end of the age distribution. Second, the subsequent decline in fertility has an effect on the age distribution that is concentrated at age zero. The combination of these two forces introduces a bulge into the population pyramid. Over time, the bulge ages and moves from being concentrated among young people to being concentrated at the prime ages for working and saving.

Unlike working-age individuals, the young and old tend to consume more output than they generate. As a consequence, the value of output per capita tends to be boosted when the population of working-age individuals is relatively large and tends to be depressed when

Over time, the bulge ages and moves from being concentrated among young people to being concentrated at the prime ages for working and saving.





a relatively large part of the population consists of young and elderly dependents.

Developing countries that are entering their demographic transition have a unique chance to convert their population dividend into higher growth from this "demographic dividend". Unfortunately, this demographic shift creates only one window of opportunity. Low fertility rates eventually lead to a rising proportion of older people, raising the dependency ratio as the working population goes from caring for children to caring for parents and grand-parents. If a country acts wisely before and during this transition, a special window opens up for faster economic growth and human development.

The twentieth century has provided plenty of examples of how demographic transitions can provide developing countries an opportunity to accelerate development. Japan's economic miracle in the early postwar period was highly correlated with the shrinkage in its dependency ratio. The same is true of the remarkable economic ascendancy of the four tiger nations (South Korea, Taiwan, Singapore and Hong Kong). In 1950, women living there had six children. Today they have less than two. As a result, between 1965 and 1990, the working-age population increased four times faster than the number of young and elderly dependents. Ireland illustrates how quickly demographic changes can translate into faster economic growth. In 1979, Ireland legalized contraception causing a decline in the birth rate, from 22 per 1,000 in 1980 to 13 in 1994. With free market reforms accompanying a rapid decline in the dependency ratio, Ireland became the fastest growing economy in Europe during this period.

Latin America, on the other hand, was not able to convert its demographic dividend into faster growth. Per capita income grew by only 0.7 percent a year from 1975 to 1995, compared with 6.8 percent for East Asia. Africa has yet to experience a demographic dividend. It continues to have high fertility and youth dependency rates and a high death rate from diseases like AIDS.

Superior economic development, of course, is about more than just having favorable demographics. A demographic dividend is a necessary but not sufficient condi The twentieth century has provided plenty of examples of how demographic transitions can provide developing countries an opportunity to accelerate development.



tion for faster economic growth. The right policies – a flexible labor market, investment and savings incentives, improvements in the quality of education, and openness to trade and investment, are critical ingredients in making the working-age population more productive. For example, flexible labor markets allowed East Asia's economies to absorb its rapidly growing number of workers. The growing sophistication of its financial markets allowed the region's economies to mobilize the rising savings of its expanding working-age population. Higher savings, in turn, helped finance the improvements in the quality of education and domestic investment.

What about the BRICs? In 2008, their economies already accounted for almost a quarter of world GDP (measured at Purchasing Power Parity or PPP) and 42 percent of the world's population. Will the demographic gods in the coming years be kind or cruel to them? While the BRICs are classified as emerging or developing economies, what's intriguing is how different each of their demographic profiles has become. China's one child policy has helped made it the fastest aging population in world history. India, in turn, probably has one of the most favorable demographic profiles of any developing nation but currently lacks the economic structure and policies to fully reap its demographic dividend in the coming years and decades. Brazil's is at the tail-end of its long and rich demographic dividend and really has nothing to show for it. Russia, on the other hand, faces a demographic "deficit" so enormous in size it threatens the nation's economic future.

There is, however, one critical characteristic all the BRICs share. And it is not a good one. The BRICs will all be well on their way toward old-age before they become wealthy. While the industrialized nations have had a long time to accumulate wealth and realize high levels of income well before growing "old", the BRICs are or will be encountering rapidly aging populations at much lower levels of wealth and income.

In what follows, we examine each BRIC's demographic profile and conjecture what impact it may have on its economic prospects moving forward. We start with the Middle Kingdom.





A coming demographic deficit will shortly begin trimming economic growth

## CHINA



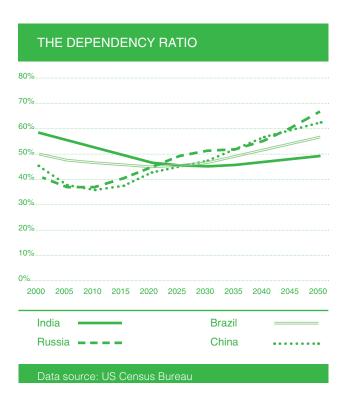
China has richly capitalized on its demographic dividend during the past thirty years. Its dependency ratio during the late 1970s (when it initiated its free market reforms), was a hefty 70 percent. By 2009, this ratio had fallen to approximately 39 percent. That's a far richer dividend than even up and coming India will see in the coming decades. Unlike Brazil, China cashed in on its demographic shift. From 1980 to 2008, its per capita income (measured in PPP) rose from \$250 to \$6,020.

What triggered this dividend was an extraordinary drop in the fertility rate from 5.8 to 2.7 during the 1970s. While this was the largest recorded drop for any country in history, the authorities still introduced a strict one-child policy in 1979. According to a Chinese official report from 2007, family planning policies have prevented over 400 million births over the past three decades.

Little is said about China's current demographic profile, which is ideally suited, for now, rapid economic growth. China is still a relatively young country, with a median age of around 34. Seventy percent of Chinese are between the age of 16 and 64. The labor force numbers over 800 million; double that of the United States. Despite a fertility rate below two, China's population will continue to grow for another two decades, peaking at 1.46 billion around 2032.

Unfortunately, that is where all the good news ends and the "demographic deficit" begins. Very simply, China is currently aging faster than any other country in the world and this trend seems irreversible for decades to come. With a fertility rate that is currently fifty percent higher than China's, India is slated to overtake China in total population by as early as 2030. China currently has 160 million people aged over 60, roughly 12 percent of its population. By 2050, China is expected to have 459 million over 60, roughly equal to the entire population of the United States at that time, and representing 32 percent of China's population. At midcentury, China will be almost seven years older than the United States and about the same age as the northern European countries.

China's working-age population will hit its turning point in less than a decade. From about 2017 onwards,





China's working-age population is predicted to decline, slowly at first, and then quite rapidly after 2030, when it is expected to shrink by a total of 115 million by 2050. Its dependency ratio is expected to hit rock bottom in 2010 at about 38 percent before rising continuously to 47 percent in 2025 and 65 percent in 2050. Some demographers argue that this slowdown will be felt later than forecasted because of the millions of rural migrant workers that continuously move into the large cities.

China has almost exhausted its demographic dividend. What are the likely economic implications? One clear result will be the growing scarcity of labor. For many years, China's ever growing supply of working-age people has provided Chinese manufacturers a continuous cheap source of labor which gave Chinese goods a cost advantage worldwide. Cheap labor has been critical in building China's export machine and elevating its rate of economic growth. But the coming demographic shift will shortly begin reducing this pool of young workers (age 18-30) which will start putting upward pressure on their wages. Some estimate that the 120 million rural migrant workers will be halved by as early as 20302. Looking forward, this loss of competitiveness can be mitigated if China's manufacturers move up the value chain.

China's uneven pace of economic development between its urban and rural areas will exacerbate the negative impacts from its rapidly aging population. In 20 years, China's urban population will be as old as Japan or Italy is today with 20 percent or more of the population aged over 65, while in rural China, this won't happen until 20503. When the relatively affluent urban dwellers begin running their savings down 20 years from now, the relatively younger but much poorer rural dwellers will not provide sufficient savings to offset this drawdown. Holding everything equal, the result will be lower national savings and domestic investment, factors that have been crucial in China's economic renaissance.

### China has almost exhausted its demographic dividend.

What the demographic dividend gave to China over the past quarter century, the demographic deficit will now begin to take away. A rise in the old-age dependency rate will clearly subtract from China's long-run growth potential. Jonathan Anderson at UBS Bank<sup>4</sup> has estimated that this demographic shift could reduce China's long-run growth rate by two percentage points. And since China's working-age population growth rate is now slowing rapidly, part of this impact could be felt immediately.

Much has been said in recent years about "China getting old before it gets rich". Interestingly, this is precisely what will probably happen to all the BRICs. China's pattern of aging is very similar to that currently in Japan, Hong Kong, Singapore, South Korea and Taiwan. The critical difference is that in China this is happening at a time when the country is still relatively poor. According to the World Bank, China had a per capita income of approximately \$6,000 in 2008. The United States had a per capita income almost four times that in 1990 (\$23,000) when its median age was the same as China's now.

The real question is whether China can get rich while growing old. While having less time left (demographically speaking) than Brazil and India in building wealth, China does have two big advantages. First, China has been rapidly building wealth now for three decades and much of the population is no longer poor. According to the World Bank, the proportion of people living in extreme poverty had fallen to 16 percent in 2005 (compared to 40 percent in India). Second, China currently has great economic momentum and good demographics. If China can manage average annual growth rates of 10 percent

<sup>&</sup>lt;sup>1</sup> Unless otherwise noted, all demographic projections come from the US Census Bureau, International Data Base

Jonathan Anderson, "The End to Cheap Labor (Period)". Asian Focus, UBS, August 9, 2007.
 George Magnus, "The Age of Aging", p.177, 2009.

Jonathan Anderson, "The End to Cheap Labor (Period)", Asian Focus, UBS, August



over the next seven years (not easy but very doable), it can double the size of its economy before there is a real demographic deterioration.

Perhaps the easiest way to ease the coming demographic deficit would be for the Chinese authorities to immediately eliminate the one-child policy. Besides the obvious economic potential benefits, the policy has had unintended social consequences. China now has 120 boys for every 100 girls (the global average is about 104 per 100 girls). Unfortunately, a policy reversal is unlikely to reverse the low fertility rate anytime soon. Urban Chinese are quickly adopting Western lifestyles which mean a preference for smaller families.

Regardless of how much richer China gets, it will need to provide a basic social safety net for its people, which is now almost nonexistent. Only about a third of the population is covered by any kind of pension scheme. And by one estimate<sup>5</sup>, the current pension system could face unfunded liabilities of up to 6 percent of GDP annually in a few decades. While pension and health care reform initiatives have been launched, they are a work in progress.

<sup>&</sup>lt;sup>5</sup>Estimate by Jonathan Anderson, a China specialist at UBS.



Ideal demographics in the pipeline but will they deliver?

## **INDIA**



Of the BRICs, India is set to reap the greatest demographic dividend. Its current population is about 1.2 billion, about 175 million less than China's. Because its population growth rate is currently twice that of China's (1.4 versus 0.7 percent), it will overtake China in total population by about 2031. India's population growth is expected to remain positive until at least 2050, when it reaches 1.66 billion (compared to China's 1.42 billion).

If it is per capita income that determines a nation's standard of living, does having a large population really matter? To some extent, large populations can potentially be a positive thing. Because each person is a potential source of ingenuity and creativity, societies with larger populations are more likely to develop because of their larger number of potential scientists, investors, and creative minds. There is also a geopolitical aspect to population size. Large populations, particularly young ones, can man larger armies and navies. Both India and China, despite their relatively low per capita incomes relative to developed nations like Japan, are regional military powers because of the sizes of their draft age populations.

While there has been much attention given to India's future demographic dividend, the fact is that it has already been enjoying it. Since the beginning of the new century, India's fertility rate has dropped from 3.1 to an estimated 2.7 in 2010. As a result, its dependency ratio has fallen from 61 percent to under 55 percent over the same period.

While some critical economic reforms preceded these demographic changes, India's improved economic performance does directly coincide with the beginning of this demographic shift. Since 2003, India has enjoyed annual economic growth of 8.6 percent, compared to an average of just 5.4 percent the previous two decades.

India's best demographic days, however, are yet to come because it is currently so young and its fertility rate is projected to continue falling. A third of India's population is under the age of 14. Half are under 24 years of age while only 5 percent are over 65. By 2025, the dependency ratio is expected to fall to 48 percent

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(37 percent youth and 11 percent old-age). Both China and Brazil will have comparable figures at that time but unlike them, India's dependency ratio does not begin rising again until the middle of this century.

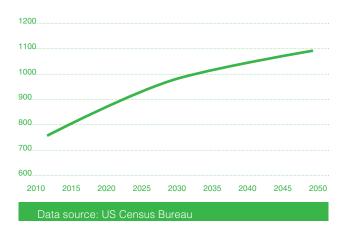
Besides boosting the working-age cohort's share of the population, a falling fertility rate has an added advantage of mobilizing productive resources. Fewer children will most certainly increase the female workforce participation rate. Currently estimated at only 40 percent of the working-age population (hard to estimate in an agrarian economy where only 10 percent of the workforce are employed in the 'formal' sector), this rate has the potential to rise quickly in the coming years.

Interestingly, India's demographic profile by the middle of this century will resemble that of America's today. India's median age will be 37, equal to America's current median age, and life expectancy will be over 77 in India compared with America's 78 years today.

So could this demographic delight for India boost its economic growth rate in the coming decade? The area where India will probably benefit the most is from the critical link increased savings has for the economy. Because people save more during their working years, a fall in the dependency ratio usually corresponds to a rise in the average savings rate. A rise in the savings rate, in turn, typically leads to a rise in domestic investment. Until fairly recently, India had severely lagged most other Asian developing nations in savings and domestic investment (India has also been relatively poor in attracting foreign direct investment). India's savings rate as a percentage of GDP, however, has been rising since 2003. It now stands at approximately 35%, which is comparable to the other Asian super-performers. While India's stubbornly high federal deficit will subtract from national savings in the coming decade, its sharply rising working-age population should keep the savings rate comfortable above 30 percent.

India's working-age population of 750 million is expected to increase by 230 million by 2030. That comes out to about 12 million a year. This is not necessarily good news for India. While China's problem in the coming years will be increasingly scarcer labor, India's

## A BLESSING OR CURSE? India's Working-age population (1,000s)







biggest economic challenge will be generating sufficient job growth for its burgeoning youthful population. Unfortunately, India's current economic structure and government policies do not favor the rapid job creation that it will need.

Most of the net job creation is likely to be in the dominant service sector, which requires high literacy rates and skills. India may have a reputation of having a huge pool of highly educated, tech savvy workers, but nothing could be further from the truth. India has a 65 percent literacy rate (compared to China's 91 percent) and only 10 percent of 18-to-24 year-olds are enrolled in higher education. The fact that wages in skilled sectors have been rising rapidly in recent years is proof that there is already a severe shortage of skilled labor. India's educational deficiencies will keep it from reaping the full benefits of its young workforce.

India's service sector is not exactly big on job creation either. Information technology and information processing, the crown jewels of India's business renaissance, are not labor intensive and currently only employ about a million Indians. Agriculture, which employs 60 percent of the population, has not been adding jobs in over a decade while the manufacturing sector is not large enough (25 percent of employment) to add a significant number of jobs.

India's labor laws remain entirely too rigid. Indian firms, for example, are required to get government approval before they can lay off more than 100 employees. Annual job growth has recently slowed down to one percent; hardly enough to meet the growing throngs of new job seekers.

India's demographic future looks even less promising upon closer inspection. Like China's urban-rural divide, India has its own geographical division. India's northern states are relatively poor and young, and will remain youthful for the next 20 years. The relatively older and affluent south, however, is aging rapidly. The fertility rate of the 500 million Indians in the north is about twice as high as the 250 million Indians in the south<sup>6</sup>. It is the southern states, however, that will likely be the big job creators in the com-

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ing years. In a nation known for its lack of workforce mobility, the south could be plagued with job shortages while the north suffers from chronic unemployment.

On the bright side, unlike China, India does have a lot more time to build wealth before it gets old. By the middle of this century India still won't be "old". Unfortunately it is starting from a much lower base. At just \$2,960 (PPP), India's per capita income is currently one-half that of China's. It will need several generations of exceptionally high growth rates if it wants to enter oldage with a modicum of comfort.

<sup>&</sup>lt;sup>6</sup> George Magnus, "The Age of Aging", p.184. 2009



A Demographic Time Bomb

# RUSSIA



Russia faces a demographic challenge of enormous proportions. While Russia has had numerous experiences with severe population declines before, this decline promises to be sharp, long lasting and almost impossible to reverse. Russia's current population is about 140 million but this is projected to fall to 109 million by 2050. Some demographers believe this is overly optimistic and the mid-century count will be closer to 80-90 million. Interestingly, Russia's current population is falling despite high rates of immigration from the former Soviet republics which will dissipate over time.

Russia's population growth began slowing during the 1970s, when its infant mortality started rising and life expectancy started falling, particularly for men. The population actually began declining during the 1990s, as the fertility rate fell from 1.9 in 1990 to 1.1 in 1999. Over the past ten years, it has been losing one-half percent of its population every year.

Due to the rebound in economic growth experienced this past decade, the US Census predicts that the fertility rate will gradually rise to 1.5 by 2025 and 1.7 by 2045. This rise is not a certain thing and even if it was, it is still not high enough to reverse Russia's population decline. Soon people born in the 1990s, when the birth rate was declining dramatically, will be entering the workforce while the generation born after World War II, the years of booming fertility, will retire.

Like China, Russia is at the end of the decline of its dependency ratio. Estimated to bottom at about 39 percent in 2010, Russia's dependency ratio is expected to rise continuously in the next forty years, hitting almost 70 percent by mid-century (18 percent higher than India's). Russia's working-age population is predicted to fall by 15 million from 2010 to 2025, and by a further 20 million by mid-century.

If the rise in the dependency ratio was not ominous enough, there is a serious health crisis among Russia's working-age population. What really distinguishes Russia from almost any other nation in the world is its declining life expectancy and rising mortality rates. Incredibly, there has been no improvement in either between the generation born before World War II and those born in

Russia's working-age population is predicted to fall by 15 million from 2010 to 2025, and by a further 20 million by mid-century.

# RUSSIA'S LONG SLIDE (population in 1,000s) 150 000 145 000 140 000 135 000 125 000 120 000 115 000 110 000 105 000 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050 Data source: US Census Bureau



the 1970s. Russia's mortality rate, 15 per 1,000 people per year, is one of the highest in the world (the global average is nine). Life expectancy is as low as 59 for men, a full three years lower than in 1955, and 72 for women, about the same as in 1955.

In an attempt to reverse this demographic time bomb, Russian authorities have been offering generous cash incentives but they do not appear to be working. The expected rise in the fertility rate could be completely offset by disease. Russia has one of the worst cases of AIDS in Europe. By 2006, there were well over a million cases and the disease is expected to reduce Russia's working-age population by three million by 2025.

What about immigration? Russia's population is already becoming more diverse with Muslims accounting for 10 percent of the total population and Chinese and other central Asian immigrants becoming more prominent. Unfortunately, their numbers are not nearly large enough. According to the UN, net immigration to Russia has declined from about three per 1,000 during 1995–2000 to 0.4 per 1,000 by 2006–07, or less than 50,000 people<sup>7</sup>. And with Xenophobia well ingrained within the Russian mentality, immigration is unlikely to be a source of population growth anytime soon.

While there is considerable uncertainty as to how India's and China's demographic dividend will play out, it is becoming increasingly clear that Russia's demographic deficit will deeply diminish the nation's economic prospects. A shrinking workforce with declining standards of health will most certainly rob Russia of the human capital it will need in the coming decades. The loss of dynamism that young people bring to a modern economy is almost incalculable. Russians will claim fewer patents, start fewer businesses and produce fewer artistic achievements. Perhaps the only consoling thing about Russia, viewed within the BRIC context, is that it starts with the highest per capita GDP. In 2008, it was \$15,600(PPP), approximately 50 percent higher than Brazil's and two and one-half times larger than China's.

Going forward, Russia may be better able to stabi-

lize its population by focusing more on qualitative indicators, such as the health and welfare of its population, than on quantitative indicators, such as the overall size of its population.

<sup>&</sup>lt;sup>7</sup>From George Magnus, "The Age of Aging", p.191. 2009.







Little to show for its 40 year demographic dividend

# BRAZIL



Brazil is prime facie evidence that a demographic dividend does not necessarily translate into faster economic growth. Brazil's dependency ratio has fallen continuously during the past four decades from 85 percent in 1970 to a projected 49 percent in 2009. It failed, however, to accelerate economic activity. Following a short but powerful growth surge during the late 1960s and early 1970s, growth rates have slowed considerably making Brazil a consistent underperformer. Brazil's performance did improve somewhat over the past decade, partly fueled by higher commodity prices. Measured on a 10-year moving average, its average GDP growth rate rose from 2 percent in 1998 to 3.3 in 2008.

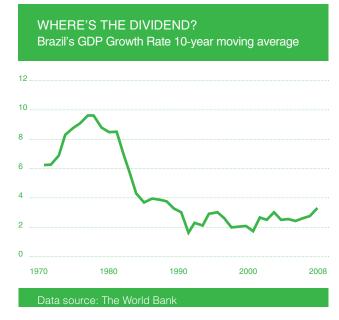
Brazil's current population is about 200 million and this is expected to rise to 260 million by mid-century. While Brazil still has a relatively young population (median age is 27.5), its growth rate has slowed considerably over the past 20 years as the urban middle-class has increasingly adopted a western lifestyle (Brazil has 14 cities with a population of over 1 million). Although its current population growth of 1.2 percent is expected to decline to 0.6 percent by 2030, this rate will remain above the world average which is why Brazil's population will remain relatively young. Immigration is also slowing the rate at which Brazil is aging. New waves of immigrants have recently arrived from South Korea, China and Bolivia.

The rise in Brazil's old-age dependency ratio will be more than offset by a decline in the young-age dependency ratio over the next ten years. As a result, Brazil's dependency ratio is forecast to hit its historic low of 48 percent sometime around 2020. After that, it is projected to rise gradually to 49 percent in 2030 and to 59 percent by 2050. While Brazil will be aging faster than youthful India, Brazil's dependency ratio will fall well below those of Russia and China as we approach mid-century.

Brazil illustrates how poor public policy is more than enough to wipe out any generous demographic dividend. The sharp fall in Brazil's dependency ratio should have increased domestic savings and investment by much larger margins. For a developing nation, however, Brazil possesses relatively low savings and investment.

The rise in Brazil's oldage dependency ratio will be more than offset by a decline in the young-age dependency ratio over the next ten years.

Savings and investment ratios are only around 18 percent of GDP, compared to a rate of roughly 40 percent in China. Cutting the historically large federal budget deficit and opening up more of its economy to foreign direct investment would go a long way in improving economic performance going forward.





# CONCLUSION



Forecasting anything out to mid-century has its perils. Unlike long-run forecasts of most economic variables, like GDP or the stock market, population trends are more deterministic and predictable. Moreover, much of the demographic map for the next generation has always been determined by past fertility rates and health trends. Nevertheless, it will become increasingly disconcerting that much of what is now the developing world faces the prospects of getting old before building similar levels of wealth that the developed world has achieved. There is time, however, to influence how the demographic inflections play themselves out for each of the BRIC economies over the next three-to-four decades. The key factor going forward is whether each of them can muster the political will to make the hard decisions.

William T. Wilson, Ph.D. Senior Research Fellow



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- "Global expansion of emerging multinationals: post-crisis adjustment"
- "MNC Operations in Emerging Markets: Post-Crisis Adjustments of FDI Inflows in China and Russia"
- "Is Demographics Destiny? How Demographic Changes Will Alter the Economic Futures of the BRICs"



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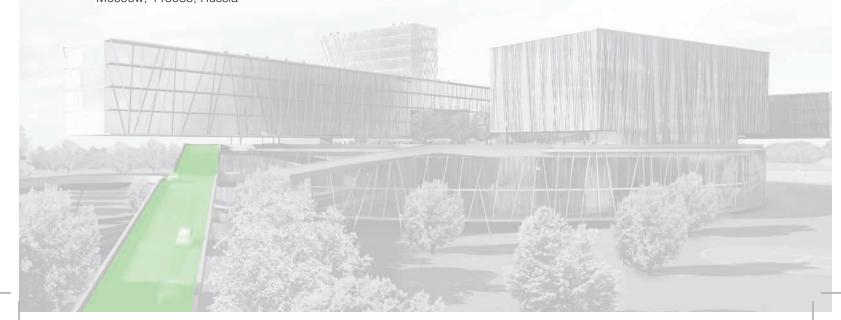
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#### **Moscow School of Management SKOLKOVO**

10 bld.3, 1st Kadashevsky per. Moscow, 115035, Russia



Moscow School of Management SKOLKOVO 10 bld.3, 1st Kadashevsky per. Moscow, 115035, Russia tel./fax: +7 495 580 30 03 info@skolkovo.ru www.skolkovo.ru

SKOLKOVO Institute for Emerging Market Studies Unit 1607-1608, North Star Times Tower No. 8 Beichendong Road, Chaoyang District Beijing, 100101, China tel./fax: +86 10 6498 1634