

The New Global Middle Class: A Cross-Over from West to East

Homi Kharas and Geoffrey Gertz

Wolfensohn Center for Development at Brookings

Draft version of Chapter 2 in “China’s Emerging Middle Class: Beyond Economic Transformation” (Cheng Li, editor), Washington, DC: Brookings Institution Press, 2010 (forthcoming)

Over the last 25+ years, American consumption has been a major driver of the world economy. But the current economic crisis is threatening America’s role as the consumer of last resort. With its emergent middle class set to expand exponentially in the coming decades, China’s new consumers hold the potential to become a new long term source of global aggregate demand. Using a model of global economic trends, this paper explores how China’s middle class could evolve over the next thirty years and the implications this may have for both China and the global economy. While China’s middle class could consume more than America’s within a decade, realizing this potential may depend on the country’s ability to boost consumption through increasing the share of household income in GDP.

The global economy has grown to rely heavily on American consumption. Thanks to a long term downwards trend in personal savings rates from 10 percent in the early 1980s to approximately zero by 2007, the growth of U.S. consumption has been faster than the growth of U.S.GDP, making it a driver of both the U.S. and global economies.¹ At \$10 trillion, U.S. private consumption accounts for just under one-fifth of the world economy. In fact, as a source of demand, it is twice the size of the next largest entire economy – Japan – in the world.

The structural force behind large U.S. consumption has been a significant middle class. The middle class is an ambiguous social classification, broadly reflecting the ability to lead a comfortable life. The middle class usually enjoy stable housing, healthcare, educational opportunities (including college) for their children, reasonable retirement and job security, and discretionary income that can be spent on vacation and leisure pursuits. Juliet Schor has argued that it is a “new consumerism” that defines the middle-class: a constant “upscaling of lifestyle norms; the pervasiveness of conspicuous, status goods and of competition for acquiring them; and the growing disconnect between consumer desires and incomes.”² In a more academic vein, Murphy, Shleifer and Vishny emphasize the willingness of the middle class consumer to pay a little extra for quality as a force that feeds investment in production and marketing and drives growth.³

The unlocking of the spending power of the U.S. middle class was achieved in part by financial innovations that allowed for rapid growth in consumer credit, mortgages for an ever-larger segment of the population and home equity withdrawals. Because household wealth grew faster than income, these innovations permitted households to tap into their wealth for current consumption and led to a decline in household saving rates. But the current downturn has brought this process to a halt. U.S. households are saving again in an effort to rebuild lost wealth. The consensus forecast is that this will be a lasting effect of the global financial crisis.⁴

How can the world economy fill this void in global demand brought on by the retrenchment of the American consumer? All eyes are now turning to Asia, and specifically to the emerging middle class in China and other populous countries, to become the next global consumers. Within Asia there is significant talk of rebalancing towards domestic demand (more specifically domestic consumption) as a way of sustaining growth in the face of potentially sluggish exports. But the policy prescriptions to achieve such a rebalancing are not easy. They involve the creation of a social safety net, medical insurance schemes, and better public education services. In short, Asian consumption is tied in the minds of many analysts to long-term institutional changes.⁵ Given the difficulties of implementing such changes, it is hard to be very confident that this rebalancing will happen in the medium term.

This chapter argues that this is too pessimistic a view of Asian consumerism. Instead, we argue that several Asian countries, in particular China and India, have reached a tipping point where large numbers of people will enter the middle class and drive consumption. The policy measures to support such a transformation in China should be focused on increasing the share of household income in GDP – policies which can have almost immediate impacts – rather than lowering household savings.

If this transpires, the world will see a new global middle class—an Asian middle class. There will be a cross-over from the West to the East in the products, fashions, tastes, and designs oriented to the mass middle class. According to our estimates, by 2015, for the first time in 300 hundred years, the number of Asian middle class consumers will equal the number in Europe and North America. By 2021, on present trends, there could be more than 2 billion Asians in middle class households. In China alone, there could be over 670 million middle class consumers, compared with only perhaps 150 million today.

To paraphrase Nobel Laureate Robert Lucas, “the consequences for human welfare involved in questions like these [about economic growth] are simply staggering: once one starts to think about them it is hard to think about anything else.”⁶

Defining the Middle Class: An Absolute Approach

Although recognizing that the middle class is as much a social designation as an economic classification, most economists choose to measure it in terms of income or consumption levels. The middle class can be defined in relative or absolute terms. Easterly and Birdsall and Graham and Pettinato take a relativist approach, defining the middle class as those between the 20th and 80th percentile of the consumption distribution and between 0.75 and 1.25 times median per capita income, respectively.⁷ Bhalla takes an absolute approach, defining the middle class as those with annual incomes over \$3900 in purchasing power parity terms.⁸ Banerjee and Duflo use two alternative absolute measures—those with daily per capita expenditures between \$2 to \$4 and those with daily per capita expenditures between \$6 and \$10—as estimates of a lower and upper middle class in developing countries.⁹

The choice between these two approaches depends on the purpose at hand. As we are considering comparisons across different countries on the size of the middle class, it makes sense to take an absolute approach. Obviously, such comparisons require a common definition of the middle class in all countries. It would make no sense to compare Indians earning \$2 per day with Americans earning \$50 per day and claim that both are comparable in terms of purchasing power because both are middle class.

Taking an absolute approach, we define the global middle class as those households with daily expenditures between \$10 and \$100 per person in purchasing power parity terms. The lower bound is chosen with reference to the average poverty line in Portugal and Italy, the two advanced European countries with the strictest definition of poverty. The poverty line for a family of four in these countries is \$14,533, or \$9.95 per day per capita (in constant 2005 international dollars, adjusted for purchasing power parity (PPP)). The upper bound is chosen as twice the median income of Luxemburg, the richest advanced country. Defined in this way, the global middle class excludes those who are considered poor in the poorest advanced countries and those who are considered rich in the richest advanced country.

Based on this definition, we estimate the size of the middle class for 145 countries for which data is available, accounting for 98 percent of the world's population. These countries have both household surveys, from which household income distribution can be measured, and national income accounts from which total household consumption expenditures can be measured. From the World Bank's household surveys, we obtain the distribution of household income by decile.¹⁰ This is then inputted into the World Bank's PovCal software to estimate the distributional parameters of a quadratic Lorenz curve.¹¹ The mean of the distribution is taken from the national income accounts, which provide total household consumption expenditure in constant 2005 PPP dollars.¹² Given the mean and distribution parameters, PovCal generates a headcount of those living below any given expenditure threshold. The number in the middle class is defined as the difference between the number of people with expenditures below the \$100 per day threshold and the number with expenditures below the \$10 per day threshold.

Constructing a Scenario of the Global Economy to 2030

To assess the evolution of the global middle class over time, we need a sense of how countries will develop. To do this, we apply a simple Cobb-Douglas production function to each of the 145 countries in our data base.¹³ In this production function, growth depends on capital and labor accumulation, coupled with total factor productivity growth. We use demographic projections from the United Nations to estimate the evolution of the labor force for each country.¹⁴ Capital accumulation is taken by using the average 10-year investment/GDP ratio for each country and assuming that future investment will continue at this level.¹⁵ What remains is to estimate total factor productivity (TFP) growth.

One great constant of the last 125 years has been a steady growth in TFP in the United States. U.S. growth per worker has averaged 1.8 percent per year, of which 1.3 percent is attributed to TFP growth. There have been short episodes, including the Great Depression, when U.S. growth was pushed off this trend, but over the long-term there has been strong mean reversion: U.S. income levels have reverted to a level that reflects a constant long-run trend growth rate.¹⁶ We make the simplifying assumption that this process of advance in U.S. productivity will continue for the next two decades, notwithstanding the current financial crisis.

Other countries have shown their ability to grow faster than the US, based on more rapid TFP growth. Using the so-called advantages of backwardness – the ability to import and adopt more advanced production technologies from more developed economies – they have converged and, in some instances, notably Japan, even overtaken U.S. income levels. The poorer, and therefore less technologically advanced, a country is relative to the world's leading economies, the greater the potential gains are from this process; as technology levels begin to approach those of advanced economies, these potential gains diminish and growth rates tend to slow. We assume that this process of technological convergence will also continue at historical rates, and model technological catch-up as a function of the gap between each country's income level and that of the USA, taken as a proxy for the global technology leader.¹⁷

Applying this mechanically to all countries in the world produces a scenario that is not credible. The poorest countries in Africa, for example, would grow the fastest, as their income levels are so low compared to the USA. Latin American countries would also start to grow at rates which have not been seen for thirty years on that continent. It is clear that the advantages of backwardness do not apply to all countries.

We use a filter that restricts technology catch-up to advanced economies and to those developing countries which have demonstrated the ability to harness global technology to their advantage. Specifically, the latter are defined as those countries which have achieved a per capita growth rate of 3.5 percent per year over the past twenty-five years, a long enough period to avoid inclusion of many countries that grow cyclically but have not been able to sustain growth. For transition economies, where we cannot go back 25 years because many of the countries did not exist, or existed with totally different economic structures, we use a criterion of 3.5 percent per capita growth since 1995. This filter restricts catch-up technology to a set of 28 developing and transition economies, including, importantly, China.

The scenario of global economic trends produced by our model has two main features: global growth accelerates and the center of gravity of global output shifts towards Asia. Global growth accelerates from the rate that has prevailed since 1990, primarily because high-growth developing and transition economies come to account for a larger share of the world economy. In 1990, the high income but low growth economies of the OECD accounted for 80 percent of global output, and thus their growth represented most of the growth in the global economy. By 2009, their share had slipped to 65 percent, and will continue to fall in the coming decades. In their place will come the rapidly growing developing economies. As a consequence, global growth between now and 2030 could rise to 4.8 percent per year, compared with a 4 percent growth rate over the decade 1998-2008.¹⁸

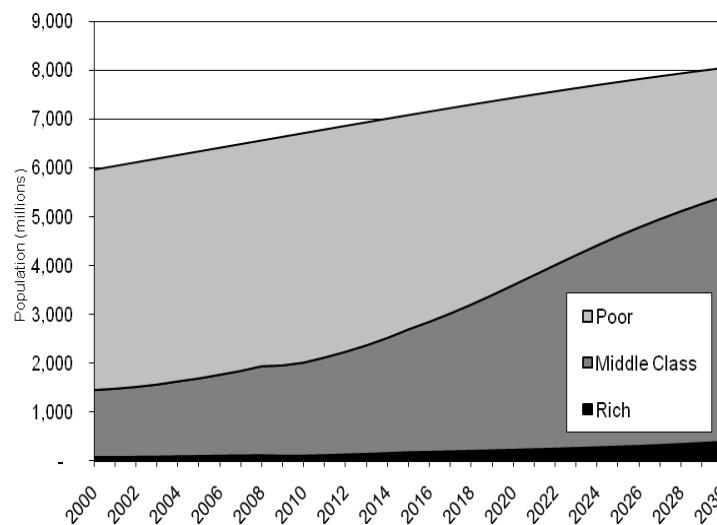
The rising emerging economies are found predominantly in Asia, including notably China and India, as well as Indonesia, Vietnam, and other economies of the Association of Southeast Asian Nations (ASEAN). Thanks to their rapid growth, the share of Asia in global output could rise from 28 percent today to 43 percent by 2030. China's share in global output alone rose from 1.6 percent in 1990 to an estimated 8.9 percent in 2009 (at market exchange rates) and could grow further to 19 percent by 2030.

The Global Middle Class Expands to the East

Using assumptions on growth, the existing size of the middle class and the distribution of income, we can estimate the current size and future trajectory of the middle class for each country.¹⁹ Today, 1.8 billion people in the world are middle class, or 28 percent of the global population. About half of these people live in developed economies, with another fifth found in Brazil, Russia, India, and China – the so-called emerging BRIC economies. Less than 2 percent of the world's population is rich by our definition; a significant majority, 70 percent, is poor.

Our scenario shows that over the coming twenty years the world evolves from being mostly poor to mostly middle class. 2022 marks the first year more people in the world are middle class than poor. By 2030, 5 billion people – nearly two thirds of global population – could be middle class.

Figure 1: A Surge in the Global Middle Class



This potential increase in the global middle class is associated with a significant geographical redistribution, as almost all of the new members of the global middle class reside in Asia (see Table 1). Today there are only 500 million middle class consumers in Asia, with one-quarter of these in Japan. Within twenty years there could be a six-fold increase, to some 3.2 billion people. Asia's share in the global middle class would rise from just over one-quarter today to two-thirds by 2030. Meanwhile North America and Europe could see their combined share drop from 54 percent to just 17 percent. Partly this reflects slow population growth in these regions. But it also reflects the fact that many people could graduate out of the middle class and become rich by 2030.²⁰

Table 1: Size of the Middle Class, Regions
(millions of people and global share)

	2009		2020		2030	
North America	338	18%	333	10%	322	7%
Europe	664	36%	703	22%	680	14%
Central and South America	181	10%	251	8%	313	6%
Asia Pacific	525	28%	1,740	54%	3,228	66%
Sub-Saharan Africa	32	2%	57	2%	107	2%
Middle East and North Africa	105	6%	165	5%	234	5%
World	1,845	100%	3,249	100%	4,884	100%

Of course, the number of people in the middle class does not properly capture the spending power of this group. Given the broad range of expenditures that fall within the middle class definition, some countries have more affluent middle classes than others. Today's middle class in Europe and North America may be 54 percent of the global total in terms of number of people, but they account for 64 percent of total spending by the world's middle class.

On this basis, Asia's middle class growth is even more rapid. In 2009, Asia accounts for only 23 percent of the expenditures of the global middle class. By 2030, it may account for 59 percent (see Table 2).

*Table 2: Total Middle Class Consumption, Regions
(2005 PPP\$, billions and global share)*

	2009		2020		2030	
North America	5,602	26%	5,863	17%	5,837	10%
Europe	8,138	38%	10,301	29%	11,337	20%
Central and South America	1,534	7%	2,315	7%	3,117	6%
Asia Pacific	4,952	23%	14,798	42%	32,596	59%
Sub-Saharan Africa	256	1%	448	1%	827	1%
Middle East and North Africa	796	4%	1,321	4%	1,966	4%
World	21,278	100%	35,045	100%	55,680	100%

The shifts in potential middle class spending are starker when decomposed into individual countries. Today, six of the ten countries with the largest middle class consumption are high income economies (see Table 3). By 2030, only four of the traditional advanced economies – the US, Japan, Germany and France – might make the top ten list.

In our scenario, China, which accounts for only 4 percent of global middle class spending today (enough to be the 7th largest middle class country in the world) could catapult up the global table to become the largest single middle class market by 2020, surpassing the United States. In fact, China's middle class market in 2020 could exceed that of the U.S. today. But China itself might be overtaken in the following decade by India, thanks to that country's more rapid population growth and more even income distribution that permits growth to be distributed across all segments of society.

*Table 3: Total Middle Class Consumption, Top 10 Countries
(2005 PPP\$, billions and global share)*

	2009			2020			2030		
1	United States	4,377	21%	China	4,468	13%	India	12,777	23%
2	Japan	1,800	8%	United States	4,270	12%	China	9,985	18%
3	Germany	1,219	6%	India	3,733	11%	United States	3,969	7%
4	France	927	4%	Japan	2,203	6%	Indonesia	2,474	4%
5	United Kingdom	889	4%	Germany	1,361	4%	Japan	2,286	4%
6	Russia	870	4%	Russia	1,189	3%	Russia	1,448	3%
7	China	859	4%	France	1,077	3%	Germany	1,335	2%
8	Italy	740	3%	Indonesia	1,020	3%	Mexico	1,239	2%
9	Mexico	715	3%	Mexico	992	3%	Brazil	1,225	2%
10	Brazil	623	3%	United Kingdom	976	3%	France	1,119	2%

Other studies of the global middle class have found broadly similar results. Though direct comparisons are difficult due to the differing definitions of middle class, a number of authors have highlighted the potential for a significant increase in the ranks of the global middle class in the decades ahead. Using a more restrictive definition of middle class, the World Bank's 2007 Global Economic Prospects report estimated that the global middle class would expand from 7.6 percent of the world's population in 2000 to between 16.1 and 19.4 percent of the world's population by 2030.²¹ A recent report from Goldman Sachs found that the global middle class would expand from 29 percent of world population in 2008 to approximately 50 percent in 2030.²²

While the broad trends are agreed upon, our figures may be more optimistic than those of some other analysts, particularly with respect to our high expectations for China and India.²³ While we believe the scenario outlined in this chapter is feasible, it is important to note that this exercise is intended as a scenario, rather than a firm forecast or prediction. For emerging Asian economies to achieve the high growth and dramatic expansion in their middle classes outlined above will require significant structural transformation and continual policy adjustment. This will undoubtedly be a great challenge, and there is no guarantee of success, yet there are precedents: our scenario for China and India is no more ambitious than what Korea and the other Asian tigers achieved in the 1970s and 80s, or Japan before them.

China and India do stand apart from these previous high growth economies in one important factor, however, which is the sheer size of their populations. This raises another question, one directly tied to the rise of the global middle class: will the earth be able to support the increase in living standards for the three billion people around the world expected to join the middle class over the next twenty years?

There are already some signs that resources are straining in the face of this new demand. Rising incomes in emerging economies were cited as one of the drivers behind the run-up in food and fuel prices in 2007 and 2008.²⁴ With China now the world's largest emitter of greenhouse gases, its burgeoning middle class will be central to any global effort to arrest climate change. The challenge of incorporating new middle class consumers into global markets in a stable and sustainable manner will require both new technologies and adaptations in human behavior.²⁵ Yet it would be a mistake to assume a growing global middle class will exclusively exacerbate resource pressures: the demand for a clean environment, for example, is a view typically associated with middle class values. As many previously poor people adopt middle class lifestyles in the decades ahead, they may find themselves not only consuming more but also more forcefully advocating for less pollution and lower emissions.

China's Middle Class Today and in the Future

China's middle class today is large in absolute terms – at 157 million people, only the United States has a larger middle class. This is why so many retailers and businesses are already eager to penetrate the Chinese market. In recent years retail sales have been increasing by 15 percent year-on-year, achieving a period of 20+ percent growth in mid-2008 before the financial crisis hit. In certain key industries reflective of middle class consumption, China is already rising to overtake the United States as the most important market. As recently as 2000, for example, the U.S. accounted for 37 percent of global car sales, while China accounted for barely 1 percent.²⁶ Today China has emerged as the world's largest auto market, with 13.6 million vehicles sold in 2009, well above the 10.4 million sold in the US.²⁷ In 2004 General Motors sold 10 cars in the U.S. for every one car sold in China; the ratio is now quickly approaching one to one, and soon China will be a bigger market than the U.S. for America's largest automaker.²⁸

Similarly, China has recently emerged as the world's biggest cell phone market, home to an estimated 700 million subscribers.²⁹ In 2008 Nokia, the largest cell phone maker in the world, had net sales of \$8.2 billion in China, more than three times its U.S. revenues.³⁰

Survey evidence also suggests China's new middle class is eager to become the world's leading consumers. A 2007 survey of 6,000 Chinese shoppers found that Chinese consumers spend 9.8 hours per week shopping, as compared to only 3.6 hours for the typical American.³¹ Additionally more than 40 percent of Chinese survey respondents said shopping was a favorite leisure activity. It is such attitudes that have led global retailers to bet on the future of China's domestic market: in the 14 years since opening its first store in China, Wal-Mart has gone on to open an additional 267 retail units.³²

Looking into the future, China's middle class is set to expand exponentially because of two factors: China's rapid growth rate, and the fact that a significant share of the population is now close to the lower-bound threshold of our definition of the middle class. The last twenty years of high economic growth have brought many Chinese out of dire, absolute poverty up to the threshold of the middle class. Today 26 percent of the population lives on between \$5 and \$10 a day, and a further 41 percent lives on between \$2 and \$5 a day. These are the people who are primed to become China's new middle class as growth continues in the decades ahead.

Figure 2: Chinese Consumption per Capita, 2009 – 2030

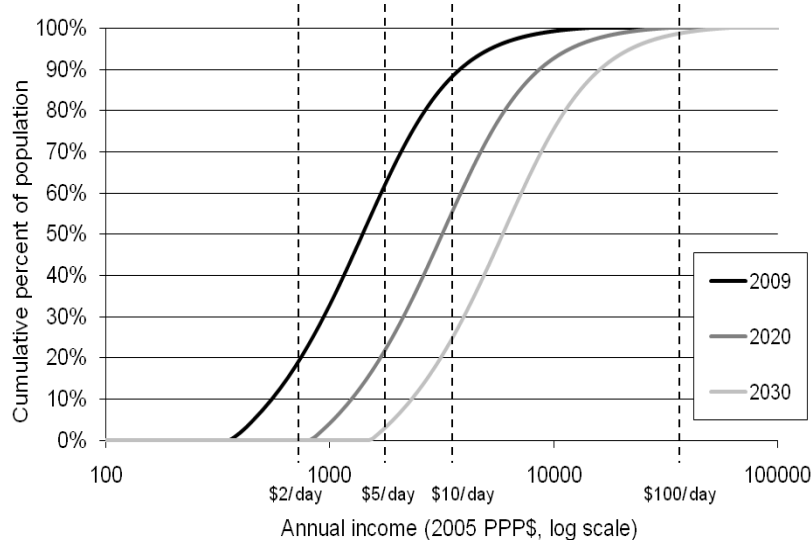
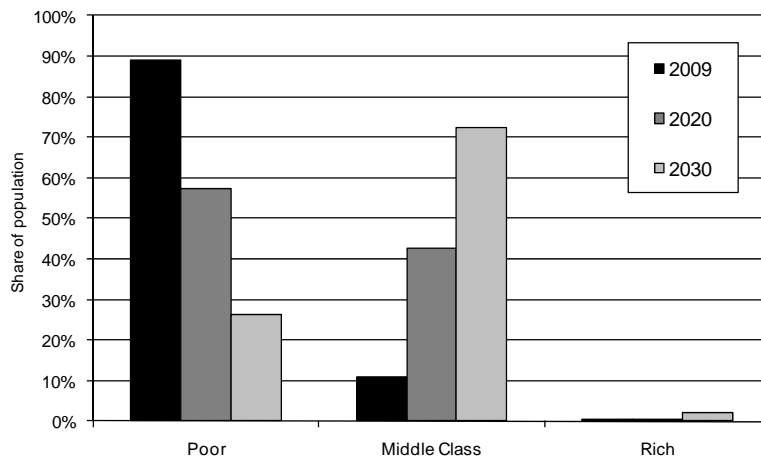


Figure 2 illustrates these two forces at work. Each curve shows the cumulative percent of the population with incomes below the threshold figure on the x-axis. Today, about 20 percent of China's population has an income level below \$2 per day, while 89 percent of the people have expenditure levels below \$10 per day. But as incomes rise, the number of people with income levels above the middle class threshold rises rapidly. Assuming average income growth of 7 percent (which is derived from the model with catch-up technology) between now and 2030, the percent of China's population with expenditures surpassing \$10 per day would increase to 74 percent (see Figure 3). Within one generation the majority of Chinese could go from being poor to being middle class.

Figure 3: China's Booming Middle Class



The biggest uncertainty surrounding this scenario is whether China can indeed continue to generate growth at recent levels. Its economy is famously unbalanced. Household final consumption today accounts for only 37 percent of total output, well below the global average (61 percent) and that of economies such as Vietnam (66 percent), Indonesia (63 percent), India (54 percent) and Thailand (51 percent).³³ China is now a middle income country and like other middle income countries, it finds itself needing a new growth strategy. The labor-intensive export-led growth that has served China so well in its development from low income to middle income status is showing signs of strain. Global protectionism, China's large trade surplus, and rising real wages are all pressuring Chinese exports of items like garments, toys, and shoes.

Traditionally, middle income countries have been able to add domestic demand to exports as an endogenous source of growth, once the local market becomes large enough. In most countries, domestic consumption typically starts to grow quickly when incomes per capita reach around \$6,000 in PPP terms.³⁴ China is just reaching this threshold level, with estimated 2009 per capita income of \$5,991.

The normal pattern of growth switching to domestic demand, however, may not be followed in China. As the great expansion achieved over the past two decades has been export and investment led, consumption growth has lagged behind GDP growth, by an average of 2.5 percentage points per year since 2000. With such low consumption, China's middle class is disproportionately small for its level of development. The great uncertainty for China is whether its current growth is sufficiently robust so as to carry it forward until the middle class consumption engine can start to fire, or whether growth will stall before the middle class really matures.

To see how important this is, contrast the historical cases of Brazil and South Korea. Between 1965 and 1980, Brazil grew at an average of 5.6 percent per capita per year, becoming a middle-income country with a per capita income level of \$7,600 PPP. Yet due to its high income inequality, Brazil's middle class made up only 29 percent of the country's population in 1980. This made it impossible for the country to rely on middle-class consumption to drive the transformation into an innovation-based economy. Since 1980 the country has remained primarily a commodity exporter, and has struggled to sustain growth. Per capita incomes today are only slightly higher than they were thirty years ago (annual growth of just 0.7 percent), and the middle class has only marginally expanded, currently accounting for just 38 percent of total population.

South Korea followed a path similar to that of Brazil through the 1960s and 1970s, only a few years behind, growing by 6.5 percent per capita annually between 1965 and 1986. By 1986, it too was a middle income country, achieving a similar per capita income of \$7,700 PPP. Unlike Brazil, however, Korea's evenly-distributed growth had produced a sizeable middle class, which accounted for 53 percent of the population. The country capitalized on the demand from this large middle class to grow its services industries and create the building blocks for a knowledge economy, and has continued its strong per capita growth at a 5.5 percent rate for another twenty years, in the process becoming one of the most advanced economies in the world. Today 94 percent of Korea's population is middle class.

Japan also benefited from a sizeable middle class when growing from a middle income country to a rich country. In 1965, Japan's per capita income was \$8,200 and its middle class was 48 percent of the population. Japan was able to achieve per capita growth of 4.8 percent per year for the next twenty years.

Today, China looks more like Brazil in 1974 (when Brazil also had a per capita income of around \$6,000) than South Korea in 1983 (when per capita income was \$6,300). What can China do to increase the size of its middle class? At first glance, addressing income inequality may appear to be a solution. China's Gini coefficient (adjusted for rural-urban cost of living differences) has risen to 44.3 by 2005.³⁵ But in the short term lowering inequality may not have the desired effect. The new middle class are coming from the group of those making \$5 to \$10 per day, at the top of China's income distribution. Efforts to address inequality may mean that

this group would see their incomes grow slower than average as the gap between the rich and poor narrows, which would slow the rise of China's middle class.

This is not to say that China's leaders should embrace income inequality: indeed there is a significant danger that China may fall into an inequality trap. Because access to health care and education are increasingly linked to income levels, with local governments unable to provide quality public services, areas and groups with low income levels tend to be less healthy and less well educated, which in turn propagate into further income inequalities over a lifetime of reduced earnings. In fact, differences in schooling and educational attainment are already the most significant determinants of income inequality in China.³⁶

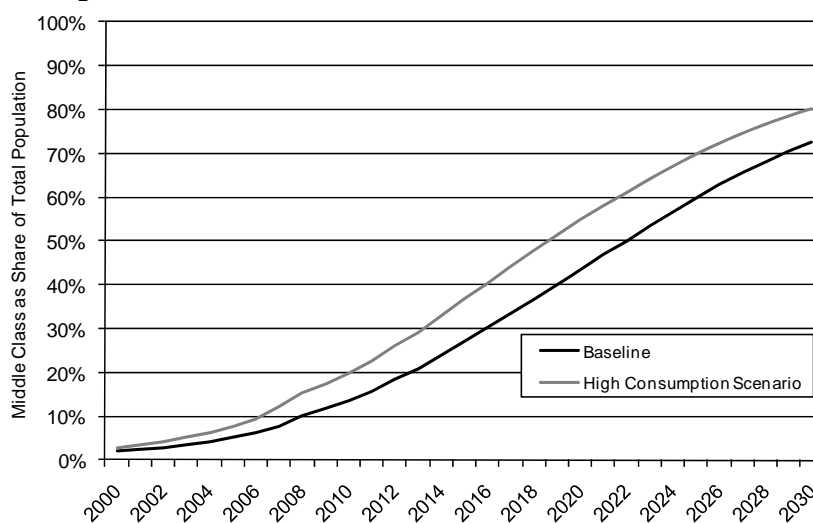
So addressing basic issues of equality of educational access and opportunity is a central long-term strategy. But in the medium term, the best strategy for increasing the size of China's middle class may lie not in attacking inequality but rather in increasing the share of consumption in GDP.

Even without any new policy changes historical evidence suggests the share of consumption in China's GDP will likely rise in the coming years. Countries in the midst of rapid industrialization often experience falling consumption and rising investment, a process which slowly unwinds as economies mature. In Korea, for example, the boom between 1960 and 1990 – when industry's share of output grew from 16 percent to 42 percent – saw consumption drop from above 80 percent of GDP down to 52 percent, as investment rose from 11 percent of GDP to 38 percent. Over the past two decades this trend has begun to reverse, as consumption has risen to account for 55 percent of GDP.³⁷ In the early 20th century the United States experienced a similar fall and then rise in consumption's share of GDP.

Still, given how low consumption is in China today, policies to encourage more rapid consumption growth could play an important role in rebalancing the economy. There are two ways of doing this. First, increase the share of consumption in household income—that is, reduce the savings rate. This would appear to be a long and hard issue requiring significant and credible institutional reform, in areas such as health care and social security. Unlike in other countries, even the poor in China save a considerable fraction of their income: the median household saving rate for the near poor, households earning between the poverty line and twice that level, is 17 percent.³⁸ High household savings appears to be a structural phenomenon in China.³⁹

The second way of increasing consumption is to increase the share of household income in GDP. Here there is more scope for direct and indirect policy action. In terms of direct measures, China is now enjoying a considerable accumulation of profits from state enterprises that in theory belongs to the people. State enterprise pre-tax profits totaled 6.6 percent of GDP in 2007, and have been increasing rapidly for many years.⁴⁰ These profits do not get funneled to the Treasury where they could substitute for income taxes and fees.⁴¹ Instead they are retained in the enterprises and get directly reinvested. According to the U.S. Bureau of Labor Statistics, the average take home pay of a Chinese worker is only 65 percent of total compensation, with the difference being made up of social insurance costs, government mandated labor taxes, and a variety of insurance provisions (health, occupational safety, unemployment and the like).⁴² If the profits from state enterprises were used to reduce these kinds of labor taxes, China's middle class, most of whom are salaried workers, would increase instantly. Indirectly, if the same savings were channeled into public services that are currently paid for by households, such as health and education, similar effects could be achieved.

Figure 4: Higher Household Income Accelerates the Rise of China's Middle Class



The chart above reveals how increasing household income, and hence consumption, in China could dramatically accelerate the rise of China's middle class. Figure 4 compares the baseline scenario to an alternative scenario in which household consumption as a share of GDP is raised by 10 percentage points, which would return it to levels reached in the early 2000s. The share of the population that is middle class would increase almost instantaneously by 6 percentage points, rising to a 10 percentage point gain by 2015. That is the equivalent of accelerating the surge in the middle class by three to four years.

Beyond collecting state enterprise profits for Treasury operations, there are additional means by which China could boost the share of household income. Some analysts argue that China's private sector firms have limited access to finance and so tend to limit employment.⁴³ As a result, the wage share in GDP has fallen from two-thirds in 1980 to just over one half of GDP today. This fall in the wage share is all the more remarkable as the growth of human capital in China has been very rapid over the period and as a large part of China's extraordinary growth has been due to the reallocation of labor from low productivity rural occupations to higher productivity occupations in manufacturing and services.

The World Bank's *Doing Business* survey found China ranked 61st in the world in terms of ease of access to credit.⁴⁴ Investment climate surveys suggest that less than half of small and medium enterprises (SMEs) have a bank loan.⁴⁵ Econometric results indicate that there is less employment growth in firms facing greater difficulties in accessing credit. According to Aziz and Cui, the program of bank restructuring in China emphasized stricter rules to minimize non-performing loans, leading firms to cut back further on employment.⁴⁶ The corollary is that as banking reforms take root, and as privatization and private enterprise growth moves ahead, employment growth could accelerate. This would raise the share of labor in national income and the share of household disposable income.

Conclusion

In this chapter, we have argued that the world is in the throes of a major expansion in the middle class. This is surely good news for the global economy in general and for the Asian economy in particular, as most of the expansion in the global middle class will come from Asia.

China is a large part of this story. China's middle class is set to expand exponentially if China can maintain its current rate of economic growth. However, China faces a chicken-and-egg problem. Its middle class is still small by historical standards for a country with its income

level, so the engine of domestic consumer demand is not yet fully functioning. If growth happens, the middle class will expand and sustain growth, but domestic demand is not yet in a position to drive growth. If exports and investment are choked off by an unfavorable international environment in the next few years, there is a danger that China's economy could stall before the middle class matures. That would have adverse effects on both China and the global economy.

There are two ways China can try to accelerate its transformation towards a domestic consumption-led growth pattern. The first, which has been paid considerable attention, is to develop policies to reduce China's high household saving rates. We argue that these policies usually involve long-term institutional change, such as in social security or health delivery reforms. They may not be speedy enough to drive the development of consumption demand.

The alternative strategy is to raise the share of household income in GDP directly. This can be achieved by macroeconomic policy changes. Two suggestions are to use the large profits of China's state owned enterprises to reduce labor taxes and fees on employment and to accelerate banking reforms to ease access to credit by SMEs. Both these measures would increase the share of labor in the economy and, by extension, the share of household income in GDP.

These measures could accelerate the development of China's middle class by four years or more. That could be sufficient to allow domestic demand to take the place of exports and investment. If China's middle class does develop adequately, it could fuel a self-sustaining boom for decades. China would be at the forefront of one of the great transformations in the world economy—a crossing from West to East of the global middle class.

¹ United States Bureau of Economic Analysis (www.bea.gov).

² Juliet Schor, "The New Politics of Consumption: Why Americans want so much more than they need," *Boston Review* (Summer 1999).

³ Kevin Murphy, Andrei Shleifer and Robert Vishny, "Income Distribution, Market Size and Industrialization," *Quarterly Journal of Economics* (August 1989).

⁴ See, for example, William Galston, "The 'New Normal' For the U.S. Economy: What Will It Be?," Brookings Web Commentary (September 2009).

⁵ See, for example, Martin Feldstein, "Resolving the Global Imbalance: The Dollar and the U.S. Saving Rate", *Journal of Economic Perspectives*, Volume 22 Number 3 (Summer 2008); and Nicholas Lardy, "China: Toward a Consumption-Driven Growth Path", Peterson Institute for International Economics Policy Brief 06-6 (October 2006).

⁶ Robert Lucas, "On the Mechanics of Economic Development," *Journal of Monetary Economics*, Vol. 22, No. 1 (July 1988), p. 5.

⁷ William Easterly, "The Middle Class Consensus and Economic Development," World Bank Policy Research Working Paper 2346 (2000); Nancy Birdsall, Carol Graham and Stefano Pettinato, "Stuck in the Tunnel: Is Globalisation Muddling the Middle Class?," Centre on Social and Economic Dynamics Working Paper No.14 (2000).

⁸ Surjit Bhalla, *The Middle Class Kingdoms of India and China* (Washington, DC: Peterson Institute for International Economics, 2010, forthcoming).

⁹ Abhijit Banerjee and Esther Duflo, "What is middle class about the middle classes around the world?," Center for Economic Policy Research Discussion Paper 6613 (2007).

¹⁰ World Bank household survey data for developing countries are found in the PovcalNet database (<http://go.worldbank.org/NT2A1XUWP0>); data on advanced countries are found in "Inequality Around the World: Globalization and Income Distribution Dataset" (<http://go.worldbank.org/0C52T3CLM0>). Both accessed December 2008.

¹¹ The PovCal software can be downloaded at <http://go.worldbank.org/YMRH2NT5V0>. For a full discussion of the calculations involved, see Gaurav Datt, "Computational Tools for Poverty Measurement and Analysis," International Food Policy Research Institute FCND Discussion Paper No. 50 (1998).

¹² National income accounts data are from the World Bank's *World Development Indicators* online database (2009). WDI is the source for all historical GDP and growth statistics included in the chapter, unless stated otherwise.

¹³ For a full treatment of the methodology, see, Homi Kharas, Laurence Chandy, and Geoffrey Gertz (eds.), *The Four Speed World* (Washington, DC: Wolfensohn Center for Development, Brookings Institution Press, 2010, forthcoming).

¹⁴ United Nations, *World Population Prospects* (<http://esa.un.org/unpp/>).

¹⁵ World Bank, *World Development Indicators*.

¹⁶ See the long term data for the U.S. in Angus Maddison, "Statistics on World Population, GDP and Per Capita GDP, 1-2006 AD," (2009) available online at <http://www.ggd.net/maddison/>.

¹⁷ This follows the methodology used in Dominic Wilson and Roopa Purushothaman, "Dreaming with the BRICs: The Path to 2050," Goldman Sachs Global Economics Paper No. 99 (2003).

¹⁸ These growth rates are for global output measured in U.S.dollars, ie after accounting for expected exchange rate movements.

¹⁹ For our baseline scenario we adopt the simplifying assumptions a) that consumption grows at the same rate as GDP, i.e. the share of consumption in GDP will remain constant over time, and b) that the Lorenz curve remains constant over time, i.e. that growth is distributionally neutral.

²⁰ The number of rich people in North America and Europe combined increases from 105 million in 2009 to 298 million in 2030.

²¹ World Bank, *Global Economic Prospects 2007: Managing the Next Wave of Globalization* (Washington, DC: World Bank, 2007).

²² Dominic Wilson and Raluca Dragusanu, "The Expanding Middle: The Exploding World Middle Class and Falling Global Inequality," Goldman Sachs Global Economics Paper No. 170 (2008).

²³ Interestingly, however, over recent years many analysts have been forced to routinely revise upwards their medium and long term estimates of Chinese and Indian growth. For a discussion in the case of India, see Hiroko Oura, "Wild or Tamed: India's Potential Growth", IMF Working Paper WP/07/224 (2007).

²⁴ See, for example, Joachim von Braun, "Rising Food Prices: What Should be Done?," IFPRI Policy Brief (April 2008).

²⁵ It is important to note, however, that it is not clear, as is sometimes argued, that higher resource prices will necessarily slow Chinese (or Indian) growth. There is no historical evidence suggesting energy prices have a significant impact on long-run growth. Though an international agreement that limits greenhouse gas emissions by raising the price of carbon would undoubtedly lead to significant sectoral shifts in China, as in other economies, there is no a priori reason to believe this would bring an end to China's high growth.

²⁶ Carlos Gomes, "Global Auto Report: July 31, 2009", Scotiabank Group Global Economic Research (2009).

²⁷ Patricia Jiayi Ho, "Corporate News: China Tops U.S. in Vehicle Sales, Aided By Government Incentives," *Wall Street Journal*, January 12, 2010, p. B2.

²⁸ Carlos Gomes, "Global Auto Report: July 31, 2009".

²⁹ Justine Lau and Joseph Menn, "Apple to launch iPhone in China," *Financial Times*, August 29, 2009, p. 9.

³⁰ Nokia, *Annual Report 2008*, available online at www.nokia.com

³¹ Wai-Chan Chan and Anne Tse, "The Consumer Trap: Retailers Need to Adapt to Entice Fickle Chinese Shoppers into Their Stores," McKinsey & Company (2007).

³² Wal-Mart, "China Fact Sheet", available online at www.walmartstores.com

³³ World Bank, *World Development Indicators*.

³⁴ Nomura International, "China: a secular shift," *Asian Bank Reflections*, Volume 3 (August 2009).

³⁵ World Bank, *From Poor Areas to Poor People: China's evolving poverty reduction agenda* (Washington, DC: World Bank, 2009).

³⁶ Ibid.

³⁷ World Bank, *World Development Indicators*.

³⁸ World Bank *From Poor Areas to Poor People*.

³⁹ This conclusion is consistent with Charles Horioka and Junmin Wan, "The Determinants of Household Saving in China: A Dynamic Panel Analysis of Provincial Data," Federal Reserve Bank of San Francisco Working Paper 2007-28 (2007).

⁴⁰ Chunlin Zhang, Douglas Zhihua Zeng, William Peter Mako, and James Seward, *Promoting Enterprise-Led Innovation in China* (Washington, DC: World Bank, 2009).

⁴¹ China did abolish all taxes and fees on agricultural incomes as a result of strengthened public finances, but this has helped strengthen poverty reduction programs rather than the middle class.

⁴² Judith Banister, "Manufacturing Earnings and Compensation in China," *U.S. Bureau of Labor Statistics Monthly Labor Review* (August 2005).

⁴³ Jahangir Aziz and Li Cui, 2007, "Explaining China's Low Consumption: The Neglected Role of Household Income," IMF Working Paper WP/07/181 (2007).

⁴⁴ World Bank, *Doing Business 2010* (Washington, DC: World Bank, 2009).

⁴⁵ World Bank, *Governance, Investment Climate, and Harmonious Society: Competitiveness Enhancements for 120 Cities in China* (Washington, DC: World Bank, 2006).

⁴⁶ Aziz and Cui, Explaining China's Low Consumption.