

McKinsey Global Institute



August 2009

# If you've got it, spend it: Unleashing the Chinese consumer



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# If you've got it, spend it: Unleashing the Chinese consumer

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## Preface

China is on course to become the world's third-largest consumer market by 2020. Nevertheless, private consumption constitutes a remarkably low share of China's economy, whose rapid growth in recent years has come on the back of a development model that has rested heavily on industrial investment and exports. Even before the global financial crisis buffeted China and proved its vulnerability to a downturn in its key export markets, the political leadership of the People's Republic had set itself a new aim of rebalancing its economic mix and boosting the consumption share of the economy. If China succeeds in this aim, it would not only boost GDP, jobs, and incomes, but it would also insulate itself from volatility imported from overseas.

As a contribution to the policy debate on China's evolving economic model, the McKinsey Global Institute (MGI) and McKinsey & Company's China practice have analyzed the most important policy levers that could propel China toward the goal of a higher share of consumption in China's economy.

Janamitra Devan, an associate partner based in Shanghai, directed this work. The working team led by Micah Rowland comprised MGI fellows Adam Eichner and Stefano Negri and also included Pia Chock, a consultant from the Shanghai office.

When evaluating the impact of improving the consumer infrastructure, the working team incorporated work done by another McKinsey team, which included Yuval Atsmon, Yougang Chen, Feng Han, Aaron Huang, Kevin Huang, Wenkan Liao, Elaine Lou, Alex Peng, and Lili Rong. We benefited enormously from the expertise and advice of McKinsey colleagues Gordon Orr, Yi Wang and Yehong Zhang in Shanghai, and David Skilling in Singapore.

The working team is also indebted to our MGI China Modeling team colleagues John Gao, Yangmei Hu, Xiujun Lillian Li, and Song Mei for their modeling work, which formed the basis for many of our analyses; and to Vivien Singer of McKinsey's North American Knowledge Center; Janet Bush, senior editor at MGI, for her editorial help; Glenn Leibowitz and Rebeca Robboy for their advice on external communications; and Helen Zhang, MGI Administrator in Shanghai, who also served as our team assistant.

The research was greatly enriched by the advice of external experts. We would like to thank Jonathan Anderson of UBS; Martin Baily of the Brookings Institute; Xiao Geng of Tsinghua University and Brookings; David Dollar, Ardo Hansson, and Louis Kuijs of the Beijing office of the World Bank; and Laura Tyson at the University of California at Berkeley.

This work is part of the fulfillment of MGI's mission to help global leaders understand the forces transforming the global economy, improve company performance, and work for better national and international policies. As with all MGI research, we would like to emphasize that this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution.

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# Contents

Executive summary	8
1.China underconsumes for its level of wealth	16
2.Why China underconsumes	22
3.Boosting consumption: A three-pronged agenda	31
4.Conclusions	52
Technical appendix	54
Bibliography	71

## Executive summary

There is recognition at the highest political level in China that the economic paradigm that has served the People's Republic so well thus far is no longer fit-for-purpose. China's investment-led model has skewed the economy toward industry and has made corporate investment too cheap, leading to inefficient investment in excess capacity. Reliance on exports has left China exposed to a downturn in its major markets. As the global fallout of the US financial crisis has put new strain on China's current development model, the case for shifting toward a stronger reliance on domestic consumer spending has gathered force.

In March 2007, Chinese Premier Wen Jiabao surprised outside experts at an important annual planning forum by confessing that he feared China's economy suffered from "structural problems" resulting in development that was "unsteady, unbalanced, uncoordinated, and unstable." Indeed, Premier Wen and the rest of China's senior economic leadership recently made the promotion of domestic consumption a critical pillar in the drive to sustain economic growth in the long term—a strategic shift that has potentially profound consequences not only for China but also for the global economy.

In view of this new priority, the McKinsey Global Institute (MGI) undertook to build an understanding of the drivers behind China's low consumption share and to identify potential policy initiatives that could contribute to a rebalancing of China's growth model over the next 15 years. In tandem with a large short-term stimulus package to help the economy weather the current economic crisis, China's government has already embarked on many aspects of this shift, including reforms to health care, education, and the pension system. This report seeks to quantify how this range of other initiatives could, if fully enacted, affect today's low consumption share of GDP.

### **CHINA CAN BOOST CONSUMPTION SHARE OF GDP TO 50 PERCENT BY 2025**

The research demonstrates that it is possible to boost China's consumption share of GDP from 36 percent in 2005 to 45 to 50 percent by 2025, 6 to 11 percentage points above trendline projections of 39 percent (Exhibit E1).<sup>1</sup> By sizing the potential of initiatives in different policy areas to boost China's consumption share, the research suggests some of the priorities that China might set if it is to successfully vault the economy into a new phase in its evolution. It will take a concerted and urgent effort on multiple fronts by both the public and private sectors to overcome the entrenched industrial model that has dominated China's economy in recent decades. But the prize would be an economy that is less vulnerable to ill winds blowing in from overseas, higher levels of efficiency, 15 percent higher average household incomes relative to trend, and a new economic maturity that will stand China in good stead in the long term.

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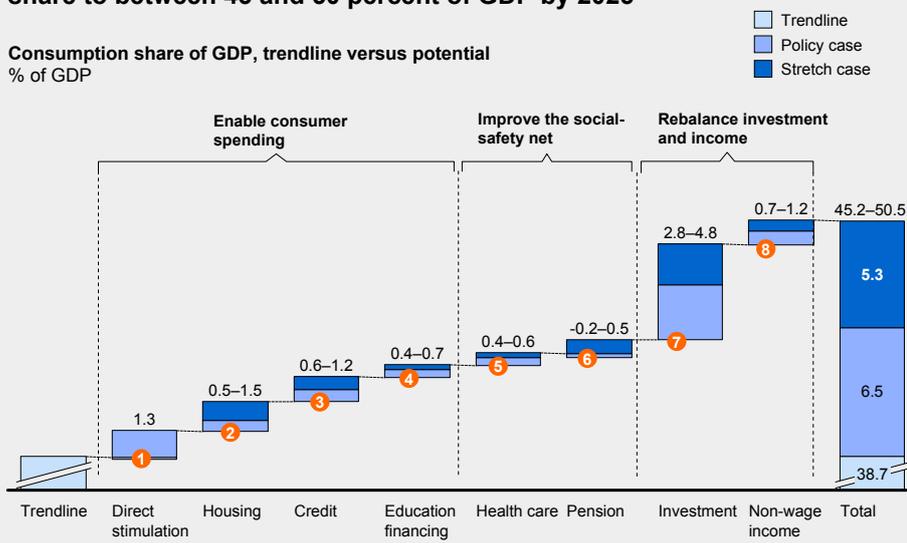
<sup>1</sup> Unless otherwise stated, the word "consumption" here and in the rest of this document refers to private household consumption only.

Private consumption in China today accounts for only a 36 percent share of overall GDP—the lowest percentage of any major economy in the world, reflecting China's reliance thus far on a giant investment machine that crowds out consumption. Even at its low during World War II when consumption dropped in favor of massive industrialization to support the war effort, the US consumption share of GDP never dipped below around the 50 percent mark. Looking at major Asian economies today, Japan's consumption share stands at 55 percent and South Korea's at 48 percent. The shares in two relatively consumption-heavy Western economies—the United States and the United Kingdom—are 71 and 67 percent, respectively. While there is no optimal level for the share of consumption in an economy—some observers might argue that a consumption share of around 70 percent is as unbalanced as China's 36 percent—a share closer to 50 percent would bring China in line with its peers in Asia today.

**Exhibit E1**

**Meeting all top-line policy objectives could raise China's consumption share to between 45 and 50 percent of GDP by 2025**

**Consumption share of GDP, trendline versus potential**  
% of GDP



SOURCE: Global Insight; McKinsey Global Institute China Model; McKinsey Global Institute analysis

According to trendline macroeconomic forecasts and assuming that policy makers were to do nothing to stimulate consumption further on a sustainable basis, China's low consumption share will, at best, moderate upward only slightly over the next 15 years. However, MGI believes China could pursue policies that would boost consumption by 8 trillion to 15 trillion renminbi by 2025 (unless otherwise noted, all figures are listed in real 2000 renminbi terms)—by comparison, the high end of this range is slightly greater than the entire GDP of France today. This would increase consumption's share in China's economy by an incremental 6 to 11 percentage points to between 45 and 50 percent by 2025 on current GDP growth assumptions. On a per capita basis, this would translate into consumption that is 5,500 renminbi to 10,600 renminbi higher (26 to 50 percent) than forecasts based on current trends.

Our analyses estimate the impact of several policies that will likely contribute to a reduction in China's private household savings rate, which surveys today estimate at 25 percent of average per household disposable income. We believe that by 2025, compared with a trendline value of about 17 percent, these policies could reduce household savings rates by between 6 and 12 percentage points, leaving Chinese consumers' savings rates at somewhere between 5 and 11 percent of household disposable income. Although popular dialogue about Chinese consumption

frequently mentions consumer savings rates, we find that even these relatively large changes in savings behavior would result in increases of, at most, 2 to 5 percent in China's consumption share, relative to trendline, less than half of the potential change of 6 to 11 percentage points of additional consumption share possible for China.

Given the relatively small impact of such a significant change in savings rates, our findings suggest that although changes in consumer spending and savings behavior are certainly part of the solution, measures to drive more of China's income to households are at least as important in bridging the gap to a higher consumption share.<sup>2</sup> What is more, many of the policy changes that will be required do not directly relate to consumer behavior but rather aim to encourage more efficient investment and capital allocation, which would ultimately create faster growth in private income. Eventually, these policies are likely to be as big a factor, or bigger, in China's rebalancing as changes in the social-safety net or consumers' spending behavior.

### **HIGHER CONSUMPTION WILL MAKE GROWTH SUSTAINABLE**

The benefits of these policies will extend beyond simply increasing the consumption share in China's economy. Consumption- and service-led economies tend to create more jobs per unit of investment, accompanied by higher wages per dollar invested. China could expect the same impact; by hitting a consumption share in the range of 45 to 50 percent of GDP, China could experience stronger job creation, a boost to average household incomes of 10 to 20 percent, and a strong fillip to domestic firms and entrepreneurs, particularly in the retail and service sectors.

China would also lessen its vulnerability to external shocks, diminish the need to build up foreign reserves, and together with other policies help to ease international tensions that have arisen because of large global trade imbalances, as its trade surplus narrows by 25 to 40 percent by 2025.<sup>3</sup> Moreover, using natural resources such as fossil fuels, water, and land less intensively would mitigate environmental pressures.

If these benefits were not enough, the shift to a consumption-driven economy detailed in this analysis also has the potential to add significantly to China's total economic output relative to trendline forecasts. This results from a combination of higher consumer spending and greater government consumption, both of which, in turn, spur additional job creation and GDP growth. Accounting for these multiplier effects, China's transition could result in a GDP level that is 6.5 trillion to 11.9 trillion renminbi, or 8 to 15 percent, higher than currently projected for 2025 (Exhibit E2). This implies an additional 0.8 to 1.2 percentage points on top of an already rapid GDP compound annual growth rate (CAGR) of 7.7 percent between 2010 and 2025.

From a global perspective, China's share of world consumption would increase to between 11 and 13 percent in 2025, up from 8.9 percent that we project on current economic trends. This would, in turn, mean that China would account for more than 25 percent of consumption growth worldwide over the next 15 years, up from 18 percent on trend.<sup>4</sup>

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2 The study recognizes that there are other measures to increase the share of GDP going to household income, such as minimum-wage policy, the better organization of labor, and so on—measures that have proved effective in other countries. We will consider these areas in future research.

3 MGI projected several macroeconomic scenarios using GDP projections from Global Insight.

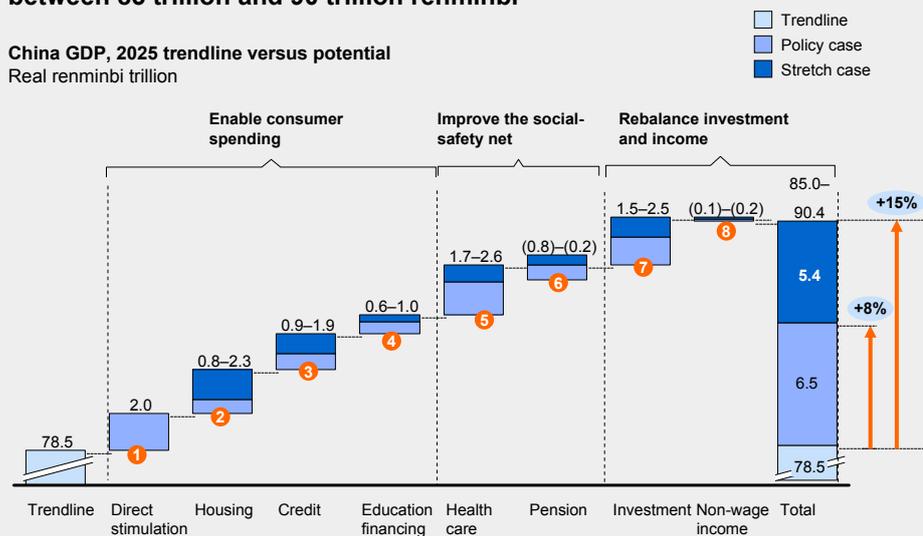
4 This calculation assumes that global real GDP growth tracks trend at 2.9 percent a year between 2008 and 2025.

Securing these domestic and international benefits will necessitate moving toward a new development paradigm—initiating policies on a broad front simultaneously to have a high chance of success. Today's low consumption share is systemic, and China will not be able to tackle this issue without comprehensive reform that includes structural change.

**Exhibit E2**

**These policies could also raise China's 2025 GDP by 8 to 15 percent to between 85 trillion and 90 trillion renminbi**

**China GDP, 2025 trendline versus potential**  
Real renminbi trillion



Note: Numbers may not sum due to rounding.

SOURCE: Global Insight; McKinsey Global Institute China Model; McKinsey Global Institute analysis

**CHINA CAN REBALANCE TOWARD CONSUMPTION**

MGI has identified and quantified a set of three broad groups of policies that could help China raise its consumption over the next 15 years. Our research does not make policy recommendations, so much as attempt to estimate the impact on the economy and on consumption share of pursuing policy objectives.

To reflect different potential degrees of uptake and implementation of these policies by China, this research looks at two scenarios—the policy case and a stretch case—and compares the impact of policies in each with a trendline case based on the current macroeconomic forecasts.

The policy scenario comprises a set of policies and reforms that China is already pursuing and that is likely to affect the consumption share of GDP to some degree—whether or not this is the explicit intention of these policies. In the policy case, China could increase the consumption share up to six percentage points above trendline by 2025 to reach a 45 percent share by 2025 compared with 39 percent in our trendline scenario. If China achieved this shift, it would boost total GDP by approximately 6.5 trillion renminbi and private consumption by approximately 8.0 trillion renminbi—resulting in GDP 8 percent higher than trendline GDP and private consumption 26 percent higher than trendline. Per capita consumption would rise from a projected 21,000 renminbi in 2025 to more than 26,600 renminbi.

Our stretch scenario assumes more aggressive action on each of the issues we outline in this research. In this scenario, China could reach a 50 percent consumption share, boosting GDP by 11.9 trillion renminbi and consumption by 15.2 trillion renminbi—15 percent and 50 percent above trendline, respectively. In this scenario, per capita consumption could reach more than 31,700 renminbi.

### **China can directly enable consumer spending**

This group of policies comprises a range of relatively short-term initiatives focused on creating a more comprehensive “consumption infrastructure” that would make it easier for Chinese citizens to purchase a wider range of products and services than are available to many Chinese today. Some of these changes would require that consumers save less of their disposable incomes, while others would allow them to consume sooner through the use of consumer credit. There are two major policy thrusts for China to consider:

1. **Expanding the availability and improving the quality of products.** Action on this front could add 1.3 percentage points to the consumption share by 2015 and maintain this level through 2025. Today, there is a huge gulf between the retail and consumer experience available in China’s larger and wealthier cities and that in smaller cities and rural areas. Actions might include supporting the development of modern store formats, channels, and distribution networks (e.g., secondhand and leasing markets for cars, online shopping for many categories) and encouraging the continued development of both international and domestic players throughout the consumer industry.
2. **Increasing the availability and uptake of consumer credit.** The availability and use of consumer credit is currently low in China in comparison with other countries, even those within Asia at similar development levels. Measures to increase the availability of credit and to encourage consumers to increase their use of credit as a means of responsibly financing home purchases, education, and a broader set of consumption needs would allow consumers to borrow against future income to make big-ticket purchases that would increase their quality of life today. If pursued wisely, this would contribute to a potential boost in consumption share of 1.5 to 3.4 percentage points and ultimately help generate more wealth for Chinese households in the future.

Together, this group of policies combined has the potential to add between 2.8 and 4.7 percentage points to China’s consumption share by 2025. GDP in 2025 would be higher than trendline projections by 4.2 trillion renminbi to 7.2 trillion renminbi, or between 5.4 and 9.2 percent. Total private consumption spending increases would constitute the bulk of this rise, accounting for between 4.1 trillion renminbi and 7 trillion renminbi in higher expenditure relative to trendline, or about 13.5 to 23.1 percent higher than trendline. On a per capita basis, private consumption spending would increase by between 2,800 renminbi and 4,900 renminbi.

### **An improved social-safety net would boost health-care and retirement spending**

Since the beginning of the reform era, large changes in the funding and delivery of social services such as health care and pensions have undermined both the quantity and quality of benefits provided to Chinese citizens. Improving the social-safety net provided by the government will reduce precautionary over-savings, increase total spending on health care and retirement, and cause discretionary consumer spending to rise. But improving China’s social-safety net is a critical step forward for a number of reasons that go beyond merely boosting consumption. Greater public provision will help guard against the potential for social instability that may result from the inequities engendered by the rapid economic growth and urbanization that China is experiencing today. In addition, higher quality health care and pensions will foster labor-productivity gains over the long term and further improve China’s growth prospects.

Despite the overall significance of these policies and the frequency with which they are cited as a major cause for low consumption, we find that the increased government spending required to expand access to, and improve the quality of, health care and pensions will somewhat limit the total impact on private consumption share of GDP. Even though improved social-safety net coverage has the potential to boost total private and government spending on health care and other categories by between 4 trillion and 11 trillion renminbi annually by 2025, it would add only 0.2 to 1.1 percentage points to China's consumption share. Private consumption would be 480 billion renminbi to 1.9 trillion renminbi, or 1.6 to 6.3 percent, higher than trendline projections, resulting in a boost to annual per capita consumption of between 300 renminbi and 1,300 renminbi. Overall, this would contribute additional GDP totaling between 900 billion renminbi and 2.4 trillion renminbi beyond trendline projections, or about 1.6 to 3.4 percent higher than the trendline 2025 value.

### **Undertaking structural reforms would increase household income**

This group of policies comprises a wide-ranging set of measures affecting the financial system, industrial policy, international trade, and many other aspects of China's political economy. This family of policies would require the largest structural shift of the three discussed in this report and, even if significant changes are made in policy, the full impact on consumption share and the macro structure of the economy may not be felt until far later than the 2025 time horizon we examine. However, our analysis shows that, even by 2025, if China can achieve a significant shift toward service industries and undertake financial-sector reforms that would drive higher growth in non-wage sources of income, it would add between 3.5 and 6.0 percentage points to consumption share.

**Shifting toward services.** China's political leadership recognizes that shifting investment to more efficient and labor- rather than capital-intensive service sectors would have a multiplier effect on employment, economic growth, and consumption. If the government were to target and achieve three percentage point increases in the services share every five years after 2010, as was the goal in the 11th Five Year Plan released in 2005, services would reach 49 percent of GDP in 2025. Such a moderate shift would raise average household income by 9 to 10 percent above 2025 trendline values as employment in services grows more rapidly and productivity gains drive wages up. However, the consumption share of GDP would rise by only 2.8 percentage points because of the increases in investment that would also be required, partially offsetting consumption gains. If China could engineer an even more dramatic shift (imagine, as some commentators have, a move toward South Korea's level of services, at about 55 percent today), it might bring in even higher income gains of up to 20 percent and a correspondingly higher boost in consumption share of up to 4.8 percentage points. Such a shift would require significant investments in human capital and technology in order to improve productivity growth and allow more than 100 million additional workers to move into service sector jobs.

**Improving investment-related sources of household income.** At less than 2 percent of average household income, investment-related sources of income in China are low compared with other countries, and these sources have not been increasing as a share of total income. Today, the real return on financial assets in China is only 0.5 percent, compared with 1.8 percent in South Korea and 3.1 percent in the United States.<sup>5</sup> Although improving returns on household assets over the long-term would require

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5 *Putting China's capital to work: The value of financial system reform*, McKinsey Global Institute, May 2006 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

significant changes in China's financial system, much progress is possible simply by giving high-saving households access to a greater array of financial products and services such as mutual funds, fixed-income products, annuities, CDs, and so on. For every additional percentage point of income coming from investment-related sources by 2025, the consumption share should rise by approximately 0.3 to 0.4 percentage points. For example, increases in investment-related sources of income from 1.7 to 3.4 percent of average total household income would add 0.7 percentage points to the consumption share. Increasing investment-related sources of income as a share of the total to 5.1 percent would add 1.2 percentage points to the consumption share.

Three policy areas are particularly promising as China aims to shift toward services and boost incomes:

1. **Encouraging financial-sector liberalization.** China could boost non-wage sources of income by reforming the dividend policy for state-owned enterprises (SOEs) and encouraging the creation of a wider array of financial instruments to enable greater household participation in financial markets. Taken together, action on these fronts would encourage firms to make more judicious investment decisions and allow households to share in the profits generated by those firms, reaping dividends and realizing higher returns on their assets over time. This would help to reallocate capital toward private citizens or service sectors. China is already actively engaged in financial-system reforms, but the reform program is behind schedule and, in any case, China should consider broadening the scope of its plans for banking and capital market liberalization and development as part of its aim of shifting toward a higher consumption share.
2. **Aggressively pursuing greater investment efficiency and consolidation in industry.** There is considerable scope in China to consolidate industries, particularly relatively mature ones such as steel and cement, and thereby boost productivity. Boosting efficiency is also vital. Scarce resources such as water, coal, and land, as well as capital, are often available to industry at below-market rates today. Scaling back the government's direct and indirect subsidies designed to bolster industry's growth—for example, by adjusting tariffs or by encouraging more commercially based lending decisions—could promote higher efficiency in both the investment and consumption of resources. The government may need to institute a system for taxation of resource usage in order to allow corporate cost structures and capital allocation mechanisms to more accurately price in the cost of China's resource intensity.
3. **Supporting the development of SMEs.** The growth of the service sector is likely to hinge on the successful development of small and medium-sized enterprises (SMEs). Today, these companies face a number of barriers to market entry and growth (in common with their counterparts in other developing countries). Reform of business licensing procedures, more supportive labor market policies, and easier credit access are necessary if service-sector SMEs are to increase their share of China's economic activity.

These policies could boost private consumption spending by 3.4 trillion to 6.3 trillion renminbi above trendline, or about a 10 to 20 percent increase. Per household private consumption would rise by between 8,000 and 15,000 renminbi per year, as households capture more of the benefits from China's growth in the form of 10 to 20 percent higher average per household incomes and, relative to the trendline, GDP would be boosted by 1.4 trillion to 2.3 trillion renminbi, or

an increase of 1.8 to 2.9 percent as higher private consumption results in less investment and a smaller trade surplus.

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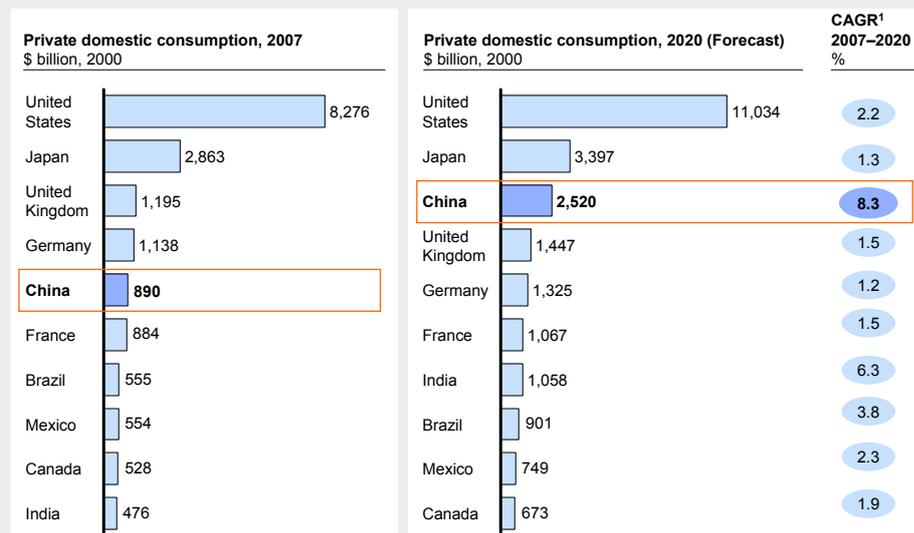
In chapter 1, we examine China's current development model and growth path and analyze the reasons that the economy would benefit from an increased share of private domestic consumption. In chapter 2, we identify the drivers of China's lagging consumption share, enabling us to describe how China got to be where it is today. In chapter 3, we discuss potential policies—many of which the government is already pursuing to some degree—that would help shift the economy toward a more consumption-oriented growth model, and we assess their potential macroeconomic impact both in China and in the global economy. Chapter 4 offers some brief conclusions and, finally, for readers interested in the detail of our macroeconomic assumptions and our methodological approach, we offer a technical appendix.

# 1. China underconsumes for its level of wealth

China has recently overtaken Germany to become the world's third-largest economy behind the United States and Japan, but it punches well below its weight in terms of consumer spending, coming in a distant fifth behind the United States, Japan, the United Kingdom, and Germany (Exhibit 1).<sup>6</sup> On current trends, China's consumption is expected to grow by more than an 8 percent compound annual rate over the next 15 years, making China the world's third-largest consumer market by 2020.

## Exhibit 1

### China is one of the world's largest consumer markets and is projected to grow strongly over the coming decade



1 Compound annual growth rate.

SOURCE: Global Insight, February 2009; McKinsey Global Institute China Model, February 2009; McKinsey Global Institute analysis

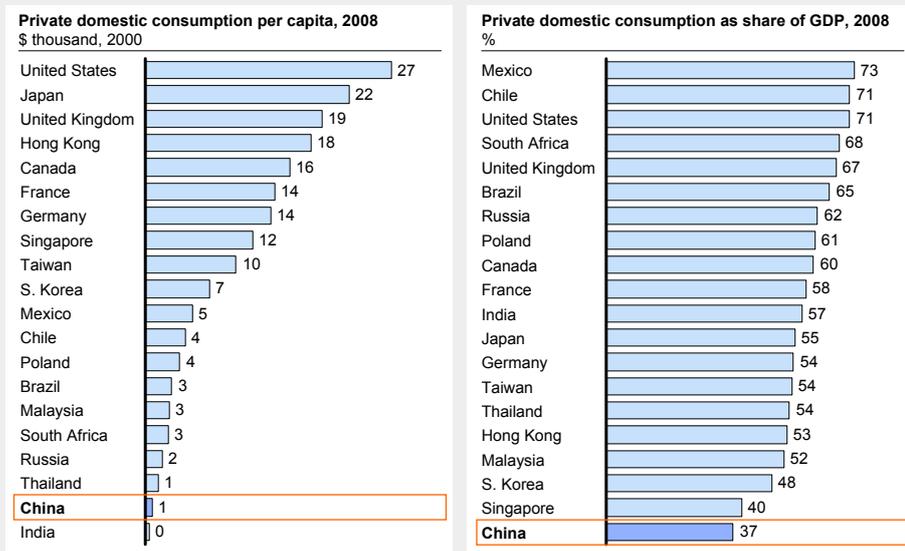
But the fact is—and will remain the case on current trends and policies—that China today vastly underconsumes given the size of its economy (Exhibit 2). Per capita private consumption stood at less than 5,600 renminbi (less than \$700 in real 2000 terms) in 2007, much lower not only than levels prevailing in the world's developed economies but also those in many developing countries, including in Asia.

Moreover, the share of Chinese GDP accounted for by consumption has fallen dramatically since the mid-1980s and, if current trends hold, will not rebound substantially over the next 15 years, with the consumption share of GDP anticipated to rise only slightly from 36 percent today to around 39 percent in 2025 (Exhibit 3). This level makes it second-lowest among G-20 countries. Only Saudi Arabia, where massive oil-related net exports take share away from private consumption, has a lower share of consumption.

<sup>6</sup> All valuations are given in real 2000 renminbi or dollars unless otherwise noted.

**Exhibit 2**

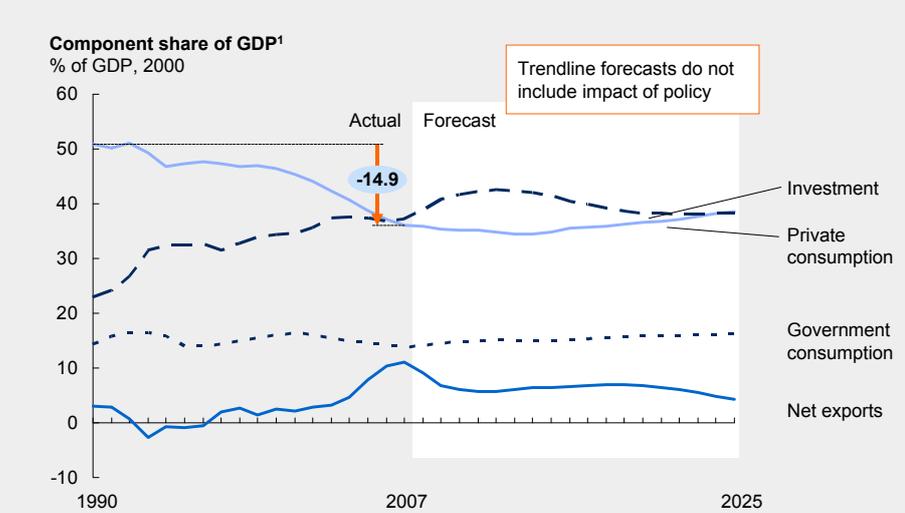
**But China still shows low per capita private consumption and low consumption share of GDP**



SOURCE: Global Insight; McKinsey Global Institute China Model; McKinsey Global Institute analysis

**Exhibit 3**

**China's consumption share of GDP has fallen dramatically over the past 15 years and, if trends hold, is unlikely to rebound**



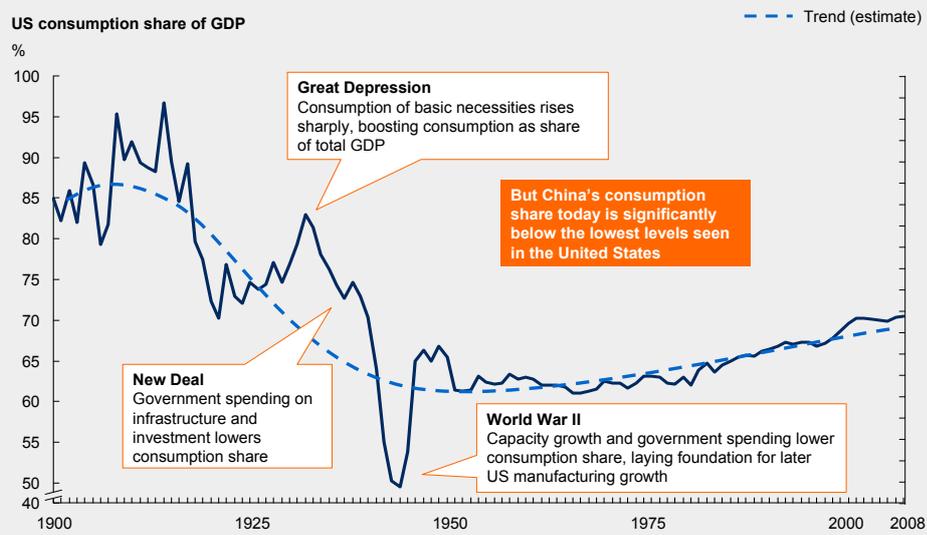
1 Components may not sum to 100 percent in all years due to inventory changes.

SOURCE: National Bureau of Statistics; McKinsey Global Institute China Macro Model, February 2009; McKinsey Global Institute analysis

China's low and falling consumption share and its high and rising share of investment and net exports (together accounting for almost 48 percent of GDP in 2008) are not unique. Indeed, this pattern is typical of an economy in the throes of industrialization. With some data limitations, the United States offers a useful point of comparison. China's per capita GDP today is broadly equal to that of the United States in the 1850s. Prior to its heavy industrialization, the United States had a high consumption share of GDP. However, this share fell dramatically during the first half of the 20th century as the economy invested heavily in infrastructure during the New Deal era and mobilized for two world wars (Exhibit 4). In the postwar era, the United States consumption share gradually rose to the high levels of today. Put China into this context, and China's consumption share today is significantly lower than the lowest point in US history.

**Exhibit 4**

**Industrializing countries tend to experience phases of sharp decline in consumption share of GDP**

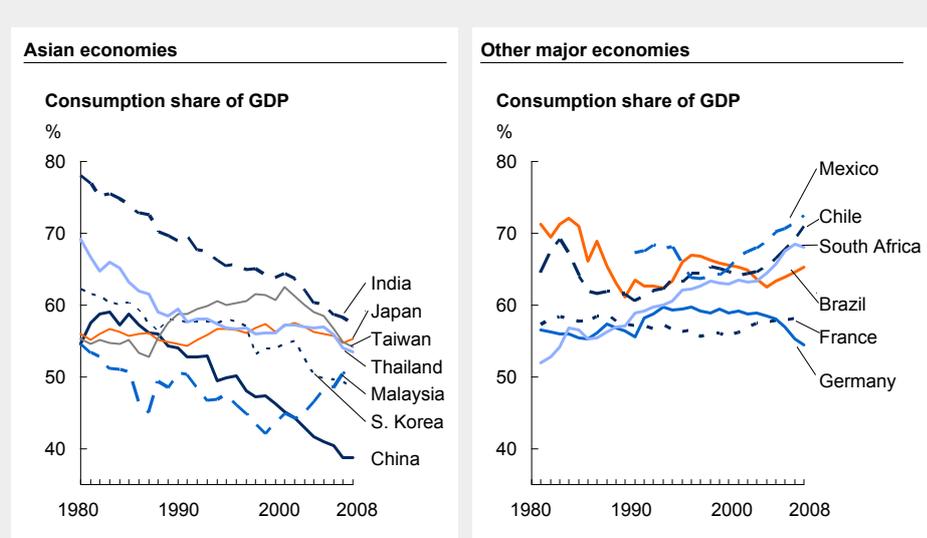


SOURCE: United States National Bureau of Economic Research; Cambridge Historical Data; McKinsey Global Institute analysis

Other Asian economies typically have low and declining shares of consumption. The share of consumption among China's Asian neighbors has fallen even beyond the mature phase of industrialization. This has been in stark contrast with the rising consumption shares witnessed in other parts of the world by economies with widely ranging stages of development (Exhibit 5). Consumption has dropped as a share of GDP in nearly all countries in Asia as they have aggressively pursued a strategy of export-promotion industrialization (EPI) alongside an investment-led growth model, enabled by an unprecedented rise in global trade and capital flows.

**Exhibit 5**

**China's growth path appears consistent with the patterns seen in other Asian economies but different from the rest of the world**



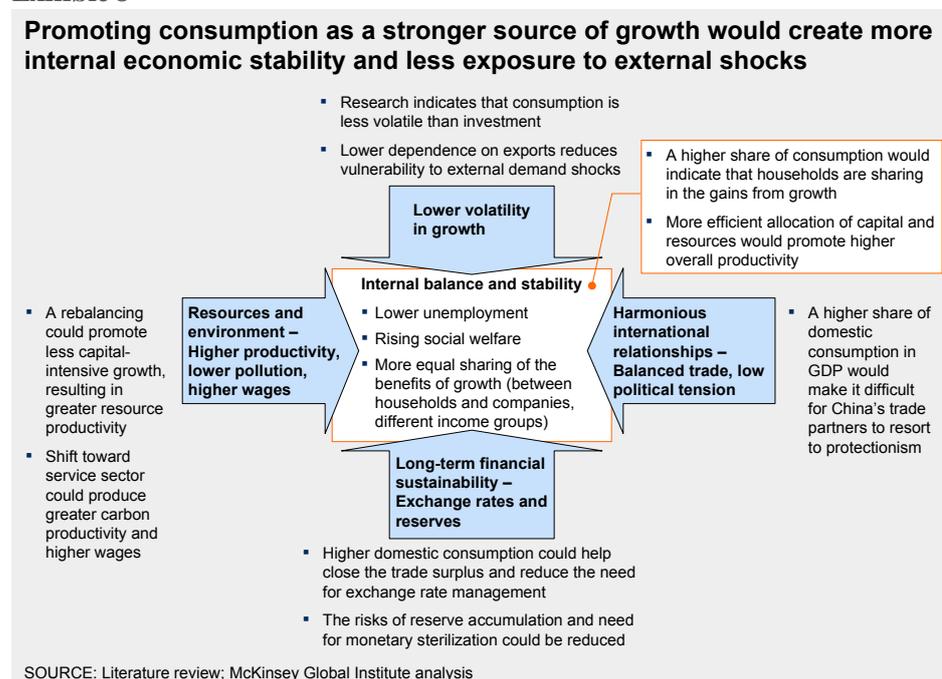
SOURCE: Global Insight; McKinsey Global Institute China Model; McKinsey Global Institute analysis

China's consumption share has been lower than the share observed in other Asian economies. The question is whether this matters. After all, China and Asia overall have reaped tremendous benefits by exploiting the current growth model to its full potential. In the 15 years between 1990 and 2005, China succeeded in

lifting some 390 million citizens out of poverty.<sup>7</sup> Since 2000, China's real per capita disposable household income has nearly doubled from \$448 to \$833 per annum. Between 1990 and 2008, real per capita GDP increased more than fivefold, and the nonagricultural share of GDP, another widely used development indicator, rose from 73 to 89 percent between 1990 and 2005. This economic harvest has also been characteristic of Asia overall. Since 1990, real per capita GDP in Asia excluding Japan has nearly tripled and has created more than 300 million additional jobs—courtesy of investment- and export-centered development.

Nevertheless, as China's political leadership has now recognized, a higher consumption share offers multiple and significant advantages for the sustainability of future economic growth and prosperity (Exhibit 6).

### Exhibit 6



One of the most startling megatrends shaping China's economic development is the rapid process of urbanization. Recent research by MGI has estimated that by 2025 China's urban population could swell to nearly 1 billion.<sup>8</sup> As more people leave the countryside and move to the cities, a chief concern within the government is to ensure commensurate growth in job opportunities for these citizens. Indeed, observers often comment that the ability to maintain social stability during China's breakneck economic development will hinge on the economy's ability to create sufficient jobs for emerging waves of middle class.

The current investment-focused growth model will provide only so many additional jobs, and our research suggests that a shift toward a more consumption-oriented economy could help spur faster employment growth. Analysis of labor and investment data covering a sample of 34 large economies excluding China shows

7 We use a poverty line of \$1.25 per day in 2005 purchasing power parity (PPP) terms, as calculated by Shaohua Chen and Martin Ravallion, "China is poorer than we thought but no less successful in the fight against poverty," World Bank policy research working paper, number 4621, May 2008.

8 *Preparing for China's urban billion*, McKinsey Global Institute, February 2009 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

that sectors related to consumer spending tend to create more jobs per unit of investment than do industrial sectors. For example, when examining the period from 2000 to 2007, we find that each additional million dollars of investment in the mining industry created only 0.1 new jobs on average; the same million dollars of investment growth in the retail, wholesale, restaurant, and hotel sectors created 2.4 new jobs.

China's current growth model is notable for its impact on the environment. The country is one of the world's greatest producers of greenhouse gases and is the world's largest coal consumer. Previous MGI research on China's energy productivity opportunity has identified China's industry mix as a key driver of its resource intensity.<sup>9</sup> Consumer-related and service sectors tend to be more efficient users of resources than heavy industry; therefore, a rebalancing of China's growth away from industry and toward "softer" sectors such as services and consumer would help boost the country's already-commendable efforts to put the economy on a more environmentally sustainable footing.

Perhaps most salient in the minds of Chinese policy makers is that the economic downturn triggered initially by the fallout of the US banking crisis has hit China's exports—a major driver of economic growth, particularly since China joined the World Trade Organization (WTO) in the first half of this decade—and has highlighted the economy's vulnerability to events beyond its control. From 2002 to 2007, rising net exports added 1.3 percentage points to China's GDP CAGR. Although net exports constituted on average only about 6.7 percent of GDP over that period, they accounted for 22 percent of all GDP growth. But in the wake of the global financial crisis, this source of growth has all but dried up as global trade has slowed to a crawl and China's exports have plummeted by record amounts each month since October 2008 through this writing in May 2009. Promoting domestic consumer spending would not only provide more sustainable and fruitful growth at home, but would also help to insulate China from external shocks like the one it faces at the time of writing.

In addition to a lesser reliance on international trade, consumption spending in general simply tends to be much less volatile than either investment or exports. Academic research based on more than 70 countries indicates that the standard deviation of growth in investment is roughly double that of consumption. Investment can be postponed according to the cyclical needs of businesses, but consumers tend to prefer a smoother consumption trend over their lifetimes and at least some portion of consumption spending goes on non-optional basic necessities.<sup>10</sup> Broadly speaking, investment-led economies also tend to be those that are going through a rapid period of industrialization; countries that are expanding more rapidly may face wider swings during shocks that affect the equilibrium of money markets.

Raising domestic consumption will have the effect of absorbing production capacity that China's economy would otherwise channel into exports and, in addition, increased household spending is likely to generate higher imports. Together these two effects will help narrow China's trade surplus. This, in turn, will diminish the need for China to build and maintain foreign reserve assets, a position its leadership views as increasingly risky but must nonetheless accept as a necessary consequence of running large trade surpluses while maintaining tight capital controls. Although boosting the consumption share alone will not be sufficient to correct global imbalances, such a shift could make a contribution that would alter the tenor of

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9 *Curbing global energy demand growth: The energy productivity opportunity*, McKinsey Global Institute, May 2007 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

10 Horst Siebert, ed., *Macroeconomic Policies in the World Economy*, New York: Springer, 2004.

international financial discussions on topics such as the security of China's holdings of foreign assets and the valuation of the renminbi, both sources of contention in the global arena that have arisen because of China's large trade imbalances.

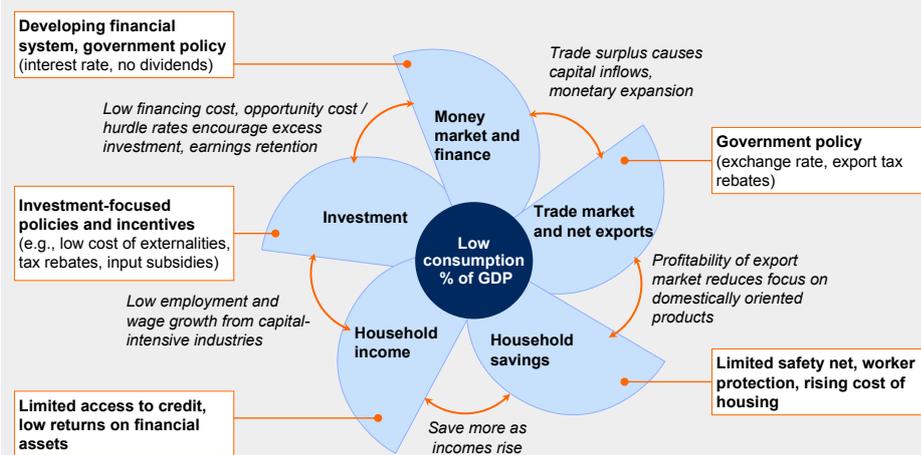
Having provided some context behind China's low share of consumption and described some of the many potential benefits of a "rebalanced" Chinese economy, we now turn to an analysis of why its share is so low by international comparison.

## 2. Why China underconsumes

It is impossible to define what the “ideal” consumption share of GDP would be for China—there is no golden rule on the subject. However, we find that benchmarking against Western European countries seems a reasonable point of comparison, as these economies have tended by and large to have escaped the excessive consumption that many observers consider to have unbalanced the US economy in recent times. We find that rather than being attributable to any inherent cultural differences, China’s low consumption share of GDP is systemic—the product of an economic growth model that has prioritized investment over household income and consumption (Exhibit 7).

### Exhibit 7

#### China’s entire growth model pushes down the consumption share of GDP



SOURCE: Literature review; McKinsey Global Institute analysis

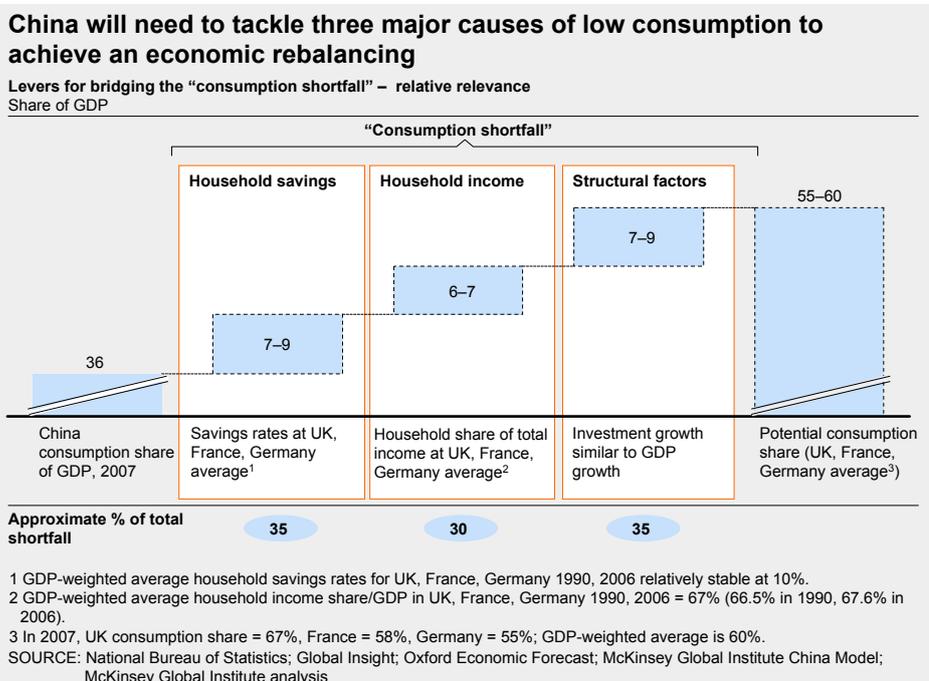
Several facets of China’s growth model, ranging from its trade characteristics and industry mix to the maturity of its financial sector, reinforce one another to hold down the consumption share of GDP. The combination of China’s position as a low-cost producer and rising global export demand has spurred growth in capital-intensive, export-oriented industries. This has also led to a rising trade surplus accompanied by large capital inflows and increasing profits that, due to an underdeveloped financial market, companies do not pay out as dividends or invest in sophisticated financial assets. The result of this abundance of capital combined with limited financial investment options lowers the hurdle rate for investment projects, further encouraging growth in investment-intensive industries.

This industry-focused growth has, in turn, kept household incomes low relative to overall growth; these firms tend to command a high monopoly power over China’s large labor market and they employ relatively fewer people than do less capital-intensive firms in the service sector. Finally, the reforms in the SOE sector since the 1990s that have produced rapid growth in profits have also led to a reduction in the

level of social services provided by SOEs. With local and provincial governments only partially able to fill the gap, household savings rates have risen in response to higher uncertainty over health-care and retirement costs. As a result, we find that international trade and capital flows, China's domestic financial system, companies' high propensity to reinvest, a low household income share, and high household savings rates all conspire to drive down China's consumption share.

Within this system, we have identified and quantified three powerful and interrelated factors that have each been crucial to depressing consumption as a share of GDP in comparison with Western European economies since 1990 (Exhibit 8). Many commentators have identified rising household savings rates, falling household share of national income, or the boom in investment and exports as causes of China's consumption share. Our historical analysis suggests that all three have contributed equally to where China is today.

### Exhibit 8



### China has high and rising household savings rates

At 25 percent of annual disposable income, China's average per household savings rate is structurally higher than in many other countries, including its Asian neighbors and Western European countries, and has risen steadily in recent years (Exhibits 9 and 10). Rising incomes in China portend no change in this trend: higher-income families tend to save more. Our research finds three main factors are responsible for China's high savings rates:

1. **China's relatively limited public social-safety net—in particular, health care and pensions—may be causing precautionary "excessive" savings.** In recent years, China's social-safety net has not expanded sufficiently to keep pace with the increasing cost of paying for health care, retirement, unemployment benefits, and other basic social services for the country's citizens. In the face of uncertainty around these types of expenses and their ability to pay for them, and in the absence of strong public or private forms of insurance, consumers self-insure by saving out of their disposable incomes. Some of the very forces that have led to China's rapid economic growth have exacerbated this situation. In contrast with other major economies in which companies share the burden with the public sector of providing

**Exhibit 9**

**China's household savings rates have been increasing steadily over the last 15 years**

**China average per household savings rates<sup>1</sup>**



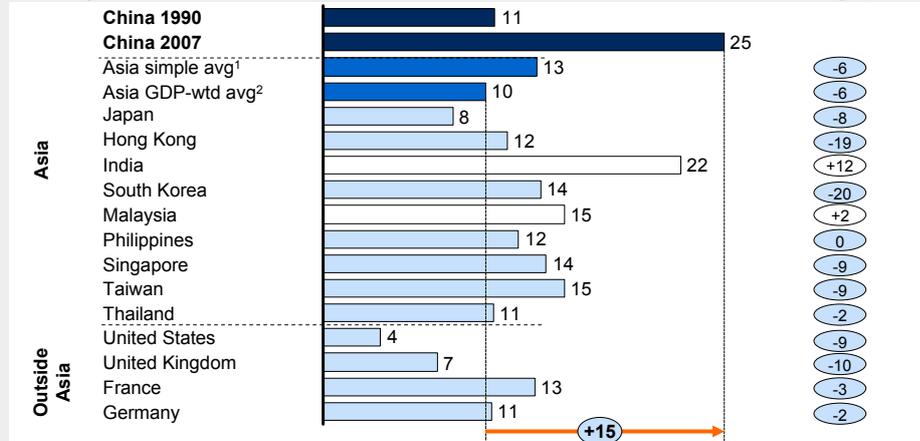
1 Results from the McKinsey Global Institute analysis, based on household level survey data from National Bureau of Statistics and CEIC Data.  
 2 Calculated based on urban and rural trends.

SOURCE: CEIC Data; McKinsey Global Institute analysis

**Exhibit 10**

**China has had consistently higher savings rates than most other Asian countries**

**Average household savings rates, 1990–2007**  
 %, averages



1 Simple average includes all Asian countries except China.  
 2 Weighted by total 2007 GDP in real dollar terms.  
 3 Change in percentage point terms (e.g., a change from 20% to 10% would be represented as -10%).

SOURCE: Oxford Economic Forecast for all countries except China; China data from CEIC Data; McKinsey Global Institute analysis

a safety net for society, the role of companies as a contributor to the social-safety net has waned in China in recent years. In the past, SOEs employed most workers and provided basic social services directly to their employees in an arrangement commonly known as the “iron rice bowl.” But during the period of Reform and Opening in the mid-1990s, the government sought to improve the industrial competitiveness of the state-owned sector by removing these obligations and placing them on the shoulders of provincial governments. Although the burden for providing these services shifted, the accompanying revenue base used to fund the obligations did not—remaining with the firms. This created an unfunded mandate for provincial governments and led to decentralized administration of services. As a result, the quality of the services that citizens receive varies greatly from region to region and presents a host of problems in a country with a migrant population

numbering over 100 million today and expected to grow to more than 340 million by 2025.<sup>11</sup> Although people are increasingly mobile, their social benefits are not. China's *hukou* system, in which by and large only officially registered residents of a locale receive social benefits, does not provide adequate protection for Chinese citizens who stray far away from their province of origin. As a consequence of these changes, the burden of paying for social services falls more heavily on private citizens, and even those with some level of coverage save because they do not fully trust that their benefits will help them.

- 2. China's incomplete consumption infrastructure perpetuates a high savings rate.** Chinese consumers seem to have a structurally lower marginal propensity to consume (conversely, a higher marginal propensity to save) than in other Asian countries for a number of often-cited reasons, including a lack of customized products, prices that are high in comparison with average income levels, and a lack of modern retail stores in rural areas that limits product penetration and spending opportunities. Modern trade—for instance, branded retail chains—in rural China accounts for only 18 percent of consumption, compared with more than 50 percent in urban areas. Yet close to 70 percent of rural consumers prefer to use modern trade formats when shopping, indicating enormous unmet demand. Service infrastructure and innovative platforms, such as secondhand markets and e-commerce, are also underdeveloped in China.
- 3. China's consumers make limited use of credit, instead saving up in advance of large outlays if they do not have sufficient cash.** Access to credit typically allows consumers to shift their spending forward, leveraging future earnings via consumer borrowing to buy today and pay back tomorrow. In China, with its rapid income growth, such behavior should lead to consumption growth that is even faster than income growth and to growing levels of outstanding credit. However, at 13 percent of GDP, outstanding consumer credit in China falls well below that of other Asian countries, such as South Korea at 70 percent and Malaysia at 48 percent.<sup>12</sup>

The low penetration of consumer credit is evident in a wide range of consumption expenditures, from consumer durables to housing to higher-education spending. Chinese consumers' purchases in these categories typically require the accumulation of a large pool of savings, avoidable if consumers had the ability and appetite to finance them through borrowing. For example, the privatization of China's housing stock from the 1990s onward only reinforced saving; a paucity of mortgage financing, combined with the large one-off cost of buying a home for the first time—led to a surge in savings. Limited innovation in housing mortgage finance also curbs consumption because financial innovations such as reverse mortgages and home-equity lines of credit help consumers unlock accumulated housing wealth, transforming it into funds available for consumption spending today or during retirement. Economists often credit such innovations with boosting consumer spending in the West—sometimes arguably to an excessive degree—but they are not common features of how Chinese citizens finance consumption.

Similarly, although the Chinese government has promoted the creation of two student-loan-financing schemes, educational loans remain difficult to obtain

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11 *Preparing for China's urban billion*, McKinsey Global Institute, February 2009 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

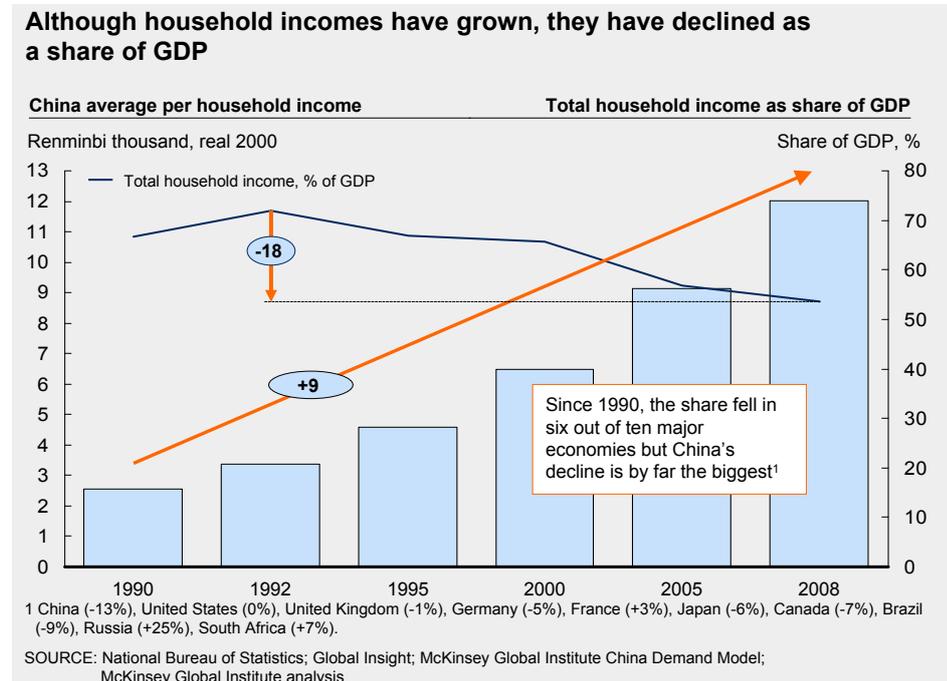
12 Consumer credit includes both mortgage and non-mortgage credit; mortgage credit accounts for more than 80 percent of the total.

and often do not go to the students who would most benefit from them. Default rates remain high and recourse for banks remains limited, preventing them from lending freely to finance investments in higher-education. In addition to acting as a major motive for savings, the lack of education financing is a bottleneck in the development of a more educated workforce.

### The share of household income is falling

Despite China's rapid economic growth and massive corporate profits, consumers have found themselves capturing a smaller slice of an ever-growing pie as income growth has not kept pace with that of GDP (Exhibit 11). The share of household incomes in China is low compared with those of other countries (Exhibit 12). China's household income has shrunk from a peak of 72 percent of GDP in the early 1990s to 55 percent by 2007 as corporations' share of national income has risen. It rose largely as a result of structural factors in China's economy that have tended to prioritize growth in heavy industry, which has slower job growth and therefore less rapid total private-income growth than other sectors (Exhibit 13). The CAGR of disposable household income was three percentage points lower than that of GDP from 2000 to 2007. Despite the fact that the price of goods and services is relatively low in China, it is still not low enough to compensate for the country's relatively lower disposable incomes. As illustration, a Chinese worker must work more than seven hours to purchase the same amount of goods and services that an American worker can earn by working for one hour.

#### Exhibit 11



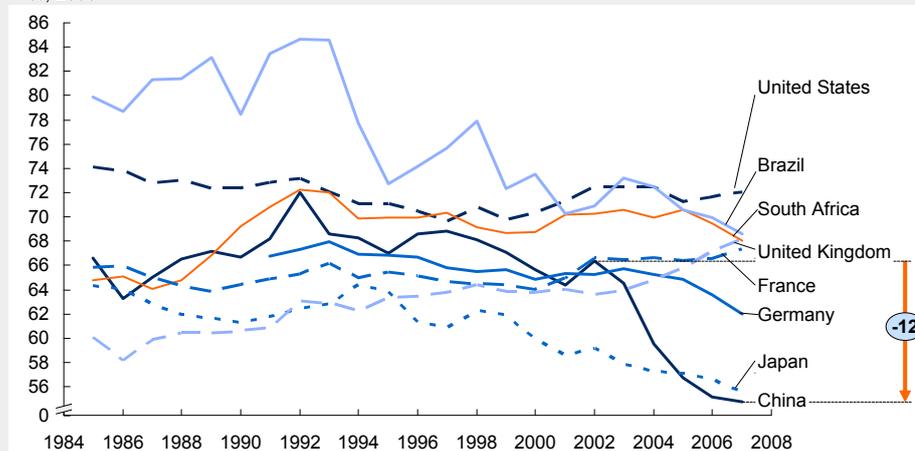
There are several underlying explanations for this falling share of income. First, China growth in total employment has been slow as its agricultural sector has shed tens of millions of jobs in recent years—providing a ready supply of labor to growing industries such as manufacturing and construction. The net result of this shift is that total employment grew at a rate of less than 1 percent annually from 2000 to 2006, even as GDP grew at 10.8 percent in the same period. Because labor's share of income is much lower in industry than in agriculture, the net effect is that total household income growth was only 7.6 percent, much slower than that of GDP.

Although workers exiting agriculture have higher incomes in industry, it remains the case that corporations earn an ever-increasing share of the total income.

**Exhibit 12**

**China's household share of total income is low compared with those of other countries**

Household income as share of GDP<sup>1</sup>  
%, 2000



<sup>1</sup> China's number might be closer to 55% before 2005, too; a potential cause of discontinuity is due to better collection of SME statistics; evidence suggests that prior to 2005, SME income was systematically undercounted (leading to overstatement of household income share), although no revisions of these numbers have been made in official data.

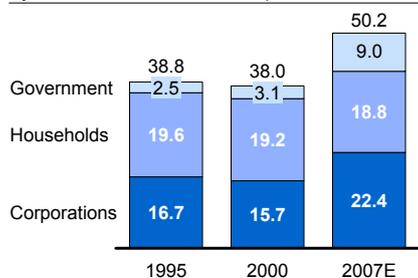
SOURCE: Global Insight for all countries other than China; China numbers from McKinsey Global Institute China Model; McKinsey Global Institute analysis

**Exhibit 13**

**Corporations, not households, are reaping most of the benefits of economic growth and driving up national savings**

China's total national savings<sup>1</sup>

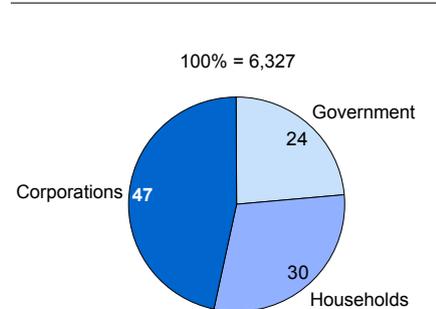
By source, as % of national disposable income



National savings	2000	2000	2007E
Renminbi billion, 2000	2,513	3,753	10,080

Cumulative national savings growth, 2000–2007

%, renminbi billion, 2000



<sup>1</sup> Calculated from NBS Flow of Funds table.  
Note: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute China Model; McKinsey Global Institute analysis

Second, a recent study of some revisions in the statistical methods used by China's National Bureau of Statistics (NBS) reveals that, prior to 2004, households' share of total income was actually closer to the 2007 value of 54 percent than it was to the official values of 65 percent or more.<sup>13</sup> Prior to the 2004 revision, NBS counted the revenue of self-employed workers as labor income, obscuring the costs of generating the revenue and overstating household income for those workers. Since the revision, the NBS more accurately accounts for the revenue collected by these

<sup>13</sup> Chong-En Bai and Zhenjie Qian, "Factor income share in China: The story behind the statistics," *China Economic Journal*, Volume 2, 2009.

workers, with a large portion of the total revenue figure appearing as costs rather than income. This helps to explain the rapid drop in China's household income share around 2004, although not why this share is lower than that of other economies.

Third, large-scale labor-shedding and the reduced role of social welfare provision by SOEs since the 1990s have also played a notable role. Relative to workers in other enterprises, SOE employees capture a higher share of total income. To the extent that China counted welfare transfers from corporations to individuals as disposable income, the reduced obligation on the part of SOEs to provide these services, and the shift in labor toward privately owned enterprises, led to a lower income share.

Finally, recent research from Tsinghua University suggests that labor's income share tends to be lower when firms command a higher monopoly power over the market. From 1995 to 2007, the monopoly power of SOEs in China strengthened even as their overall importance in the economy waned. Workers in these firms consequently had less leverage when negotiating for wages and benefits, and this contributed on balance to a decrease in labor's income share.

In addition, non-wage sources of income and wealth accumulation, including dividends and capital gains, are limited in China. Although it is growing rapidly, China's financial sector remains relatively underdeveloped compared with those of more developed countries and even some of China's Asian neighbors. The banking sector continues to dominate as the primary vehicle for financial investment despite the fact that bank deposits offer very low real interest rates. More sophisticated investors, such as mutual funds, do not play as prominent a role as they do in more developed financial systems. Households are typically not active financial market participants in China; only a very small portion of their total income comes from investment capital gains and interest income. In addition, high transaction costs often erode the capital gains on asset sales such as homes. Although income plays a strong role in encouraging spending, there is also a considerable wealth effect that raises consumer spending simply by virtue of consumers feeling more confident in their ability to consume as their assets appreciate. Moreover, as we will see in the next section, there is no incentive for firms to pay out dividends to shareholders, which would make funds available for potential consumption.

### **China's investment- and industry-intensive model crowds out consumption**

China's investment-led, industry-centered growth and its emphasis on exports have favored corporations and crowded out consumption. Chinese companies, a large proportion of which are SOEs, have been extremely profitable in recent years, given strong domestic demand and a robust export market that has grown rapidly since China's accession to the WTO in 2001. As a result, it is no surprise that the corporate sector contributed more to cumulative national savings growth than all other sectors of the economy. On the basis of the latest available NBS Flow of Funds data from 2005, MGI estimates that, by 2007, corporate profits amounted to 22 percent of GDP.

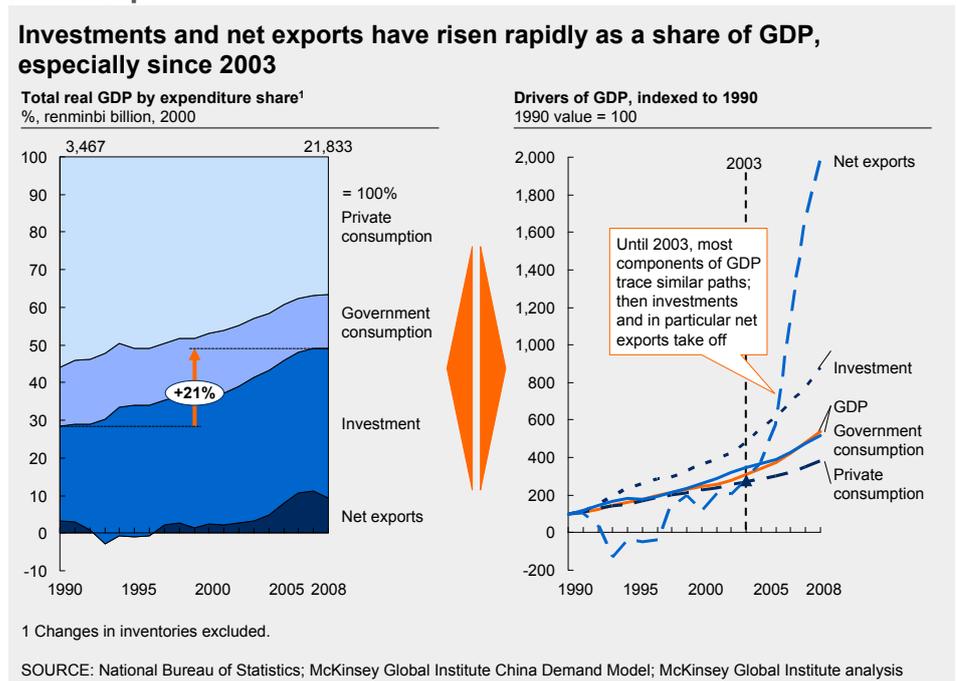
In a financial environment marked by underdeveloped corporate debt markets and the absence of a strong policy on dividend payments by these companies, corporations retain a high proportion of their profits. The lack of attractive financial investments means that firms face a rather easy decision: they can either put their retained earnings into a low-yielding bank deposit, or they can choose to spend them on investment projects to expand capacity that may provide a higher return.

The implication is that firms face a very low hurdle rate when deciding whether to pursue a given investment project.

If corporations redistributed some of these profits in the form of dividend payments, this would have a double effect on boosting consumption share via increased income to shareholding consumers and simultaneously raising the opportunity cost of investment to firms and causing them to make more commercially justified, viable investment decisions that clear a higher hurdle rate. But firms have continued to invest in inefficient capacity rather than hire more workers, raise wages, or pay dividends. Moreover, as we have noted, the privatization and reform process in China has removed the burden of providing a strong social-safety net to employees. This contributes to a vicious circle of investment in capacity, the pursuit of higher exports to absorb that capacity, and an ever-rising share of corporate income in the economy that militates against higher consumption.

A number of other structural factors also contribute to, and reinforce, China's investment-intensive sector mix. Rising global demand for China's relatively low-cost products has contributed to a long-standing trade surplus and large capital inflows that have, in turn, fueled a low-interest-rate environment—to the benefit of Chinese producers (Exhibit 14).

**Exhibit 14**



Inefficient or shallow financial markets have placed a huge amount of China's available capital in the hands of the state-run "Big Four" banks. When China created these banks, one aim was that they would support the massive SOE sector. As reforms have proceeded elsewhere in the economy, the preferential lending to large and established industrial players has remained. Although SMEs constitute the majority of economic activity in China, they garner a relatively small share of credit, due largely to the shortcomings of China's persistently industry-focused financial sector. This imbalance has helped to drive up the non-consumption share of GDP by continuing to incentivize growth in capital-intensive industries that do not generate the same income and employment growth as do SMEs and the service sector.

In short, the corporate sector has come to dominate national income and savings. From 2000 to 2007, corporations accounted for about 47 percent of the growth in national savings, households for almost 30 percent, and the government for about 24 percent. This combination of vast corporate savings with limited alternative financial investment opportunities leads to lower hurdle rates for proposed projects and further promotes investment-oriented growth in industry.

In the next chapter, we turn to an analysis of the policy options that China might employ to tackle these root causes of the economy's underconsumption.

### 3. Boosting consumption: A three-pronged agenda

China has already committed itself to boosting the economy's consumption share of GDP. But because the reasons behind China's low consumption are broad-based and, in some cases, go to the heart of the development model that has propelled it to the top flight of global economies in recent years, China is likely to succeed in rebalancing the economic mix only if it takes a comprehensive and holistic approach. Some of the available policies are short term, others long term; some offer "quick wins," others would involve complex, structural shifts.

Our analysis shows that, on current macroeconomic trends, consumption's share will float only moderately higher over the next 15 years. Yet there are policies—many of which Chinese policy makers are already pursuing, but others of which require some additional effort—that by 2025 would boost private consumption by an additional 15.3 trillion renminbi, slightly greater than the GDP of France today. This would increase consumption's share of GDP to between 45 and 50 percent by 2025 while adding 8 to 15 percent to annual GDP compared with the trendline.

In this chapter, we describe three broad groups of policy measures that China could consider. The first group entails short-term measures to "enable" consumers to spend more of their income via improved infrastructure and credit. The second group involves longer-term reform of China's social-safety net to improve health-care and retirement coverage and to boost spending and economic growth, foster a healthier and more productive workforce, and lower precautionary savings. The third group encompasses a broad range of measures that would shift the locus of economic growth from its current emphasis on investment in industry toward growth in employment in services and consumption-oriented sectors.

For each issue, we estimate the potential impact of achieving top-line policy objectives in three scenarios intended to reflect different degrees of implementation of the measures that are available to boost consumption. In general, the policy scenarios that we consider are all more or less on the agenda for China's policy makers. However, the question remains whether China will pursue just some, or all, of these potential measures, how quickly or slowly the government might implement change, and what the impact of different approaches might be. Our research does not purport to make policy recommendations so much as to answer the question of what the impact might be on China's macroeconomy and consumption share if the government pursues pro-consumption policies. See the technical appendix for detailed tables of the impact of individual policies in different scenarios on key macroeconomic indicators.

## MGI ANALYZED THREE POLICY IMPLEMENTATION PATHS

We characterize the three scenarios we have considered in this report as “trendline,” “policy,” and “stretch.”<sup>14</sup>

**Trendline scenario.** On current trends and policies, we project that the consumption share of GDP in China will be 39 percent (see Table 1 in the technical appendix for details of trend forecasts of China’s major macroeconomic indicators). The trendline scenario uses GDP projections from Global Insight together with MGI’s China Demand model forecast through 2025 for other macroeconomic indicators. The trendline is based on econometric forecasts primarily derived from past relationships among key demographic, economic, and policy drivers and as such does not reflect the potential impact of shifts in government policy, even in cases that these shifts are well-known and understood.

**Policy scenario.** Whether with the explicit intent of boosting consumption or not, the Chinese government is pursuing a broad set of policies and reforms that is likely to affect the consumption share of GDP to some degree. We refer to this group of initiatives as our “policy scenario.” If China is able to successfully implement the policies discussed in this paper, it could increase the consumption share by 6.5 percentage points above trendline by 2025 to reach a 45.2 percent consumption share. By doing so, it would simultaneously boost total annual GDP and private consumption by 6.5 trillion renminbi and 8.0 trillion renminbi, respectively—increasing GDP 8 percent above trendline projections and private consumption 26 percent higher. Per capita consumption in real 2000 renminbi terms would rise from a projected 21,000 renminbi in 2025 to more than 26,600 renminbi.

**Stretch scenario.** China could achieve a 50.5 percent consumption share if it were to take an aggressive stance to reaching the objective of each policy lever analyzed—“stretching” the goal to come closer to international benchmarks and guidelines that are potentially within China’s grasp. In addition to this higher consumption share of GDP, the stretch scenario could provide a total boost of 11.9 trillion renminbi to GDP and 15.3 trillion renminbi to consumption, or approximately 15 percent and 50 percent higher than trendline projections, respectively. Real consumption per capita in 2000 renminbi terms could reach about 31,700 renminbi. While we consider this outcome to be achievable, by definition attaining it would require more aggressive policies from the government than it currently plans or has publicly announced it would enact, and those policies would need to be highly effective in shaping consumer behavior.

### Potential risks and caveats

There are, of course, a number of upside and downside risks to these estimates. First, our analysis is based on comparative statics. While we attempt to account for the multiplier effects of expenditure on GDP, we do not take into account feedback effects between financial markets and the real economy—for example, interest-rate fluctuations or capital flows. Second, since our analyses are all relative to a trendline forecast, the trendline itself represents a significant set of assumptions that affect the incremental impact of each policy area. For example, one major caveat, which we discuss further in the next section, is that unforeseen deviations in the growth rate of China’s investment spending, which are neither forecast in our trendline nor

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14 In assessing the incremental impact of achieving major policy objectives, we compare derived values for total GDP and its components with a trendline scenario in order to understand how much of the difference comes from deliberate changes in policy versus the evolution of China’s economy on its present course.

included in our policy recommendations, could significantly change the trendline and would likely lead to a larger impact on consumption share from each of these issues. Third, any major unforeseen policy changes by the Chinese government—for example, a rapid revaluation of the renminbi or changes to restrictions on the flow of capital in and out of the country—could have a profound effect on the evolution of the Chinese economy and would affect our findings.

In all three of these cases, we believe our findings on consumption share to be conservative, in the sense that if the Chinese economy's growth rate slows down more than is projected, this slower-than-trendline GDP growth would likely be mostly accounted for by slower-than-trendline investment and net exports, rather than by consumption (research has shown investment to be more volatile and subject to reductions due to corporate and government decisions). In such alternate scenarios, consumption share would probably rise by more than our estimates suggest. Similarly, our estimates of 8 to 15 percent higher GDP in the event that China reaches the policy objectives we outline should not be viewed as a message that China's end objective should be driven merely by these higher GDP targets. Rather, we believe that whatever the path China's economy takes, even if growth slows because of factors outside the scope of our analysis, the consumption stimulating situations we describe are GDP-additive; that is, they will create additional economic growth for China relative to what would happen if the government does not pursue these policies.

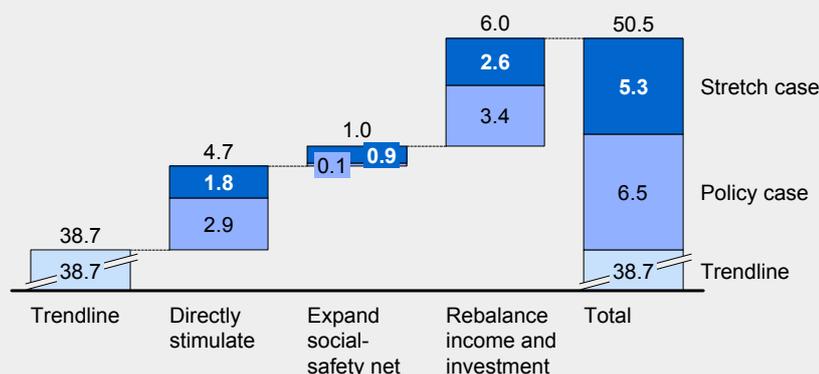
### CHINA CAN CONSIDER THREE GROUPS OF POLICIES

To ensure that a shift toward private consumption is sustainable and beneficial to its overarching development goals rather than focusing on consumption as an end in itself, China will need to carry out both short- and long-term initiatives in a policy portfolio that addresses consumer spending directly and via deeper structural reforms. Policy initiatives in three broad areas, pursued simultaneously so they can be mutually reinforcing, are likely to be necessary to ensure their full effectiveness. If implemented in total, these measures would result in a consumption share of GDP of between 45 and 50 percent, depending on the implementation scenario, and a boost to GDP of between 8 and 15 percent (Exhibits 15 to 18). For details of our methodology and assumptions for each policy, please turn to the technical appendix.

#### Exhibit 15

#### Rebalancing investment and incomes will have the greatest impact on consumption share

Impact on consumption share of GDP, trendline versus potential  
 % of GDP

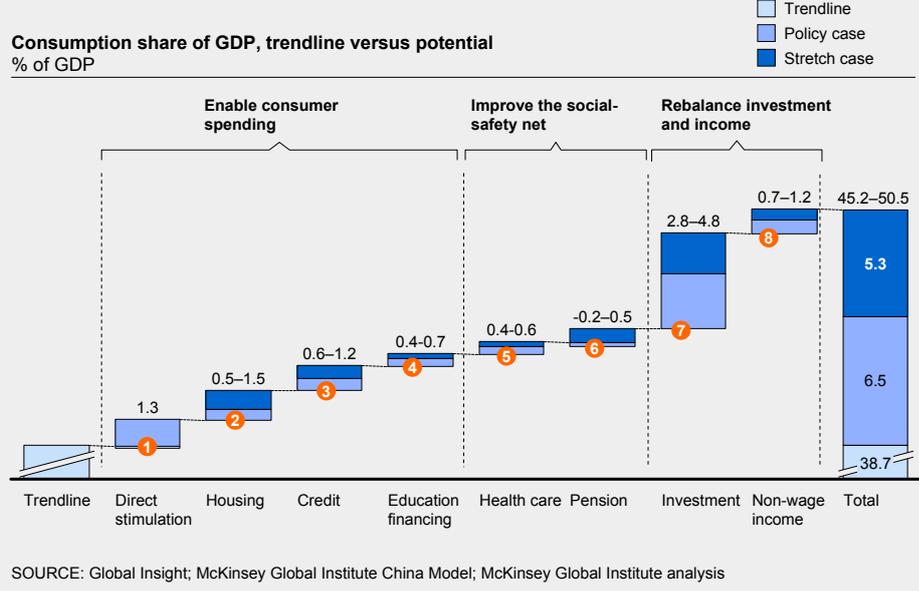


Note: Numbers may not sum due to rounding.

SOURCE: National Bureau of Statistics; Global Insight; McKinsey Global Institute analysis

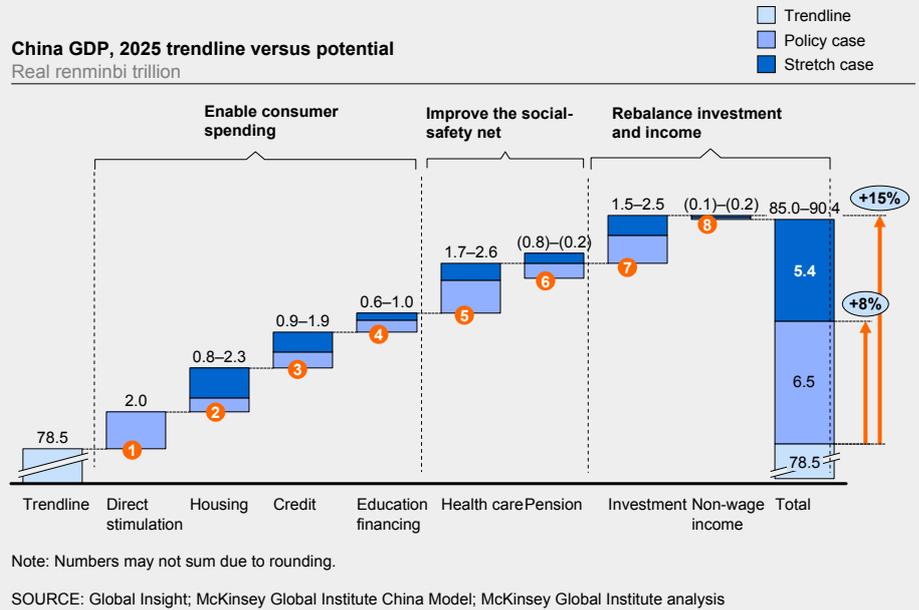
**Exhibit 16**

**Meeting all top-line policy objectives could raise China's consumption share to between 45 and 50 percent of GDP by 2025**



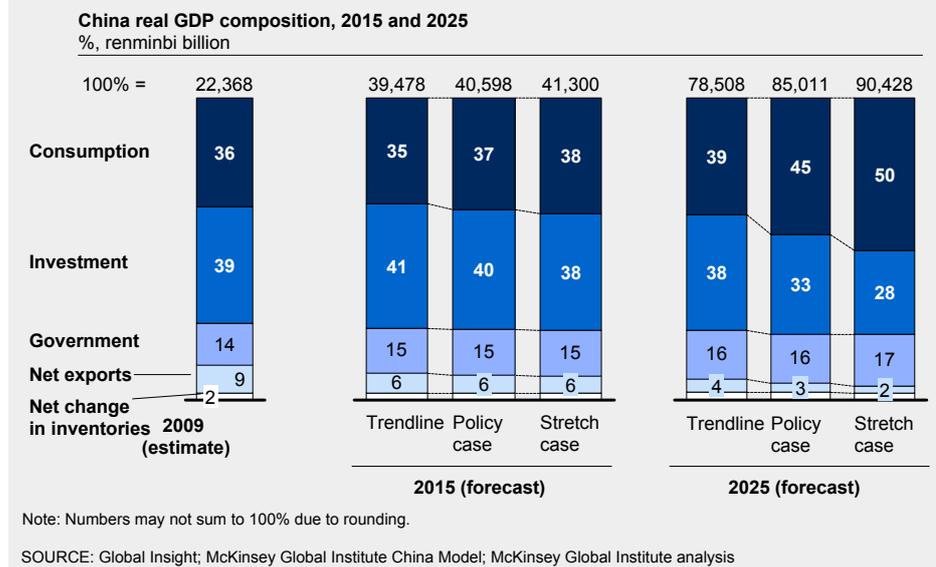
**Exhibit 17**

**These policies could also raise China's 2025 GDP by 8 to 15 percent to between 85 trillion and 90 trillion renminbi**



**Exhibit 18**

**All GDP components will grow compared with trendline, but mix will change as 36 percent consumption share rises to 45 to 50 percent by 2025**



**ENABLING CONSUMER SPENDING COULD HAVE A SIGNIFICANT SHORT-TERM IMPACT ON CHINA'S CONSUMPTION SHARE**

This group of policies comprises a range of relatively short-term initiatives focused on creating a more comprehensive “consumption infrastructure” that would encourage Chinese citizens to choose to spend more of their income rather than saving it simply because of a lack of retail opportunities or the practical means to purchase products and services. These initiatives include action to expand the availability and quality of products and to increase the availability and uptake of consumer credit.

The measures in this group are practical and positive potential actions that would provide Chinese consumers access to a broader set of products and services and a higher quality of life in ways that would require minimal investment, have an impact in the short term, and involve little structural adjustment to China's current development model. The research finds that this group of policies combined has the potential to add between 2.8 and 4.7 percentage points to China's consumption share by 2025. GDP in 2025 would be higher than trendline projections by 4.2 trillion to 7.2 trillion renminbi, or between 5.4 and 9.2 percent. Total private consumption spending increases would constitute the bulk of this increase, accounting for between 4.1 trillion renminbi and 7.0 trillion renminbi in higher expenditure relative to trendline, or about 13.5 to 23.1 percent higher than trendline. On a per capita basis, private consumption spending would increase by between 2,800 renminbi and 4,900 renminbi.

**China can improve product quality and availability**

The enormous gulf between the retail and consumer experience available in China's larger and wealthier cities and that in smaller cities and rural areas is an oft-cited reason for today's low consumption share of GDP. China could add 1.3 percentage points to the consumption share of GDP by 2015 and maintain this level through 2025 by improving and extending this consumer infrastructure throughout the country. By infrastructure, we mean not only physical elements such as transport and communications systems, but also nonphysical elements that are consumption- and retail-related. These would include supporting the development of modern store formats, channels, and distribution networks (e.g., secondhand and

leasing markets for cars, online shopping for many categories) and encouraging the development of a more diverse and capable set of players in the consumer industry (such as integrated agricultural players, which can manage the value chain from end-to-end to better ensure product quality and availability).

Directly enabling consumption in these ways would have the largest impact if China focuses its resources on consumption categories that have the highest potential for growth. McKinsey China research has identified 13 categories that accounted for 85 percent of China urban consumption in 2007 and that have significant multiplier effects on employment and consumption (see Box 1). Focusing on improvements in these high-priority categories offers the greatest potential to affect consumption immediately and would also create more jobs than other sectors.

Because China is at such an early stage of development in terms of its consumer infrastructure and is also experiencing rapid economic growth, the country has a flexibility that few other economies have to make decisions that will shape consumer attitudes and behaviors for generations. By embracing the most effective mix of policies, China will be able to capture a number of attractive side benefits by stimulating growth in sectors that generate higher levels of overall economic output using the same amount of input. To maximize the effectiveness of this policy, however, the government would also need to use its convening power to build bridges with the private sector and facilitate public-private partnerships to drive specific initiatives.

### **Increasing access to and use of consumer credit would stimulate consumption**

The availability and use of consumer credit is currently low in China by comparison with other countries, even those within Asia at similar development levels. Measures to enable and encourage consumers to increase their use of credit as a responsible means of financing home purchases, education, and a broader set of consumption needs would allow consumers to borrow against future income to make big-ticket purchases that would increase their quality of life today and in some cases help generate more wealth in the future.

We examine the potential impact of the use of three types of consumer credit if China were to expand: mortgage credit, educational financing, and other consumer finance.

#### *Housing: Increasing the use of consumer mortgages*

The rapid privatization of China's housing stock over the past 15 years has driven up savings rates and led to high rates of home ownership. More than 75 percent of urban Chinese own a home, and 80 percent of those who don't plan to buy one in the future.<sup>15</sup> However, only 23 percent of the value of house purchases is financed by mortgages compared with 65 percent in the United States. This is due partly to low mortgage penetration among home buyers—approximately 52 percent of urban citizens who plan to buy a home say they hope to use a mortgage in China, compared with 85 percent of home buyers in the United States who use mortgages when purchasing—and partly to higher down payments among mortgage borrowers. The average loan-to-value ratio in China is about 46 percent, compared with 76 percent in the United States.

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15 These responses come from MGI's April 2009 China Urban Consumer Savings Behavior Survey. The survey interviewed 1,212 respondents by telephone over two weeks in April 2009. The survey covered five modules—general savings behavior, pensions, education, medical, and housing. The panel of respondents was representative of urban China, based on known distributions of people by tier, age, gender, and income.

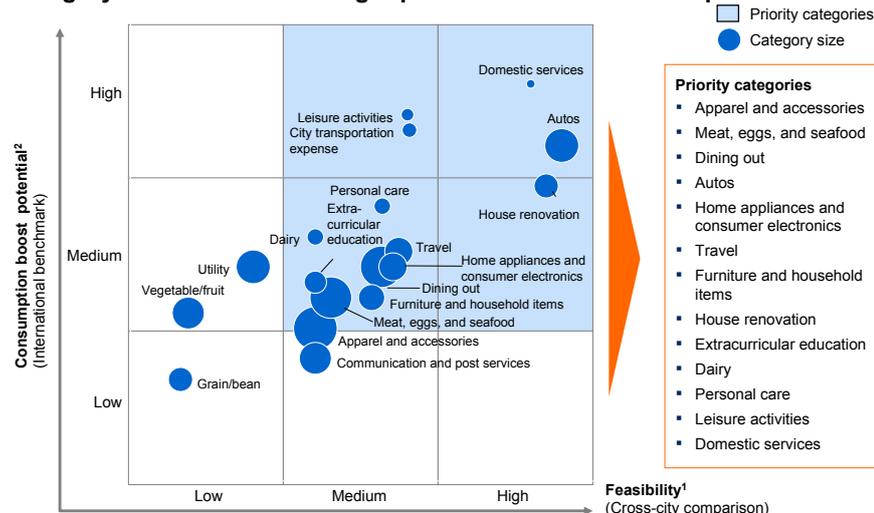
### Box 1: Priority areas for direct consumption stimulus

McKinsey China identified 13 high-priority categories of consumer spending based on three criteria: the category's significance in terms of raw size; the potential boost to consumption relative to international benchmarks; and feasibility of implementation (based on domestic cross-city comparisons). In addition, many of these categories have large multiplier effects on consumption and employment, presenting further economic benefits. Service businesses, for example, are highly labor-intensive, which has a multiplier effect on employment and economic growth. Tourism, education, and domestic services are examples of very large service sectors in China with enormous potential for further development.

The 13 categories are apparel and accessories; meat, eggs, and seafood; dining out; autos; home appliances and consumer electronics; travel; furniture and household items; house renovation; extracurricular education; dairy; personal care; leisure activities; and domestic services. Take home appliances and consumer electronics. This category has large potential for catching up to international benchmarks. In 2007, Chinese consumers spent only \$50 per capita on consumer electronics, while those in Russia, Brazil, and Malaysia averaged \$85 per capita. Looking at different cities within China shows that demand for consumer electronics also varies significantly across geographies. Among the top-ten markets for consumer electronics, families with annual household incomes in the range of \$4,400 to \$7,300 spend roughly \$200 per capita on electronics, almost triple what their countrymen in the same income brackets spend in the ten lowest-spending markets. This suggests huge untapped demand in the "underperforming" markets, especially as household incomes catch up to the top markets in these areas (Exhibit 19).

Exhibit 19

#### Category-level focus on the right products will maximize impact



1 Low-feasibility categories require long-term initiatives (e.g., establish infrastructure, health-care reform).  
2 Consumption boost potential is defined as the per capita consumption gap between China and other countries; consumption boost feasibility is defined as the per household consumption gap between the top and bottom ten cities.

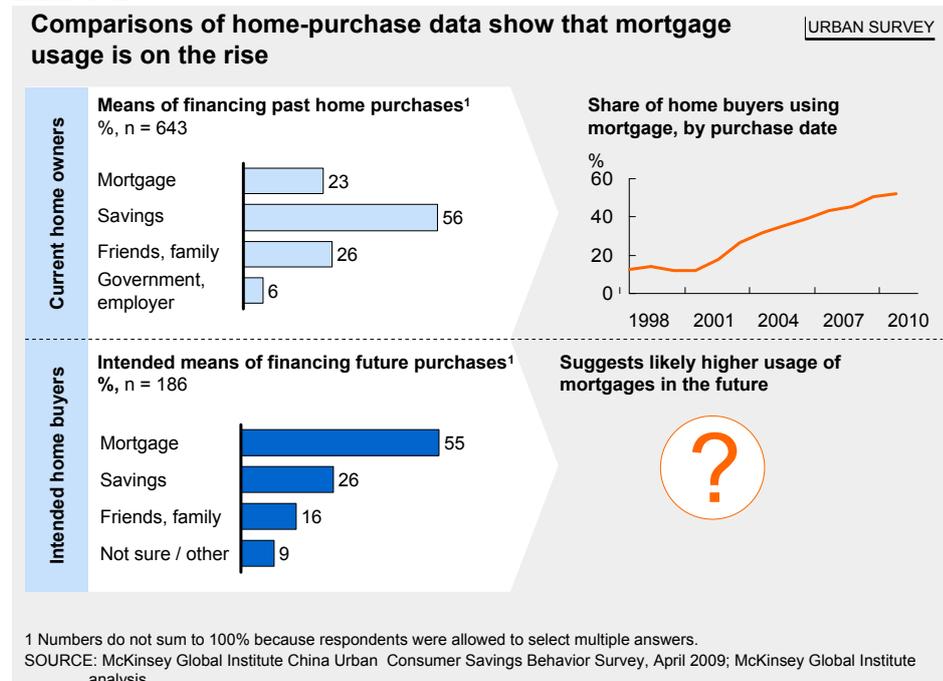
Source: National Bureau of Statistics; EuroMonitor; World Bank; McKinsey Global Institute analysis

The combination of rapid housing market growth and limited mortgage financing has meant that, to buy a given home, Chinese households have had to save considerably more up front than do their counterparts in other countries. China has already taken some steps to help aspiring home owners overcome this hurdle—and thereby free up savings

that would have been investment in housing to be spent on other private consumption. In 2008, the government reduced the minimum down payment required by law for first-time home buyers from 30 to 20 percent of the purchase price. Gradually, consumers will adjust and take advantage of this policy change, which means that they can now borrow up to 80 percent of the purchase price of their new home, up from 70 percent.

But smaller down payments are only part of the solution. To maximize the impact on consumer spending, lowering such payments by mortgage borrowers will need to combine with a greater availability—and use—of mortgage finance. A China Urban Consumer Savings Behavior Survey conducted by MGI in April 2009 indicates that the penetration of mortgages is already on the rise (at least in urban areas) and has increased from 12 to 52 percent over the past decade (Exhibit 20). In our policy case, we assume that mortgage penetration remains steady at this level but that the recent government reduction of the required down payment level would bring loan-to-value ratios gradually up to 53 percent. This in turn would result in an overall increase in the amount of housing sales financed by mortgages, from 23 percent in the trendline to 28 percent.

### Exhibit 20



In our stretch case, we evaluate a scenario in which the government targets increases in both mortgage penetration (to 78 percent) and average loan-to-value ratios (to 65 percent). Although ambitious, these levels would still be below those in many Western countries or even other Asian economies and would result in only 51 percent of total housing sales financed by mortgages. This would be broadly in line with Hong Kong today and well below the 63 percent level that prevails in the United States.

Evaluating the implied savings need in these two scenarios suggests a reduction of between 12 and 36 percent in the up-front savings required to purchase a home and a corresponding boost of 0.5 to 1.5 percentage points to the consumption share of GDP. We assume in both scenarios that housing sales in China continue to grow somewhat faster than GDP until 2015, at which point they begin to taper off and approach the growth rate of GDP by 2025. This implies that, by 2025, housing sales

would constitute roughly the same percentage of GDP as they did in the United States during the late 1990s before the peak of the most recent housing boom.

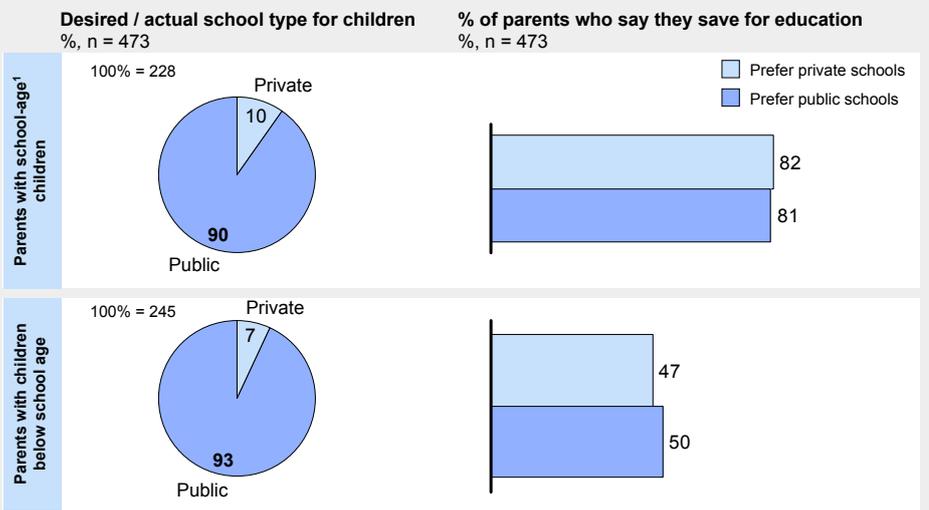
One caveat worth noting is that potential home buyers who are required to save less up front would be faced with a decision. They may simply save less and buy the same house at the same time as they had originally intended, which would boost consumption; or they may choose to buy a more expensive home or buy the same home sooner, in which case some portion of the accelerated home sales would go toward boosting investment in new homes. Which of these two effects dominates will determine the extent of the impact on consumption and GDP. For the purposes of our research, we assume that the consumption-boosting effect wins.

**Education: Boosting higher-education funding**

Chinese parents have very high expectations for their children's educational attainment—97 percent believe their child will attend college and many of them save accordingly. Indeed, education is cited as the single most common motive for household savings, with 60 percent of urban households reporting that they save for education (Exhibit 21). The major reason behind this saving appears to relate specifically to ensuring that children are financially capable of having a university education—provision of primary and secondary education is not a key driver of saving, given that the government provides free (and compulsory) public primary and secondary education and has instituted broad efforts to improve access to and the quality of such schools.

**Exhibit 21**

**Despite a preference for public schools, most Chinese parents still save for their children's education** URBAN SURVEY



1 School-age children are between ages 6 and 22.

SOURCE: McKinsey Global Institute China Urban Consumer Savings Behavior Survey, April 2009; McKinsey Global Institute analysis

University tuition and living expenses don't come cheap. The average annual per student total cost of a university education equals nearly 48 percent of the average annual Chinese household's disposable income. Although this burden will grow less onerous as incomes grow, shrinking to 23 percent by 2025 on trendline, expenditure on university expenses will continue to increase in absolute terms. This will present a significant challenge to the growing number of families who want their children to receive a university education.

Reducing the need to save for education by increasing the provision of student loans is a vital component of an effort to boost consumption economy-wide. China already has two student-loan schemes, but only 10 percent of students currently participate in them. One reason for this low uptake may be an unwillingness to take on consumer debt. In a survey conducted by MGI, 53 percent of urban households who report saving for education claim that they will not or would not have taken on student debt to reduce their savings for education. This low appetite for such debt may be a product of China's low employment rate for college graduates. Whereas in many countries student loans are expected to be paid off by the promise of higher income, the unemployment rate among college graduates in China, combined with the relatively short repayment terms of existing schemes, makes the risk of default considerably higher—fueling reluctance not only among students to take on debt but also among banks to lend to them.

China could achieve a greater uptake of student loans by offering subsidies or guarantees of loans for low-income students whose parents do not have the collateral to secure such borrowings. We estimate that if the penetration of student loans increased to between 33 and 50 percent of tuition and living expenses, the amount of up-front savings required to send a child to college would be reduced by 26 to 44 percent. This would have the significant social and economic benefit of expanding educational access and equity—and boost China's consumption share by 0.4 to 0.7 percentage points relative to trendline by 2025.

#### *Expanding the use of non-mortgage consumer credit*

At less than 3 percent of GDP, China's economy today has a very low share of outstanding consumer non-mortgage credit relative to other countries, including others in Asia that are at similar development levels—witness the comparative shares of Malaysia (24 percent of GDP) and Thailand (8 percent of GDP) in 2007. However, our research suggests that the issue is probably not limited access to credit, but to the use of credit. Indeed, 42 percent of urban consumers who participated in MGI's April 2009 survey say they have a credit card, and growth in credit-card issuance to consumers has exploded since 2005. The number of total card accounts has grown from 11 million in 2004 to an estimated 124 million in 2008.

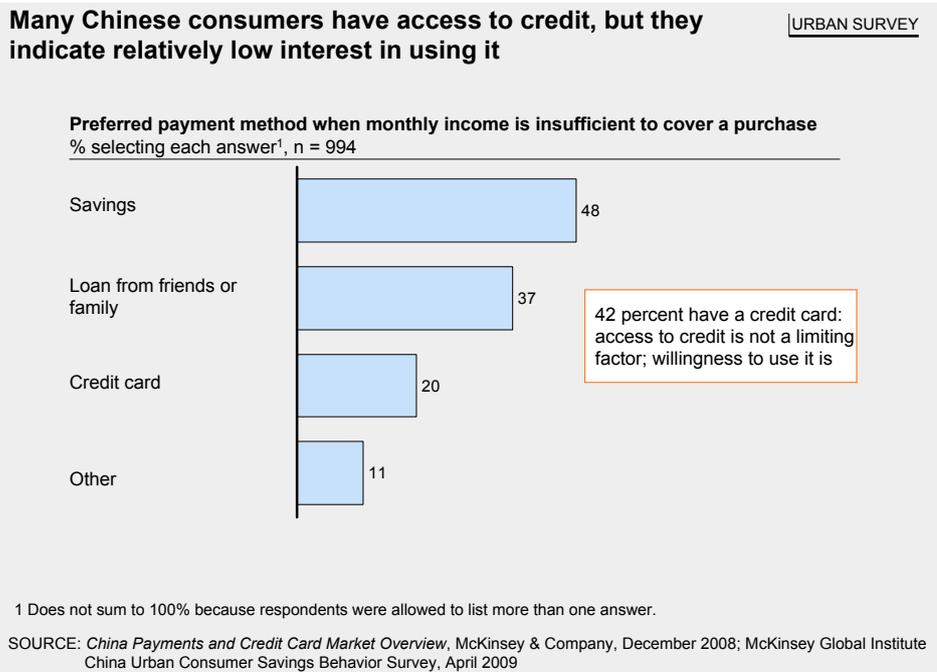
However, the increase in the availability of credit may have outpaced growth in its uptake. Many consumers say they would rather use savings or even borrow from relatives than use a credit card to make a big purchase (Exhibit 22). They are even less likely to carry balances. Chinese citizens make only 6 percent of all transactions by volume with credit cards, and outstanding credit-card balances account for less than 0.1 percent of GDP.

Another reason consumers do not use much credit is probably that the infrastructure for credit use, while developing rapidly, is still new. The Bank of China did not establish a credit bureau until 2006, and although more than 600 million consumers have registered, only a small percentage of them—about 70 million in 2008—have a credit record. China's payments infrastructure is also at an early stage in its development. Acceptance of credit cards at point-of-sale began to grow rapidly only in 2005; since then, it has nearly tripled from about 400,000 merchants accepting cards to 1.18 million.

These facts would suggest that China has already largely put in place the necessary policies to boost the use of non-mortgage consumer credit and that it is at an inflection point where credit use will start to grow rapidly. For this reason, our policy case assumes that outstanding consumer non-mortgage credit could grow dramatically without additional specific policy action and by 2025 reach levels seen

in other Asian countries. Growth in credit-card transaction volume since 2005, combined with increasing volumes of revolving credit-card debt, suggests that outstanding credit could reach 9 percent of GDP by 2025 (similar to Hong Kong in 2007). Our stretch case posits even more rapid growth and evaluates the impact on the economy of outstanding credit reaching 15 percent of GDP in 2025, slightly higher than Taiwan's level in 2007.

**Exhibit 22**



Analysis shows that each additional percentage point increase in outstanding non-mortgage credit as a share of GDP by 2025 will result in an increase to consumption share of approximately 0.1 percentage points. Thus our policy and stretch cases would add 0.6 to 1.2 percentage points to the consumption share by 2025, respectively, and would boost GDP by 1.1 to 2.4 percent.

**IMPROVING CHINA'S SOCIAL-SAFETY NET WILL HAVE MINIMAL IMPACT ON CONSUMPTION SHARE BY 2025**

This group of policies would include any measures that will help to shift the burden of providing basic social benefits away from households and back toward the government. Since the reforms to the state-owned sector in the 1980s and 1990s that led to the breaking of the "iron rice bowl" system, households have spent an increasing proportion of their income on health care and retirement-related needs. At the same time, by saving increasingly large portions of their disposable incomes, they have signaled that they expect even larger increases in these needs in the future that will overwhelm their ability to pay using regular income. Today's high savings are in large part earmarked for tomorrow's deficit spending on social benefits (see box 2 "Social-safety net and consumer savings").

Policy actions that fit into this category imply some structural changes in China's governmental, financial, and legal institutions and would require significant increases in government and/or corporate spending, which would supplement or replace current consumer spending. In this sense, they are to some degree redistributive: they would redistribute some of the costs of social welfare from poor to rich and from consumers to government and business; and they would also redistribute some of the benefits of China's economic progress from rich to poor as well as from corporations

to households. Because additional consumer spending would be accompanied by additional expenditure by government, in aggregate we believe that the impact of these policies on consumption share by 2025 would be relatively modest.

### Box 2: Social-safety net and consumer saving

High and increasing Chinese household savings rates reflect a clear pattern of self-insurance as citizens anticipate increasing and unpredictable future expenses related to the cost of social benefits. According to a survey of some 1,200 urban Chinese consumers commissioned by MGI in April 2009, concern for the cost of education is the top priority among consumers when they think about savings, followed by the risk of illness and expenses associated with caring for elderly parents (Exhibit 23). Even in the event that such households don't actually have to spend their savings on getting through a period of illness or on maintaining their standard of living in retirement, they do save for the possibility, reflecting the devastating financial consequences for a household caught unawares by unexpected illness or rising health-care costs.

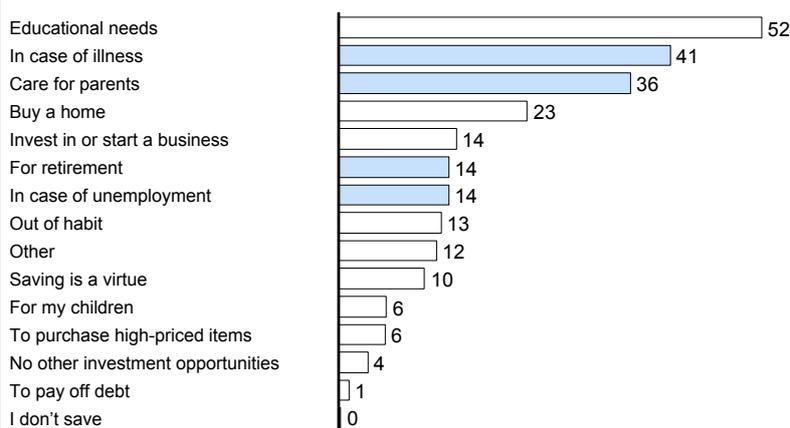
#### Exhibit 23

#### Issues related to the social-safety net are among the top drivers of Chinese consumer savings behavior

##### Why do you save?

% of people who listed reason in their top three, n = 783

■ Related to the social-safety net



SOURCE: McKinsey Global Institute China Urban Consumer Savings Behavior Survey, April 2009; McKinsey Global Institute analysis

Of course, improving China's social-safety net is a critical step forward in China's economic development for reasons that go beyond merely boosting consumption. At a fundamental level, additional spending on social benefits represents economic growth and higher living standards for individual citizens, whether it comes from government or from consumers. From a broader perspective, an improving social-safety net will help ensure that all citizens—regardless of income level, *hukou* status, or geographical location—benefit from China's economic progress. Expanded social provision should help to mitigate the risks of social instability that come with the rapid economic growth and urbanization that China is experiencing today. Over the long term, higher quality health-care and pension systems that provide benefits for a greater share of China's populace will foster a healthier and more productive society, contributing to productivity gains and further improving China's growth prospects.

On balance, we believe that improving China's social-safety net will affect consumption in three ways. In the short term, it will stimulate consumption on health care and other related categories due to higher overall spending, whether from private, government, or corporate sources. In the medium to long term, it will reduce the need for precautionary

savings and likely produce a lower private household savings rate. In the long term, it will improve productivity through broad improvements in the longevity, health, and welfare of Chinese citizens.

In this section, we evaluate the impact on the macroeconomy of the first and second of these effects. We assume that any impact of the third will either be reflected in the next section of this document, which discusses structural changes to China's economy and implications for a shift to services and higher value-added industry, or will take place beyond the 2025 time horizon that we examine. We limit our focus to top-down analyses of China's health-care and pension systems.<sup>16</sup>

Altogether, a set of policies that broadly expands and improves China's health-care and pension systems would boost consumption share of GDP by 0.2 to 1.1 percentage points by 2025. Private consumption would be 480 billion to 1.9 trillion renminbi, or 1.6 to 6.3 percent, higher than trendline projections, resulting in a boost to annual per capita consumption of between 300 and 1,300 renminbi. Overall, this would contribute additional GDP totaling between 900 billion and 2.4 trillion renminbi beyond trendline projections, or about 1.6 to 3.4 percent higher than the trendline 2025 value.

### **China can rein in fast-growing private health-care spending**

Total health-care expenditure in China is relatively low as a share of GDP at 4.8 percent in 2008, compared with a Western European average today of 9.2 percent of GDP and an Organisation for Economic Co-operation and Development (OECD) average of 8.6 percent of GDP. Although the share of Chinese GDP coming from health care has not grown much in recent years, a constant share of GDP combined with rapid GDP growth means that health-care spending is growing rapidly in absolute terms and relative to household incomes.

Moreover, the burden of outlays also falls more heavily on private citizens in China than in many other countries. Private spending made up 45 percent of total health-care expenditure in 2008, and although this is not particularly high relative to other Asian economies (44 percent average across Asia), more developed economies tend to require less of their citizens. For instance, private spending accounts for an average of 25 percent of total expenditure in Western Europe today, while the figure in developed Asian economies stands at 18 percent. The trendline for urban Chinese households gives an illustration of how rapidly this burden is growing. If current trends hold, out-of-pocket health-care expenditure, which is 10 percent today, would reach 14 percent of all urban Chinese consumption by 2025.

To reduce the financial strain this would place on its citizens, China needs to shift more of the growing burden of paying for health care back to the government. However, such a shift would not materially affect consumers' precautionary savings for health-care purposes if the quality of Chinese health care is inadequate. Unless the quality of the system improves, consumers will continue to spend their own money—and save up in order to do so—to achieve better outcomes. Concerns about future illness and uncertainty about the affordability of care are among the top motivators for precautionary savings (Exhibit 24).

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16 Although we initially included two other issues in our analyses (education and unemployment benefits), it became clear that education fits better into the "enabling consumption" bucket as it is primarily a question of how to pay for relatively well-understood and predictable expenses. We found that although unemployment benefits clearly fit into the social-safety-net bracket, they were of such a small magnitude that they had negligible impact compared with health care and pensions.

## Exhibit 24

### Uncertainty and expected higher costs of care are the chief drivers of health-care-related precautionary savings

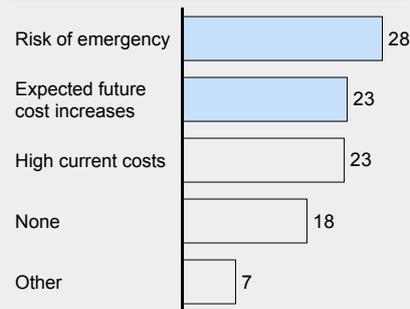
URBAN SURVEY

Precautionary savings seem to be heavily motivated by future expectations, especially the uncertainty of cash outlays for care

Among those who listed health care in their top three reasons for saving, this pattern is even more pronounced

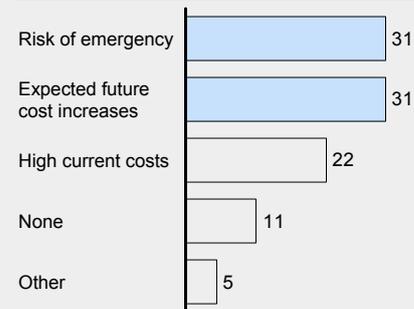
#### Top health-care-related reasons for saving

% of respondents, n = 627



#### Top health-care-related reasons for saving among respondents who listed health care in their top three reasons for saving

% of respondents, n = 183



SOURCE: McKinsey Global Institute Urban Consumer Savings Behavior Survey, April 2009; McKinsey Global Institute analysis

If the government can achieve the twin aims of significantly increasing overall spending on health care while limiting the increase in household spending on health care, we expect to see some decline in savings for medical expenses. It is probable that the overall level of spending must increase well above the current 4.8 percent of GDP to make consumers comfortable with saving less.

We arrived at this estimate partly by using Taiwan as a benchmark. In a fashion similar to what we see taking place in China today, Taiwan moved in less than a decade from a system that offered low levels of insurance coverage (57 percent in 1994) to one that provided insurance coverage to nearly all citizens (97 percent in 1998). Academic research shows that for households that received coverage under the new scheme, household savings rates fell by 2.2 to 3.7 percentage points after the introduction of universal care.<sup>17</sup> Of course, although the need for private savings decreased in Taiwan, it is worth noting that growth in health-care expenditures continued apace even after near-universal coverage was achieved. Taiwan's health-care spending as a percentage of GDP increased from 5.8 percent in 2000 to 6.2 percent by 2008.

As recently as 2003 in China, only 30 percent of citizens had some form of health-care insurance coverage. The survey suggests that those without health insurance save approximately 1.5 times more of their disposable incomes than their neighbors who are insured. Over the past six years, insurance coverage has been expanding and today at least 75 percent of the population receives some form of health-care coverage. Now China plans to boost that proportion still further. Although the extent and quality of insurance plans vary, the health-care reform plan announced in April 2009 targets coverage of more than 90 percent of citizens by 2012, along with other reforms to improve health-care infrastructure and service delivery.

Because the policies announced by the Chinese government do not extend out as far as 2025, we have used an international benchmark to generate a stretch case that looks at the potential impact on consumption in 2025 of China's reaching

17 Shin-Yi Chou, Jin-Tan Liu, and James K. Hammitt, "National health insurance and precautionary saving: Evidence from Taiwan," *Journal of Public Economics*, 2003, Volume 87 (9-10 September), pp. 1873-94.

Western European levels of total health-care expenditure as a share of GDP (9.2 percent) and split between private and public spending (only 25 percent private share). In the Chinese context, this would boost consumption share by 0.6 percentage points relative to trendline and bring China to a point where it spends a similar amount per capita on health care as Slovenia or Portugal today.

Our policy case represents a somewhat less ambitious approach based on current government plans that will add an incremental 850 billion renminbi in total health-care expenditure between 2009 and 2011. In this case, we find that by 2011 the government's additional spending will reduce out-of-pocket spending to 37 percent of the total, even as overall health-care expenditure reaches 5.4 percent of GDP. We assume that the total amount that households spend in 2025 will be the same as in the stretch case but that government policy cuts the private share of health-care spending from 45 to 37 percent of the total. This implies total health-care expenditure of 6.2 percent of GDP (similar to today's level in Taiwan) and would boost the consumption share by 0.4 percentage points. In this scenario, China would raise per capita health-care spending to roughly the level in the Czech Republic today.

### **China can expand the coverage, reliability, and efficiency of the pension system to boost consumption**

China's pension system is still in a period of transition away from the "iron rice bowl" regime toward a system that provides benefits and oversees administration through governmental organizations rather than employers. The system faces a number of challenges, and we identify three broad sets of policies that could help to meet them. The government is already implementing some of these policies but has thus far not focused serious attention on others.

1. *Expanding participation and coverage.* Approximately 40 to 45 percent of Chinese workers have some form of pension coverage today in different schemes providing for urban residents, rural citizens, and civil servants. However, there is large variation in coverage levels across the population. While nearly 90 percent of urban residents have pension coverage today, estimates for migrant workers and rural residents range between 20 and 25 percent. We estimate that approximately 60 percent of all workers will have coverage by 2025 in our trendline scenario, somewhat more pessimistic than a 2005 World Bank estimate that China will take around 50 years to reach 90 percent coverage rates.<sup>18</sup> We base our policy and stretch cases on government targets to cover 60 percent of rural residents by 2020 and the assumption that migrant coverage will track that of rural residents. Both cases use estimates of 85 percent overall coverage by 2025 (80 percent coverage for rural residents and migrants and 95 percent coverage for urban residents). This reflects the government's commitment in recent years to increasing pension plan participation and coverage of workers.
2. *Centralizing administration and funds pooling.* When China first recalibrated the pension system after its deregulation of SOEs, pension plans were administered at the municipal level; each city managed collections, pooled funds, and oversaw payouts to retired residents holding a *hukou* in that city. However, as migration dramatically increased, this system came under severe strain. First, migrants have lost confidence in the system because they may have had to pay into the pension system in the city in which they work but do not receive coverage because they lack a *hukou*. Second, cities have been unable to meet

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<sup>18</sup> Yvonne Sin, *China: Pension liabilities and reform options for old age insurance*, World Bank, May 2005.

their pension obligations because they have had no access to a national pool of pension funding—i.e., even if another city has a surplus, it is not available because there is no national system. Third, each municipality has its own burden of administrative overheads and bureaucracy, leading to scale inefficiencies. Finally, China has thus far failed to embrace the opportunity of higher returns (assuming that restrictions on such investments were lifted), which would accrue from a system that allowed the management of larger pools of funds. The government has recognized the problem and, since 2000, attempted to move toward a system managed at the provincial level. It had aimed to complete this transition by 2009, but this has not occurred and it is uncertain when it will. Even completing the move toward a provincial system by 2025 would be a significant improvement on the status quo; implementing a national system would be ideal.

3. *Closing the financing gap.* In its current incarnation, the system faces a financing gap of 65 to 94 percent of GDP, according to the World Bank. The reason for this is a combination of a relatively low retirement age; increasing life expectancy; low collection rates (estimated at 70 percent of intended collections); a rapidly aging population (China's dependency ratio will rise from 35 percent today to more than 50 percent by 2012 and over 100 percent by 2035); and low rates of return on funds, which have traditionally been invested only in one-year bank deposit notes. In the last ten years, the government has run two pension-reform pilots but these have not tested measures that would tackle these root causes of pension-system underfunding and, to date, there is no evidence that the government has any plans on this front despite the mounting urgency of the financing challenge.

Eventually, China will need to examine broader reforms, but today its focus remains on expanding coverage. This in itself has several impacts. First, it will lower precautionary voluntary savings among participating workers and eventually boost consumption by retirees. Second, it will reduce incomes for those added to the system because the workers' contribution is calculated as a percentage of income; a worker's take-home pay will drop, all else being equal, when that worker receives a pension (see the technical appendix for a detailed explanation) (Exhibit 25). Third, it will lead to higher costs and therefore lower profits for firms—leading to lower investment. The net effect of these three factors will be higher private consumption and an increased consumption share. However, it is important to note that increasing pension coverage is effectively a means of enforcing savings behavior on workers. If there is no corresponding drop in voluntary precautionary savings, consumption would likely fall relative to the trendline.

Our policy case estimates that expanded pension coverage alone would result in a small decrease in the consumption share of 0.2 percentage points, due to assumptions of a larger negative impact on incomes and slightly lower GDP compared with trendline by 2025 (see the technical appendix for more detail).

However, we believe that if the system were to improve its efficiency and reliability, precautionary savings would decline for those receiving coverage. Retirement is an important savings motive for Chinese citizens today—our survey finds that those without pensions save one-third more on average as a percentage of their income (Exhibit 26). Many of those who do pay into the system still save because they believe the system is unreliable, so while the largest impact of greater reliability would be on the savings behavior of workers not currently receiving coverage, even those with pensions would adjust their savings to an extent if they could trust the system to pay out.

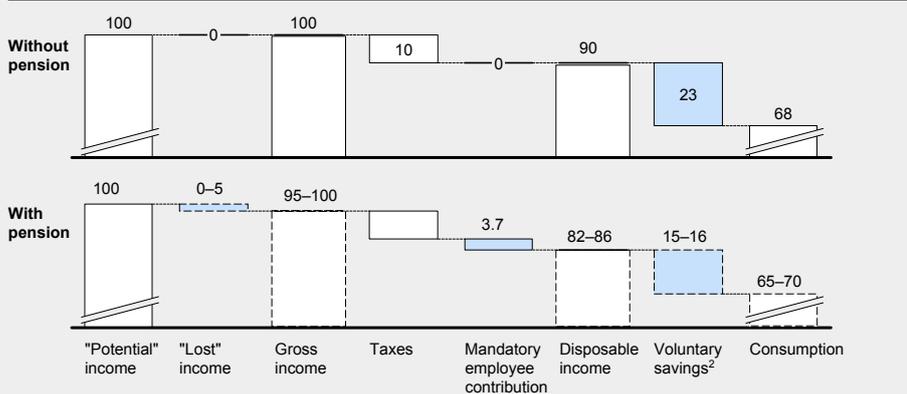
Our research finds that increasing pension coverage and improving the system's reliability combined could add up to 0.5 percentage points to China's consumption

share by 2025 as precautionary savings for retirement falls and consumption rises by those provided for. At the same time, however, we believe that investment would decline by 1 to 2 percent relative to trendline because of the higher costs that expanded pension provision would impose on government and businesses.

**Exhibit 25**

**Participation in a pension plan affects consumption directly (by reducing incomes) and indirectly (by changing savings behavior)**

**Comparison of income and consumption for two similar workers**  
% of average gross income<sup>1</sup>



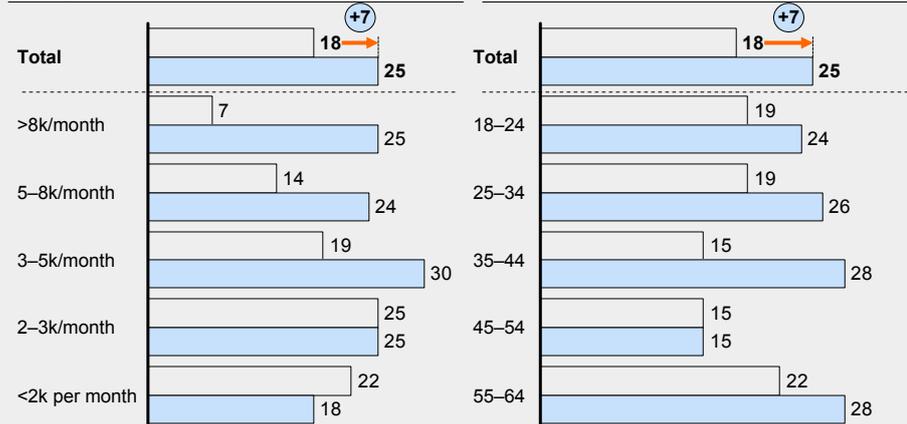
1 Assume overall gross incomes are equal for those with or without pensions (we have no data indicating otherwise).  
2 Voluntary savings = total savings in renminbi divided by "potential" income in renminbi, so voluntary savings for those with a pension is slightly lower than savings rate.  
Note: Numbers may not sum due to rounding.  
SOURCE: Literature review; McKinsey Global Institute China Urban Consumer Savings Behavior Survey, April 2009; McKinsey Global Institute analysis

**Exhibit 26**

**Survey suggests that workers with no pension save ~one-third more than those who have one, regardless of income or age** URBAN SURVEY

**Overall savings rate by pension coverage and reported household disposable income**  
% of reported disposable income, n = 683

**Overall savings rate by pension coverage and age bracket of respondent**  
% of reported disposable income, n = 632



SOURCE: "China Payments and Credit Card Market Overview," McKinsey & Company, December 2008; McKinsey Global Institute China Urban Consumer Savings Behavior Survey, April 2009; McKinsey Global Institute analysis

**STRUCTURAL REFORMS TO INCREASE HOUSEHOLD INCOME WILL FURTHER HELP INCREASE CONSUMPTION SHARE**

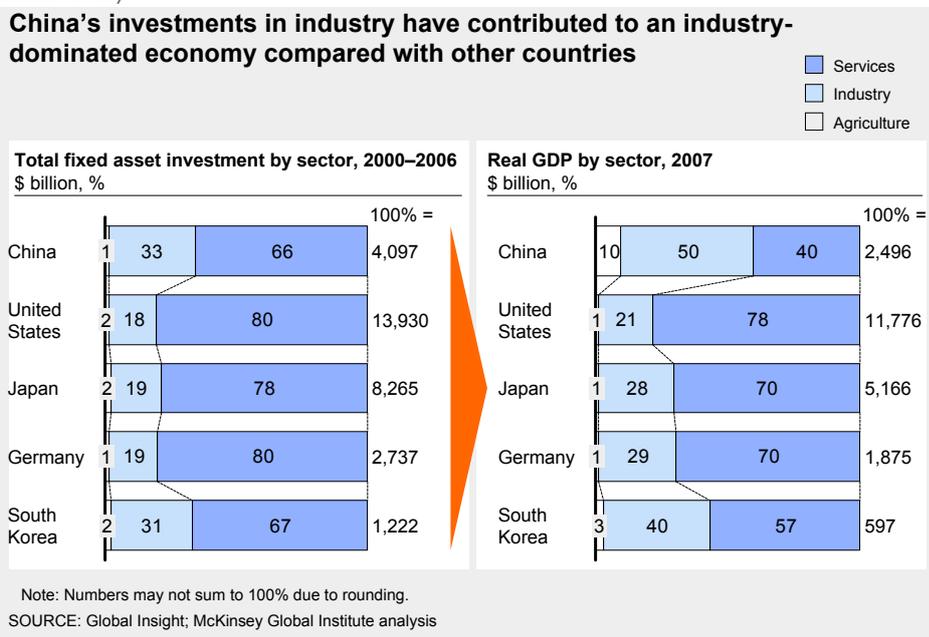
This group of policies comprises a wide-ranging set of measures that will affect the financial system, industrial policy, international trade, and many other aspects of China's political economy. The overall impact on consumption share of GDP of this group of initiatives in the time frame of this study is limited mainly because this cluster of policies deals with fundamental shifts in China's economic landscape. Both the time frame and level of effort required to achieve these changes is of a different order of magnitude to that of the other two groups of initiatives detailed in

this report. That said, these initiatives are, if anything, the most crucial if China is to succeed in making the transition to a consumption-led economy and would have some of the deepest and most permanent effects on China’s future development.

We believe that, as soon as 2025, China can make a significant shift toward service industries and higher growth in non-wage sources of income such as dividends, bank deposits, and real-estate-leasing income that could add a further 3.5 to 6.0 percentage points to the consumption share. Households would obtain significant benefits in the form of average incomes that would be 10 to 20 percent higher (for our methodology, see the technical appendix).

**Shifting to services would boost job creation and consumption.** Investment in China has long focused on industrial sectors that have tended to underperform in terms both of job creation and efficiency relative to service sectors. China’s investments in industry have contributed to an economic development outcome relatively more skewed to industry than other countries (Exhibit 27). China’s political leadership recognizes that shifting investment to more efficient and labor- rather than capital-intensive service sectors will have a multiplier effect on employment, economic growth, and consumption. In its 11th Five Year Plan, the government duly enshrined the aim of boosting the services share in the economy by 3 percentage points from 40 percent in 2005 and the proportion of new jobs generated by these sectors by 4 percentage points. Although the current global economic crisis has focused the government’s attention on supporting export-driven and heavy industries in the short term, ongoing initiatives to develop China’s IT industry, to build up a capability in outsourcing, and to support SMEs indicate that the aim of shifting to a service-driven economy remains intact.

**Exhibit 27**



This aim remains vital for China’s broader economic goals. China’s capital-intensive industry has absorbed millions of workers leaving agriculture in recent decades, but it may not be able to absorb the additional 190 million laborers projected to leave agriculture between 2008 and 2025. Services will need to fill the employment gap that China’s industry-focused model has left as well as to boost incomes.

By supporting sectors that show high potential in terms both of job creation and boosting consumption through higher incomes, China could engineer a moderate increase to the services share of GDP to approximately 49 percent by 2025 compared with 45

percent if current trends hold. If the government were to achieve three percentage point increases in the services share every five years after 2010, it would reach 49 percent services in 2025. Such a moderate shift would raise average household incomes by 9 to 10 percent above 2025 trendline values as employment in services grows more rapidly and productivity gains drive wages up. However, the consumption share of GDP would increase by only one to two percentage points because of the slight increases in investment that would also be required, partially offsetting consumption gains.

A more dramatic shift toward services would require significantly larger employment growth in the service industry and a corresponding reallocation of investment capital. A 2007 presentation by Louis Kuijs and Bert Hofman of the World Bank posited a technical case in which China reached a 54 to 55 percent services share by 2025.<sup>19</sup> To attain this level, however, we estimate that nearly 70 percent of total investment in China would have to go to services—and services would not only have to absorb the 170 million jobs that would be generated in industry in a trendline scenario but also create an additional 50 million jobs. Moreover, such job creation in services would still have to be combined with productivity growth through competition policies in the service sector.

If China were to pull off such a shift, the economy would look fundamentally different. Workers in services would account for almost 60 percent of the working-age population, up from 36 percent on trend, even as the industrial sector would generate robust, albeit slightly lower, growth in output (a 5.6 percent CAGR from 2008 to 2025, compared with 7.5 percent on trendline).

The implication is that China must generate stronger than trendline productivity growth in industry (a 2.9 percent CAGR versus 1.6 percent CAGR on trendline). In services, a 3.4 percent productivity CAGR is needed, slightly lower than 4.4 percent on trendline (despite the addition of nearly 220 million workers above the trendline). To achieve this productivity growth would generate significantly higher incomes and significant improvements in China's macroeconomic growth.

**Raising investment-related sources of household income would boost the consumption share.** At less than 2 percent average annual per household income, investment-related sources of income such as interest on bank deposits, dividends, and real-estate-leasing income are low in China, compared with other countries. Moreover, these sources have not been increasing as a share of total income in recent years. Even as the country's GDP growth has exploded, real returns on financial assets have remained low at only 0.5 percent, compared with South Korea's 1.8 percent and 3.1 percent in the United States.<sup>20</sup>

Continued liberalization of the financial sector to help improve China's return on this sector will boost not only incomes but also consumption. For every additional percentage point of income coming from investment-related sources by 2025, the consumption share should rise by approximately 0.3 to 0.4 percentage points. For example, increases in investment-related sources of income from 1.7 to 3.4 percent of average total household income would add 0.7 percentage points to the consumption share. Increasing investment-related sources of income as a share of the total to 5.1 percent would add 1.2 percentage points to the consumption share.

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19 Bert Hofman and Louis Kuijs, *Rebalancing China's growth*, paper presented at the conference on China's exchange rate policy held at the Peterson Institute for International Economics, October 19, 2007.

20 *Putting China's capital to work: The value of financial system reform*, McKinsey Global Institute, May 2006 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

There are a number of reasons that investment-related sources of income in China are low—most related to the underdevelopment of China’s capital markets. China could boost non-wage incomes by reforming SOE dividend policy and encouraging the creation of a wider array of financial instruments to enable greater household participation in financial markets. Taken together, action on these fronts would encourage firms to make more judicious investment decisions and allow households to share in the profits generated by those firms, thereby helping to reallocate capital toward private citizens.

China is already engaged in financial-system reforms, and many of the measures proposed could help to combat the root causes of low investment incomes to individuals. However, reform is behind schedule and, in any case, China should consider broadening its plans for banking and capital market liberalization and development as part of its shift toward a higher consumption share.

We now turn to a discussion of three policy areas, including financial-sector reform, which we believe China needs to address if it is to succeed in 1) shifting the economy toward a more services-oriented model, and 2) improving income growth, through both faster growth in total wages and stronger returns on assets that would lead to more income coming from investment-related sources.

#### *Encouraging financial-sector reform*

Today’s financial sector is failing China on two grounds. First, it misallocates capital to less productive, less efficient (largely industrial) enterprises. To engineer a shift toward services, this misallocation must be changed. Second, the system ensures that returns to Chinese savers are low, limiting income growth.

China’s total financial assets grew by 56 percent in 2007, surpassing Germany, the United Kingdom, and France to become the world’s third-largest national financial market. As recently as 2002, China’s financial market was the seventh largest. Between 2002 and 2007, the personal financial assets of retail investors in China increased by more than 140 percent. However impressive these growth rates are, however, China’s financial system misallocates capital to less productive, relatively inefficient enterprises, leading to declining investment efficiency.<sup>21</sup> According to previous MGI research, China required \$3.30 of investment to produce \$1.00 of GDP growth in the first half of the 1990s. However, since 2001, China has needed \$4.90 of new investment to produce the same amount of GDP growth. This is more than 40 percent more than the investment required by other Asian Tiger economies in their high-growth periods. The research found that if a larger share of funding were to go to more productive enterprises, China could raise its GDP by up to \$259 billion, or 13 percent a year (see Box 3). Combined with action to move China’s banks to international standards of operational efficiency and to improve the mix of financing vehicles, the boost to GDP could be \$321 billion annually.

These finance-related factors, together with the fact that China caps interest rates and limits corporate dividends, weigh on consumption.

#### *Aggressively pursuing industry consolidation and efficiency*

There is considerable scope in China to consolidate industries, particularly relatively mature ones such as steel and cement, and thereby boost productivity. China has already instituted a policy designed to encourage the consolidation of the steel industry to enable the closure of inefficient furnace capacity and its replacement with new,

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21 *Putting China’s capital to work: The value of financial system reform*, McKinsey Global Institute, May 2006 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

cleaner technology. China currently aims to boost the share of the industry of the top-ten steelmakers from 38 percent in 2005 to 50 percent in 2010 and 70 percent in 2020.

Boosting efficiency is also vital. China's Top-1000 Energy-Consuming Enterprises program has started to deliver reduced energy consumption by companies, and there may be an opportunity to build on its momentum by expanding participation in the program and negotiating even more aggressive targets. The Top-1000 program is part of the government's aim to reduce China's energy intensity by 20 percent between 2005 and 2010. The program determines 2010 energy-consumption targets for each enterprise. In 2004, the energy consumption of the top 1,000 Chinese enterprises accounted for 33 percent of national energy consumption and 47 percent of industrial energy consumption. Beyond energy, scarce resources such as water, coal, and land, as well as capital, are often available to industry at below-market rates today. Scaling back the government's direct and indirect subsidies to industry designed to bolster its growth—for example by adjusting tariffs or by encouraging more commercially based lending decisions—could promote higher efficiency in both the investment and consumption of resources. The government should also consider creating a system for taxation of resource usage in order to allow corporate cost structures and capital allocation mechanisms to more accurately price in the cost of China's resource intensity.

### *Supporting the development of SMEs*

The growth of the service sector is likely to hinge on the successful development of SMEs. Today, these companies face a number of barriers to market entry and growth (in common with their counterparts in other developing countries). For instance, they routinely grapple with complicated business licensing requirements, a lack of service-sector skills and education, and limited access to financing. Reform of business licensing procedures, more supportive labor market policies, and easier credit access are necessary if service-sector SMEs are to increase their share of China's economic activity. These SME reforms would be critical in the ultimate development of China's service sector, as lessons learned from many OECD countries and as recently emergent economies such as Singapore, Taiwan, and South Korea attest.

### **Box 3: Capital misallocation in China**

Capital misallocation is a major issue—and one that is part and parcel of China's emphasis on industrial enterprises, particularly SOEs. In 2006, private companies produced 52 percent of China's GDP but accounted for only 27 percent of loans. Operationally weak Chinese banks intermediate nearly 75 percent of the capital in the economy—nearly twice as high as other developing Asian economies—and have tended to be reluctant to lend to private companies. This is partly because banks have found it hard to get good quality credit information; China's first national credit bureau was launched only in 2006. Moreover, loan pricing and credit-assessment and risk-management skills remain weak. Instead, banks have tended to lend almost exclusively to SOEs, which are a low-risk proposition because of their scale and government backing. The incentive structure in SOEs produces a risk-avoidance culture and perpetuates the misallocation of capital. If banks had a more balanced “true” lending portfolio—with a mix of low- and higher-risk lending—they would reap greater returns. Misallocation of capital also arises because large companies don't have much choice but to borrow through the banking system. Although there has been significant progress in recent years, China's equity and bond markets remain comparatively small. In 2006, the capitalization of China's equity markets stood at only 17 percent of GDP, compared with 60 percent or more in other emerging markets.

## 4. Conclusions

China has already embarked on a number of measures that will shift the economy into a more consumer-centric direction, but there remains a gap between reality and actual potential impact. Take as illustration the 4 trillion renminbi government stimulus package that China began to implement in the winter of 2008. The package focuses heavily on funding for new highways and rail systems. Indeed, 89 percent of the entire package is devoted to infrastructure investment and only 8 percent to supporting consumption (the rest goes to bolstering corporate performance). Although short-term support is necessary in the turbulent current economic conditions, China will need to look at long-term policies along the dimensions outlined in this report if the leadership is to succeed in its goal of boosting the consumption share of the economy.

China's growth model has a great deal of momentum, and change will not come easily. Major shifts away from the current economic mix by 2025 will entail very difficult choices. As long as China's economic structure remains so heavily weighted toward investment, that component of the economy will continue to grow. In other words, the government's goal of boosting the share of consumption will meet with a strong headwind. Moreover, some of the policies that have the potential to be effective in boosting the consumption share of the economy are long term in nature—notably, improvements to China's social-safety net may not contribute a great deal to the rebalancing toward consumption in a 15-year time horizon.

Yet China has achieved enormous economic strides with a speed that has barely been replicated elsewhere in the world in recent history, and it is conceivable that China could take aggressive, concerted action on the policy fronts described in this report. Moreover, the current economic climate makes a move away from net exports imperative.

If the consumption share rises from today's 36 percent to between 45 and 50 percent of GDP by 2025, China would generate an additional 8 to 15 percent of annual GDP compared with trendline projections. The composition of the economy would show a marked shift. For instance, government spending would be 9 to 19 percent higher due to increased health-care provision and to the institution of investment and education subsidies. China's trade surplus could narrow by up to 40 percent. China would create between 10 million and 50 million more jobs than projected on current trends, mostly in the service industry, and boost average household incomes by 10 to 20 percent as its industry sector transitioned to higher value-added manufacturing. In real 2000 terms, annual consumption would be between 8 trillion and 15 trillion renminbi higher than trend.

From the point of view of the rest of the world, China would become an even more relevant and vital player in the global economy. China's share of world consumption would increase to between 11 and 13 percent in 2025, up from 9 percent that we project on current trends and unchanged policies. This would, in turn, mean that

China would account for more than one-quarter of all new consumption worldwide over the next 15 years, adding more than ten percentage points to global consumer demand growth in the process.<sup>22</sup>

For China, the prize of successfully engineering a shift to a new growth paradigm will be an economy that is less vulnerable to ill winds blowing in from overseas, has higher levels of efficiency and higher household incomes, and has a new maturity. By sizing the potential available from initiatives in different policy areas, this study seeks to illuminate some of the priorities that China might set if it is to vault the economy into a new, dynamic phase of its evolution.

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<sup>22</sup> This calculation assumes that global real GDP growth tracks trend at 2.9 percent a year between 2008 and 2025.

## Technical appendix

In this section we lay out in detail the methodology we have used and the analytical steps we undertook to arrive at our impact assessments. We also detail the overall impact on China's macroeconomy and component shares of GDP of each of the individual policy initiatives described in chapter 3 of the report.

### IMPACT OF THE THREE POLICY GROUPS ON GDP AND ITS COMPONENTS

For each initiative, we made an estimate of the incremental impact on private consumption, investment, and government spending, relative to our trendline, which we based in turn on Global Insight's top-line GDP forecast combined with MGI's China National Model (Table 1).

Key assumptions	Units	Compound annual growth rate 1990–2008, %	2008 estimated value	Compound annual growth rate 2008–25, %	2025 forecast value
Gross domestic product	Billion renminbi, real 2000	10.3	22,368	7.7	78,508
Private consumption	Billion renminbi, real 2000	8.2	8,011	8.1	30,343
Consumption, % of GDP	%	-15.1 percentage points	35.8	+2.9 percentage points	38.7
Fixed-asset investment	Billion renminbi, real 2000	13.6	8,674	7.6	29,960
Fixed-asset investment, % of GDP	%	+16.0 percentage points	38.8	-0.6 percentage points	38.2
Government consumption	Billion renminbi, real 2000	10.2	3,122	8.6	12,699
Household income share of GDP	%	-13.0 percentage points	53.7	-6.8 percentage points	46.9
Per household savings rate as share of average disposable income	%	+14.4 percentage points	25.1	-8.4 percentage points	16.7
Exchange rate*	renminbi per US dollar	n/a	6.947	n/a	5.884

\* Although examining the causes and impacts of changes in China's exchange rate policy is outside the scope of this paper, trendline forecasts do incorporate a modest appreciation in the renminbi. Our policy and stretch scenarios assume the same exchange rate as in the trendline case; listing it here provides an idea of what is built into the analyses.

To arrive at estimates of the change in consumption share of GDP resulting from each initiative, we needed first to determine the overall impact on GDP of these measures because their implementation will affect both the numerator and denominator of consumption as a share of GDP.

As we have noted, our analysis is one based on comparative statics. We do not use a general equilibrium model to calculate the impact on GDP; nor do we take into account potential linkages between shocks to GDP and inflation, interest rates, exchange rates, and other financial-sector variables. Of course, these have the potential to have a profound effect on economic growth, but forecasting their trajectories is beyond the scope of this research. As a result, and as we have noted in the main body of the report, our estimates should be viewed not as a prediction of what China's overall economic growth will be, but what the impact of these policies might be, relative to China's growth in the hypothetical case that these policies were not pursued.

Our eight initiative analyses, in sum, yield a total initial shock to each of private consumption, investment, and government spending. In principle, some of this spending will be domestically oriented and will contribute to GDP, while a portion of it will go to imports or imported intermediate products, lowering the trade surplus and GDP. Using China's official input-output tables from NBS (from 2005, the most recent year available at time of research), we determine, on average, how much each incremental dollar of consumption, investment, or government spending contributes to rising imports versus domestic expenditure. We find that on average, 17.9 percent of private consumption is spent on imports, as is 18.4 percent of investment. Government spending is, as one might expect, much more domestically oriented at only 2.8 percent on imports, while exports, at 46.3 percent, reflect a high level of re-exports.

After netting out the import leakage, we add the remaining amount of the shock to each component of GDP and calculate the multiplier effect coming from the second-order impact of a shock to expenditure (i.e., higher spending creates more jobs, which stimulates more income and therefore higher spending). We derive our multipliers from the MGI China National Model by measuring the sensitivity of GDP to changes in expenditure components. This method suggests that the multiplier effect varies over time, but taking the average projected effect from 2008 to 2025, the period of our analysis, suggests that consumption has a multiplier of 1.66, investment of 1.63, and government spending of 1.20. This means, for example, that an extra renminbi of consumer spending ultimately leads to a 1.66 renminbi increase in GDP.

We total the incremental impact of the multipliers, net of the initial expenditure shock, and then distribute this across the three expenditure components according to their share in today's GDP. To calculate the change in net exports, we hold exports consistent with the trendline value, increasing imports as dictated by the import-leakage analysis, leading to a lower trade surplus. Summing across all of these impacts, we arrive at an estimate for the final impact on GDP after accounting for the initial shock, the import leakages, and the second-order multiplier effects of higher spending.

The sections that follow provide detailed descriptions of our analytical approach to estimating the impact from each of the eight policy initiatives discussed in the main body of the report.

## ENABLING CONSUMPTION

### Improving consumer infrastructure, product quality, and availability

Between February and April 2009, a separate McKinsey team evaluated the potential impact on consumption of a group of short-term initiatives designed to increase spending in areas and on products where it was lower than potential, based on benchmarks from other Chinese cities and international examples. This research identified five ideas for improving consumer infrastructure and three criteria for identifying product families and consumption categories with the most potential. Our analysis used this work to make longer-term estimates about the impact of these initiatives on the macroeconomy and consumption share. In some cases, the ideas of this team overlapped with ideas examined in greater detail by the MGI work, so we have excluded them from our analysis to avoid “double counting,” but the five ways of improving consumer infrastructure they examined are:

- Improve retail infrastructure
- Enhance product quality management
- Improve service infrastructure
- Encourage new platforms
- Encourage credit use

Of these, encouraging credit use and improving service infrastructure overlapped closely with our analyses for consumer non-mortgage credit and broader structural shifts to encourage service-sector growth, so we excluded them and focused on the other three categories as our first set of initiatives.

For the remaining three sets of ideas, McKinsey identified 13 high-priority categories of consumer spending based on three criteria: the category’s significance in terms of size; the potential boost to consumption relative to international benchmarks; and feasibility of implementation (based on domestic cross-city comparisons). For each category a set of per capita spending figures is set based on benchmarks, and increases in total consumption are calculated if those targets can be met—through some combination of product offering, distribution networks, quality assurance aspects of the supply chain, and other characteristics— in cities and provinces that underspend (Table 2).

<b>Table 2. Enabling consumption: Macroeconomic impact</b>				
<b>Key assumptions</b>	<b>Units</b>	<b>Trendline value</b>	<b>Impact by 2025 from this policy alone</b>	
			<b>Policy case</b>	<b>Stretch case</b>
Gross domestic product	Billion renminbi, real 2000 (%)	78,508	80,467 (+2.5)	80,467 (+2.5)
Private consumption	Billion renminbi, real 2000 (%)	30,343	32,248 (+6.3)	32,248 (+6.3)
Private consumption share of GDP	%	38.7	40.0 (+1.3)	40.0 (+1.3)
Per capita private consumption	Thousand renminbi, real 2000	21.1	22.4	22.4

## Increasing access to, and use of, consumer credit

### *Housing: Increasing the use of consumer mortgages*

Increasing the usage of consumer mortgages will affect consumption by reducing the amount that Chinese citizens save for housing (Table 3). By projecting total housing sales through 2025, and positing different scenarios for the share of this total that comes from savings versus mortgage lenders, we can estimate the total reduction in private savings directly if Chinese citizens make more use of mortgages (rather than through making assumptions about impact on savings rate, as in some other analyses).

**Table 3. Increased use of mortgages: Macroeconomic impact**

Indicator	Units	Trendline value	Impact by 2025 from this policy alone	
			Policy case	Stretch case
Gross domestic product	Billion renminbi, real 2000 (%)	78,508	79,280 (+1.0)	80,822 (+2.9)
Private consumption	Billion renminbi, real 2000 (%)	30,343	31,093 (+2.5)	32,592 (+7.4)
Private consumption share of GDP	%	38.7	39.2 (+0.5)	40.2 (+1.5)
Per capita private consumption	Thousand renminbi, real 2000 (%)	21.1	21.6 (+2.5)	22.6 (+7.4)

In this approach, we first project future urban home sales based on historical relationships between GDP growth and housing market growth in China. In our projection, total annual sales value reaches 13.5 percent of GDP by 2025, comparable to the United States during the late 1990s and early in the new millennium. We then calculate the baseline private savings required to purchase those homes based on China's current mortgage penetration rate (52 percent) and its average loan-to-value ratio (46 percent).

Thus, our trendline case here is based on the continuation of the status quo. Our research indicates that, since the initial impact of privatizing the housing market in the late 1980s, these values have changed very little until recently. This suggests that the housing market, and the economy overall, has achieved its current growth trajectory (which forms the basis for trendline projections) without the benefit of consumption boosts coming from increased mortgage usage.

The policy and stretch cases, therefore, assume that significant increases in mortgage financing usage that are being seen right now, and are likely in the near future, would reduce private savings, relative to trendline (Table 4). To arrive at a new projected figure for the up-front savings that would be required under the alternate scenarios with more usage of mortgage financing, we then assume a mortgage penetration rate of between 62 and 78 percent and a loan-to-value ratio of between 52 and 65 percent by 2025. These figures imply that between 32 and 50 percent of housing sales by value would be financed, up from 23 percent today, giving us policy and stretch cases to compare against the trendline. Comparing these assumptions against international benchmarks suggests that China by 2025 would be comparable to several other economies today: notably South Korea (35 percent of housing sales by value financed), Hong Kong (50 percent), and the United States, Japan, and Singapore (all about 65 percent).

<b>Key assumptions</b>	<b>Trendline value</b>	<b>Policy case (by 2025)</b>	<b>Stretch case (by 2025)</b>
Total housing market annual transaction value, trillion nominal renminbi	22.8	22.8	22.8
Value of housing spending financed, %	23	28	51
Mortgage penetration: share of home buyers who use a mortgage, %	52	52	78
Average loan-to-value ratio: value of mortgage loan as share of home purchase value, %	46	53	65

Of course, the suggestion that increasing the loan-to-value ratio will increase consumption does make another key assumption. Given the chance to purchase the same home with less of an up-front cash outlay requirement, some home buyers may simply choose to save less of their income each month and make the same home purchase that they would have; others may choose to save the same amount but buy sooner or buy a more expensive home. In each of these cases, the impact on consumption is different. If home buyers choose to buy sooner, or buy a more expensive home, savings may not decrease at all, but investment would increase, fueled by funds borrowed from mortgage lenders.

Since there is not a clear basis for articulating how many consumers will choose each path, for simplicity's sake we assume that consumers will save less, rather than buying sooner or buying more expensive homes. We then treat this reduction in savings as incremental income; each household will spend at its marginal propensity to consume, which increases from 75 percent in 2008 to 83 percent in 2025.

#### *Education: Boosting higher-education funding*

Similar to the case of housing, we believe that increasing use of educational loans will decrease the need for private savings earmarked for funding university education (educational loans are used by approximately 10 percent of university students today, which we assume in our analysis means that 10 percent of total spending on university tuition, fees, and books is funded through borrowing from educational lenders, rather than savings or borrowing from family and friends). As consumers recognize this, their savings behavior will change over time, lowering overall private savings as funding for a university education comes instead from lenders.<sup>23</sup>

To project university education costs and estimate how much private savings will be used to fund them, we use demographic projections to determine the number of potential university students and the number of households with students that will save in advance for the education of their children (Table 5). Despite the fact that university enrollment rates in China are currently less than 30 percent, MGI's survey of urban consumers indicates that almost all Chinese parents (97 percent) believe that their children will attend a university; furthermore, around 60 percent of survey respondents save every month for their children's education. Using a forecast of the inflation rate of educational services, we determined expected future educational

<sup>23</sup> Our analysis initially also included the impact of savings for pre-university education (including savings by migrants, whose children may not have access to public education), and adult education. However, because private spending on both of these items is very small (<0.1% of total private consumption) in comparison with spending on university education, and because our consumer survey indicated that a high percentage of parents save with the intention of sending their children to university, we exclude them from consideration.

costs for a family with a child and how much the family will need to save annually for that expense given the age of the child and the expected year of enrollment. We assume that the amount a household saves for education is relatively modest during a child's early years but increases as the child approaches enrollment age. Using demographic forecasts, we project the total savings required for all households who intend to save for higher education. An assumption that student-loan usage stays the same as it has been in recent years constitutes the trendline scenario.

**Table 5. Education-system assumptions**

Key assumptions	Value by 2025		
	Trendline	Policy case	Stretch case
Tuition and living expenses, 4 years of university, 2008	40,000 renminbi		
CAGR of tuition and living expenses, 2008–2025, %	5.0		
Percent of population under age 18 who save for higher education	60%		
Student-loan penetration rate, % of tuition and living expenses	10	33	50

To determine the reduction in savings if student-loan usage were to expand significantly, we compare the trendline savings based on a student-loan-penetration rate of 10 percent with hypothetical assumptions of a loan-penetration rate of 33 percent (policy case) and 50 percent (stretch case) by 2025. In each of these scenarios, total spending on education does not change, but total private savings to fund that spending is reduced (Table 6).

**Table 6. Boosting higher-education funding: Macroeconomic impact**

Indicator	Units	Trendline value	Impact by 2025 from this policy alone	
			Policy case	Stretch case
Gross domestic product	Billion renminbi, real 2000 (%)	78,508	79,146 (+0.8)	79,549 (+1.3)
Private consumption	Billion renminbi, real 2000 (%)	30,343	30,952 (+2.0)	31,343 (+3.3)
Private consumption share of GDP	%	38.7	39.1(+0.4)	39.4 (+0.7)
Per capita private consumption	Thousand renminbi, real 2000 (%)	21.1	21.5 (+2.0)	21.8 (+3.3)

Similar to the housing analysis, we treat this reduction in private savings as reclaimed income, which would be spent as would any other dollar of income, at the marginal propensity to consume. Although research has showed that in some countries, educational “lending” in practice turns into “hidden grants,” boosting government consumption by essentially transferring income to consumers, we did not assume any increase in tuition subsidies in the form of such “hidden grants.” This puts our estimate of the impact on consumption on the conservative side.

***Expanding the uptake of non-mortgage consumer credit***

Historical data show that growth in outstanding non-mortgage consumer credit has been flat or decreasing as a share of GDP from 2003 to 2008. Our trendline scenario

represents one in which outstanding non-mortgage consumer credit grows in the future, but only as fast as GDP (Table 7). However, if China evolves to look more like developed economies and even other developing Asian economies, its current level of non-mortgage consumer credit outstanding (less than 3 percent of GDP) would grow, boosting consumption relative to the trendline. Because this growth would come with little or no increase in investment or government spending, consumption's share of GDP should also grow.

Accordingly, we examine the impact on consumption share of GDP if future growth in outstanding consumer non-mortgage credit outstrips that of GDP. In our policy case, outstanding non-mortgage consumer credit reaches 9 percent of GDP (roughly the level in Hong Kong in 2007) by 2025. In our stretch case, outstanding consumer credit reaches 15 percent of GDP by 2025, around the level in Taiwan or Singapore in 2007. Although there is no specific analytical linkage between these values and specific government policies, we believe that many of the significant policy changes needed have either happened in the very recent past (e.g., the establishment of a consumer credit bureau, increasing acceptance of credit cards, and so on) or will happen in conjunction with other policy shifts (e.g., financial system reforms discussed in our section on investment). Essentially, we believe that China today may be at an inflection point with regard to consumer credit. With many of the necessary factors newly in place, consumer credit is poised to expand.

<b>Table 7. Expanding the use of non-mortgage consumer credit: Macroeconomic impact</b>				
<b>Indicator</b>	<b>Units</b>	<b>Trendline value</b>	<b>Impact by 2025 from this policy alone</b>	
			<b>Policy case</b>	<b>Stretch case</b>
Gross domestic product	Billion renminbi, real 2000 (%)	78,508	79,373 (+1.1)	80,429 (+2.4)
Private consumption	Billion renminbi, real 2000 (%)	30,343	31,184 (+2.8)	32,210 (+6.2)
Private consumption share of GDP	%	38.7	39.3 (+0.6)	39.9 (+1.2)
Per capita private consumption	Thousand renminbi, real 2000 (%)	21.1	21.7 (+2.8)	22.4 (+6.2)

## **IMPROVING THE SOCIAL-SAFETY NET**

### **Reducing the fast-growing burden of private health-care expenditure**

Since detailed statistics have been available starting in 2003, China's total health-care expenditure has grown roughly as fast as GDP and has maintained a relatively stable level of 4.0 to 4.5 percent in recent years, with households shouldering between 40 and 55 percent of the burden (currently around 45 percent). Because these numbers have remained fairly stable in the historical period, extrapolation to a trendline suggests that an estimate of total health-care expenditure of at least 4.5 percent of GDP by 2025, with households spending 45 percent of the total, is "baked into" econometric forecasts.

The central government, in health-care policy documents released in April 2009, indicated it plans to increase coverage levels to 90 percent of the population and to improve the health-care infrastructure, with an announced 850 billion renminbi spending plan to take place in 2009, 2010, and 2011. Because this spending is incremental to

planned government expenditures, and assuming that private and social spending are not affected, total health-care expenditure will reach 5.4 percent of GDP in 2012, and the share of that spending coming from private sources will fall to 37 percent of the total. Beyond 2011, we were unable to find any clearly indicated government intentions about total health-care expenditure or the split between private, government, and social spending, so we have used simple extrapolations and benchmarking to come up with two plausible scenarios: a policy case and a stretch case (Table 8).

<b>Table 8. Health-care assumptions</b>			
<b>Key assumptions</b>	<b>Trendline value</b>	<b>Policy case (by 2025)</b>	<b>Stretch case (by 2025)</b>
Total health-care expenditure as share of GDP, %	4.5	6.2	9.2
Private out-of-pocket health-care expenditure as share of total health-care expenditure, %	45	37	25
Government health-care expenditure as share of total health-care expenditure, %	20	33	40
Social (corporate) health-care expenditure as share of total health-care expenditure, %	35	30	35
Private household savings rate in 2025, percentage points	16.7	14.5	12.9

Our stretch case scenario assumes that by 2025 growth in demand for health-care products and services will push China to levels of total health-care expenditure similar to those seen in Western Europe today, or roughly 9.2 percent of GDP. Because China at that time will still lag Western European income levels of today, this would imply annual per capita spending of \$2,300, similar to Slovenia or Israel today. We also assume that the private share of health-care expenditure will fall to 25 percent of the total by 2025, which also closely approximates Western Europe today.

The policy case interprets the recently announced government action as signaling 37 percent as the “maximum” share of total health-care expenditure that the government will allow to fall on households. Because there are no government targets for total health-care expenditure that we could find and coverage levels or infrastructure do not easily yield a top-down estimate for total expenditure, we assume that the private expenditure in the policy case is equal to 37 percent of the total, instead of 25 percent of the total as in the stretch scenario. This yields a total health-care expenditure of 6.2 percent of GDP by 2025, with 37 percent from households, and a nearly even split of the remainder between government (33 percent) and social or corporate spending (30 percent).

These two scenarios yield lower-than-trendline spending on health care by private citizens, and higher-than-trendline spending by government and corporations. Lower spending by private citizens would be at least partially spent on other categories of goods and services; we treat this decrease in health-care expenditure as “reclaimed income” and assume that it will be spent at the same marginal propensity to consume as normal income. Higher spending by government is treated as government consumption and factored into macroeconomic analysis accordingly, and higher spending by corporations is treated as reductions in investment, since ultimately it must come out of corporate profits.

Lastly, we assume that increases in health-care insurance coverage will lead to lower precautionary savings, decreasing household savings rates, and boosting consumption. A study of Taiwan’s rapid rollout of government-provided health

insurance in the 1990s found resulting decreases in savings rates of between 2.2 and 3.7 percentage points. Since health-care insurance coverage in China has only recently begun to spread (coverage figures seem to have been as low as 5 percent as recently as 2000, rising to 30 percent by 2003 and 73 percent by 2007), we assume similar results in China, with the policy case positing a 2.2 percentage point decrease in household savings rate, and the stretch case a larger 3.7 percentage point decrease (Table 9).

<b>Table 9. Reducing the burden of private health-care expenditure: Macroeconomic impact</b>				
<b>Indicator</b>	<b>Units</b>	<b>Trendline value</b>	<b>Impact by 2025 from this policy alone</b>	
			<b>Policy case</b>	<b>Stretch case</b>
Gross domestic product	Billion renminbi, real 2000 (%)	78,508	80,223 (+2.2)	81,145 (+3.4)
Private consumption	Billion renminbi, real 2000 (%)	30,343	31,325 (+3.2)	31,933 (+5.2)
Private consumption share of GDP	%	38.7	39.1 (+0.4)	39.3 (+0.6)
Per capita private consumption	Thousand renminbi, real 2000 (%)	21.1	21.8 (+3.2)	22.2 (+5.2)

### **Increasing access to, and the reliability of, old-age insurance systems**

Our survey of urban consumers indicates that saving for retirement is one of the top motivators for Chinese citizens to save, either indirectly (consumers save to take care of elderly parents, who may or may not have pensions) or directly (consumers save for their own retirement spending needs). Our treatment of this issue therefore assumes that improving the pension system would, by 2025, lead to a significant decrease in private voluntary savings and corresponding increases in consumption as participation in pension schemes leaves consumers with a greater confidence that their retirement funds need not be financed entirely out of voluntarily accumulated savings (Table 10).

<b>Table 10: Pension-system assumptions</b>			
<b>Key assumptions</b>	<b>Value by 2025</b>		
	<b>Trendline value</b>	<b>Policy case</b>	<b>Stretch case</b>
Total pension coverage, % of total workers	61	85	85
Total number of covered workers, million	526	733	733
Total number of uncovered workers, million	337	130	130
One-time income reduction for those who receive a pension under coverage expansion, % of disposable income	8.3	8.3	3.7
Overall 2025 private savings rate, % of disposable income	16.7	15.2	14.2
Private 2025 savings rate for workers who would not have otherwise been covered, % of disposable income	16.7	12.5	12.5
Private 2025 savings rate for workers who would be covered in any scenario, % of disposable income	16.7	15.9	14.2

However, since pension receipts for old-age retirees are not free but essentially come out of “forced” savings accumulated over the course of a worker’s career, we also incorporate in our analysis a small reduction in incomes that will accompany expansion. As workers are added to the system, their disposable incomes will decrease slightly as they make contributions to the pension fund, and this decrease in income will presumably have a corresponding downward impact on consumption. Our analysis incorporates the impact of both of these effects to accurately model the impact on private consumption.

As discussed briefly in the main body of the report, the challenges facing China’s pension system extend beyond coverage to the reliability and funding aspects of the system itself. Accordingly, a key feature of our analysis is that we project a small decrease in savings rate even for those who already have pensions, and for those who would have received a pension under the government’s planned coverage expansion. Although modeling improvements in the reliability, efficacy, and funding status of the pension system were beyond the scope of our study, we assume some impact on savings rates for all covered workers because we expect that the government will address both of these in at least some measure (for example, the government has already indicated its intention to shift away from municipal administration and funds pooling toward provincial administration, even though progress on this front has been slower than anticipated).

### **Coverage expansion**

To derive a trendline case for overall pension coverage levels, we looked at estimates of coverage rates for three groups: urban residents, urban workers (migrants), and rural residents. For urban residents, coverage has expanded considerably in recent years and was close to 90 percent by 2007. However, coverage expansion among the other two groups has been much slower. Although the government has set aggressive targets for the future, coverage levels among migrants and rural workers seem to have reached 20 to 25 percent, at most, by 2007 (we use estimates of 16 percent for rural workers and 23 percent for migrant workers). Extrapolating coverage expansion rates for these three groups into the future, we assume a total coverage level in the trendline case of 61 percent, representing urban resident coverage of 93 percent and rural and migrant coverage rates of 45 percent by 2025. Thus, the trendline scenario represents expansion of coverage from 289 million workers today to 526 million workers by 2025, growing participation in the pension system by approximately 237 million workers.

Using the same data on coverage expansion in recent years but replacing trendline coverage expansion with expansion growth estimates based on central government targets of an 80 percent coverage rate for urban and rural residents by 2020, we extrapolate forward to get our policy and stretch cases. Since the total coverage rates reach levels close to 100 percent in any case, these two scenarios are identical in terms of coverage, reaching an overall rate of 85 percent by 2025. This represents a 95 percent coverage rate for urban residents and 80 percent coverage for both migrant workers and rural residents. This would mean expansion of coverage from 289 million workers today to 733 million workers by 2025, growing participation by 444 million workers, or by an additional 207 million workers above the trendline.

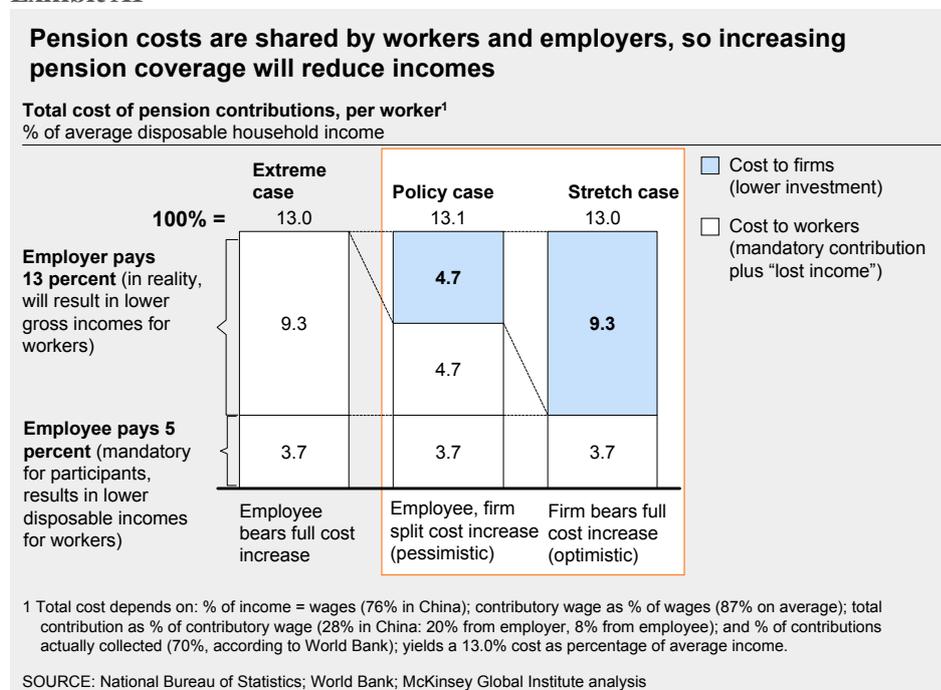
### **Impact on covered workers’ disposable incomes**

In terms of the impact on disposable incomes, which should show a one-time drop for workers who become participants in the system, we use two scenarios. The trendline and policy case scenarios represent the income effect that we calculate is

closest to what workers added today would see, an 8.3 percent one-time reduction in per worker disposable income (details behind this figure are discussed below). The stretch case assumes that the government will attempt to minimize the impact on incomes and shift more of the burden onto employers, and so posits a lower drop, of only 3.7 percent. In both cases, trendline income growth rates are applied for all workers regardless of coverage status, since we have no basis for suggesting that workers with a pension will have slower- or faster-growing income.

For both instances in which we calculate impact on incomes, the mandatory worker contribution is deducted from income directly, after some adjustments discussed in the next paragraph. In our trendline and policy case, the employer's contribution is split evenly between the employer and the employee, resulting in slightly higher costs for the employer but slightly lower incomes than "potential" for the employee. In our stretch case, the employer bears the entire cost of the employer contribution in the form of higher cost or reduced investment (Exhibit A1).

### Exhibit A1



Although the total cost of the pension system is supposed to be 20 percent of contributory wages from employers and 8 percent from employees, the total cost as a percentage of incomes is actually considerably lower, for three reasons. First, wage income makes up 76 percent of disposable household income, on average. Second, contributory wages equal only 87 percent of average wages, according to a 2005 World Bank report on China's pension system. Third, inefficient collection policies mean that only 70 percent of the intended amount to be collected is actually paid. The combined impact of these three factors means that the total cost of a pension to workers equals 8.3 percent of disposable income in our trendline and policy cases, and 3.7 percent in our stretch case (conceptually signifying a case where employers, not workers, have to bear most of the cost of paying into the pension system).

### Impact on savings rate

To calculate the impact on savings, we use values from MGI's April 2009 China Urban Consumer Savings Behavior Survey to make assumptions about how savings

will change for two groups: those who are covered in any scenario, either because they are already covered or will be added in the trendline coverage expansion scenario; and those who would be covered only in the policy or stretch scenarios for expansion. For workers who are not covered in any of these scenarios, we assume that household savings rates follow the trendline. By calculating the household savings rates for each of these groups and aggregating upward, we calculate the overall change in household savings rates by 2025, which we use to estimate the incremental impact on consumption.

The survey suggests that consumers who have a pension save approximately 18 percent of their disposable incomes; those who do not have a pension save approximately 25 percent of their disposable incomes. Of course, it is possible that some other factors (health-care insurance coverage, for instance) might be correlated with pension coverage and also contribute to this difference. However, when testing for these effects, we found no statistically significant correlation between pension coverage and the presence of other social-safety-net indicators, suggesting that the pension premium of voluntary savings reduction should be approximately one-quarter of private savings for those who are added to the system incrementally (e.g., those who would not have been covered in the trendline scenario but would be added to the system in the other scenarios). Therefore, in all three scenarios (trendline, policy, and stretch) we assume that workers who receive coverage under expansion in the future will, by 2025, reduce their savings rates by 4.5 percentage points (one-quarter of the 2025 trendline household savings rate of 17.7 percent of disposable income).

Although the biggest impact on savings should be seen among those who would not be covered in the trendline scenario, as discussed previously, we believe that improvements in the pension system will also affect workers who are covered in all scenarios (e.g., those who are already covered or would be added even in the trendline scenario expansion). This reflects our belief that the administration- and funding-related problems facing the pension system will be addressed to some degree by the government. Accordingly, we also posit a small decrease in savings rate for these workers. In the stretch case, which would represent the most dramatic policy action on these fronts, we assume a 15 percent reduction in savings for this group, smaller than the 25 percent reduction for incrementally covered workers but still significant. In the policy case, the impact is even smaller, a 5 percent reduction. By aggregating the new savings rates for each group of workers, we achieve the overall private household savings rates used in our analysis (Table 11).

<b>Table 11. Improving the pension system: Macroeconomic impact</b>				
Indicator	Units	Trendline value	Impact by 2025 from this policy alone	
			Policy case	Stretch case
Gross domestic product	Billion renminbi, real 2000 (%)	78,508	77,703 (-1.0)	78,231 (-0.4)
Private consumption	Billion renminbi, real 2000 (%)	30,343	29,838 (-1.7)	30,655 (+1.0)
Private consumption share of GDP	%	38.7	38.5 (-0.2)	39.2 (0.5)
Per capita private consumption	Thousand renminbi, real 2000 (%)	21.1	20.7 (-1.7)	21.3 (+1.0)

## UNDERTAKING STRUCTURAL REFORMS TO INCREASE HOUSEHOLD INCOME

### Box A1: A note on methodology for structural policies

Although the technical appendix includes a more detailed discussion of our methodology, it is worth noting here that the methodology for estimating the impact of these policies differs somewhat from the approach we used for the other two policy groups. For initiatives aimed at encouraging consumer spending and improving the social-safety net, we used a bottom-up approach to estimating how achieving various specific policy objectives might affect the components of GDP. But for our analysis of structural change, we do not begin with specific policy recommendations. Instead we use a combination of historical growth patterns and projected changes in investment and employment to hypothesize what the Chinese economy would look like in 2025 (including employment, productivity levels, and capital stock for the agriculture, industry, and service sectors) if the government pursues the broad set of policies we describe in this section.

We then build on this hypothetical snapshot of China in 2025 to derive estimates for GDP, investment, private income, consumption, and net exports in the scenarios analyzed. In summary, the estimates in this section are not projections of where China's economy will be in 2025 if it follows these policies but an estimate of how the components in the macroeconomy—including investment, consumption, and private income—might diverge from the trendline if China follows a path that is more focused on the service sector.

We take a similar approach to assessing the impact of increasing investment-related income growth. Rather than examining the incremental impact of individual policies, we take a top-down approach. We hypothesize the likely share of household income coming from financial investments and then use this estimate to calculate the potential impact on total income and consumption and provide a sensitivity analysis to show how much consumption share in the economy might change if dividends, interest, and other investment-related sources of income come to figure more prominently in the average Chinese household.

Although we do not estimate the incremental impact of individual policies, there is nonetheless a set of concrete reforms that will help China achieve a transition toward a more services-centric economy and to boost investment-related sources of income. These reforms include further financial-sector liberalization, the removal of subsidies and tax incentives that encourage investment in industry, and efforts to encourage investment and growth in the SME sector.

### China's service share in 2025

Changes in policies that will have an impact on China's investment patterns will produce faster or slower growth in certain industries. To assess potential outcomes, we have plotted the growth paths required to reach two counterfactual scenarios for China's service share in 2025. Today, this share is approximately 40 percent, and our trendline scenario suggests that it will grow only moderately, to 43 percent of GDP by 2025. Despite the projected three percentage point increase, this value is still considerably below those prevailing in a number of other developed and developing

economies (witness the United States at 78 percent, Japan and Germany at 70 percent, or South Korea at 56 percent in 2007). Because the government has targeted increases in the service share as a goal in its Five Year Plans (most recently the 11th Five Year Plan for the period 2005 to 2010), we believe that a shift to a greater service share is likely by 2025, if the government follows through on its stated intentions. However, current indications from the government's stimulus actions (likely to be short term in impact) and industrial policy suggest that it is overtly prioritizing support for industry over stimulating services during the global economic slowdown.

We do not intend to speculate about how such a shift might boost or retard GDP growth, and we therefore assume that overall GDP in these two scenarios will remain similar to that in the trendline scenario. Thus, changes in the economy that speed growth in service sectors will also slow growth in industry sectors, relative to the trendline scenario. In both our policy and stretch cases, we assume that growth in the agricultural sector stays roughly at trendline. As we will describe, our two scenarios attempt to estimate the impact on the consumption share and the macroeconomy should China reach a service share of 49 percent in the policy case by 2025 or a share of 56 percent in the stretch case.

The policy case represents a simple extrapolation of the government's goal in the 11th Five Year Plan to boost service share by three percentage points by 2010. Although our trendline indicates that China is not on track to reach this goal and will remain at roughly 40 percent by 2010, if the government were to reinstate and achieve similar goals in the 12th, 13th, and 14th Five Year Plans, China would reach a 49 percent service share by 2025. And to assess the impact if China should manage to achieve an even larger shift toward services, our stretch case uses a 56 percent service share. Although our conclusions about the impact on consumption share are different (due to use of different methodologies), this scenario is consistent with that proposed by the World Bank's Bert Hofman and Louis Kuijs in October 2007, which assumed a service share of 54 to 55 percent by 2025. It is also similar to South Korea's current level, providing some context for comparison.<sup>24</sup>

### **Deriving impact on employment, investment, and productivity**

Positing the end case for China's overall GDP and the service, industry, and agricultural shares of GDP allows us to model growth through changes in capital stock, labor, and Total Factor Productivity through a standard Cobb-Douglas decomposition analysis. In a sense, our analysis proposes that China is able to achieve a service share of 49 or 56 percent by 2025 without changes that require significantly slower or faster overall growth in the economy and then asks how fast overall employment, investment, and productivity would have to grow in each sector until then. Although in such an analysis there are many possible "solutions" representing paths that China could take to reach a higher services share, we have chosen two that we feel represent what is likely for China. In general, these represent three patterns, with respect to the trendline projections:<sup>25</sup>

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24 Bert Hofman and Louis Kuijs, *Rebalancing China's growth*, paper presented at the conference on China's exchange rate policy held at the Peterson Institute for International Economics, October 19, 2007.

25 Our trendline projections used here include values for GDP, employment, and capital stock, overall and by sector. Sector-level GDP and sector-level employment data come from Global Insight's May 2009 forecasts, while total employment and capital stock figures come from Oxford Economic Forecast, May 2009.

- **Employment—more employees going into services than into industry.** As China’s agricultural sector continues to grow more productive, its workforce will keep shrinking, and these workers must transition into jobs in industry or services. In the recent past, these low-skilled workers have gone mostly into the manufacturing and construction industries, but if China is to transition to a more service-driven economy, overall growth in employment in these industries will necessarily slow as workers choose instead to move into services.
- **Investment—more investment into services, less investment into industry.** As discussed in the main body of the report, there is a great deal of evidence that investment in industry has been spurred by some distortions in China’s economic structure. Removing some of these should result in changes in investment patterns, boosting the growth rates of capital stock in services and slowing growth rates of capital stock in industry.<sup>26</sup>
- **Productivity—faster productivity growth in industry and slower productivity growth in services.** Total Factor Productivity growth in China’s industry sector has slowed in recent years, reflecting the fact that growth has been driven primarily through significant increases in labor (fueled by workers exiting the agricultural sector) and capital (fueled by booming profits among industrial firms, which have been largely reinvested in capacity expansion).<sup>27</sup> If employment shifts gradually into services as described above, it will be necessary for productivity in industry to grow more rapidly in order to maintain growth (which also should be expected as the skill levels and usage of technology in industry continue to advance). Of course, it is also likely that productivity in services will slow as significant quantities of mostly low-skilled workers are absorbed into the economy.

### **Deriving impact on income, consumption, investment, and net exports**

Once we have total employment values, we use historical wage level differences for the three sectors, combined with productivity growth levels, to estimate total wages (and, hence, income) for each sector through 2025. For the agricultural and industry sectors, we assume that wage growth, rather than matching the trendline value, will be different in our scenarios: speeding up if labor productivity growth is higher than trendline (as in the industry sector), and slowing down if labor productivity growth is lower than trendline. Because we believe China’s service sector still has room to reach greater economies of scale, we assume that wage growth will first align with service-sector GDP growth, and then will gradually shift to resemble productivity growth. Because we are using static analysis, we apply the trendline private savings rate to this income in order to calculate a new private consumption value in the economy.

Because private consumption increases quite substantially in both scenarios, relative to trendline (9.6 percent in our policy case, 17.6 percent in the stretch case), other components of GDP lose share. We exclude impact on government spending, assuming that most policy changes here will have little or no impact on this GDP

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26 Estimates of the amount of investment (a flow) required to reach certain capital stock levels are sensitive to assumptions about depreciation and discount rates, but since using capital stock allows us to use the Cobb-Douglas production function, we have chosen it for the primary analysis. We derive the corresponding investment levels by looking at the historical relationship between investment and GDP in each industry to understand how much investment would be required to generate this GDP growth.

27 Jinghai Zheng, Arne Bigsten, and Angang Hu, *Can China’s growth be sustained? A productivity perspective*, Göteborg University, Sweden, Department of Economics, and Tsinghua University, Beijing, School of Public Policy and Management, Center for China Studies, working paper, number 236, November 28, 2006.

component. So, the net decrease in other components will come in the form of lower total investment relative to trendline (which will grow more efficient as the financial system becomes increasingly adept at allocating capital), with some impact as well on net exports, which will decrease as domestic consumption grows (Tables 12 and 13).

<b>Table 12. Shifting investment and moving to services: Macroeconomic impact</b>				
Indicator	Units	Trendline value	Impact by 2025 from this policy alone	
			Policy case	Stretch case
Gross domestic product	Billion renminbi, real 2000, %	78,508	79,967 (+1.9)	81,034 (+3.2)
Industry share in the economy	%	51	45	38
Service share in the economy	%	43	49	56
Private consumption	Billion renminbi, real 2000, %	30,343	33,265 (+9.6)	35,677 (+17.6)
Private consumption share of GDP	%	38.7	41.5 (+2.8)	43.5 (+4.8)
Per household private disposable income	Thousand renminbi, real 2000, %	70.8	77.6 (+9.6)	83.3 (+17.6)
Per capita private consumption	Thousand renminbi, real 2000, %	21.1	23.1 (+9.6)	24.5 (+17.6)

<b>Table 13. Shifting investment and moving to services: Supply-side GDP impact</b>				
Indicator	Units	Trendline value	Impact by 2025 from this policy alone	
			Policy case	Stretch case
Total employment	Million workers	863	872	909
Agricultural employment	Million workers	111	110	110
Industry employment	Million workers	438	379	267
Services employment	Million workers	314	383	532
Industry total factor productivity growth	CAGR 2008–25, % percent	3.1	3.3	3.9
Services total factor productivity growth	CAGR 2008–25, % percent	4.8	4.6	4.1
Capital stock	Trillion renminbi, real 2000	162.4	154.0	146.4
Industry capital stock	Trillion renminbi, real 2000	82.9	67.1	48.3
Services capital stock	Trillion renminbi, real 2000	62.6	77.7	88.3

### Improving investment-related sources of household income

Investment-related sources of income in China have consistently been 1 and 2 percent of total household disposable income since 2003, according to available data. We use 1.7 percent as the trendline and assume that growth in these sources

of income will not cannibalize other income growth (Table 14). Projecting forward, we assume that in a moderate case Chinese households may receive 3.4 percent of their income from investment-related sources, representing a 9 percent CAGR to 2025. In a more aggressive case, this share of total income would reach 5.1 percent, implying a CAGR of 13 percent. The range around these two projections would result in a 1.7 to 3.4 percent boost to average household incomes (Table 15).

**Table 14. Investment-income assumptions**

Metric	Trendline value	Policy case (by 2025)	Stretch case (by 2025)
Percentage of income	1.7	3.4	5.1
Resulting average per household disposable income, thousand renminbi, real 2000	70.8	72.0	73.2

**Table 15. Boosting investment-related sources of household income: Macroeconomic impact**

Indicator	Units	Trendline value	Impact by 2025 from this policy alone	
			Policy case	Stretch case
Gross domestic product	Billion renminbi, real 2000 (%)	78,508	78,408 (-0.1)	78,307 (-0.3)
Private consumption	Billion renminbi, real 2000 (%)	30,343	30,858 (+1.7)	31,372 (+3.4)
Private consumption share of GDP	%	38.7	39.4 (+0.7)	39.9 (+1.2)
Share of household income from investment-related sources	%	1.7	3.4 (+1.7)	5.1 (+3.4)
Per household private disposable income	Thousand renminbi, real 2000 (%)	70.8	72.0 (+1.7)	73.2 (+3.4)
Per capita private consumption	Thousand renminbi, real 2000 (%)	21.1	21.5 (+1.7)	21.8 (+3.4)

To ascertain the impact of such trends on consumption and investment, we use the trendline all-China private savings rate (16.7 percent of disposable income by 2025) to calculate the marginal propensity to consume and apply it to all new income to understand the amount of incremental consumption generated. We assume that newly generated income is subtracted from trendline investment (because it is coming out of companies' retained profits).

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