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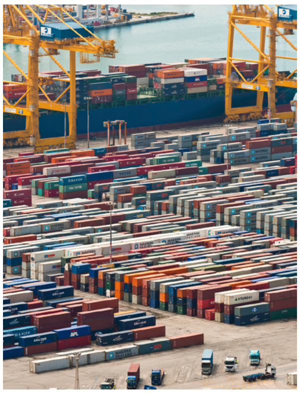

April 2013

Beyond Korean style: Shaping a new growth formula

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The Seoul Office provides pro bono assistance to various national and municipal governmental organizations, chairing committees such as the Foreign Investment Advisory Council and the Seoul International Business Advisory Council. The office also supported the Seoul G20 Business Summit and contributes to the world's understanding of Korea with publications such as this report and *Korea 2020: Global perspective for the next decade*. The office is headed by McKinsey Director Wonsik Choi, who was appointed McKinsey Korea managing director in 2012.

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Preface

South Korea remains a global case study for economic development. Known as the "Miracle on the Han," South Korea's record-breaking industrialization turned it from one of the world's poorest states to a global economic power with per capita GDP of $30,000 (in purchasing power parity terms). It is the first nation to go from a recipient of Organisation of Economic Co-operation and Development aid to becoming an OECD donor. It has weathered the financial crisis better than most developed economies and remains a global leader in ship building, LCD screens, mobile handsets, and memory chips; it is the fifth-largest automaker. Its athletes win Olympic medals and golf championships. The heads of both the World Bank and United Nations were born in South Korea. K-pop and other Korean pop culture offerings have swept Asia and are known around the world.

But the growth formula behind the South Korean economic miracle—a state-guided capitalism focused on export-led manufacturing—is no longer working for many Koreans. GDP has nearly tripled in the past 20 years, but this growth has become decoupled from the fate of ordinary citizens, whose real wages have grown by less than half that rate. More than 50 percent of middle-income households are paying out more each month than they earn. The signs of social distress are multiplying. South Korea's divorce rate has tripled, and fertility rates have fallen to the fourth-lowest among advanced economies. The suicide rate is the highest of all OECD economies.

This is the McKinsey Global Institute's first major report on the South Korean economy since 1998. In this report we focus on the causes of stresses on middle-income Korean households and how their financial crunch is affecting the overall economy. We then examine the elements needed in a new growth model for Korea. We believe that without action, the economy could face the threat of declining consumption and even shrinking output. South Korea badly needs to shore up the financial strength of its families and build up the capabilities of its service industries and small businesses to create well-paying jobs.

This project was led by Richard Dobbs, a McKinsey director and a director of the McKinsey Global Institute, and by McKinsey director Wonsik Choi and McKinsey partner Dongrok Suh. MGI senior fellow Jan Mischke supervised the research. Eunjo Chon, Hangjip Cho, Boyoung Kim, and Hyunmin Kim managed the project team, which consisted of Hyungpyo Choi, Kyunghwa Jang, Jaesung Jung, and Jaehong Kim.

This report would not have been possible without the prior research and thoughtful input of McKinsey Seoul office directors and partners. We would particularly like to thank Richard Lee, Minyoung Kim, Yongah Kim, Seungheon Song, and Roland Villinger. We are grateful for the input and support of McKinsey Directors Dominic Barton and Gordon Orr, MGI senior fellow Fraser Thompson, and knowledge expert Urs Binggeli. The team would like to thank Geoffrey Lewis for editorial support and MGI's operations and communications team, including Julie Philpot, Marisa Carder, Joanne Willis, and Yunjung Kim, as well as Brian Lee, external relations director for the Seoul Office.

We are also grateful for the guidance we received from many global experts in academia, industry, and government. Our particular thanks go to Martin Baily, the Bernard L. Schwartz Chair in Economic Policy Development at the Brookings Institution; Vincent Chriqui, director general at French Government Strategy Analysis Center; Richard Cooper, Maurits C. Boas Professor of International Economics in the Department of Economics at Harvard University; Sang Yong Park, professor, School of Business, Yonsei University; and Michael Spence, Nobel laureate and a senior fellow at the Hoover Institution and Philip H. Knight Professor and dean emeritus, Graduate School of Business, Stanford University.

We are extremely grateful to South Korean policy makers, experts, and business leaders who have provided invaluable insight: Jinho Chung, president and CIO of MYSC (Merry Year Social Company); Yoon-soo Jung, chairman of Korean Government Performance Evaluation Committee; Yongsung Kim, president and CEO of Doosan Infracore; Hongsik Lee, professor, Department of Economics, at Korea University; Yong Nam, former CEO of LG Electronics; Yongmaan Park, chairman and CEO of Doosan Group; and Kwanho Shin, professor, Department of Economics, at Korea University. A number of other policy makers and executives provided input privately and have asked not to be publicly thanked.

We believe South Korea can address the challenges that its middle-income households face and build a more balanced economy, with more demand from domestic consumers and a greater contribution to GDP by service-sector companies and entrepreneurial businesses. Our goal in this report is to frame the discussion about the policies that can build the foundation for South Korea's next era of growth.

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April 2013

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Executive summary

South Korea has set many records for economic and social achievement. From one of the world's poorest nations in the 1960s, it has grown to be the 12th-largest economy in GDP (about $1.1 trillion), with $30,000 of GDP per capita.[1] It is the only nation to go from a recipient of the Organization for Economic Co-operation and Development (OECD) Development Assistance Committee's aid to becoming a member of the donor committee. It is a global leader in the manufacture of ship building, LCD screens, mobile handsets, and memory chips, and is the fifth-largest global automaker. Its corporations have become global leaders, and its athletes win Olympic medals and golf championships. The heads of both the World Bank and United Nations were born in Korea, and the K-pop music and Korean entertainment waves have swept Asia and the world.

Yet South Korea also has the highest suicide rate among OECD nations. Its divorce rate has soared, and the fertility rate has fallen to the fourth-lowest in the OECD. These are symptoms of a society in stress. The cause of that stress is largely economic: slowing wage growth and soaring spending on housing and education have left more than half of middle-income households cashflow-constrained. Household debt has more than doubled, and South Korea's household saving rate has plummeted from among the world's highest to the lowest among the OECD nations.[2]

It is increasingly apparent that the export-oriented growth formula that helped the large Korean conglomerates drive economic development and raise incomes is running out of steam: GDP continues to grow, but the progress of the national economy has begun to decouple from the lives of many South Koreans, who have seen their fortunes wane. The current trajectory leads to growing inequality, falling consumption growth, and—eventually—a population that is too small to sustain GDP growth.

This report, prepared by the McKinsey Global Institute (MGI), arrives 15 years after MGI's first report on South Korea in 1998. Then the most pressing issues for the economy were the heavy reliance on debt by South Korea's large industrial corporations and their declining productivity. Those issues have been resolved. In the past decade, South Korea's largest manufacturing companies have raised productivity by more than 9 percent annually and have become leading global competitors. Corporate debt ratios have fallen from around 300 percent of company net worth to 110 percent.[3]

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1 2012 estimate adjusted for purchasing power parity, World Economic Outlook Database, International Monetary Fund, October 2012.

2 For details on growth of household debt see, *Debt and deleveraging: The global credit bubble and its economic consequences*, McKinsey Global Institute, January 2010. See also *Debt and deleveraging: Uneven progress on the path to growth*, McKinsey Global Institute, January 2012.

3 Statistics Korea (KOSTAT), 2012.

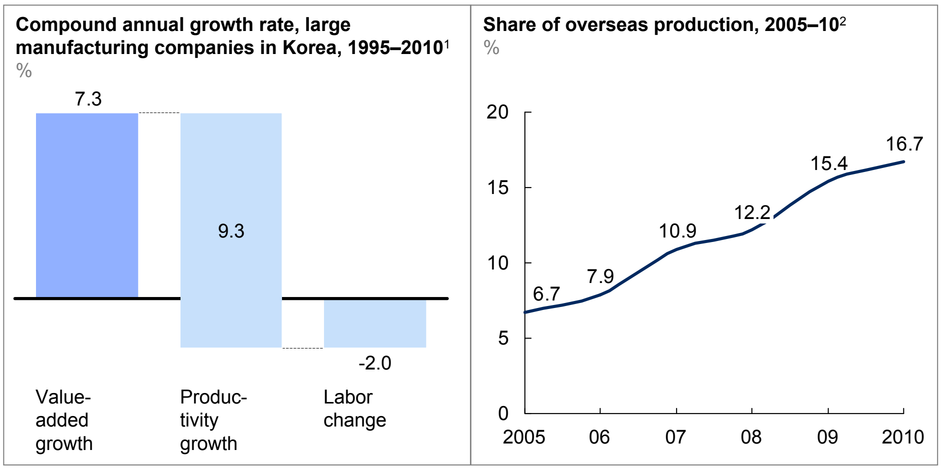
However, as the largest companies have become more productive and more globalized, they have hired fewer workers at home; their share of domestic employment has fallen by one-third from 18 percent to 12 percent, even as they have expanded rapidly overseas (Exhibit E1). Job creation now falls to the service sector and South Korea's small and medium-sized enterprises (SMEs), and this has exposed the weakness of both sectors. While the service sector has some globally competitive players, notably in air transportation, engineering, and construction, most of the sector is concentrated in low value-added local businesses, such as restaurants and small shops.

The SME sector is made up almost entirely of very small enterprises, with very few companies growing to mid-sized or large businesses. Korea today is missing the entrepreneurial culture that is seen in other nations and that once helped create the great chaebol. As a result, service companies and SMEs have only 35 to 40 percent of the productivity of large companies and do not offer the high-paying, long-term employment that South Korea's major corporations have provided and that raised living standards for middle-income households for 30 years.

Exhibit E1

Large Korean manufacturing companies have grown rapidly, but productivity gains and overseas expansion have made it "jobless growth" at home

Large manufacturing companies have raised productivity and cut domestic employment … **… while growing overseas operations rapidly**



1 Manufacturing companies with more than 300 employees from Mining and Manufacturing Business Survey.
2 Share of total revenue from overseas operations, 2010.
SOURCE: Statistics Korea; Export-Import Bank of Korea; McKinsey Global Institute analysis

The central message of this report is that South Korea needs a new growth model that restores the financial health of middle-income families, raises consumption, and addresses social and structural problems that threaten the nation's long-term prospects. This message, it should be noted, also has relevance for China and other rapidly developing nations that will likely face similar challenges as they reach South Korea's per capita income level. As these economies mature and are less able to sustain growth from exporting manufactured goods, they, too, will need to raise domestic consumption and build up non-manufacturing sectors.

To move forward, South Korea needs to go back and build the sectors and institutions that did not develop fully as it pursued its economic "miracle" with export-driven industrialization. It must pay more attention to non-tradable sectors that are essential for generating domestic demand and job creation, but which have not benefited from consistent and well-executed government policy. The nation can no longer afford to have a service sector that is heavily dominated by low-productivity local businesses. Nor can it depend on millions of tiny enterprises to provide jobs for middle-income families. A new growth model is needed that builds up high-value services, enables small businesses to flourish and expand, taps the talents of South Korea's highly educated workforce, and restores financial strength to middle-income families. Such a plan can unleash a virtuous cycle in which rising incomes lead to higher rates of consumption and investment, enabling more growth and further income gains.

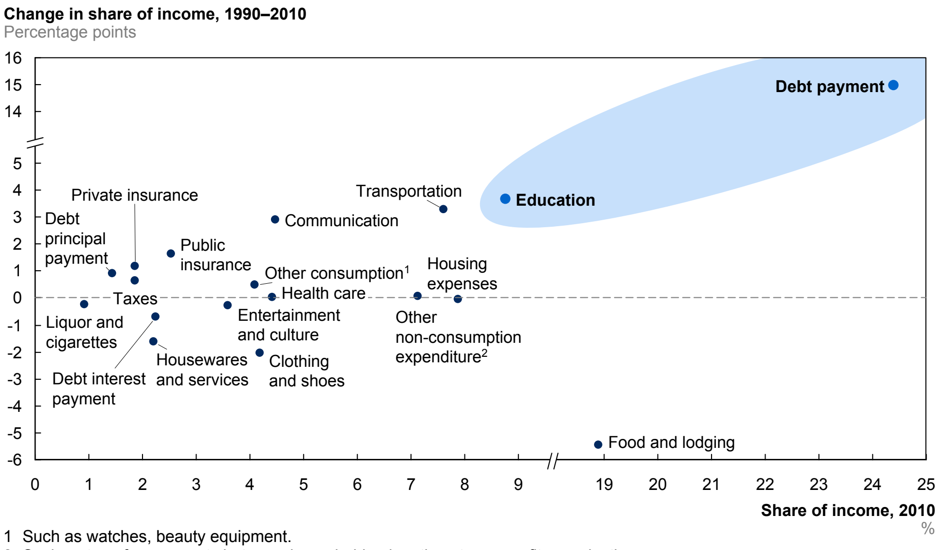
THE FINANCIAL CRUNCH ON SOUTH KOREA'S MIDDLE-INCOME HOUSEHOLDS

Many of Korea's problems cause or emanate from the rising financial stresses on middle-income households. The root causes begin with slowing income growth, which is the result of the shift in the sources of job creation to lower-paying services and SMEs. This is compounded by lifestyle choices: most South Korean families cling to a traditional family economic structure, with a single male wage earner. Only about 44 percent of South Korean households have two incomes, compared with an average of 57 percent across OECD nations. South Koreans also shoulder high monthly payments for housing loans and spend more on private education than almost any society on earth. This spending on housing debt and education has risen sharply in the past 15 years (Exhibit E2).

Exhibit E2

Debt payment and education fees are the largest and fastest-growing expenditures for South Korean middle-income households

Based on top 40–60% income level



1 Such as watches, beauty equipment.
2 Such as transfer payments between households, donations to nonprofit organizations.
SOURCE: Statistics Korea; McKinsey Global Institute analysis

As a result of this pattern in income growth and spending, the financial situation of middle-income households (those earning from 50 to 150 percent of the median income of $37,000) has deteriorated substantially over the past two decades.[4] Because of slowing income growth, the number of households in

4 In this report, we use Korean won and US dollars. We translate won into dollars using the average Won-Dollar exchange rate from Bank of Korea for 2012.

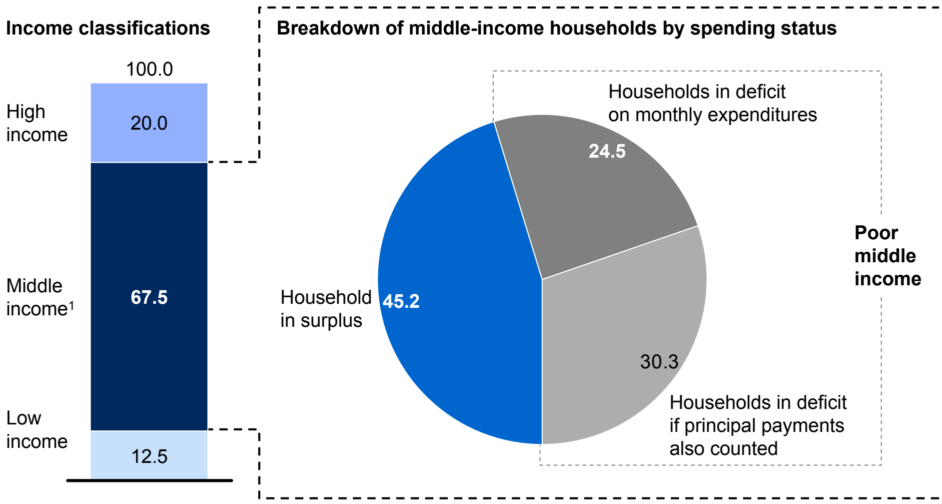
the middle-income cohort has fallen from 75.4 percent of the population to 67.5 percent, and a rising share of those who remain are cashflow-constrained. They face sharply higher costs for home loans, and families with children are engaged in an education "arms race"—laying out large sums for years of private schooling and tutoring to prepare children for college entrance examinations. South Korea's household saving rate has plunged from around 19 percent in 1988 to 4 percent in 2012, among the lowest in the OECD group, and the proportion of middle-income households operating in deficit—paying out more in expenses every month than they take in—has jumped from 15 percent to 25 percent. Even this understates the magnitude of the problem. Most South Korean mortgages are of short duration and require high monthly principal payments that are not counted in the monthly expenditure data. If these payments were counted, nearly 55 percent of middle-income households could be considered to be in deficit—part of a growing "poor middle-income" cohort (Exhibit E3).

Exhibit E3

The proportion of middle-income households in deficit would be 54.8 percent if all expenditures and debt payment costs were counted

2010

%



1 50–150% of median income.

SOURCE: Statistics Korea; McKinsey Global Institute analysis

Middle-income South Koreans face both high housing prices and high financing costs. Home prices in South Korea are 7.7 times the median income, far higher than in other advanced economies, and the wealth of South Korean families is nearly three times as concentrated in real estate as the wealth of US families (Exhibit E4). And around 53 percent of household debt is housing-related, or more than twice the US level.

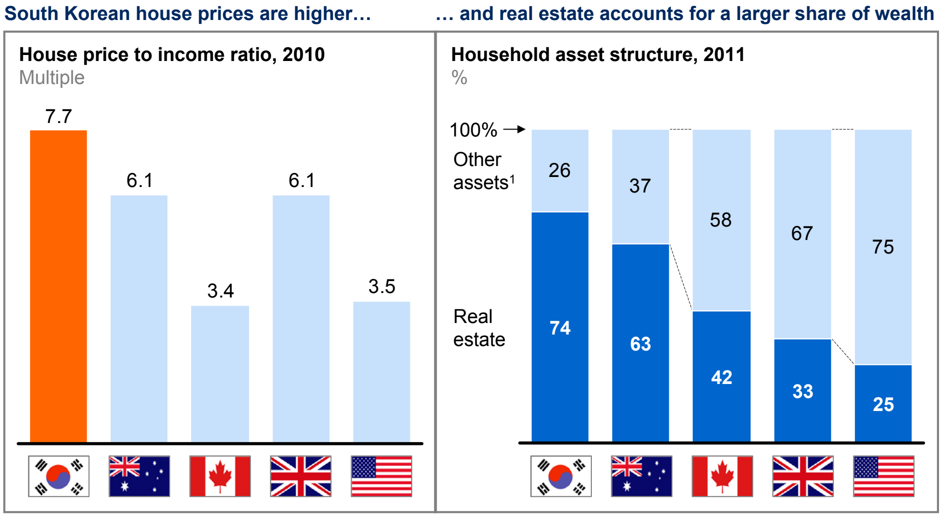
The high degree of urbanization in South Korea helps explain why house prices are relatively high. But the ways in which South Koreans finance home purchases add additional costs. Most mortgages are of short maturities—about ten years—requiring large monthly principal payments.[5] About 90 percent of loans have floating interest rates, exposing borrowers to surges in interest payments. In addition, a policy of tight loan-to-value (LTV) limits, which was intended to avoid a housing bubble and problems in the banking system, has inadvertently caused

5 Research on household finance, NICE Credit Rating, 2011.

a rise in high-cost housing debt. The average mortgage is for 51 percent of the home price and many purchasers—particularly young families—take out additional higher-cost loans from second-tier banks and other financial institutions to finance more of the purchase price. The spread on a loan to cover 80 to 90 percent of a purchase price is 4 percentage points over a 50 percent LTV loan, or twice the premium charged in the United States.[6] This is one reason why Koreans spend twice as much on debt service (as a share of income) than the average US household does.

Exhibit E4

House prices are high, as a multiple of income, and South Koreans have more wealth tied up in housing than do citizens of other advanced economies



1 Real assets including financial assets and equipment.
SOURCE: Central banks and data agencies of respective countries; Haver Analytics; McKinsey Global Institute analysis

Regulatory measures to curb the growth of household debt have added more complications. In 2011, authorities announced “soft landing” measures to relieve some of the burden on homeowners. The intent was to encourage issuance of long-term, non-deferral loans to reduce monthly debt payments. However, the officials also removed the grace period for low- and middle-income households that were paying only interest on their mortgages. This has forced more of them to make early principal payments when housing values fell and LTV ratios rose; unlike in almost any other country in the developed world, South Korean mortgage lenders can demand equity payments whenever LTV ratios exceed 50 percent.

South Korean families also place an extremely high value on higher education and have engaged in an “education arms race”. These families are willing to pay fees for private after school classes and hire private tutors to give their children a chance to enter an elite university. They believe, with justification, that the public education system does not prepare students adequately for rigorous university entrance exams. The high cost of education is a clear factor in limiting family size and depressing the fertility rate.

6 SNL Financial, Federal Reserve websites, 2012.

Unfortunately, because of the high cost of private education, the net present value of lifetime earnings for a student who attends private college and works to the average retirement age of 57 now trails that of students who go directly from high school to employment.[7] Nevertheless, South Korea has the highest rate of college attendance among OECD nations: 71 percent of high school graduates are admitted to four-year colleges.

As long as South Koreans overextend themselves to finance homes and educational expenses, growth in the consumer economy will be limited. Housing and tuition payments will continue to crowd out other types of spending, and South Korea will struggle to create a more balanced economy that relies on both consumer spending and exports.

SOUTH KOREA'S UNDERDEVELOPED SERVICES SECTOR AND SMALL SMES ARE NOT CREATING HIGH-PAYING JOBS

A prime cause of the financial straits of middle-income South Koreans is the state of the nation's service sector and its SMEs. Because of the weakness in these kinds of companies, South Korea is more vulnerable to the effects on income from the decline in manufacturing employment. Across economies, employment in manufacturing rises quickly as a share of total employment as nations industrialize, but the share of GDP and employment contributed by manufacturing declines as economies become wealthier and their service sectors grow.[8]

South Korea has a few standout service industries, such as air transportation, engineering, and construction, that are globally competitive and provide high-value services and create high-paying jobs. However, most of the service sector remains concentrated in low value-added industries, particularly "local services" such as retail, transportation, and restaurants, which are often one-person establishments (Exhibit E5). The productivity level of South Korean services is only 40 percent of that of manufacturing industries, a larger gap than in other nations. Overall, service-sector productivity, measured as value added per employee, is 30 to 57 percent below levels in the United States, the United Kingdom, and Germany.[9]

South Korea's SME sector is also less developed than that of other advanced economies: the productivity of SMEs is only 35 percent that of large companies and small and medium-sized manufacturing companies are only 27 percent as productive as large ones.[10] The SME population is dominated by very small enterprises, and many business owners have no entrepreneurial aspirations; only 0.07 percent of SMEs grow to become large companies.[11] This reflects both a lack of entrepreneurial culture and the significant challenges that small companies face in Korea. In particular, the high degree of trading between companies within the same chaebol limits the available market for many SMEs. For example, more

7 *Monthly labor review,* Korea Labor Institute, May 2011.

8 See *Manufacturing the future: The next era of global growth and innovation*, McKinsey Global Institute, November 2012.

9 OECD STAN data (Rev. 4) for sector employment and GDP in 2009 (purchasing power parity-adjusted using EU KLEMS data).

10 Statistics Korea. Definitions of SMEs are derived from the SME Basic Law, under which definitions vary by industry. For instance, manufacturing SMEs are defined as companies with fewer than 300 full-time employees or less than $7 million of capital (8 billion Korean won). Labor productivity figures do not include public administration and defense sectors.

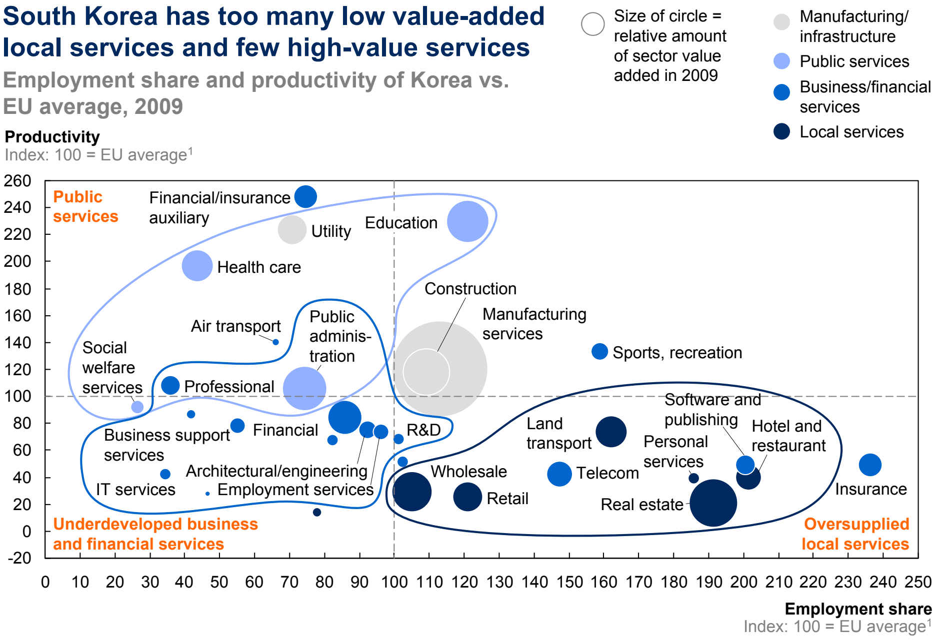
11 *The Korean Hidden Champion Strategy*, Ministry of Strategy and Finance (MOSF), Ministry of Knowledge Economy (MKE), Financial Services Commission (FSC); March 2010.

than half of IT services in South Korea are purchased by large corporations from "captive" supplier companies in their groups.[12] SMEs face additional challenges to fund the R&D investments that would lead to innovations that would make them more competitive. Also, with low salaries and limited potential for career growth, SMEs have difficulty in competing for the most highly skilled talent.

Exhibit E5

South Korea has too many low value-added local services and few high-value services

Employment share and productivity of Korea vs. EU average, 2009



1 Average of six European countries (Denmark, Finland, France, Germany, Italy, Netherlands) in 2009.
SOURCE: EU KLEMS; OECD STAN (ISIC Rev.4); McKinsey Global Institute analysis

LABOR MARKET CHALLENGES CAUSED BY FAMILY STRUCTURE AND LOW FERTILITY RATES

A final set of challenges arises from patterns of participation in the labor market and family formation. While South Korea has an enviable unemployment rate (about 3.9 percent, or half the OECD average), that figure obscures a more complex reality. According to the Hyundai Research Institute, the unemployment rate would be closer to 11 percent if a full accounting were made of the unemployed and underemployed.[13] There are large clusters of the hidden unemployed, including more than 900,000 college students who have left school temporarily to seek work to support their education or are studying for exams to pursue specialized training (e.g., law).[14] Other members of the uncounted unemployed include discouraged workers who have ceased to seek employment. The underemployed include many part-time workers, most of whom would prefer full-time work—about 803,000 South Koreans are involuntary part-timers, according to the Korea Employment Information Service. The hourly pay gap between full- and part-time workers has widened in the past decade—today part-timers make 65 percent of full-time pay, down from 81 percent.[15]

12 Fair Trade Commission of Korea, 2012.

13 *Long-term unemployment since the 2012 global crisis*, Hyundai Research Institute, 2012.

14 *Employment trend research,* Statistics Korea, 2012.

15 J. M. Fournier and I. Koske, *Less income inequality and more growth—Are they compatible? Part 7. The Drivers of labour earnings inequality—An analysis based on conditional and unconditional quantile regressions,* OECD Economics Department working paper, number 930, 2012.

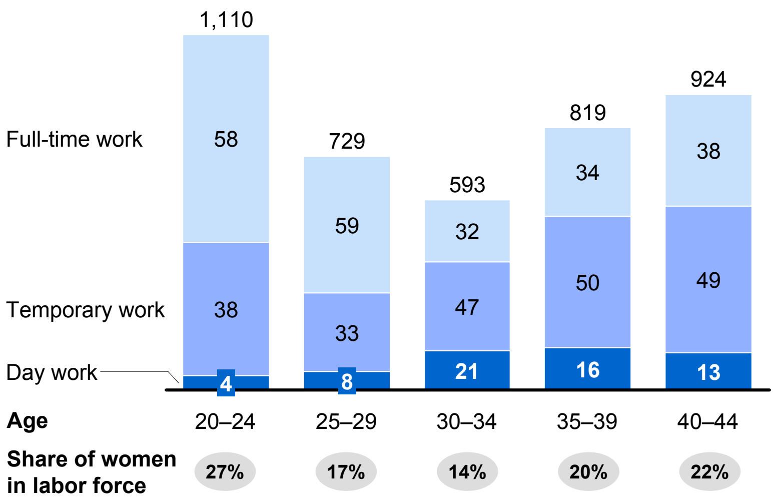
As noted, South Korea has far fewer dual-income households than other advanced economies. Most South Korean women withdraw from the labor force when they marry or have their first child. Female labor participation rates for women aged 30 to 39 are 15 percentage points below the national average (of just 57 percent).[16] There is little effort by employers or the state to help mothers return to their jobs. The long working hours expected by Korean employers also make it difficult for two parents to work full time and it is the woman who inevitably stays home, where she takes on the full-time work of managing her child's education. When women do eventually return to the labor force, it is often in part-time and/or low-skill work, regardless of education and previous experience (Exhibit E6).

Exhibit E6

Women over 30 and mothers returning to the labor force are more likely to take temporary or day work

Female employment by job type, 1992–2011[1]

Thousand



1 20- to 24-year-old women in 1992, tracked through 2011.

SOURCE: Statistics Korea; Korean Women's Development Institute; McKinsey Global Institute analysis

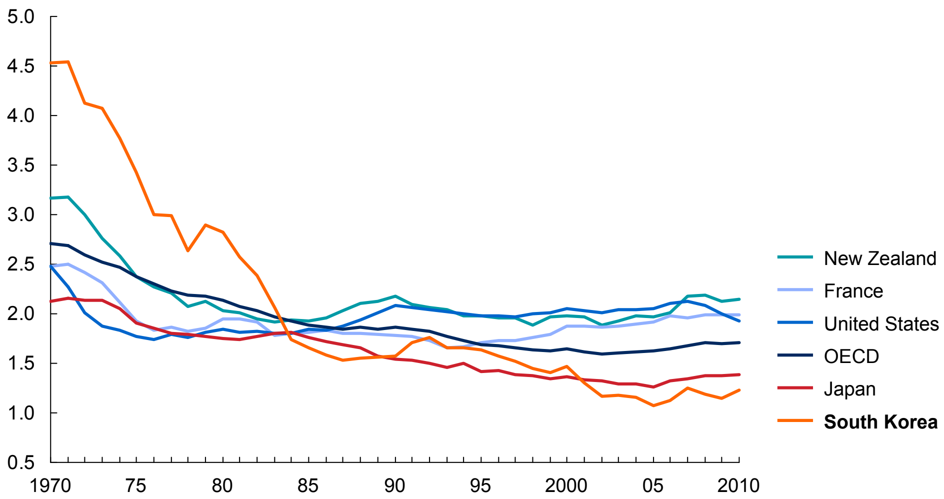
Plunging fertility rates are perhaps the most troubling outcome of the financial crunch that is decimating the middle-income families in South Korea. Births have been trending down since the 1980s across advanced economies, partly as a natural outcome of rising wealth. However, in South Korea's case, the birth rate has fallen even more than in other advanced economies (Exhibit E7). To accumulate savings to fund home purchases and private educational services, South Korean couples are marrying later and limiting family size. The impact of the low birth rate is already seen in a shrinking working-age population; the contribution of working-age population to GDP in South Korea is falling by 1.1 percent annually, a more severe impact than in Germany and other aging advanced economies. The result is a soaring dependency rate (the number of retirees for every active worker). While the government has put into force policies to increase fertility in various ways, it is unclear whether the policies have been effective.

16 OECD statistics on employment, 2011.

Exhibit E7

The South Korean fertility rate has fallen by two-thirds since the 1970s

Total fertility rate[1]



1 Number of children a woman would bear if she experienced, at each age, the current period age-specific fertility rates (and she survived to the end of her child-bearing years, ages 15–49).

SOURCE: Eurostat New Cronos Database; Statistics Korea; Organisation for Economic Co-operation and Development (OECD); McKinsey Global Institute analysis

DESIGNING A NEW SOUTH KOREAN GROWTH PLAN

It will take efforts on several fronts to put South Korea back on a sustainable growth path. It will require changes both in policy and in the behavior of private-sector players, as well as citizens. We suggest initiatives in four areas: repairing middle-income finances, creating high-quality service-sector jobs, bolstering the SME sector, and addressing demographic/household structure issues such as low fertility rates.

Strengthen middle-income household finances

To foster stronger middle-income households that can boost domestic consumption and create a virtual cycle of growth, job creation, and investment, middle-income families must get out from under the excessive burdens they take on to buy homes and educate children.

We recommend two approaches for reducing the cost of borrowing. The first is to move to the longer-term, fixed-rate mortgages that are common in other developed economies. The second recommendation is to reduce the share of high-cost lending from second-tier banks and non-financial companies by loosening loan-to-value standards. If homeowners who now use high-cost secondary loans in addition to mortgages could roll that debt into higher-LTV mortgages, we estimate that the burden on households could be reduced by an estimated $8 billion (around 9 trillion Korean won) annually.

To enable longer-duration, higher-LTV lending without introducing excessive risk for first-tier banks, South Korea may need to explore some type of mortgage securitization system. One option is issuance of government-backed “covered” bonds such as Germany uses or a mortgage-backed securities market. Either scheme would allow banks to share or offload the risk.

Other policies to reduce housing payments include encouraging a stronger rental-housing sector by allowing more kinds of institutions to invest in apartment projects. Also, South Korea can consider a shared ownership program, such as the one used in the United Kingdom, which allows families to purchase a partial interest in a property. This can help existing homeowners to reduce their monthly payments (by selling a share in their homes to an investor) and makes homes more affordable to first-time buyers.

To reduce the amount that middle-income families spend on private education—upwards of $100,000 per child—will require both creative policies and an awareness campaign to prompt South Koreans to re-evaluate their assumptions about higher education. Koreans continue to believe that a university education is the only route to a good job, despite mounting evidence to the contrary. Even though college graduates have higher lifetime earnings, because of the large investments that families make in preparing children for university and the tuition that many families pay at private universities, the net present value of a university education now trails the value of a high school diploma. This reality is not well understood. To convince those who fear that not having a college education will mean "losing face," it must be shown that jobs that do not require a college degree can provide rewards and social status that are similar to those of jobs that do require tertiary education.

In order to reduce spending on private education by middle-income families, South Korea should invest in a dual-track system for secondary and post-secondary education, with a rigorous vocational track that begins in high school. In South Korea, only 28 percent of students receive vocational training in high school, a smaller share than in other OECD nations.[17] Working with corporations and SME associations, educators can tailor vocational curricula to the specific needs of employers. The recently introduced "Meister" high school program is a good start, but it is at an embryonic stage and will require more intensive support from the Korean government to take root and bring vocational training up to OECD levels.

Expand and strengthen the service sector

A central goal of national economic policy should be to improve the capabilities of the service sector, raise productivity, and create high value-added jobs. Building the size and competitiveness of the service sector is a critical economic priority in itself. As is the case in other advanced economies, South Korea's future will be determined largely by how strong its service sector is. By 2030, we project that a third of exports from advanced economies will be in services, ranging from tourism to business services.

This effort will require a commitment by government to support service industries as it has supported manufacturing and to remove obstacles to growth. It will also require a change in mindsets among South Korean leaders, companies, workers, and civil servants about the potential of the service sector. They need to have confidence in the nation's ability to adapt and excel in high-quality services. And they need to overcome the lingering belief that the "real" economy involves only heavy industry and manufacturing.

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17 *Students enrolled by type of institution,* OECD statistics on education, 2011.

We identify four segments within the service sector whose potential for growth and job creation warrant special attention: health care, social welfare services, financial services, and tourism.

Even though South Korea is known for providing quality health services through a national insurance system, while spending a modest 6.9 percent of GDP, there are gaps in service quality and health outcomes that can be filled and opportunities that have not been exploited. In particular, South Korea has an underdeveloped primary-care system and limited convalescence-care capacity. These capabilities will become more important as the population ages and the incidence of chronic diseases rises. Even now, emergency hospital admissions for patients with chronic diseases such as diabetes are far higher in South Korea than in other advanced economies. Despite recent increases in capacity, South Korea also has a shortage of convalescence-care facilities, which provide long-term, post-acute care (e.g., for recovery from major surgery or for patients with conditions such as dementia). South Korea's health-care industry also has the potential to get a larger share of the rising flow of medical tourists who come to Asia. South Korea should take advantage of all these opportunities to expand health care and create new employment in the sector.

South Korea is also under-investing in both private and public social welfare services such as child care and elder care. South Korea spends about 6 percent of GDP on social welfare services, compared with 9 percent across OECD nations.[18] Building up public-sector and private-sector social service capabilities would both open up new job opportunities in such organizations and help relieve women of child-care and elder-care duties that keep them from participating more fully in the workplace. Because social welfare services are so labor-intensive, they have a very high multiplier effect: currently for each 1 billion Korean won (or $900,000) in additional output, social welfare services require nearly 40 new workers, more than three times the rate across industries.

The financial services industry in South Korea is relatively small for an advanced economy. While high value-added financial services such as banking and asset management contribute more than 7 percent of GDP in the United Kingdom, Singapore, and Hong Kong, they generate only about 4.7 percent of South Korean GDP.[19] A stronger financial services sector not only would create more high value-added jobs, but also could play an instrumental role in facilitating growth across the economy. A national goal should be to lay the foundation that attracts or nurtures financial players that can join the ranks of Asia's top financial institutions. South Korea would need a change in mindset to treat financial services as a source of growth as opposed to simply a support for the "real" economy. Then policy makers might encourage consolidation of its domestic financial sector and support Korean players to scale up regionally in selected niches where they can win, and also to address regulation and governance issues.

The final major opportunity for growth in the service sector is tourism, which amounts to about 2.4 percent of South Korean GDP, compared with nearly 4 percent on average in OECD nations in 2010. South Korea is an increasingly

18 Social transfers intended to relieve households of the financial burden of social risks or needs.

19 This analysis of higher value-added financial services includes banking, asset management, and related financial services. Low-value job sectors such as insurance and pension sales are excluded. Source: Global Insight.

popular destination for tourists, but its tourism market is dominated by low-budget tours and the number of repeat visitors has been falling.

We believe that South Korea can increase repeat visits and compete for higher-spending tourists by competing for the MICE (meetings, incentives, conventions, and exhibitions) business, diversifying tourist attractions, and addressing the inconvenience foreigners encounter in getting around. To attract more business meetings and conferences, South Korea would need to invest in new infrastructure, such as convention centers, which has worked in places such as Singapore. Today, 80 percent of tourists do not venture beyond Seoul. To change that, greater diversity of attractions is needed. One promising additional category is winter sports resorts. The number of foreign visitors to the nation's ski resorts more than doubled from 190,000 in 2007 to 400,000 in 2011. The 2018 Pyeongchang Winter Olympics will put the South Korean ski facilities in the global spotlight.

In addition to policies targeted at these four industries, South Korea's leaders should look for ways to help services industries such as the design engineering and construction business and the entertainment industry to build on their strengths.

Bolster the SME sector

The South Korean economy is dominated by SMEs, which account for 90 percent of employment. A large portion of these businesses are owned by the self-employed, who launch or buy a business due to lack of job opportunities. There are few role models of successful entrepreneurs, and parents would rather see their children strive for job security at a big company than take risks and try to be the next Steve Jobs.

The lack of entrepreneurial capability and innovation in small and medium-sized businesses now stands in the way of economic progress. South Korea needs a dynamic SME sector to create high value-added jobs that will help repair middle-income finances and contribute to services exports. It needs more small companies to survive and grow into mid-sized enterprises, and it needs larger mid-sized companies that can create good jobs and can evolve into large companies.

To bolster the SME sector, policy makers will need to clear the path to entrepreneurship and provide assistance to help small and medium-sized businesses scale up. To start, the government can correct policies that discourage small businesses from expanding. Currently business owners whose companies are in operation for at least ten years can pass on their companies to their children without incurring inheritance taxes if the enterprise is below a certain value. This discourages owners from taking on partners to expand or merging.

A thriving SME sector also requires modern bankruptcy laws that make it easier to recover from the inevitable failures that occur when entrepreneurs try to innovate. And innovators need strong protection for their intellectual property.

To encourage entrepreneurialism, particularly in technology sectors, we would recommend using government-sponsored (sovereign) investment funds to acquire enabling technologies for small companies. This can be done by purchasing or taking stakes in overseas companies that have leadership in promising new areas. As in the financial services industry, a Temasek-like institution could play an instrumental role in nurturing new companies and technologies. To raise operational and strategy-crafting skills, South Korea should create the equivalent of Japan's SME University system.

Finally, as Israel has done, South Korea can jump-start a robust venture capital industry with state-owned funds. A venture capital community would not only improve access to private equity funding, but also could play a critical role in developing sectors through mergers and acquisitions (M&A). Additional reforms, such as making leveraged buyouts easier, can help spur innovation and activate M&A between small and medium-sized companies.

Raise female labor participation and address falling fertility rate

South Korean families continue to arrange their lives as if they were still living in the days when a single wage-earner (invariably male) could support a middle-income family and pay for a home and educational expenses. Because women continue to drop out of the labor force to marry and raise children at higher rates than in other nations, middle-income families expose themselves to higher levels of financial stress, and the economy is deprived of the productive power of millions of able workers.

The government has recognized the need to make it easier for mothers to choose to work outside the home and recently raised child-care subsidies by more than 20 percent a year.[20] Yet the number of dual-income families has not risen significantly. South Korea needs a series of initiatives that will enable women to work up to their capabilities, even after the birth of a child. This will mean flexible work schedules, more generous maternity benefits, and prioritized access to child care and after-school care. There are many models, from Sweden, the Netherlands, and other advanced economies, for how to bring mothers into the labor force and create better work/life balance for all families.

□ □ □

South Korea has been sitting at an economic crossroads for many years now. By itself, the growth formula that brought the nation out of poverty and into wealth no longer serves the overall society. The large companies and global manufacturers that produced the economic miracle—and the system that supports them—will continue to make enormous contributions. But South Korea needs to find another route to prosperity that will work for all its citizens. A long-term plan is urgently needed to ease the burden of housing and private education costs that are depressing family finances and sapping economic vitality. At the same time, the barriers to success of service companies and SMEs must be removed. The growth of the conglomerates that drove the economy in the past should be balanced with growth among SMEs and service industries to write another success story for South Korea.

20 Ministry of Health and Welfare, October 2012.

1. Korea's success story

The basic elements of South Korea's rise into the ranks of major industrial nations are well known. The nation of 50 million has achieved significant economic and socio-political development, moving from the 27th-largest world economy in terms of GDP in 1980 to 12th in 2011. From one of the poorest nations in the world in the 1960s, South Korea has evolved into a high-income nation with per capita GDP of $30,000 in 2010 (adjusted for purchasing power parity).[21] Korea is the world's sixth-largest exporter, surpassing Italy, the Netherlands, and Russia.[22]

A driving force behind South Korea's economic miracle has been several hundred large corporations that are part of 63 *chaebol* conglomerates. Of these companies, which grew under government industrialization programs that began in the 1960s, the top 30 now hold 40 percent of the country's total corporate assets and account for 36 percent of sales.[23] They include such global leaders as Hyundai, Samsung, and LG Electronics. Under a state program of "guided capitalism," the government selected companies for public projects and channeled funds from foreign loans and arranged additional funding from domestic banks. The *chaebols* were financially independent by the 1990s but continued to benefit from government supports, such as generous corporate tax deductions.

Large companies continue to grow rapidly, but their growth is fastest outside South Korea. Fueled by strong overseas sales, the top ten conglomerates grew by 13 percent annually since 2000, as foreign sales grew to 52 percent of revenue (Exhibit 1).

By 2011, 14 Korean companies were in *Fortune* magazine's Global 500 (the top 500 industrial companies by sales). These large companies have given South Korea global leadership in key industries. It is No. 1 in LCD screens, memory chips, and mobile phones. It is No. 5 in autos (see Box 1, "South Korea is a world leader in several industries").

21 World Economic Outlook Database, International Monetary Fund, October 2012.

22 *World trade 2011, prospects for 2012*, World Trade Organization, April 2012.

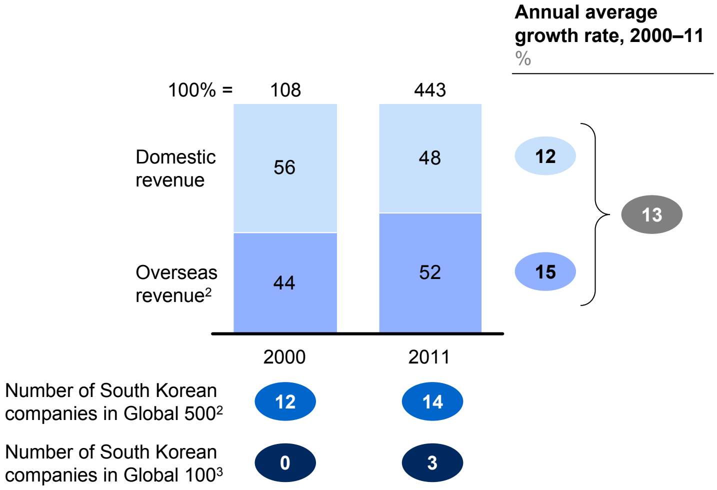
23 *The truth of economic concentration*, Korea Economic Research Institute (KERI), September 2012.

Exhibit 1

Large companies grew quickly in the past decade, particularly overseas

Revenue growth of top ten large companies[1]

%; $ billion



1 Top ten companies based on revenue from consolidated financial statements, excluding companies that do not differentiate domestic/overseas revenue; companies established after 2000 were also excluded.
2 Overseas revenue is the sum of export and revenue of overseas subsidiaries/branches.
3 *Fortune* magazine list of largest global industrial corporations, based on revenue.

SOURCE: Company reports; Kisline; *Fortune*; McKinsey Global Institute analysis

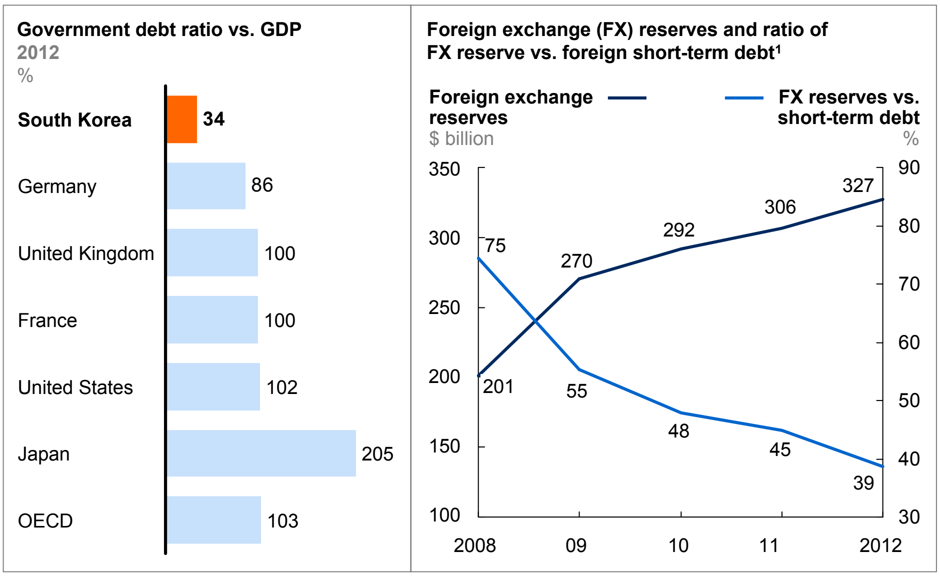
Box 1. South Korea is a world leader in several industries

- Number 1 in DRAM memory chips with 66 percent global market share
- Number 1 in LCD displays with 51 percent global market share (LCD panels)
- Number 1 in mobile phone market share
- Number 1 in shipbuilding with 51 percent of global market share
- Number 5 in autos, with 4.7 million vehicles in 2011
- Number 5 in refinery capacity
- Number 6 in global steel production

South Korea's sovereign debt rating, which suffered in the wake of the Asian financial crisis in the late 1990s, now stands above that of Japan and China, due to low public debt and strong foreign exchange reserves (Exhibit 2).[24] Since the Asian financial crisis, Fitch Ratings has raised South Korea's credit rating from B- to AA-, above Japan's A+, which is down from AAA due to the long-term impact of the recession. At 34 percent of GDP (in 2012), the South Korean government debt burden is well below that of advanced economies such as Germany, the United Kingdom, and the United States, each of which has public debt equivalent to more than 80 percent of GDP. South Korea's foreign currency reserves are a healthy $327 billion, 39 percent of which are short-term foreign liabilities (as of the end of 2012).

Exhibit 2

South Korea's government debt and foreign exchange levels are healthy



1 As of end of each year.

SOURCE: Bank of Korea; Ministry of Strategy and Finance (MOSF); Organisation for Economic Co-operation and Development (OECD); McKinsey Global Institute analysis

South Korea has well-developed infrastructure to support further growth. Busan has the fifth-largest container port in the world, with a handling volume of about 16.17 million TEUs (twenty-foot equivalent units) per year. The nation ranks highest on the Government Broadband Index, a measure of Internet accessibility and speeds. Incheon International Airport was ranked the best airport in the world for seven consecutive years by both ACI (Airport Council International) and *Global Traveler*. The KTX high-speed train system, launched in 2004, can reach the farthest point in the country within three hours. South Korea has the highest smartphone penetration rate in the world—58 percent of Koreans had a smartphone in 2012, compared with 42 percent of US consumers and 39 percent of Western Europeans.

A massive investment in education has produced one of the most highly educated labor forces in the world. South Korea's college entrance rate was the highest in the OECD in 2011, at 71 percent of secondary school graduates, compared with 64 percent in the United States and 56 percent across the OECD nations.

24 Foreign currency and bonds, including bonds of international financial institutions held by the South Korean central bank.

South Korea also led OECD nations in the number of engineering graduates, with 3,555 per 100,000 in 2011, and the nation ranks high in world PISA scores: first in computer literacy, second in reading, fourth in math, and sixth in science (2009).[25]

With its rising economic power, South Korea has taken a leadership role in international organizations. In 2010, South Korea became the 24th member of the OECD Development Assistance Committee and the only country that has turned from recipient to donor in this aid program. Korea was selected as a host country of the secretariat of the United Nations Green Climate Fund. In 2010, Korea became the first non-G8 nation to host a G20 summit and in 2006, former Korean Foreign Minister Ban Ki-moon was elected the eighth secretary general of the United Nations. In 2012, the World Bank chose Jim Yong Kim, a Korean-born physician, as its president.

In terms of cultural and social achievement, South Korea is recognized around the globe for its contributions to pop culture and sports. “Hallyu,” the Korean pop culture wave, began more than a decade ago with television dramas that became enormously popular in Japan and in other Asian markets.[26] More recently South Korean “K-pop” music has spread beyond Asia, reaching as far as Latin America, Africa, and the Middle East, gaining momentum worldwide. The K-pop hit “Gangnam style” holds the Guinness record for most viewed and liked YouTube video, with more than 1.4 billion views and 7 million “likes.”

Korea’s athletes have achieved world-class status. Its Olympic team won 28 medals at the 2012 London Summer Olympics, making South Korea No. 5 in the 2012 rankings. Yuna Kim won a gold medal in figure skating at the 2010 Vancouver Winter Olympics, and Korea has produced a number of champion golfers.

□ □ □

South Korea made history with the speed of its economic ascent. It is a global force in heavy industries, electronics, and autos—and is now the exporter of a vibrant pop culture. However, the growth formula that produced the economically powerful and sophisticated nation that South Korea is today cannot meet all the needs of the economy going forward. In the next chapter we examine how GDP growth and the continuing success of the largest companies have become decoupled from the lives of many South Koreans—and why a new growth formula is needed.

25 The Programme for International Student Assessment (PISA) is a worldwide study by the OECD of scholastic performance of 15-year-old students in member and non-member nations.

26 “Hallyu” is a Chinese term meaning “Korean wave” and was coined by Beijing journalists surprised at the fast-growing popularity of Korean entertainment and culture in China.

2. A growth model running out of steam

Despite the achievements of the South Korean economy described above and the continuing contributions of the companies that drove that success, it is increasingly evident that the South Korean growth model is no longer generating benefits across the whole economy. The symptoms of economic and social stress are multiplying:

- The fertility rate has fallen to the fourth-lowest among OECD nations under a self-imposed one-child policy that is largely a response to high educational and child-care expenses. At 1.2 births per woman of childbearing age, South Korea's population will shrink and age, limiting the size of the labor force, reducing demand in the economy, and potentially choking off growth.

- Nearly 25 percent of middle-income households are operating at a deficit, up from 15 percent in 1990.[27] If mortgage principal payments are included, the share of middle-income families that is in deficit rises to nearly 55 percent.

- South Korea has gone from a nation where divorce was almost unheard of to having one of the highest divorce rates among OECD nations. The rate rose from 0.4 divorces per 1,000 citizens in 1970 to 2.6 in 2009. The rate of increase jumped sharply after the economic crisis of 1997, which caused widespread unemployment.

- South Korea has the highest suicide rate in the world according to the World Health Organization—31.7 per 100,000 people in 2011 and about 2.5 times the rate in 1995. Suicide is the most common cause of death for people under 40, including students who cave under the pressure to attend a top college. Twice as many men as women commit suicide, many of them in their 50s and 60s and under financial stress.

- The household saving rate has gone from 19 percent in 1988—among the world's highest—to about 4 percent in 2012, among the lowest in advanced economies, putting households on a more precarious financial footing and limiting investment.

- The nation has a strong reputation for ease of doing business (eighth out of 185 on the World Economic Forum Doing Business scale) but rates poorly on corporate governance (75th for registering property, 49th for protecting investors, and 30th for paying taxes). It ranks 28th of 38 countries for overall corporate governance by Governance Metrics International.[28]

- South Korea's political system also is less evolved than its economy. After 25 years of democracy, it ranks 31st of 34 OECD countries on accountability,

27 *Household survey data*, Statistics Korea, 1990–2010.

28 Governance Metrics International (GMI) publishes research and ratings on 4,207 companies in 45 countries. It ranks Irish companies highest, followed by UK, Canadian, Australian, and US companies.

29th for political stability, 27th for control of corruption and regulatory quality, 26th for rule of law, and 20th for government effectiveness.[29]

Unless the underlying causes of social stress are addressed and South Korea can build strong systems of governance in both the private sector and the public sphere, the recent rate of economic growth will be difficult to sustain. In this chapter we will look at those causes—weaker income growth, rising costs for housing and education, and weaknesses in service industries and small businesses—and how these forces indicate the need for a new South Korean growth formula.

MIDDLE-INCOME FAMILIES ARE CAUGHT BETWEEN STAGNANT WAGES AND RISING EXPENSES

The stresses that are apparent in South Korean society are largely due to the increasing financial pressures that are falling on middle-income households. These pressures arise from slow wage growth and diminishing job opportunities on one side and the common practice of overspending on housing and education on the other.

The shift in job creation from manufacturing to services has a strong impact on South Korean incomes

In recent years, South Korea's economic growth has decoupled from growth in family wealth. In the earlier period of industrialization, employment in large corporations grew rapidly and wages did, too. For three decades, from the 1960s to the 1990s, wages and family wealth rose. That pattern broke down in the 1990s, as South Korea's largest manufacturers raised productivity by 9.3 percent annually (largely through automation and other technology investments) between 1995 and 2010 and shifted 17 percent of their production to overseas plants.[30] Total employment in such companies fell by 2 percent annually (Exhibit 3). As a result, the share of workers employed at large companies fell by one-third, from 18 percent to 12 percent.[31]

This changing role of the manufacturing sector as a source of job creation is a function of South Korea's rising wealth. As nations grow wealthier, service sectors grow more rapidly and manufacturing companies invest in equipment and technology to raise productivity in the face of rising wages.[32] This pattern can be seen in Exhibit 4, which shows that even as manufacturing output has continued to grow rapidly (at a 7 percent compound annual rate), manufacturing employment has fallen and the service sector has become the source of new jobs.

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29 *Worldwide governance indicators*, Brookings Institution and World Bank, 2012.

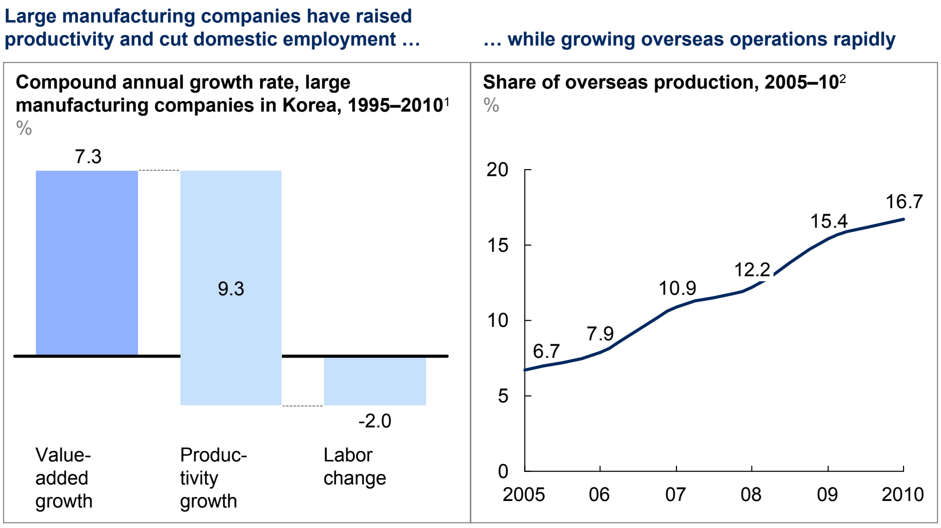
30 "Impact and implication of expanding overseas production by Korean companies," *The Bank of Korea Economic Review*, number 2012–4, Bank of Korea, July 2012.

31 This figure does not include public administration and defense. Raw data are from Statistics Korea.

32 See *Manufacturing the future*, McKinsey Global Institute, November 2012.

Exhibit 3

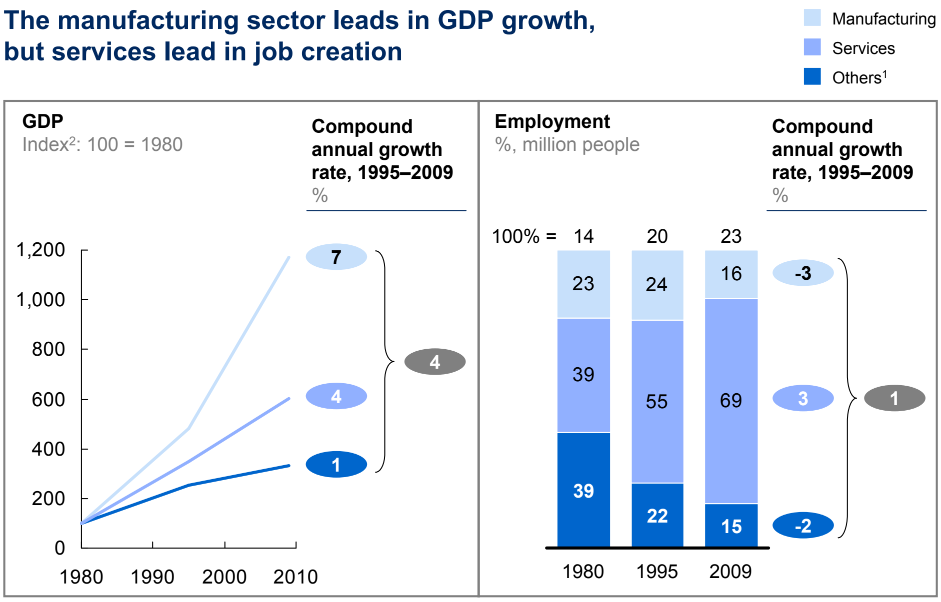
Large Korean manufacturing companies have grown rapidly, but productivity gains and overseas expansion have made it “jobless growth” at home



1 Manufacturing companies with more than 300 employees from Mining and Manufacturing Business Survey.
2 Share of total revenue from overseas operations, 2010.
SOURCE: Statistics Korea; Export-Import Bank of Korea; McKinsey Global Institute analysis

Exhibit 4

The manufacturing sector leads in GDP growth, but services lead in job creation



1 Primary (agriculture, hunting, forestry and fishing, mining and quarrying) and infrastructure (utilities, construction) industries.
2 Industry level deflator applied to each industry.
NOTE: Numbers may not sum due to rounding.
SOURCE: OECD STAN; McKinsey Global Institute analysis

The shift of employment and job creation to the service sector has occurred across advanced economies, but the impact on wages is more pronounced because South Korea has a relatively underdeveloped services sector with few large employers. The share of Korean workers employed by large companies (which generally pay higher wages and offer more benefits) has fallen by a third in the past two decades.[33]

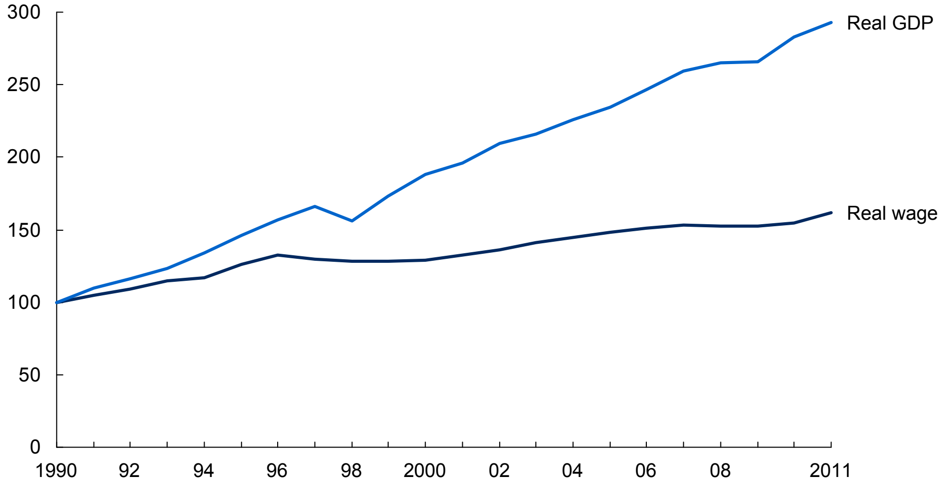
Overall, the service companies and the SMEs that are creating new jobs are less productive than their counterparts in other nations, resulting in large wage gaps between these employers and large manufacturing concerns. For example, South Korean service industry wages are 55 percent of manufacturing wages, a larger gap than in countries such as Germany, Japan, the United Kingdom, and the United States.[34] In SMEs, which are responsible for 88 percent of employment, pay is about 62 percent of large-company rates.[35] These pay gaps have increased and have helped depress wage growth overall; household income growth slowed from 12 percent per year from 1991 to 2000 to 6 percent from 2001 to 2010 (Exhibit 5).[36]

Exhibit 5

South Korean wage growth has not kept up with GDP growth

Real GDP and real average wage

Index: 100 = 1990



SOURCE: OECD; McKinsey Global Institute analysis

33 This figure does not include public administration and defense. Raw data are from Statistics Korea.

34 Raw data are from OECD STAN.

35 Monthly Labor Statistics and Corporate employment research, Ministry of Employment and Labor; Statistics Korea. Definition of SMEs is based on the SME Basic Law, which has different standards for different industries. For instance, in manufacturing SMEs are defined as companies with fewer than 300 full-time employees or less than $7 million of capital (8 billion Korean won). Labor productivity figures do not include public administration and defense sectors.

36 Youngtai Kim and Jinho Park, *Status and implication of household income in Korea*, The Bank of Korea Issue Paper Series, number 2013–1, Bank of Korea, January 2013.

South Korea is also more vulnerable to wage pressures because of family structures and the prevalence of single-earner families. Middle-income families cling to the lifestyle that was made possible under South Korea's old growth formula: a single-earner household with a male breadwinner whose lifetime employment in one of the largest corporations provided steadily increasing pay. In this lifestyle, women stay out of the labor force from the time their children are born until they leave for university. Even in a household in which the single earner makes a good salary, the strains are mounting (see Box 2, "The story of Mr. Kim"). Today, about 62 percent of households still depend on one wage earner. Indeed, the most significant adjustment that middle-income families have made to their changed circumstances is limiting family size to one child, which helps them manage costs but which has resulted in a fertility rate that threatens future economic growth.

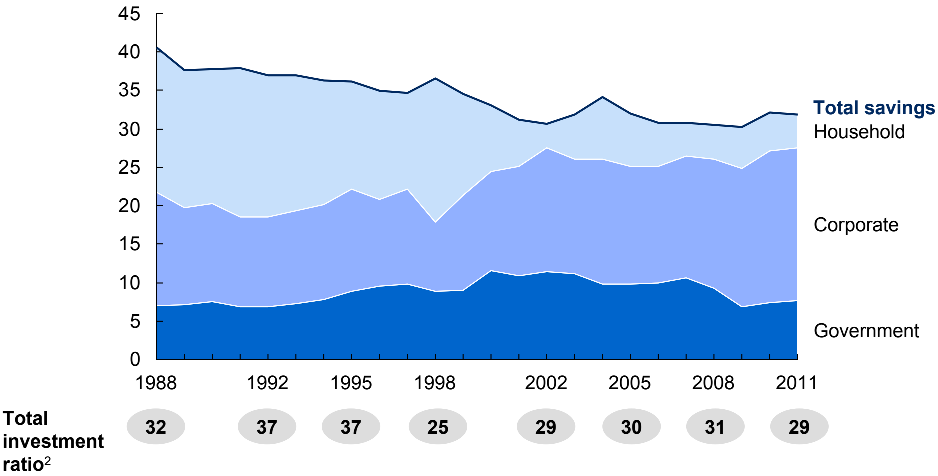
Another symptom of the squeeze on families is the decline in the personal savings rate, which has decreased from 19 percent in 1988 to 4 percent in 2011. National savings, however, remain strong enough to fund investment, thanks to rising savings by the corporate sector (Exhibit 6). In addition, the personal saving rate does not fully reflect the value to households of assets in the national pension system.[37] Nonetheless, the steep decline in the personal saving rate indicates that South Korean household spending growth is outpacing income growth.

Exhibit 6

Though household savings have decreased, total savings remain high enough to fund investment due to the growth of corporate savings

South Korea total savings ratio by household, corporate, government[1]

%



1 Share of savings out of gross national disposable Income. Sale of real estate is not included in income. Aggregate income tax and property tax is not included in non-consumption household expenditure.
2 Share of gross capital formation (gross investments) out of gross national disposable income.
SOURCE: Bank of Korea; National Tax Service (NTS); McKinsey Global Institute analysis

37 The National Pension Service is a pre-funded scheme that accrues funds from social security payroll taxes and voluntary contributions.

Box 2. The story of Mr. Kim

Mr. Kim, the South Korean Everyman, does not feel happy about his life these days. He has done everything by the book—everything that the most successful men of his father's generation did—but he is stuck in a financial trap.

As a youth, Mr. Kim had little time for leisure. He went to a rigorous private school and almost every evening had extra lessons from private tutors. He felt bad, watching his parents sacrifice 20 percent of their income on his education, and even offered to work in his father's restaurant, with an eye to taking over some day. The offer brought a stern scolding: the father had only finished high school and always felt he had not been treated fairly because he lacked a college education.

Young Mr. Kim redoubled his efforts and pleased his family by being accepted to a high-ranking university. He did well and even went abroad for language training and sought internships to make himself more attractive to an employer. At 27, after completing his military service, he set out to find a job at one of South Korea's large companies—the payoff for all his hard work. All he found were openings at small companies where the work was not challenging—or high-paying—and where there was no clear career path. Frustrated, Mr. Kim gave up and entered graduate school.

Finally, with an advanced degree from a top-tier university, at 29 Mr. Kim landed a job at a top-30 Korean corporation. He and his girlfriend could finally marry and when Mr. Kim was 35, their son was born. He and his wife doted on the boy, but they also began to feel financial pressure. Even if his wife wanted to go back to work, the cost of child care would eat up most of her salary, and because she could no longer work such long hours she was unlikely to ever be promoted. She decided it would be best to stay home.

Mr. Kim was promoted to manager, but there was no raise so he remains at $60,000 in annual salary and bonus. This puts him in the top 20 percent of or Korean workers, but it's not comfortable. By scrimping, the couple had amassed $90,000 (100 million Korean won) around the time of Mr. Kim's 40th birthday. They hoped to use their nest egg to buy a home. But by then the price of a house was well over $270,000. Fearing that real estate would continue to soar, they bought their apartment with a $130,000 mortgage from a first-tier bank at a 4.5 percent interest rate and then took an additional $65,000 loan with an 8.5 percent interest rate from a finance company. Of that, $50,000 was mortgage cost and $15,000 was for moving expenses and house refurbishment.

The joy of buying a home was short-lived. It was now time to send their son to after-school classes. After $1,000 in education expenses, a $2,150 mortgage payment, and $1,000 for tax, pension and health insurance, there was not much left every month. Then housing prices started falling. The value of their home fell by one-third ($90,000), and the bank asked Mr. Kim to pay some mortgage principal to maintain the stipulated LTV ratio. Mr. Kim felt utterly bewildered and frustrated, as if his whole life had been stolen. Then the final blow: his wife, who had long ago given up on being able to afford to have a second child, suggested that to make ends meet she could take on a part-time job at a fraction of her old salary.

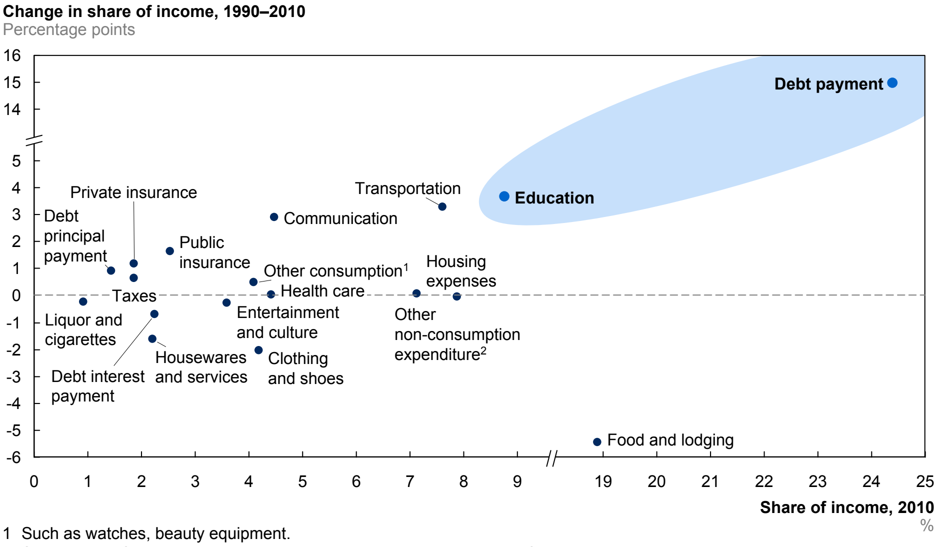
Households overspend on housing and educational expenses

The deteriorating household financial position is largely the result of rising costs for households with children. Compared with families in other leading economies, these Korean households spend excessively on housing debt payments and educational expenses.[38] These expenses consume approximately one-third of income and have been growing faster than other household expenses (Exhibit 7).

Exhibit 7

Debt payment and education fees are the largest and fastest-growing expenditures for South Korean middle-income households

Based on top 40–60% income level



1 Such as watches, beauty equipment.
2 Such as transfer payments between households, donations to nonprofit organizations.
SOURCE: Statistics Korea; McKinsey Global Institute analysis

The high cost of homeownership

The cost of housing debt is of greatest concern. Despite very high home prices (averaging 7.7 times annual income versus 3.5 times in the United States and 6.1 times in the United Kingdom), South Korea has very high homeownership rates. As a result, in South Korea, real estate makes up about 74 percent of household assets—nearly three times the US level (Exhibit 8). Mortgages and other housing loans make up almost 53 percent of household debt. With home values falling recently, many households are saddled with large mortgage payments on properties from which they cannot recoup their investments. Moreover, homeowners are subject to demands for additional principal payments when falling prices raise loan balances above LTV limits. Since most housing loans have floating rates, South Korean homeowners also risk spikes in payments if interest rates rise.

Monthly debt service for South Korean households now averages 25 percent of income—more than twice the debt service ratio of US households.[39] Recently, the ratio of debt-to-disposable income among Korean households has been as high as 151 percent, indicating that many households have taken on loans that they cannot afford.[40]

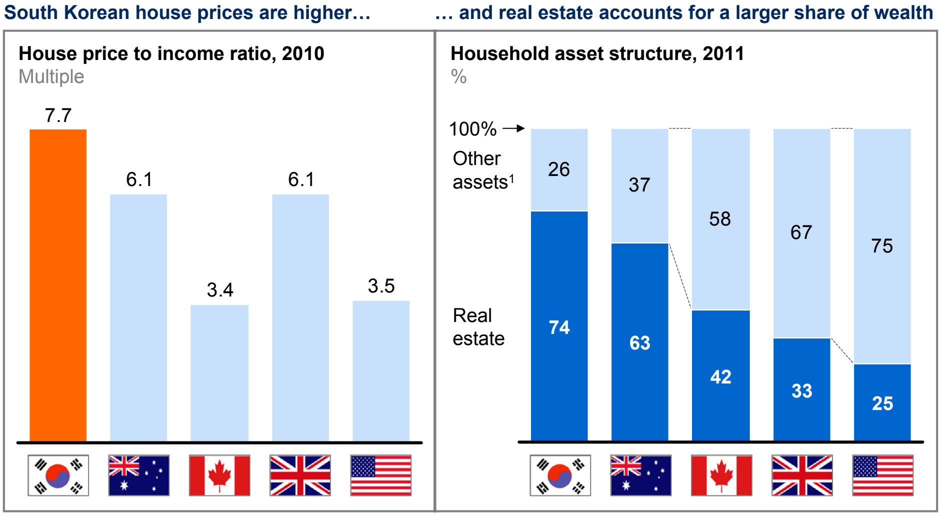
38 Debt payment includes both debt principal and interest repayment.

39 See *Debt and deleveraging: Uneven progress*, McKinsey Global Institute, January 2012.

40 *Debt-to-disposable income,* OECD Statistics on Household Debt, 2012.

Exhibit 8

House prices are high, as a multiple of income, and South Koreans have more wealth tied up in housing than do citizens of other advanced economies



1 Real assets including financial assets and equipment.

SOURCE: Central banks and data agencies of respective countries; Haver Analytics; McKinsey Global Institute analysis

The "education arms race"

Middle-income families spend inordinate amounts of income on education, engaging in an education "arms race" to give their children an edge in the competition for university admission. Even though South Korea has one of the highest college enrollment rates, families focus on the few spaces available in elite colleges because of the widespread perception that second-tier universities do not provide high-quality education and a path to lucrative careers. To realize their ambitions for their children, parents sacrifice to pay for private kindergarten, elementary, and secondary schools.

Even families whose children attend public schools pay for private tutoring to prepare students for rigorous college entrance exams. On average, spending on private schooling can cost more than $100,000 per child (including tuition at a private university, which now costs about $6,500 per year).[41] Families feel they must invest in private education and tutoring services because they fear that the public school system cannot adequately prepare their children for college entrance exams. In the public system, the ratio of students to teachers is 18 to 1, compared with 13.8 to 1 across OECD countries.[42] There is also a strong emphasis on grades and test scores so class time and homework involve mastering knowledge and skills on which students will be graded and relatively little time is devoted to building capabilities in creative problem solving.

There is growing evidence that the higher education system also is not delivering the expected results for students, parents, or employers. South Korea places more students in college—71 percent of high school graduates—than any other OECD nation, but graduates are having more trouble finding good jobs. The

41 *University information disclosure,* Korean Council for University Education, 2012.

42 *Ratio of students to teaching staff in educational institutions (2010),* OECD Education at a Glance, 2012.

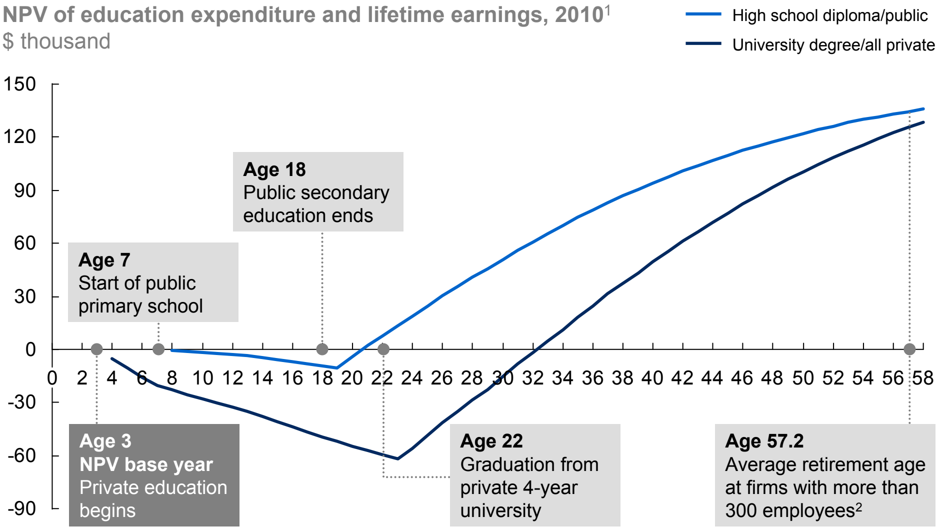
employment rate for South Korean college graduates was around 60 percent in 2012, which is lower than the 80 percent employment rate for students who graduate from vocational high schools.[43]

Furthermore, because of the high costs, the value of private education, in terms of lifelong earnings, is now in question. We calculate that when educational costs are counted, the net present value (NPV) of the lifetime earnings of a South Korean who goes through private school and university and who retires at the average age (57.2 years) is actually less than the NPV of the earnings of a high school graduate who goes straight to work throughout the lifetime (Exhibit 9). The cost of education, in other words, exceeds the value of the higher lifetime earnings the college graduate receives.

Exhibit 9

The net present value of lifetime earnings for a privately educated college graduate trails that of a worker with a high school diploma

NPV of education expenditure and lifetime earnings, 2010[1]
$ thousand



1 NPV calculation is based on a 5% interest rate, which is the average interest on a loan of commercial banks in January 2013.
2 Age 57.2 is the average retiring age announced by Ministry of Employment and Labor in 2012.
SOURCE: Ministry of Employment and Labor; Ministry of Education, Science and Technology; McKinsey Global Institute analysis

STRESSED FINANCES OF MIDDLE-INCOME HOUSEHOLDS AND LOW FERTILITY RATES THREATEN THE FUTURE

The financial instability of middle-income households is already having serious consequences. It is splitting this group—two-thirds of the population—into two distinct subgroups: healthy middle-income households and those in financial distress. The immediate impact of this cashflow constraint can be seen in consumer spending. Household consumption grew at 6.2 percent during the 1990s and at 3.2 percent during the 2000s. The longer-term, and potentially much more damaging, result is a dangerously low fertility rate.

According to government statistics, middle-income households—with incomes ranging from 50 to 150 percent of the median income of $34,300, or 39.6 million Korean won—now comprise 67.5 percent of the population. That is down from 75.4 percent in 1990, or about a 10 percent drop. As in other advanced

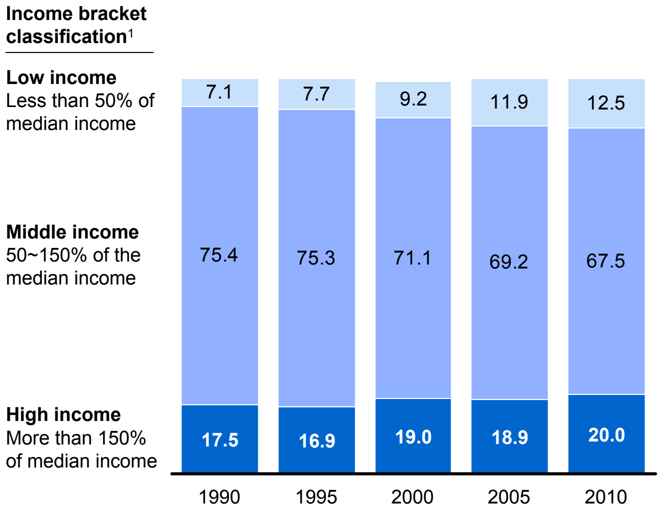
43 *Statistical yearbook for employment of higher education graduates (linked with health insurance database),* Ministry of Education, Science and Technology and Korean Educational Development Institute (KEDI), 2012; *Education statistics service,* KEDI, 2012.

economies, income polarization has grown in South Korea in the past 20 years. While GDP tripled, the middle-income cohort shrank and upper and lower-income groups grew (Exhibit 10).

Exhibit 10

The share of middle-income households has declined

Share of population by income bracket
Urban households with two or more people (%)



1 Based on OECD income bracket classifications.
NOTE: Numbers may not sum due to rounding.
SOURCE: Household trend survey by National Statistical Office; McKinsey Global Institute analysis

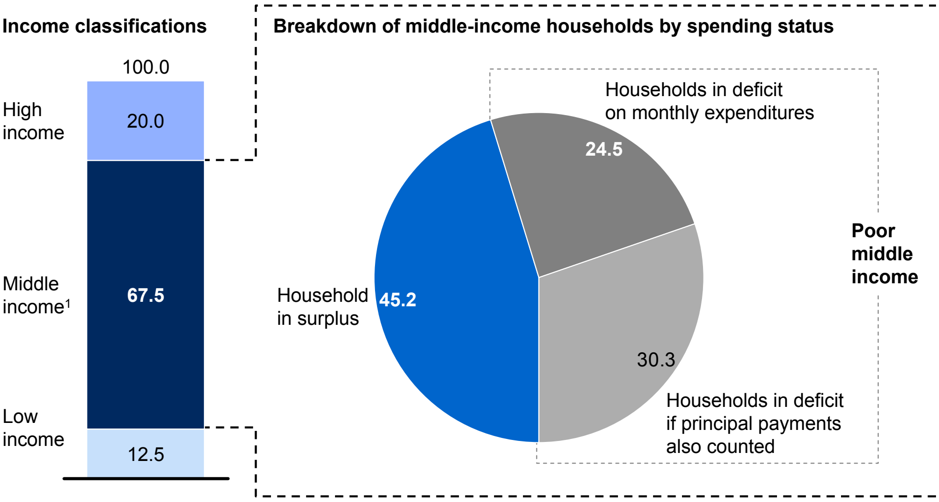
Within the remaining middle-income group, we find that a new "poor" middle-income cohort is emerging. Government data indicate that the proportion of middle-income households operating at a deficit (spending more than their income) rose from 15.3 percent in 1990 to 24.5 percent in 2010. These numbers do not include monthly principal payments on mortgages and other real estate loans. If these costs are included, we estimate that an additional 30 percent of households that are now regarded as in surplus would also be regarded as in deficit. This brings the proportion of households that are cashflow-constrained—poor middle-income families—to nearly 55 percent of all middle-income households (Exhibit 11).

Not surprisingly, the distribution of middle-income households that are cashflow-constrained skews toward younger families. As Exhibit 12 illustrates, the number of households in deficit spikes when workers are in their late 20s and overextend themselves to purchase a home. The rates remain relatively flat until homeowners are in their 40s, then decline when they reach their 50s.

Exhibit 11

The proportion of middle-income households in deficit would be 54.8 percent if all expenditures and debt payment costs were counted

2010
%

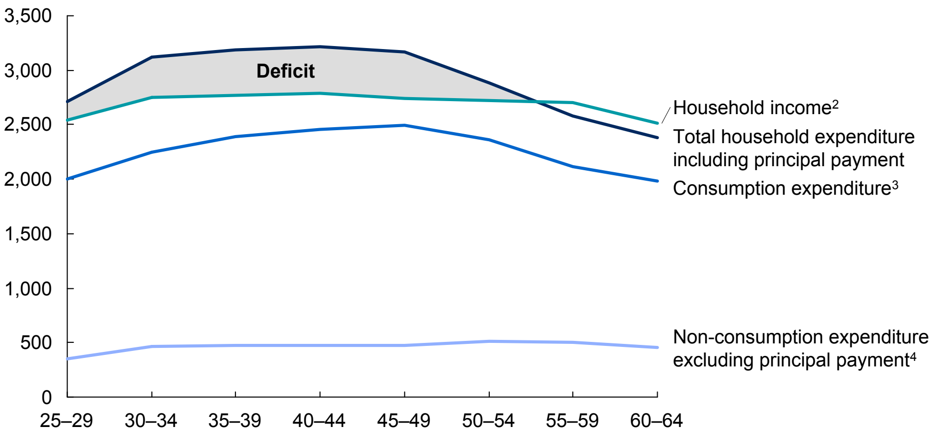


1 50–150% of median income.
SOURCE: Statistics Korea; McKinsey Global Institute analysis

Exhibit 12

Households operate in deficit during child-rearing years and slowly recover afterwards

Monthly expenditures of middle-income households by age cohort, 2010[1]
$ per middle-income household



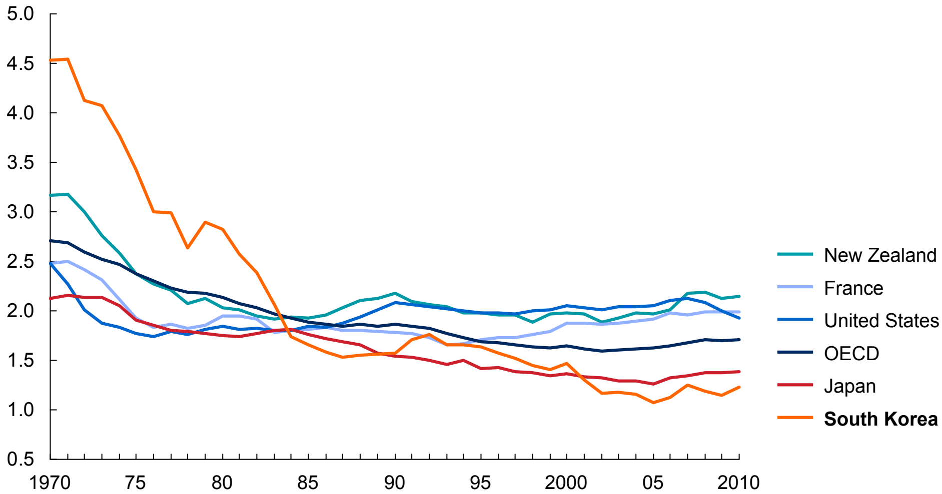
1 Survey from 8,700 sample households.
2 Sale of real estate is included in household income.
3 Debt interest payment is included.
4 Income tax and property tax is not included in non-consumption household expenditure.
SOURCE: Statistics Korea; McKinsey Global Institute analysis

There is a direct link between this financial insecurity and South Korea's declining birth rate. In a recent survey by the government, the overwhelming reason given for not having children was the cost—more than 60 percent of respondents cited the burden of education and child care as the reason not to have children.[44] All nations experience declining birth rates as they grow wealthier, but South Korea's plunging fertility rate has fallen farther and faster than in many other industrialized economies. Since the 1980s, the fertility rate has fallen by two-thirds to 1.2 births per woman of childbearing age, far below the replacement rate and below the rate of aging European economies (Exhibit 13).

Exhibit 13

The South Korean fertility rate has fallen by two-thirds since the 1970s

Total fertility rate[1]



1 Number of children a woman would bear if she experienced, at each age, the current period age-specific fertility rates (and she survived to the end of her child-bearing years, ages 15–49).

SOURCE: Eurostat New Cronos Database; Statistics Korea; Organisation for Economic Co-operation and Development (OECD); McKinsey Global Institute analysis

The drop is driven by a number of factors, including later marriages, more women deciding not to marry, and by a conscious decision to forgo having children or to limit family size to one child. Couples postpone marriage, often to pursue higher education, which typically takes more than six years to complete. The average age at which women marry in South Korea is now 29.1, slightly older than the OECD average of 28.4. The average age of first childbirth for South Korean mothers has risen from 27.7 in 2000 to 30.3 in 2011.

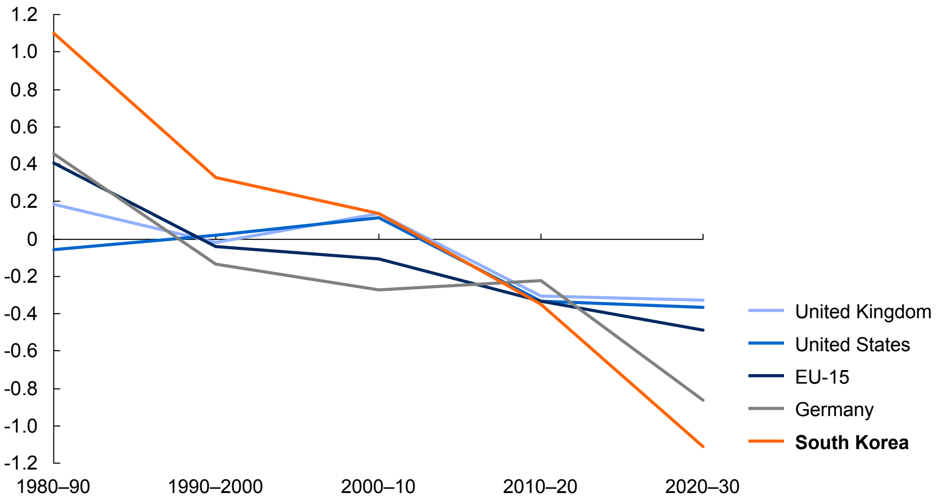
The impacts of a fertility rate below the replacement rate are manifold. Economies grow both by raising output and productivity, but even when productivity growth is strong, raising output is difficult with a stagnant or falling population. With a fertility rate below the replacement rate, the number of people in the prime working-age cohort (ages 25 to 54) in South Korea has already fallen from 19.9 million in 2005 to 19.5 million in 2010, and the nation is experiencing the biggest drop in the inflow of prime-age workers among advanced economies (Exhibit 14).

44 *The citizens' perception survey on low fertility and aging population in the society*, Ministry of Health and Welfare, November 2011.

Exhibit 14

South Korea is already feeling the largest effects from slowing flow of prime working-age population into the labor force

Growth in contribution of working-age population to GDP per capita
%



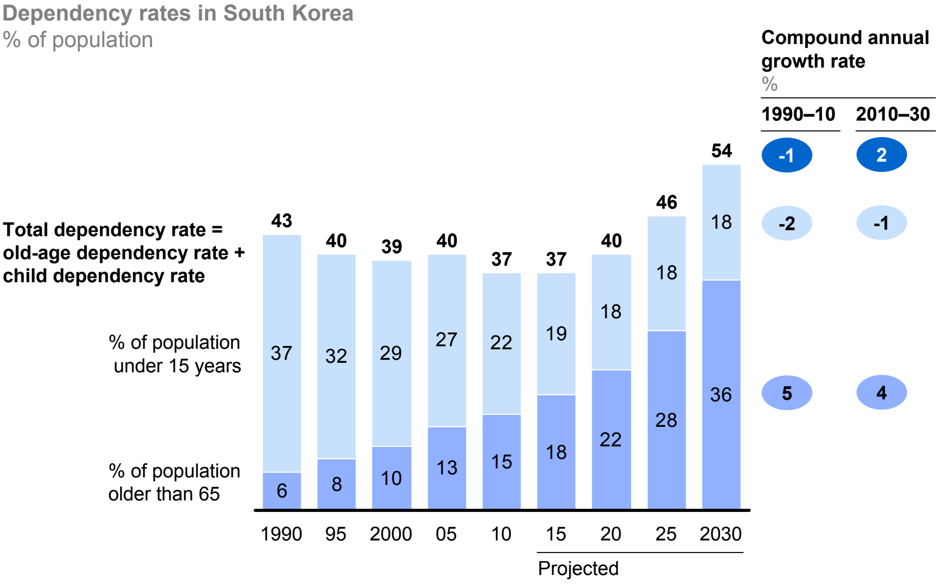
SOURCE: United Nations Population Division; McKinsey Global Institute analysis

The other major impact is a growing dependency rate—the number of citizens who are economically inactive compared with the number of employed workers. Rising dependency rates place a strain on public finances and can be highly destructive to social cohesion. In South Korea, the dependency rate is soaring—despite a low birth rate—because the population is aging and more older citizens are becoming economically inactive. If the current population trend continues, we project that the number of South Koreans over the age of 65 will double by 2030 (Exhibit 15).

Exhibit 15

At current fertility rates, South Korea faces a huge rise in dependency rates from aging population

Dependency rates in South Korea
% of population



SOURCE: United Nations Population Database; McKinsey Global Institute analysis

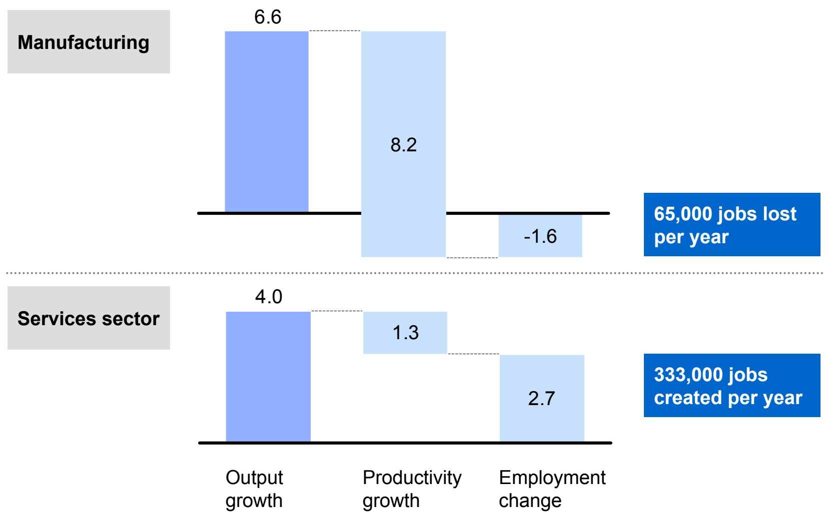
ROOT CAUSE 1: AN UNDERDEVELOPED SERVICE SECTOR, CONCENTRATED IN LOW VALUE-ADDED WORK, PAYS POORLY

Prime among the reasons for slowing income growth in South Korea is the state of the service sector that generates most jobs. For its stage of development, South Korea has a poorly developed service sector, with stunted growth in high value-added services and a high concentration of businesses in low value-added local services. The sector is also relatively small and slow growing. While manufacturing grew by 7 percent a year from 1995 to 2009, services grew by only about 4 percent, or just the rate of GDP. In total, services account for 60 percent of South Korea's GDP, far below the OECD average of 70 percent. Nonetheless, it employs 70 percent of the labor force, which reflects its lagging productivity. While manufacturing productivity rose by 8.2 percent annually from 1995 to 2009—and sector employment fell by 65,000 jobs a year—the service sector added 333,000 jobs a year and raised productivity by just 1.3 percent annually (Exhibit 16).

Exhibit 16

Manufacturing has raised output by improving productivity and the services sector has grown by adding employees

Real value added, 1995–2009
Compound annual growth rate, %



SOURCE: OECD STAN; McKinsey Global Institute analysis

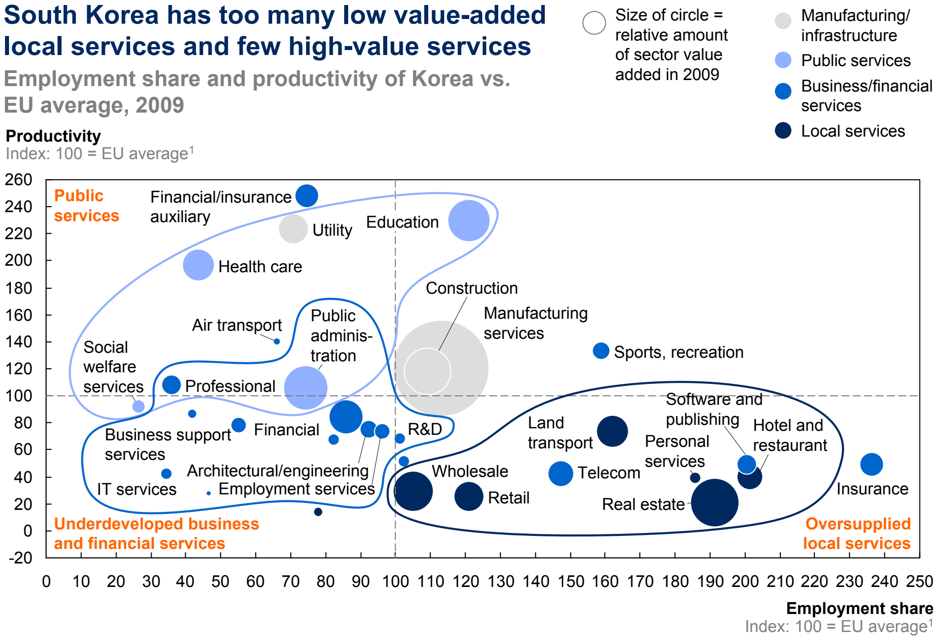
While there is a trade-off in all economies between employment and productivity, the very low rates of productivity growth in South Korean services are likely to place a greater drag on incomes and even growth as manufacturing employment falls. Today, South Korean service-sector employment is concentrated in industries that have relatively low productivity, including a large number of enterprises "local services." These include restaurants, real estate agencies, retail shops, and personal services, which cater to households and businesses in a specific neighborhood, are in oversupply in South Korea. These businesses account for 34 percent of total employment, compared with 29 percent in

Germany and 26 percent in Finland. Exhibit 17 illustrates the oversupply of local services compared with the advanced economies of the EU and how badly their productivity trails that of European local businesses.[45]

Exhibit 17

South Korea has too many low value-added local services and few high-value services

Employment share and productivity of Korea vs. EU average, 2009



1 Average of six European countries (Denmark, Finland, France, Germany, Italy, Netherlands) in 2009.

SOURCE: EU KLEMS; OECD STAN (ISIC Rev.4); McKinsey Global Institute analysis

The chart also shows that in almost all of the industries with productivity above the EU average, employment levels are relatively low. This includes, for example, health care and a sliver of the financial services industry (auxiliary financial services including private equity). But some of the largest employers (telecommunications and insurance companies) have the lowest relative productivity. Although public-sector services, including health care, social welfare services, administration, and defense, show relatively high productivity, the number of jobs in this sector is low by EU standards. We use revenue per worker to gauge productivity in these services, which is at best a crude measure but provides a basis for comparison among service industries.[46]

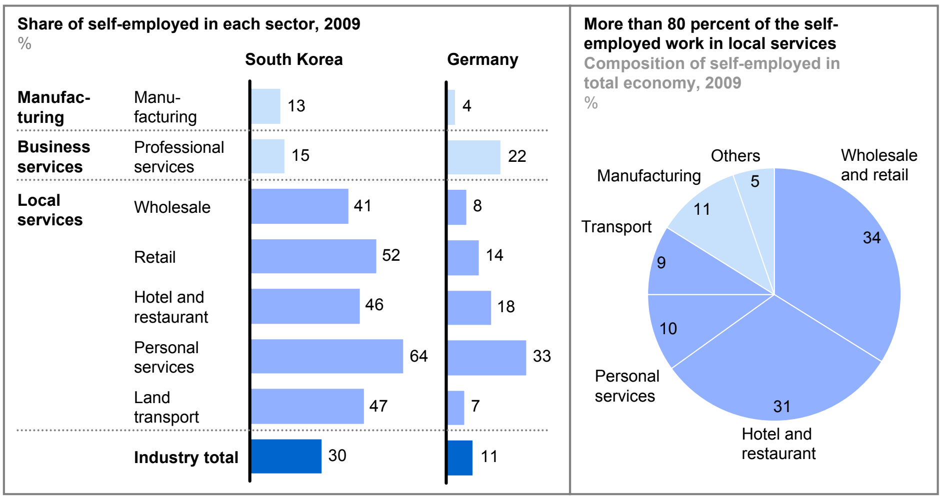
Where South Korea clearly has too many workers is in local services. Because barriers to entry are low, there are too many companies, driving down profits and wages. The sector employs many older workers and many part-time workers (e.g., 54 percent of restaurant workers and 39 percent of retail workers) as well as many self-employed workers. Some 30 percent of the South Korean labor force is self-employed, compared with 10 percent in other advanced economies, and more than 80 percent of self-employed South Koreans work in local services (Exhibit 18). This includes a large number of older workers who launch their own businesses after retirement.

45 We focus on three groups of service industries for our analysis (business/financial, public, and local). The OECD and other analysts include a fourth category of manufacturing/infrastructure services, which includes construction and utilities.

46 It is difficult to calculate value added in the public sector. The OECD calculates productivity using wages of public-sector employees. Thus, the productivity estimate is not highly reliable.

Exhibit 18

A majority of self-employed South Koreans operate low value-added local services



SOURCE: Statistics Korea; OECD STAN; McKinsey Global Institute analysis

There are many reasons for this pattern of development in South Korea's services sector, including a long tradition of government policies that favored large manufacturing concerns and export industries. Until 2006, for example, manufacturing concerns were exempt from paying land ownership taxes and received government-subsidized discounts on electric service. In 2006, these business-development incentives were extended to service businesses such as large retailers, hotels, and golf courses. However, other services do not receive these benefits, and other policies remain in place that discriminate against service businesses: certain service sectors that are regarded as luxury businesses or too consumption-oriented do not qualify for government financial support measures, for example.

We also find that lax enforcement of pro-competition rules slows the development of the South Korean services sector. Chaebols continue to favor service providers in their own groups, particularly for business services such as advertising and IT support, limiting the opportunities for independent competitors to enter markets and grow. We find that this lack of competition also impedes productivity improvements among chaebol service companies. For example, the top systems integrators in South Korea, all captives of chaebols, have only an estimated 5 to 8 percent share of overseas sales.[47]

In addition, many service industries are highly regulated. Municipal governments are allowed to limit the hours of operation of large retailers under the Distribution Industry Development Act and the Act on Promotion of Collaborative Cooperation between Large and Small-Medium Enterprises, which went into effect in 2012. Licenses, approvals, and other authorizations are required to enter many types of services, such as law and financial services.

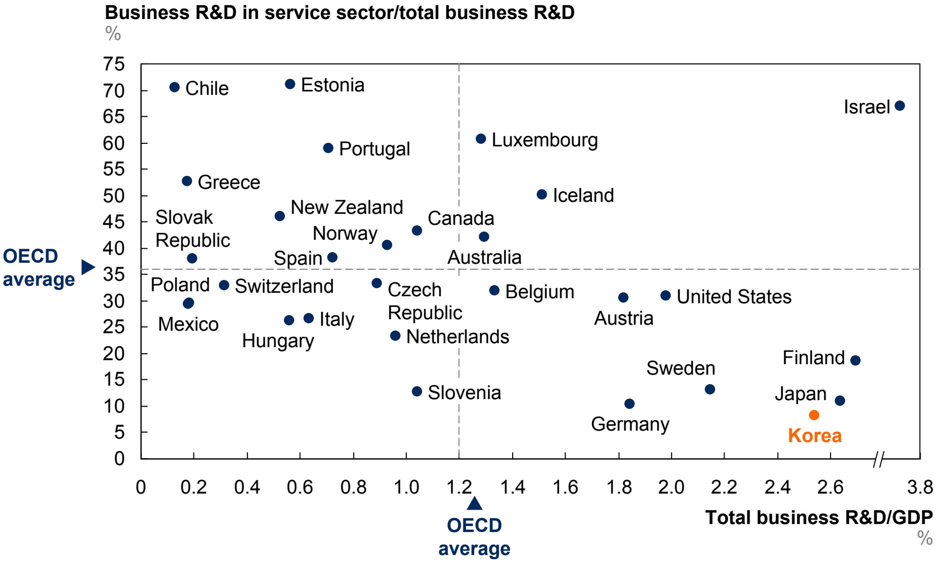
47 Press release, Fair Trade Commission, November 19, 2011.

Finally, the service sector is held back by a dearth of R&D investment. Although South Korea spends twice as much on R&D as a share of GDP as the OECD average, R&D in services as a share of total R&D is nearly 25 percentage points below the OECD average (Exhibit 19). These figures reflect business R&D, which remains overwhelmingly focused on manufacturing. This lack of R&D investment has hampered business and public sector services in particular, limiting growth and employment in those areas.

Exhibit 19

South Korea is a leader in private-sector R&D spending, but very little of it goes to services

2007–09 average



SOURCE: OECD STAN (ISIC Rev.3); McKinsey Global Institute analysis

ROOT CAUSE 2: SMES REMAIN SMALL AND UNCOMPETITIVE, DEPRESSING PRODUCTIVITY AND WAGES

Another drag on wage growth is the state of small and medium-sized businesses. The productivity of Korean SMEs is only 35 percent of that of large companies.[48] Since some 60 percent of SMEs are in the service sector, their low productivity contributes to the low productivity of the service sector overall (about 40 percent of that of large companies). The productivity gap of manufacturing SMEs is even larger: their productivity has fallen to only 27 percent of the productivity of large manufacturing companies (Exhibit 20). As a result of low productivity, wages paid by SMEs are about half of what large companies pay. Since SMEs account for 88 percent of South Korean jobs, this wage differential has contributed to middle-income household stress.[49]

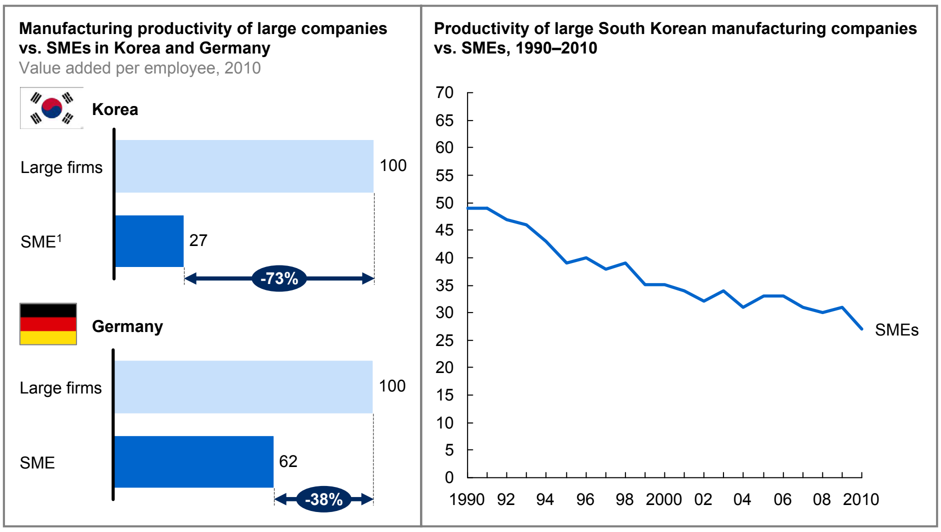
48 According to Statistics Korea, definitions of SMEs are derived from the SME Basic Law, under which definitions vary by industry. For instance, manufacturing SMEs are defined as companies with fewer than 300 full-time employees or less than $7 million of capital (8 billion Korean won). Labor productivity figures do not include public administration and defense sectors.

49 Statistics Korea, 2010.

Exhibit 20

The productivity of manufacturing SMEs is less than 30 percent of the productivity of large manufacturing companies—and falling

Index: 100 = Large firms



1 South Korean SME is defined as a company with fewer than 300 employees; a German SME has fewer than 250 employees.
SOURCE: Korea Federation of SMEs; Federal Statistical Office of Germany; McKinsey Global Institute analysis

Small and medium-sized businesses account for 99.9 percent of the estimated three million-plus companies in Korea. Of these, 96 percent are small companies, with fewer than 50 employees.[50] With hundreds of thousands of new small businesses launched every year, particularly in local services, there is an oversupply of companies. As a result, mortality rates are high: only 30 percent of new enterprises survive more than five years.[51] Only 0.07 percent of SMEs evolve into large companies.[52]

South Korea has introduced SME support policies to facilitate financing and help entrepreneurs start businesses. However, these incentives can have the perverse effect of encouraging SMEs not to grow too large so that they can continue to enjoy tax benefits and exemptions from the tax audits.

There are many reasons that SMEs fail to thrive or remain small and unproductive. While SME business owners often cite the effect of chaebols on competition as their biggest handicap, we find that other factors, including lack of entrepreneurism and innovation, are equally important. As noted above, the issue with chaebols is the degree to which they trade within their own groups (Exhibit 21). As a percentage of total output, trade between related companies is twice as high in South Korea as it is in Germany.[53] This limits SME market entry, growth, and participation in high value-added activities that would raise productivity and pay levels. This trade with captive suppliers also

50 In wholesale and retail industries, hotels and restaurants, and finance, small companies are defined as firms with fewer than ten employees.

51 *Statistics of births and deaths of enterprises*, Statistics Korea, 2012.

52 Some business owners intentionally avoid growing too large to receive SME benefits and it is widely believed that many SMEs have used spin-offs and other means to limit size. See *The Korean Hidden Champion Strategy*, Ministry of Strategy and Finance (MOSF), Ministry of Knowledge Economy (MKE), Financial Services Commission (FSC); March 2010.

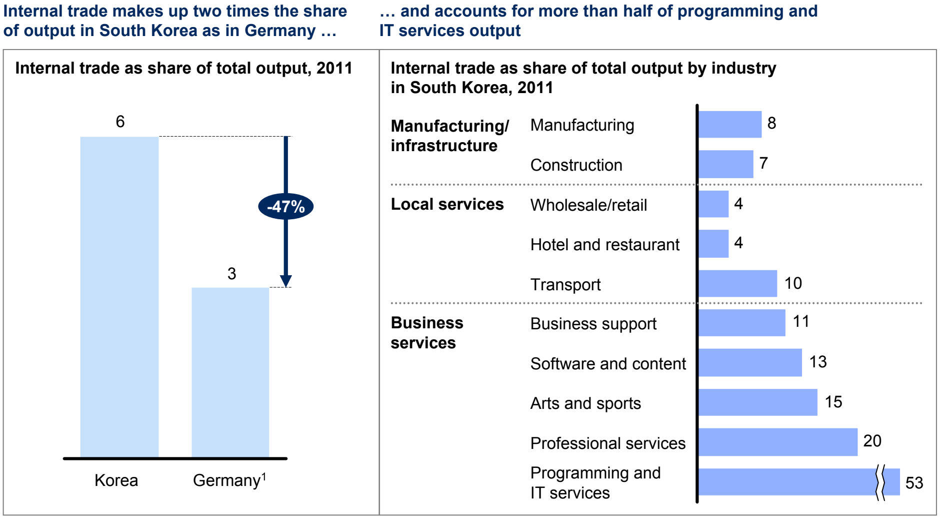
53 For Korea, the figure may be low since it includes only 46 mutual investment companies.

persists because there has been limited market entry by multinationals in the South Korean services sector. A result of limited competition from local SMEs and multinationals, we believe, is a lack of innovation among the captive suppliers.

Exhibit 21

The degree of internal trade within conglomerates is high in South Korea, especially in business services

%



1 For Germany, 2008 data used.

SOURCE: Fair Trade Commission of Korea, 2012; Federal Statistical Office of Germany; McKinsey Global Institute analysis

We find that a more overarching problem for the SME sector is the lack of strong culture of entrepreneurship, underdeveloped support for small enterprises, and limited access to funding. According to the annual survey of Global Entrepreneurship Monitor, entrepreneurship is relatively low in South Korea, despite high interest in starting or running a business. One reason is a long record of success of "fast followers" in South Korean industry, which has diminished the value placed on innovation. Also, many people who launch or buy small businesses are entrepreneurs by necessity—this is the only employment they can find, and they are not motivated to build a large enterprise.

There is also limited government support for entrepreneurship. It is not taught in schools, and despite SME support policies that include start-up financing assistance, there are strong reasons for business owners to limit growth. Beyond a certain point, for example, they no longer enjoy breaks, such as exemptions and reductions in social insurance fees, and they become subject to the tax audits that large companies must submit to.

Even for business owners with entrepreneurial intentions, it is difficult to grow small companies into larger enterprises in the South Korean business environment. SMEs face challenges to fund the R&D investments that would lead to innovations that would make them more competitive. Only 2 percent of SME financing comes from direct capital financing such as venture capital—more than 70 percent fund with bank loans and about 23 percent use government loans. [54] South Korea ranks 110th out of 144 countries in access to venture capital.[55]

54 *SME status indicators*, Korea Federation of Small and Medium Business, 2011.

55 *Global competitiveness report 2011–2012*, World Economic Forum, 2011.

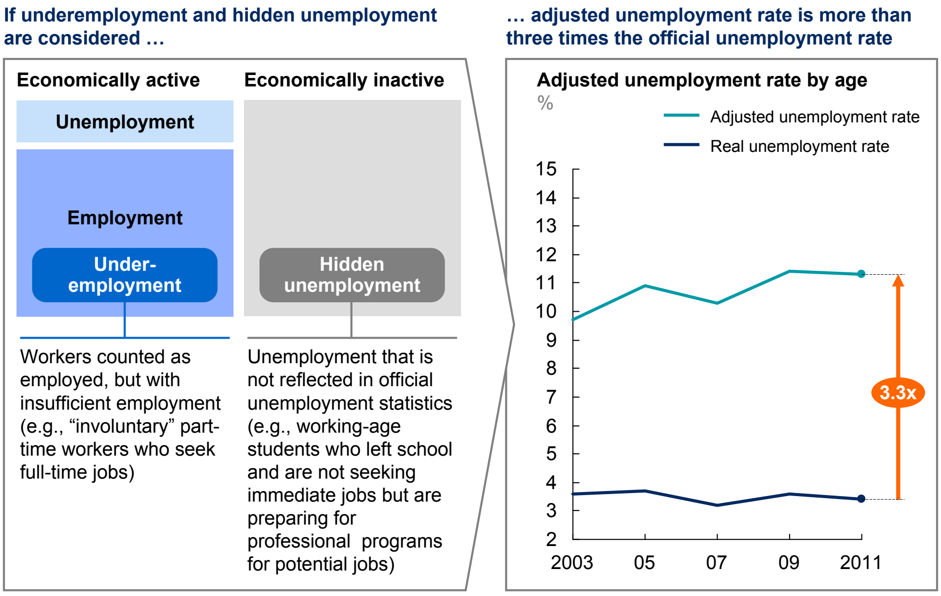
With low salaries and limited potential for career growth, SMEs have difficulty in competing for the most highly skilled talent. Nor can they do much to train inadequately prepared employees. As a result, SMEs outside the oversupplied local service industries face a chronic labor shortage. According to a survey by the Korean Federation of Small and Medium Business, 23 percent of small and medium-sized manufacturing firms say they currently face labor shortages and 17 percent expect to face shortages.[56] In a survey conducted by the federation in 2007, business owners say the top reason that they cannot achieve larger scale is a lack of capabilities and talent (40 percent), followed by financing difficulties and a lack of technology (tied at 15 percent).

ROOT CAUSE 3: LABOR MARKET ISSUES ALSO INHIBIT GROWTH

South Korea's official unemployment rate stood at 3.5 percent at the end of 2012, about half the average among OECD nations. However, as in many nations, official statistics obscure a more challenging reality. By failing to account for "hidden unemployment" and "underemployment," the official unemployment rate understates the number of idle workers in the economy by a factor of three, according to the Hyundai Research Institute (Exhibit 22).[57]

Exhibit 22

Official employment numbers do not capture the full extent of joblessness



SOURCE: International Labour Organization; Hyundai Research Institute; McKinsey Global Institute analysis

56 *Manufacturing SME employment status report*, Korea Federation of Small and Medium Business, December 2012.

57 *Long-term unemployment since the 2012 global crisis*, Hyundai Research Institute, 2012.

Hidden unemployment and under-employment

Nearly 25 million Koreans—about half the population—are counted in the labor force and their employment status is tracked in official unemployment numbers. But millions of workers who are unemployed are not captured in unemployment statistics. This includes, for example, an estimated 930,000 college students, or 37 percent of total college enrollees, who are temporarily out of school and looking for work at any given time.[58] Many of these students drop out temporarily to seek work to help fund further education. Other members of the uncounted unemployed include discouraged workers who have ceased to seek employment.

The underemployed—people who are working part time, but seek full-time work—are common in service industries, which rely heavily on part-time and contingent workers. The number of involuntary part-time workers in South Korea was 803,000 in 2012.[59] These workers not only have fewer hours, but also lower wage rates: according to 2011 figures released by the National Statistics Office, hourly wages of temporary workers were 65 percent of what regular employees earn. That is a 16 percentage point drop from 81 percent ten years earlier. In South Korea, “non-regular” workers (contingent, part-time, and temporary) make up one-third of the labor force, about twice the OECD average. They give employers greater labor flexibility and lower costs, but non-regular workers have poor career opportunities and only about 40 percent are covered by national pension, unemployment, or health insurance program.[60]

Female labor-market dropouts

Women represent a large pool of untapped labor in the economy. The labor participation rate of women in South Korea is low by the standards of advanced economies—about 57 percent of women are economically active, compared with 73 percent in Sweden and 69 percent in Germany. South Korean women also drop out of the labor force at a much higher rate when they marry or have children, producing a 15 percentage point dip in the labor participation rate of women in their 30s. In the United States, Sweden, and Germany, female labor participation rates have become more constant across the prime working-age cohort (25 to 54 years of age), producing an inverted U curve (Exhibit 23). The South Korean labor participation curve shows an M pattern, with a dip when women drop out to raise families, an increase of participation (but not to previous levels) in their mid- to late 40s, then a decline when they hit their mid-50s.

The loss of female talent from the labor force is even sharper among high-skill women. While women attend college in almost the same number as men, they are just as likely to drop out to raise children as other women. However, they are less likely to rejoin the labor force: a chart of highly educated women shows an inverted “double cascade”—participation among these women peaks in their 30s and never rebounds, depriving the economy of highly productive talent (Exhibit 24). Highly educated women have good reason to stay on the sidelines: women who choose to re-enter the labor force are often unable to secure the level of employment they once had and instead settle into temporary or low-skill work, regardless of education and previous experience (Exhibit 25).

58 Statistics Korea, 2012.

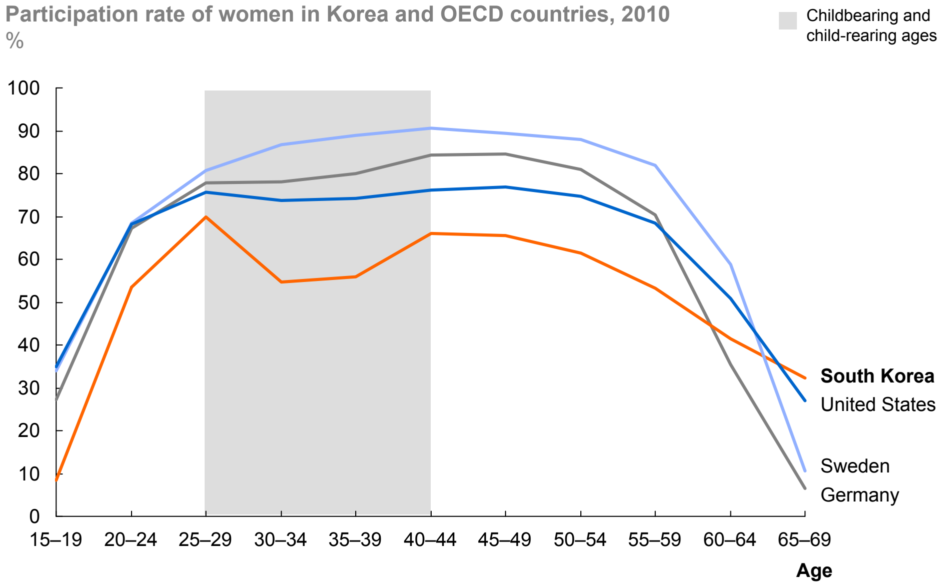
59 Korea Employment Information Service.

60 Statistics Korea, 2012.

Exhibit 23

South Korean women have lower labor participation rates overall and leave in higher numbers to raise children

Participation rate of women in Korea and OECD countries, 2010
%

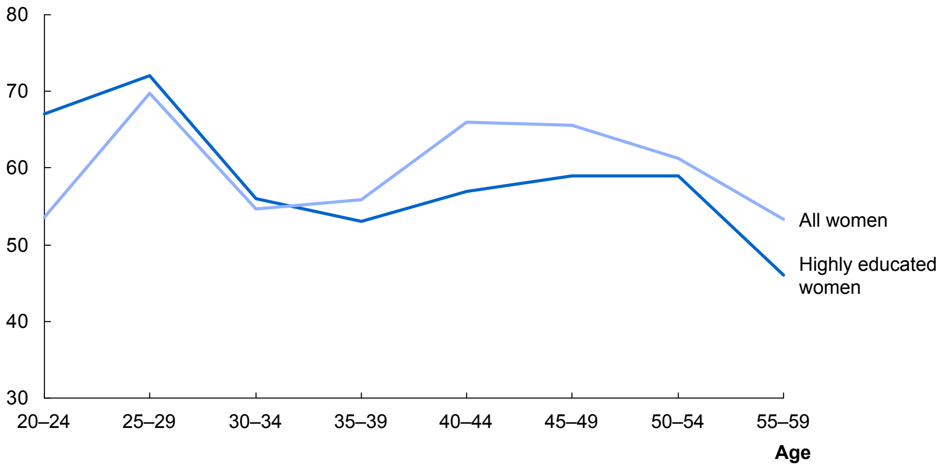


SOURCE: OECD Employment Outlook Database; McKinsey Global Institute analysis

Exhibit 24

Highly educated women—with at least four years of college—are even less likely than other women to return to the labor force after child rearing

Participation rate, 2011[1]
%



1 Women with at least four years of college; labor participation rate is defined as those who have worked or looked for a job within the past week.

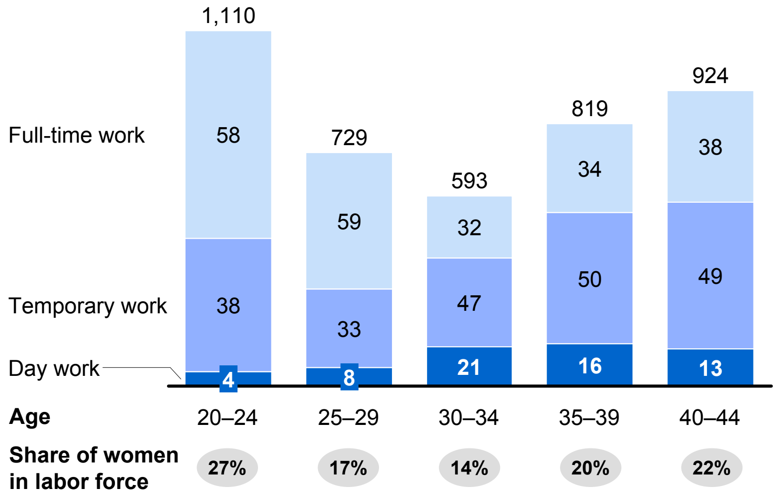
SOURCE: Statistics Korea; OECD Employment Outlook Database; McKinsey Global Institute analysis

Exhibit 25

Women over 30 and mothers returning to the labor force are more likely to take temporary or day work

Female employment by job type, 1992–2011[1]

Thousand



1 20- to 24-year-old women in 1992, tracked through 2011.

SOURCE: Statistics Korea; Korean Women's Development Institute; McKinsey Global Institute analysis

There is little effort to retain mothers in the labor force with accommodations such as long maternity leaves, flexible hours, or telecommuting. The long working hours expected by Korean employers also make it difficult for both parents to work full-time jobs. Despite efforts to provide services that would make it easier for mothers to remain in the labor force—the budget for child care and female welfare has grown 22.5 percent a year for five years—the female employment rate has been nearly constant at about 57 percent.[61]

□ □ □

The success of South Korea's economy and of the global manufacturing companies that continue to drive growth is increasingly decoupled from the lives of middle-income Koreans. With little growth in domestic employment in large manufacturing companies, the weakness of South Korea's service industries and its small businesses is increasingly apparent. The financial pressure on middle-income families is intensified by overspending on housing and education, and by low labor participation among mothers. In the next chapter we outline the initiatives that can resolve these issues.

61 Ministry of Gender Equality and Family, 2012.

3. The new growth model

Korea today faces a series of challenges to growth: low fertility, low labor participation by women, low productivity in most non-manufacturing sectors, decelerating income growth and deteriorating family finances. If these challenges are addressed now and in a systematic way, South Korea can restore the kind of virtuous cycle it enjoyed in the past—strong GDP growth that raises incomes, enables consumption and saving for investment, and generates more growth.

In this chapter we present a series of solutions to these challenges. They start with efforts to strengthen household finances to enable more consumer spending, by reducing some kinds of spending and raising incomes. Higher household incomes will depend on creating better jobs through efforts to boost the vitality of the services and SME sectors and by raising female labor participation. Together, these initiatives can create growth, productivity improvements across the economy and lead to rising standards of living for Koreans.

REDUCE HOUSEHOLD DEBT BURDEN

The recommended solutions to the financial crunch that has hit middle-income households are intended to mitigate two sources of stress on family budgets: high monthly payments for housing debt and over-investment in private educational services. We propose a series of measures that address the mortgage debt problem, including loosening loan-to-value requirements and finding new ways to fund mortgage lending that will allow banks to safely issue larger loans.

Lower monthly housing payments

As noted in the previous chapter, there are several reasons that middle-income households in South Korea wind up devoting a disproportionate share of income to payments for housing loans. First is the cost of housing itself. The median home costs 7.7 times the median household income, a higher multiple than in most advanced economies and more than twice the US multiple. As a result, 74 percent of household wealth is tied up in real estate and 53 percent of household debt is housing-related (Exhibit 26).

South Korean banks issue short-duration mortgages (less than ten years) that require high monthly payments because they continue to fund lending operations with short-term assets (retail deposits, rather than long-term assets such as bonds with long maturities). Korean depositors have a greater tendency to move bank deposits than do savers in other countries, and they do not have the same type of long-term relationship with banks that people in other countries have.[62] Relying on short-term deposits raises the risk for banks to issue 20- or 30-year mortgages. Banks also limit their interest-rate risk by avoiding fixed-rate loans; 90 percent of mortgages have floating rates, although the government

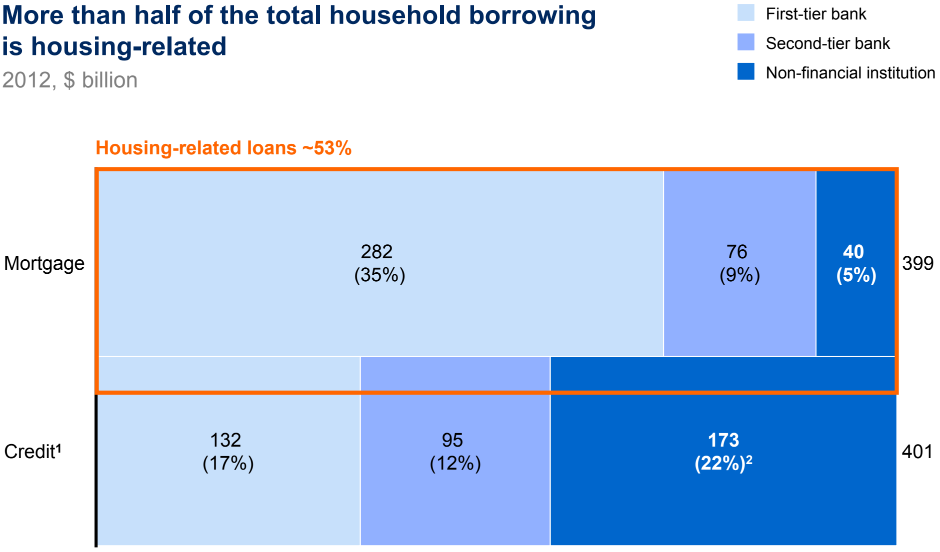
62 *Understanding customer loyalty index,* KB Daily Knowledge Vitamin, KB Financial Group, December 2012.

has launched an initiative to encourage banks to raise the share of fixed-rate mortgages to 30 percent by 2016.[63]

Exhibit 26

More than half of the total household borrowing is housing-related

2012, $ billion



1 Excludes sales credit.
2 Includes pension funds, securities firms, and specialized credit agencies.
NOTE: Numbers may not sum due to rounding.
SOURCE: Financial Supervisory Service, Korea; Bank of Korea; Korea Housing Finance Corporation; McKinsey Global Institute analysis

Finally, South Korea's restrictive loan-to-value regulations wind up raising total borrowing costs. The regulations do limit the kind of aggressive lending that helped bring about the US mortgage bubble in the United States, during which homeowners were able to acquire very high LTV loans (even up to 100 percent of home value) without proof of income. While tight LTV rules protected South Korea's banking system, it harmed middle-income households because an unintended consequence has been that borrowers are forced to seek additional funding from second-tier banks and non-financial lenders, which charge much higher interest rates. Borrowing from these lenders has been growing rapidly in the past few years (Exhibit 27). As a result, while homeowners in other nations pay a modest penalty for loans up to and exceeding 100 percent of home value, in South Korea, interest costs rise rapidly beyond 50 percent LTV: at 90 percent LTV, a US borrower currently pays 3.5 percent and a Dutch borrower pays 4.6 percent, but a South Korean borrower pays 8.5 percent (Exhibit 28).

We recommend a series of measures that can help reduce the monthly payments for home purchases that are causing the middle-income household crunch. First we look at a way to reduce demand for homeownership itself. Then we look at measures to reduce monthly payments by changing the terms of loans—extending maturities, fixing rates, and raising LTV limits.

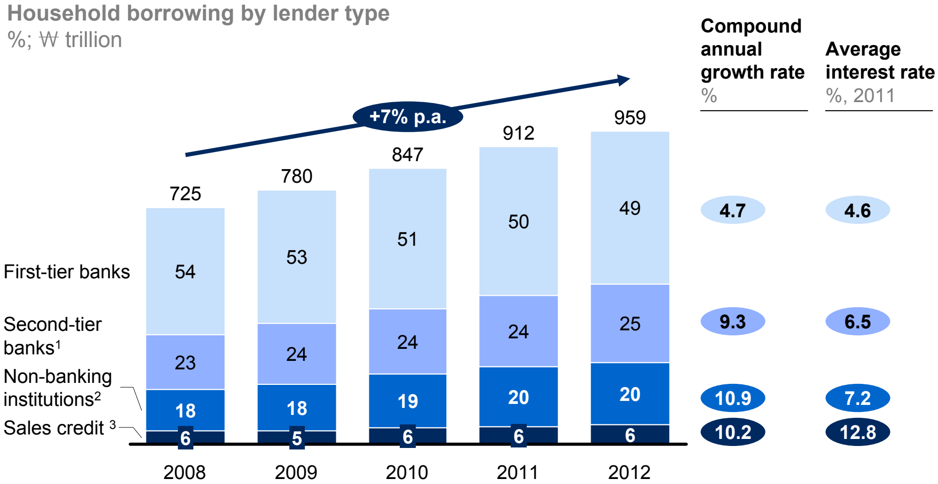
63 Bank of Korea, 2012.

Exhibit 27

More households are relying on high-cost debt from non-banking institutions

Household borrowing by lender type

%; ₩ trillion

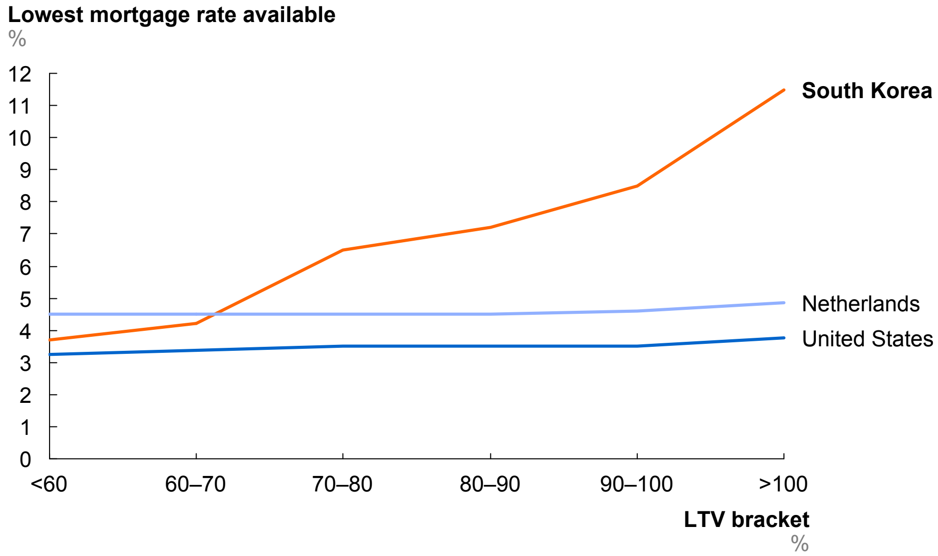


1 Such as mutual savings banks, cooperative credits, Saemaeul (rural development) savings, post office.
2 Insurers, pension funds, specialized lenders (credit card companies, capital companies), public financial institutions, brokerage firms (securities companies, asset liquidation companies, lenders).
3 Specialized lenders, department stores, auto companies.
NOTE: Numbers may not sum due to rounding.
SOURCE: Bank of Korea; McKinsey Global Institute analysis

Exhibit 28

South Koreans pay a higher premium for high loan-to-value loans

2012



SOURCE: Mistermoney.nl; bankrate.com; NICE report; expert interview; McKinsey Global Institute analysis

Alternatives to traditional homeownership

The first step would be to reduce demand for homeownership. South Koreans prize homeownership and the ownership rate is quite high—about 74 percent. However, this also reflects a lack of choices. There is not a vibrant rental market that can supply appropriate housing for middle-income families. The government launched a home rental service aimed at middle-income families, but that has not curbed demand for homeownership. Because private construction companies have focused more on selling than renting houses, rental units are in short supply. To make the rental housing market more competitive, South Korea should consider revising regulations that restrict banks and life insurance companies from investing in residential buildings. In nations such as the United States, insurance companies are a major source of long-term funding for multifamily rental housing.

Another option is to provide alternative forms of homeownership. In the United Kingdom, for example, a shared-ownership mortgage program that allows people to purchase a partial interest in a property has been used to provide a path to homeownership for poorer households and for those headed by a single person. The UK scheme, known as Homebuy, is aimed at first-time home buyers and allows consumers to borrow a share of the property's value. They borrow to acquire a partial interest and then pay loan payments as well as rent to the owner of the remaining equity interest (see Box 3, "How shared ownership programs work"). In South Korea, such a scheme could be used to help existing homeowners reduce their monthly interest and principal payments (by selling a share in their homes to an investor) in addition to making homes more affordable to first-time buyers.

Box 3. How shared ownership programs work

In the United Kingdom, shared ownership schemes are used to enable low-income households to acquire a partial interest in a home rather than attempting to buy one outright. The program is aimed primarily at residents of public (council) housing, as well as active-duty military personnel and first-time home buyers. Separate programs are available to disabled people and citizens over the age of 55. The programs are administered by local property associations, which bring in outside investors.

In a typical transaction, a housing association arranges for an investor to buy a 25 to 75 percent share in the property. The homeowner takes out a mortgage for the remainder and pays rent (usually at a subsidized rate) to the other partial owner. Both partial owners benefit from any rise in the value of the property and the homeowner can increase his or her share by purchasing more equity, based on current market values at the time. Across the United Kingdom, an estimated 200,000 households have become homeowners using shared ownership schemes.[1]

1 *Shared ownership—meeting aspiration*, National Housing Council, United Kingdom, www.housing.org.uk.

Enable longer-duration fixed-rate mortgages

To reduce the high monthly payments required for home loans today, South Korea should encourage banks to issue longer-term and fixed-rate mortgages. In most advanced economies, most mortgages are for more than 20 years, which raises total borrowing costs but requires much smaller monthly payments. Most South Korean housing loans also have floating rates. Short duration and floating rates place almost all the risk on the homeowner. Long-duration, fixed-rate loans place greater risk on lenders. Switching to such loans to relieve some of the pressure on middle-income households could undermine the health of the first-tier banks that would issue such loans.

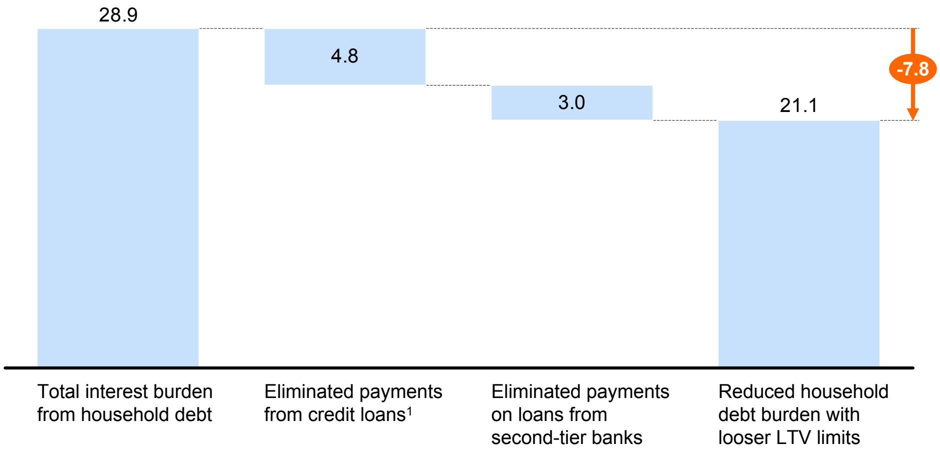
South Korea can consider raising the current 50 percent LTV standard for mortgages issued by first-tier banks. This would put the country in line with nations such as France and the United Kingdom and could reduce the burden on households by an estimated $8 billion (9 trillion won), assuming that existing high-rate loans can be converted to mortgage loans (Exhibit 29). Not only can higher LTV limits reduce the need for additional, high-cost home loans, but they also can reduce the likelihood of borrowers being hit with demands to submit large principal payments to maintain restrictive LTV levels. Today, when the value of a home falls (as has been happening in recent years) and the LTV ratio rises because the loan is now higher in relation to the value of the home, the mortgage lender requires the borrower to make a payment that restores the LTV ratio.

Exhibit 29

Loosening LTV limits for primary mortgages could save up to $8 billion, assuming conversion of high-interest loans

How higher LTV mortgages could reduce debt burden, 2012

$ billion



1 Credit loans used for housing due to LTV regulation that limits mortgage loans.

SOURCE: Financial Supervisory Service; Bank of Korea; Korea Housing Finance Corporation; McKinsey Global Institute analysis

These reforms cannot be expected to succeed without leadership from regulators and government. And they will not be possible—or desirable—unless they are implemented in ways that protect the solvency of the banking system. To mitigate that risk, we would recommend the development of a mortgage securitization mechanism under which banks could package and sell their mortgage loans to investors, providing a long-term funding source and making it possible to issue long-maturity, fixed-rate, and high-LTV mortgages without incurring unacceptable risks (see Box 4, "A safe mortgage bond scheme").

Box 4. A safe mortgage bond scheme

Banks cannot be expected to simply take on all the risks associated with long-term, fixed-rate, and high-LTV loans. To make such lending a viable and attractive business, South Korea will need to create a securitization process. This would include a covered bond scheme. Recently, Germany has issued covered bonds to cover mid- and long-term loans and has erected a legal framework to protect covered-bond investors. The United States is also considering a covered-bond scheme in the aftermath of the subprime mortgage crisis.

Despite problems associated with mortgage-backed securities (MBS) in the US subprime crisis (mostly caused by the poor quality of loans that were originated), the creation of an MBS market in South Korea can facilitate the emergence of a more innovative mortgage industry that can lighten the burden on borrowers (today only about 3 percent of South Korean mortgages are packed as MBS issues, though the Finance Housing Corporation is buying up bonds from banks in Korea). A variety of investor protection measures and supportive systems should be put in place before MBS are issued. To avoid some of the riskiest practices, the issue of separability of secured loans needs to be addressed, to have the security right acknowledged by a third party as well as by borrowers and financial institutions to make securitized bonds marketable. Investors of covered bonds must have legal protections, with clearly defined rules about which organization supervises collateral assets and what quality conditions collateral must meet.

An MBS infrastructure also is required, including private insurers to insure borrowers' credit, mortgage servicers to manage loans once they are issued, and some form of public guarantees to promote mortgages as a sound investment vehicle. There should be incentives for investors to put their money in MBS and for lenders to offer long-term fixed loans. To attract investors, it may be necessary to remove restrictions (e.g., ceilings) on how much the National Pension Fund can invest in mortgages and perhaps to make MBS mandatory in private pension portfolios.

CURB THE EDUCATION ARMS RACE

South Koreans spend more on education than every nation but one in the OECD group. Total public and private expenditures on education add up to about 8 percent of GDP, and households spend 9 percent of their incomes on education—a 4 percentage point rise since 1990. This surge in private spending reflects the real and perceived failure of the public education system to prepare students for university entrance exams and employment. It also reflects an apparently unshakable belief among middle-income parents in the need for a university education, despite evidence to the contrary. Even though college graduates can look forward to higher lifetime earnings, when the costs of private education and tutoring are factored in, the NPV of the college graduate's earnings are less than those of a high school graduate. Moreover, unlike in other advanced economies, in South Korea, the unemployment rate for college graduates exceeds that of graduates from vocational high schools. Even in the face of such evidence, we believe that families continue to strive for their children to attend prestigious universities because they do not see other paths to well-paying careers.

To reduce household spending on private education, we recommend a series of actions for reducing demand for college education by creating new paths to employment through new forms of vocational training.

Build up vocational education system and an alternate career track

To convince middle-income families that they can forgo the huge investments they make in private education to prepare their children for college, they must know that there is an alternative route to well-paying employment. This can be achieved by establishing strong vocational programs that provide the specific skills that employers need. This effort will require the participation of the nation's most prestigious large companies, professional firms, and SME associations to develop appropriate curricula and provide direct links to employment.

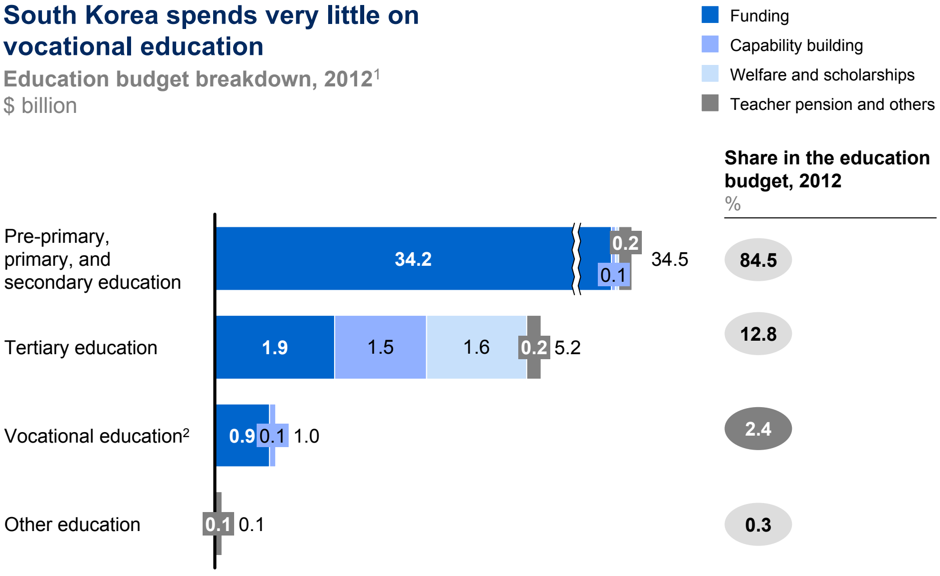
The "Meister" high school program, which is modeled on the German work-study system that combines academic courses and apprenticeships, is a step in this direction. However, there are only 28 schools in the program so far, serving only about 11,000 students. The program needs greater support from both industry and government. Meister high schools benefit the corporate sector by supplying low-cost, entry-level workers with specific "job-ready" skills. The government should review its investment in vocational training, which is smaller than in other advanced economies and accommodates only 28 percent of students (Exhibit 30).

Exhibit 30

South Korea spends very little on vocational education

Education budget breakdown, 2012[1]

$ billion



1 Total expenditure excludes internal transactions.
2 Includes vocational high school scholarship and national Meister high school budget that have been transferred to the control of local government and the Small and Medium Business Administration.

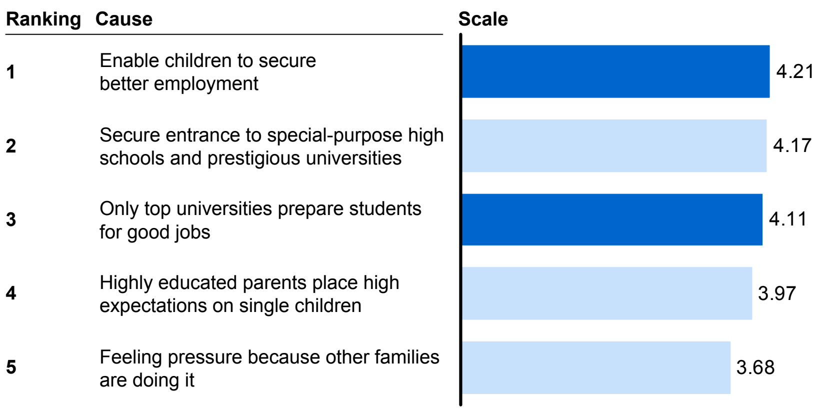
SOURCE: Ministry of Education, Science and Technology; Small and Medium Business Administration (SMBA); McKinsey Global Institute analysis

Raising investment in vocational training and demonstrating that an alternate educational track can lead to good careers and solid middle-income compensation will be essential to persuade families to stand down from the education arms race. According to a survey on private education sponsored by the Ministry of Education, Science and Technology, South Koreans remain convinced that they must invest in private education and tutoring because they believe that entry into the most prestigious university is the only path to good jobs and social success (Exhibit 31). The implication of these findings is that only by placing a very high priority on vocational training and the alternative Meister career track can South Korea end the education arms race.

Exhibit 31

South Koreans pay for private education because they believe it is the route to the best universities—and the only way to get good jobs

Main reasons to pay for private education, 2011[1]
Importance of factors on a 1 to 5 scale

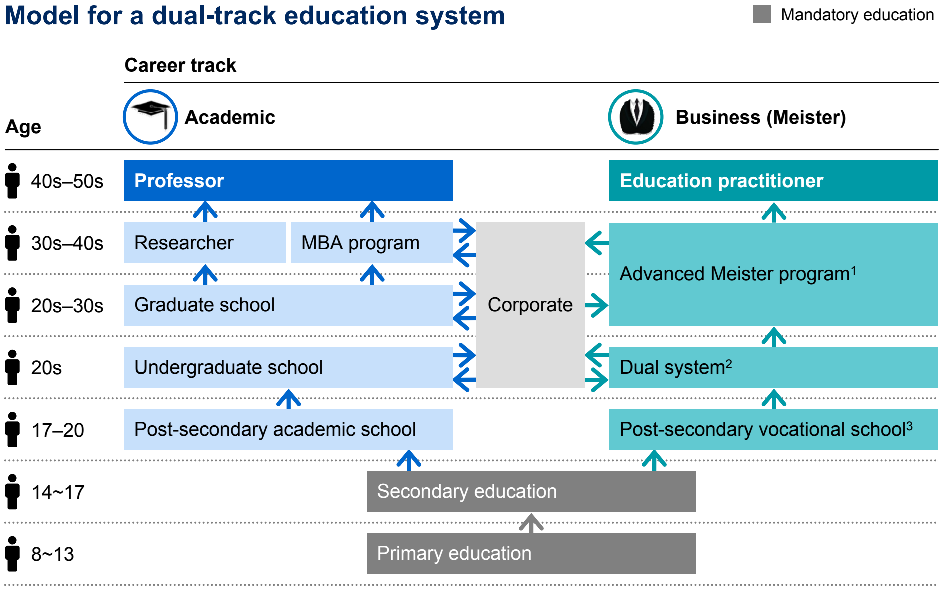


1 Nationwide survey result from 46,000 school parents and 35,000 students.
SOURCE: Education Statistics Bureau from the Ministry of Education, Science and Technology; McKinsey Global Institute analysis

The Meister school option would be part of a new dual-track system for secondary and post-secondary education. As Exhibit 32 illustrates, a dual-track system would provide an alternative to the traditional post-secondary educational path that is now available. This track would prepare students specifically for business careers. The success of the new vocational track will depend very much on successful partnerships between the educational system and the private sector to establish a smooth path to employment after graduation. Schools will need to provide reliable aptitude testing and employment counseling, and businesses will need to collaborate on defining skills and course requirements.

Exhibit 32

Model for a dual-track education system



1 Government-certified, university-based program in a specialized function.
2 College degree program that combines a company apprenticeship and vocational training at a college.
3 Meister high school.
SOURCE: McKinsey Global Institute analysis

A critical element in the success of the dual-track program will be convincing parents that their children can benefit from taking the vocational track. There is a deep-seated belief among Korean families that "learning a trade" does not provide long-term opportunity. It will also require effort by industry to educate and counsel parents and children about vocational training (see Box 5, "How Siemens is changing parents' perceptions of manufacturing").

Box 5. How Siemens is changing parents' perceptions of manufacturing

In 2011, when Siemens opened a cutting-edge gas-turbine facility in the US state of North Carolina, it began recruiting young people, promising good wages and training. But company recruiters found that the idea of working in a factory—even a world-class one—was not popular, especially with parents. The company addressed this problem by mounting an educational campaign to show students and parents what modern manufacturing is all about. It invited high school students to tour the plant with their parents to get a firsthand impression. "Parents who used to say 'absolutely not' change their minds completely when they see [the facilities]," notes a Siemens manager. "You see robots and lasers and computers, and realize it is advanced, modern-day manufacturing, which completely changes perceptions."

For the Meister school option to be perceived as a realistic alternative to the college track, it should achieve critical mass quickly, reaching the scope of vocational training programs across other OECD nations. This will require consistent support from the government as well as from employers. According to McKinsey research, the most important success factor in "education to employment" initiatives is the early participation of employers, which is possible through active involvement from businesses and the government.[64]

South Korean companies should create a competitive career track for Meister high school graduates and support those graduates as they continue working toward advanced degrees, an employment practice for German vocational school graduates. Businesses can increase the number of Meister high school graduates they employ and create more success stories that will build momentum for the Meister track. To this end, industry should become more involved in education, developing curricula that reflect industry needs and contributing resources, such as adjunct instructors. Other measures might include offering special incentives for companies to hire Meister graduates and adjusting corporate policies to ensure that Meister graduates have good opportunities for raises and advancement.

The South Korean government can also encourage development of a private vocational training system. As a start, the government should update regulations that limit the spread of Meister schools. Restrictions on permits for such schools can be eased, and there should be better support for credible state certification programs that can allow graduates to prove that they have the proper credentials. In addition, the scope of Meister programs should be broadened from manufacturing to service specialties (e.g., graphic design, finance, accounting, broadcasting, and other specialties). Meanwhile, general high schools or colleges should be limited from offering vocational diplomas to ensure there is a clear distinction between these schools and Meister programs.

Finally, the Meister program can help achieve another important goal for South Korea—increasing entrepreneurism. Part of the Meister curriculum should include training on how to start a business.

STRENGTHEN THE SERVICE SECTOR TO CREATE MORE HIGH-QUALITY JOBS

Korea's problem is not that there are too few jobs, but too few high-quality jobs—work that commands enough income to maintain middle-income living standards. Quality jobs are critical to reversing deteriorating household finances, enabling the domestic consumption that will fuel growth in the macro economy.

The first step toward creating high-quality jobs is to accelerate the growth of the service sector and shift the makeup of the sector toward subsegments that provide higher value added. Service industries today are determining the future of South Korea and all advanced economies. Even now, trade in services—everything from business services to tourism—has become the largest source of export growth in many advanced economies. The value added of German service exports today nearly matches that of manufactured exports. MGI projects that service exports will account for one-third of all exports from mature economies by 2030.[65]

For South Korea to compete globally in services and create well-paying jobs will require a clear commitment by the government to upgrade and grow the

64 *Education to employment: Designing a system that works*, McKinsey Center for Government, November 2012.

65 *Trading myths: Addressing misconceptions about trade, jobs, and competitiveness*, McKinsey Global Institute, May 2012.

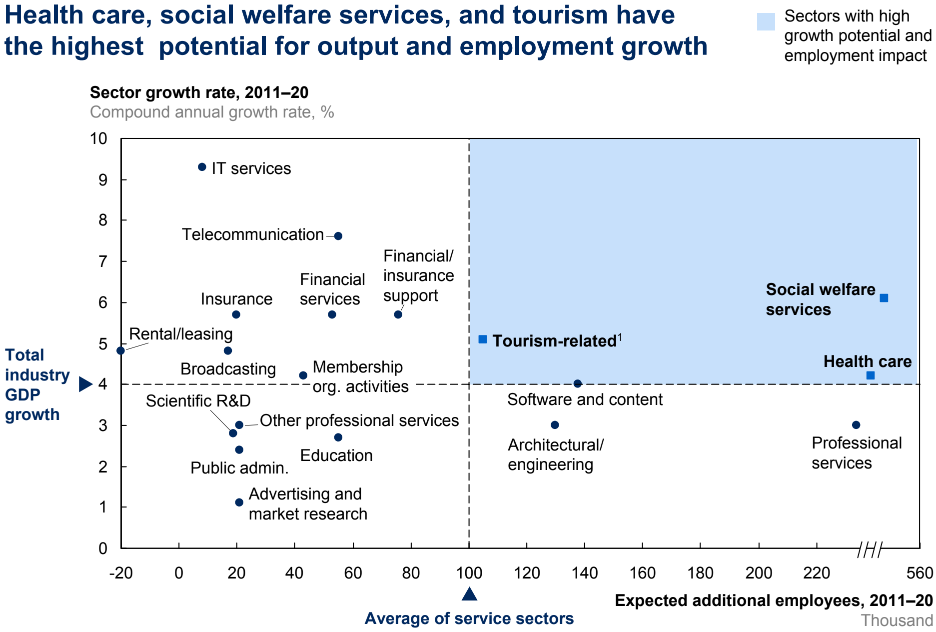
sector—just as it once nurtured the manufacturing sector. It should also be willing to undertake substantial reforms.[66] There should be tolerance for “creative destruction”—allowing market forces to work fully by permitting businesses to fail and jobs to be lost. Despite the short-term pain, this process weeds out uncompetitive players and redirects resources to more productive endeavors that will create better jobs with higher incomes.

This is asking for a significant change in mindsets. Leaders in the public and private sectors and South Korean citizens need to believe that South Korea can be globally competitive in services. South Korea leaders need to build popular support for such a fundamental transformation so people will commit to the risk of change in return for the promise of greater opportunity for themselves and their children. The country will never succeed in developing a strong service sector until its policy makers, business leaders, and workers really believe the task is urgent, unavoidable, and achievable.

To address the immediate goal of creating better employment opportunities in the service sector, we identify four segments of the service sector that currently are underdeveloped and can be built up and improved, providing new sources of high value-added employment: health care, social welfare services, financial services, and tourism. Health care, social welfare services, and tourism have the highest potential for industry growth and job creation (Exhibit 33). Financial services is included because it is underdeveloped relative to the size of the economy and because a more robust and regionally competitive financial services industry will not only make strong contributions to improving service-sector productivity and pay, but also will potentially facilitate growth in the overall economy.

Exhibit 33

Health care, social welfare services, and tourism have the highest potential for output and employment growth



1 Includes only art/entertainment and sports/leisure industries.

SOURCE: Korea Employment Information Service; McKinsey Global Institute analysis

66 Richard Dobbs and Roland Villinger, “Beyond Manufacturing,” in “South Korea: Finding its place on the world stage,” *The McKinsey Quarterly*, April 2010.

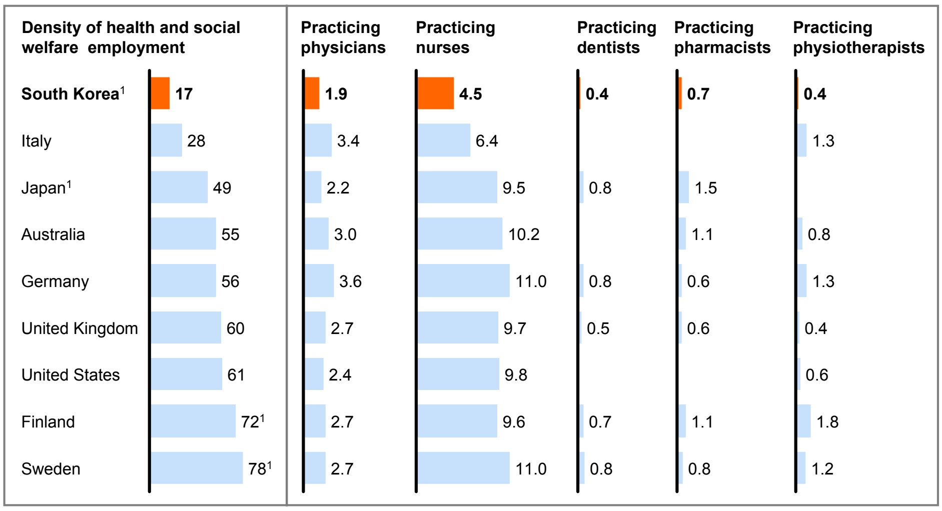
Grow the health-care sector

Health care in South Korea has improved significantly in the past few decades. Its infant mortality rate has fallen by 6.3 percent annually since 1970 and is now lower than the OECD average, while life expectancy has risen to 80.3 years, above the OECD average of 79.5. South Korea has made these gains despite relatively low health-care spending and staffing (Exhibit 34). South Korea spent 6.9 percent of GDP in 2009 on health care, compared with the OECD average of 9.6 percent. Sector productivity is also quite high: in South Korea, physicians complete 6,700 patient visits per year, nearly three times the OECD average of 2,400. The number of beds per nurse is more than three times the OECD average (3.4 compared with 0.9). We estimate that if South Korea raised health-care spending by 1 percentage point of GDP, it could create 400,000 jobs.[67]

Exhibit 34

South Korea has low rates of employment in health care, particularly in nursing

Employment per 1,000 population, 2009



1 2008 data.
NOTE: Not to scale.
SOURCE: Organization for Economic Co-operation and Development (OECD); McKinsey Global Institute analysis

South Korean health-care policy to date has emphasized access to care (universal coverage is provided through a social insurance program) and cost containment. However, this has left some unmet needs and unexploited opportunities. The chief unmet needs are in the areas of primary care and rehabilitative care, which will be increasingly important as the population ages. The unexploited opportunities lay in the fast-growing medical tourism business.

Expand non-acute care

While South Korea delivers high-quality acute care, it lags behind other OECD nations in providing non-acute care, including preventive care, primary care, and convalescence for post-acute care (patients who have been released from acute-care facilities or those with conditions such as dementia and stroke that require chronic care). Comprehensive primary-care networks could deliver routine services such as pediatric care more effectively, as well as providing

67 Derived by dividing South Korean GDP by South Korean heath care productivity in 2012 to estimate the additional increase of jobs that would be generated by an increase in health-care output equivalent to 1 percent of GDP.

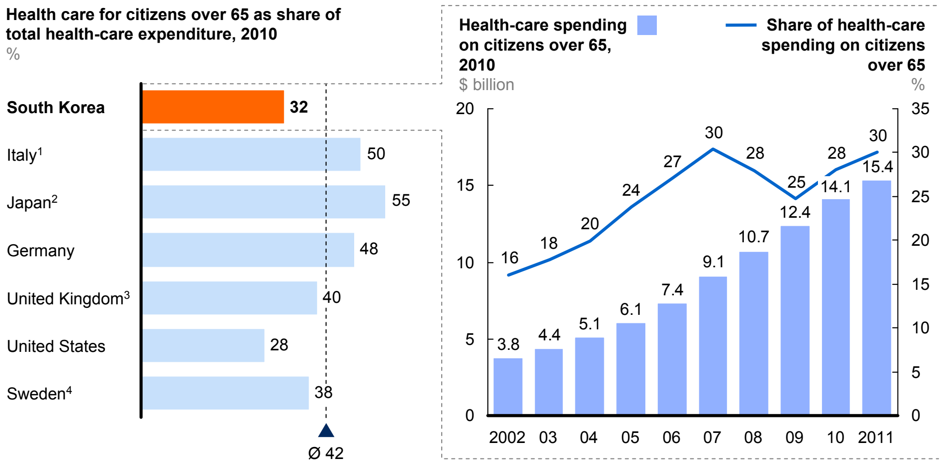
preventive treatment and disease management. Patients with chronic disease such as diabetes can often avoid hospitalization with routine monitoring and treatment in a primary-care setting (i.e., physician's office, small medical group, or clinic). Primary-care networks also provide continuity of care for patients, coordinating care among various specialists and acting as gatekeepers to other medical services.

The aging of the South Korean population raises the need to provide preventive treatment for patients with chronic conditions. The incidence of diseases such as diabetes rises with age and South Korea's elderly population is expanding rapidly. By 2018, more than 14 percent of the population is expected to be 65 years of age or older, making it one of the world's "aged societies."[68] Today, South Korea spends less on health care for older citizens, as a share of total health-care spending, than other wealthy nations. But this spending is growing so rapidly—by 17 percent annually—that the gap will soon close (Exhibit 35).

Exhibit 35

Spending on senior citizen health care has been rising by 17 percent a year

South Korea spends relatively little on senior care **… but at recent growth rates, will soon catch up**



1 Estimated from a regional study by a health research institute in Italy.
2 Year of reference 2009.
3 Department of Health estimation from 2007.
4 Estimated from a regional study by the Swedish Association of Local Authorities and Regions and Statistics, Sweden.
SOURCE: Ministry of Health of each country; McKinsey Global Institute analysis

Currently South Korea has a weak primary-care system. The model of primary care in other nations, with a community-based team led by a family physician or general practitioner, does not exist in South Korea. As a result, the system does not provide good continuity of care and coordination of care among medical facilities and professionals. Without a primary-care system acting as a gatekeeper to determine when specialist care or specific treatments are needed, patients wind up shopping for non-acute care in clinics and hospitals, leading to ineffective treatment. Another consequence is that uncontrolled hospital admissions for diabetes and asthma are almost twice the OECD average.[69]

68 *Analysis and implications from the social change factors for the next 10 years*, Statistics Korea, 2009.

69 *OECD reviews health care quality*, OECD, 2012.

The effective primary-care programs in the United Kingdom share four core elements: teams of multidisciplinary medical service providers, standard treatment protocols, central patient data management systems, and incentives tied to performance. Integrated care requires a team of general practitioners, specialists, nurses, and nutritionists as well as care coordinators who can provide a single point of contact for patients. The multidisciplinary team, which serves a single community of patients, agrees on standard treatment protocols and shares patient treatment histories to retain continuity of care as patients move among specialists. In effective primary-care systems, clear performance measures are set forth for each group, with results linked to an incentive to improve the quality of care.

An effective primary-care system in South Korea can not only control the costs of chronic diseases, but may also reduce their incidence through preventive care. This kind of improvement has been achieved in other nations (see Box 6, “Improving primary care in the United Kingdom”). The system would also generate jobs for nurses, social workers, and care coordinators in the integrated team.

Box 6. Improving primary care in the United Kingdom

The Primary Care Trust (PCT) operated by the UK National Health Service commissions local primary community-care providers around the nation. Local PCT groups have their own budgets and set their own priorities within the guidelines of the Strategic Health Authority. The overall goal of PCTs is to improve access to primary care and raise the quality of primary care.

In 2010, the PCT in North West London, covering a population of 750,000, launched a program to improve the care of elderly and diabetic patients. Teams of care providers work together to deliver standardized “packages” of care for diabetics, using agreed-upon standard protocols. Members of the team included general practitioners, an acute-care consultant, a mental health specialist, a podiatrist, a diabetes nurse, a district nurse, a social care representative, and a community matron. Team members co-developed complex treatment plans through multidisciplinary conferences. Patient data from different providers were combined into one program by the central IT department, which enabled smooth coordination. A joint management board governed all providers in the team and conducted regular performance reviews.

Within two years of introduction, all patients with chronic conditions were on the team care plan. The pilot reduced emergency admissions by 6.6 percent in its first year, while such admissions rose by 6.5 percent in other PCT regions. Projected cost savings were $13 million in year one and $28 million by year five.

For South Korea to get the most benefit from the UK primary-care model, it would need to rethink its current fee-for-services payment system for management of chronic disease. This would undoubtedly meet resistance from health-care service providers. Another hurdle would be persuading Korean citizens to accept restrictions in their choice of medical institutions.[70]

Convalescence-care services are in an early stage of development in South Korea. Patients recovering from acute-care procedures and those with cardio- and cerebro-vascular diseases such as hypertension typically require long-term care. In Korea, such patients receive rehabilitative in tertiary hospitals after acute-care treatments including surgery, but the care usually lasts for only four to six weeks. Many of these patients need further step-down care, but there is a shortage of high-quality facilities to accommodate them. Japan has had more success addressing a shortage of convalescence facilities (see Box 7, "Convalescence care in Japan").

Box 7. Convalescence care in Japan

Faced with rising demand and inadequate capacity for convalescence care, in 2007 Japanese regulators relaxed rules for private competitors in the system and allowed acute-care hospitals and long-term care centers to share facilities. It also allowed medical corporations to establish these facilities. As a result, more than half of hospital groups now operate hospital/rehabilitative care complexes.[1] Takekawa Hospital in Tokyo, for example, has also expanded into a complex of a hospital for acute care and convalescence facilities for post-acute long-term care.

This combination provides for smooth coordination between medical care and rehab care. Patients receive coordinated care at one facility from physicians, nurses, pharmacists, and physical, occupational, and speech therapists. As a result, Japan has raised the quality of care and improved patient recovery time, shortening the average rehab stay from 255 days to 140.[2]

1 *Hospital groups analysis 2011*, Yano Research Institute, November 2010.

2 Takekawa Hospital website; Japan Medical Planning (JMP), October 2009.

Even though primary care can help reduce acute-care costs in the long run, expanding non-acute care will raise insurance costs. To reduce the budget impact, the government could consider measures such as introducing a tiered co-pay system, under which co-pays would rise according to the severity of illnesses. Currently the national health insurance applies a consistent 30 percent co-pay rate for most diseases regardless of severity.[71] South Korea can reduce coverage and increase co-payments for mild diseases such as strep throat and use the savings to strengthen primary-care services.

70 Heesuk Yun and Sangil Lee, *Primary care and health care reform in Korea*, Korea Development Institute, October 2012.

71 Colds and diabetes get the same 70 percent insurance coverage for medical treatment.

Opportunities in medical tourism

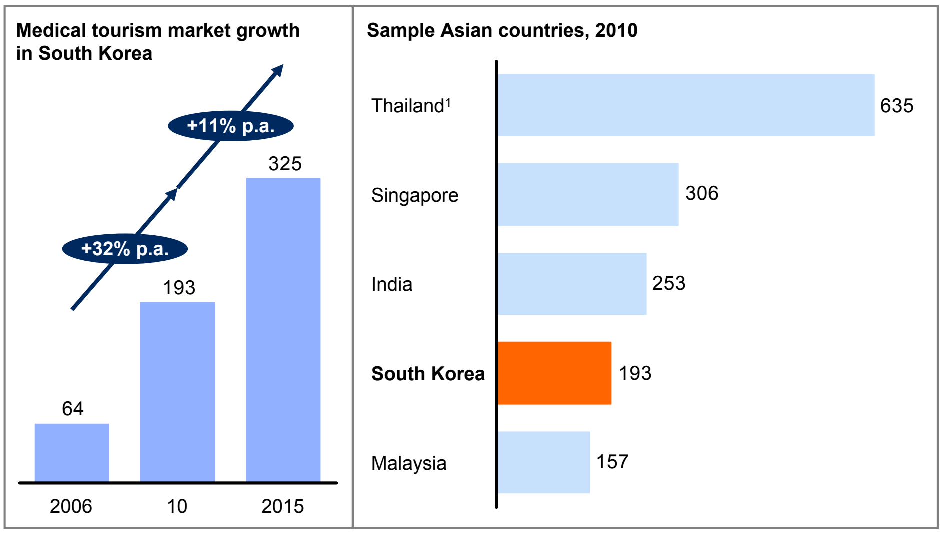
Asia is the prime destination for medical tourism, and South Korea is already a destination. Inbound medical tourism has grown by about 32 percent a year in the past five years, primarily driven by the dramatic growth in the number of middle-income and affluent Chinese seeking treatment abroad. Revenue reached about $193 million in 2010 and is projected to grow by 11 percent annually for the next five years.

South Korea's share of the Asian medical tourism market, however, is eclipsed by that of Thailand, which has more than 40 percent of the market and Singapore, which has 20 percent (Exhibit 36). Using its rich tourism resources, Thailand offers medical tourist resorts, leisure programs, one-on-one personal nursing, and care services. Singapore takes advantage of its geographic location and reputation as an international hub to develop differentiated medical tourism products to attract patients from abroad.

Exhibit 36

Medical tourism to South Korea has grown substantially, but is only 30 percent of what Thailand attracts

$ million



1 Includes spa treatments.

SOURCE: Euromonitor passport; McKinsey Global Institute analysis

South Korea has excellent capabilities in many of the acute-care areas; it is highly regarded for cancer treatment and cardiovascular disease surgery, for example. South Korea's five-year survival rate for liver, colorectal, and thyroid cancer is higher than in the United States and Japan.[72] The number of CTs and MRIs per million population is 35.3 and 19.9, respectively, which is higher than the OECD average of 22.6 and 12.5.[73] Also, South Korean medical services are quite cost-effective compared with similar services in other developed countries

72 *2011 Health and welfare white paper,* Ministry of Health and Welfare, October 2012.

73 *Korea's truth and falsity in medical expense: Comparison with OECD countries*, Korea Economic Research Institute (KERI), January 2013.

such as the United States and Japan and is similar in cost to Singapore's.[74] This message has not gotten through to the global market.

To gain share in Asian medical tourism and establish credibility in the global market, South Korea will need to provide clear performance data, highlighting basic information such as infection control statistics and average costs for popular medical services. If marketing programs are established to deliver these messages about South Korean capabilities and costs, the nation can compete more successfully for patients from markets such as China and Russia. According to the Korea Health Industry Development Institute and the Ministry of Health and Welfare, about 15,000 direct and indirect jobs can be created in three years if South Korea attracts 300,000 medical tourists.

The government has already taken steps to support medical tourism, including initiatives to improve language capabilities of hospital staffs, loosen visa regulations, and develop more effective marketing programs. However, most medical tourists still come for plastic surgery, health examinations, and other relatively low-cost services, rather than acute care. The government needs to consider a more systematic approach that would start with a thorough assessment of the best markets to target and therapeutic areas in which to specialize.

Expand social welfare services

Compared with other OECD nations, South Korea has a small social welfare services sector.[75] Total public and private social welfare expenditure is about 6 percent of GDP, compared with 9 percent across OECD countries (Exhibit 37). As a result, employment in the sector is quite small—about 3.6 percent of the labor force, or about 30 percent of the European average. This reflects the limited scope of social welfare programs; most government social welfare service spending is aimed at providing subsidies and support for low-income citizens and the disabled, and relatively little is done to address the needs of middle-income households (e.g., for elder care). There are large unmet needs for social and domestic welfare services for South Korea's middle-income families, who now rely on informal systems or forgo assistance and, often, the opportunity to return to the labor force.

The modest spending and employment in social welfare services is a function of how the sector has evolved in South Korea. Social welfare services have been led by the private sector, without much support from the government, in contrast with other advanced economies, in which governments created extensive social welfare service institutions and then handed over responsibilities to the private sector. Private social welfare service providers have a long history in South Korea, but the business has not evolved into a well-organized industry. Many employers have engaged unqualified workers, some of whom work without required licenses.

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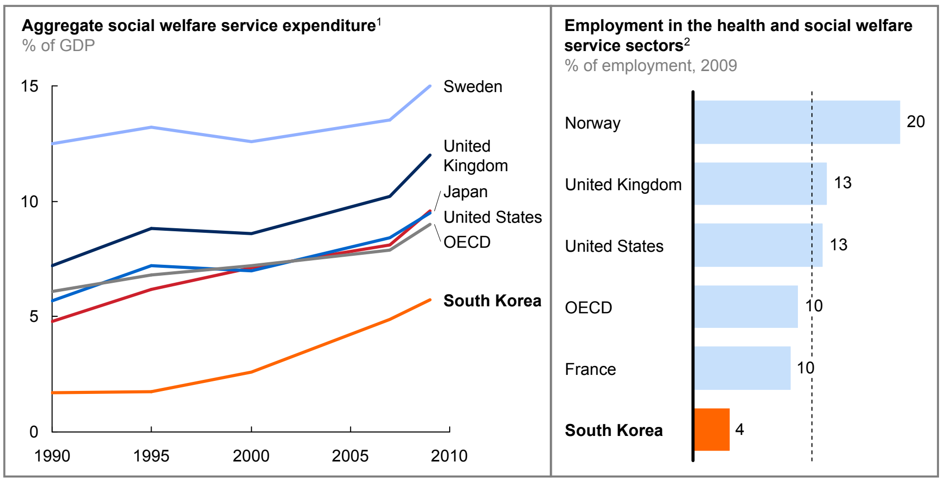
74 The average price of a spinal fusion procedure in South Korea is $17,350 versus $18,300 in Singapore and $100,000 in the United States. A knee replacement is $17,800 in South Korea versus $50,000 in the United States and $10,800 in Singapore; coronary artery bypass is $24,000, compared with $114,000 in the United States and $13,500 in Singapore. Sources: Medical Tourism Association, Korea Health Industry Development Institute (KHIDI), Korea Tourism Organization (KTO), 2009.

75 Includes areas of welfare, health care, education, employment, housing, culture and environment, and consists of social security benefits, reimbursements, other social security benefits in kind, and social assistance benefits in kind.

Consumers have had little visibility into how different providers compete or any means of comparing their quality of service or cost. Many households resort to employing child care and elder care providers directly, potentially exposing families to risk.

Exhibit 37

South Korea social welfare service expenditures and employment are the lowest among OECD countries



1 Social benefits in kind are intended to relieve the household from the financial burden of social risks or needs (e.g., old age residential care and home-help services, incapability-related convalescence-care services, and family day care and home-help services).
2 Includes the provision of health care diagnosis and treatment and the provision of residential care for medical and social reasons, as well as the provision of social assistance.
SOURCE: OECD Social Expenditure Statistics; OECD Annual Labor Force Statistics; McKinsey Global Institute analysis

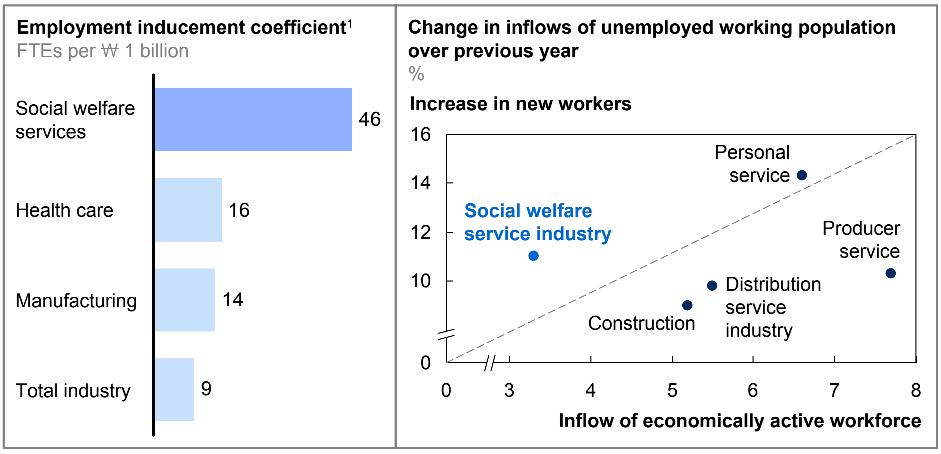
Under-investment not only limits job creation in social welfare services, but also affects the ability of women in middle-income households to take on high value-added work outside the home. As with health care, demand for social welfare services will rise as the society ages. And, as more women enter the workforce, demand for child-care and after-school services will become greater, too. To help families afford child-care services, the government may want to consider making child-care expenses deductible (or partially deductible) for dual-income families. Expanding social welfare services (both public and private) can also create more jobs than expanding other sectors such as manufacturing. For every billion Korean won ($900,000) of additional output, social welfare services generate nearly 46 jobs, compared with nine across all industry sectors (Exhibit 38). In particular, social welfare services can create jobs for the economically inactive and difficult to employ, increasing new employment.

Exhibit 38

Expansion in social welfare services has the biggest impact on employment

Social welfare services spurs more employment …

… and can hire more from unemployed population



1 Employment inducement coefficient refers to the number of additional workers required for an increase of 1 billion won in output.

SOURCE: Korea Institute for Industrial Economics and Trade (2012); Korea Labor Institute (2009); McKinsey Global Institute analysis

Use government oversight to raise service quality

The government should set the standard for providing efficient and effective social welfare services at a reasonable cost. These standards would help the overall market (including private players and non-profits) compete and raise performance levels. Government can also build a regulatory mechanism to oversee all social welfare services provided by the national government, local authorities, private companies, and voluntary organizations, with a mission to continuously improve quality. The United Kingdom's Care Quality Commission, for example, monitors a range of health-care and social welfare services and has the power to issue fines and suspend licenses. This type of regulator in South Korea would have the responsibility to evaluate social welfare service organizations on a regular basis and provide incentives to improve performance, such as publishing scores and issuing certificates for outstanding quality. At the same time, the government should expand training to help licensed firms deliver better services. Singapore's Social Service Training Institute works with leading universities to provide training and consulting to non-profits.

Build a strong role for the private sector

To meet the new demand and increase efficiency, South Korea can encourage additional development of private-sector social welfare services, too. The social welfare services market can become more open, and private companies can become sector leaders in cooperation with the government. These efforts might include contracting with private-sector providers to deliver more services, subsidizing private companies, and issuing vouchers for citizens to purchase private services. To help new providers, the government can contract with promising private enterprises, manage quality, and add services quickly when needed by tapping private providers. This is how France helped make Groupe SOS a major provider of social welfare services that now operates globally (see Box 8. "A French model for private social welfare service success").

The government can also work with community-based offices and voluntary organization to expand services where needed and serve as a resource for promising ventures, by providing support on crafting institutional strategy, for example.

Box 8. A French model for private social welfare service success

Even in Europe, where governments are known for providing extensive social welfare services directly, there is rising use of private-sector contractors. Many of these businesses have evolved into large organizations that have proven to be efficient and entrepreneurial. Groupe SOS, established in the early 1990s, has grown into a 10,000-employee organization, with a $750 million annual budget, 44 social welfare service businesses, and 300 aid organizations in France and overseas. It serves more than one million beneficiaries annually, operating health-care facilities, providing housing for the homeless, care for children and the elderly (including retirement homes), and employment services. The organization recently partnered with local authorities in Seoul to introduce a version of its youth employment program, which is aimed at low-income young people in French suburbs. SOS has grown by investing in the knowledge and professionalism of its staff and by maintaining a close partnership with governments, public agencies, and other private companies.

Strengthen and grow financial services

Financial services are relatively underdeveloped for a nation of South Korea's wealth and stage of development. While higher-value financial services contribute more than 7 percent of GDP in large financial hubs such as the United Kingdom, Singapore, and Hong Kong, they generate only about 4.7 percent of South Korean GDP.[76] This means there is room for growth by South Korean institutions at home and across Asia. If South Korea were to close half the financial services GDP gap with United Kingdom, it could add $11 billion in value added, or 1 percent to GDP. This could also generate 160,000 high-value jobs, as well as about three times as much employment (direct and indirect) in related services, such as legal, accounting, and advertising.

In particular, South Korea can raise its profile in regional financial services. South Korea ranks 12th in the world in GDP, yet no Korean financial institution makes the list of the top 150 global financial institutions by market capitalization. Banks in nations with lower GDPs, such as Spain, the Netherlands, Singapore, and Switzerland, rank in the top 150. Overall, South Korean banks are sub-scale, largely national in scope, and too focused on traditional commercial and retail services. Broadly speaking, the chaebols have not achieved the same level of innovation and leadership in their financial services businesses as in their other businesses. The productivity of financial services is also relativity low. And in more profitable lines of business such as private equity, asset management, and M&A, foreign financial institutions have leading market shares in South Korea.

76 This analysis of higher value-added financial services includes banking, asset management, and related financial services. Sectors with relatively low-value jobs, such as insurance and pension sales, are excluded.

But South Korea does have some of the capabilities that are needed to build a financial services sector that can boost GDP and create high value-add jobs. The Korean Stock Exchange is one of the largest cash and derivative markets in Asia. The Korean National Pension fund, the third-largest pension fund in the world, already has $350 billion (380 trillion won) under management and could allocate some funds to local asset managers to help build up that subsector.[77] South Korean companies have strong global brands that could be leveraged into regional retail financial services in the same way as Tesco and Virgin have leveraged their brands in financial services in the United Kingdom. In addition, many of the lean capabilities that South Korean industry has developed in manufacturing can be applied in financial service operations.

We believe that a reasonable goal for South Korea is to create three or four regional champions in financial services—the financial services equivalent of Samsung Electronics, Hyundai, and Posco. This will first require a change in mindset. Today, South Koreans (citizens and policy makers) do not think of financial services as a source of growth and attractive employment—instead the role is to service the "real economy" of manufacturing and exports. Replacing that attitude will not be easy. It will take a combination of vision—showing how great the value creation of financial services has been in other economies—and some evidence that South Korea's financial services industry is making gains.

To create a stronger financial services sector and build regional champions, South Korea needs to consolidate its domestic financial sector and scale up regionally. The domestic market is still very fragmented despite its relatively small size. There are four major national banks, a number of Korean regional banks, specialty banks such as Korean Development Bank, Industrial Bank of Korea (IBK), the Post Bank, and Nonghyup (the farmers cooperative), as well as the large, foreign players such as Standard Chartered, HSBC, and Citibank. In addition, South Korean conglomerates compete in insurance, asset management, credit card services, and securities businesses. This fragmentation has its benefits—it can reduce the risk of a single bank failure causing massive disruptions—but it means that the Korean financial institutions lack the scale for innovation at a domestic and regional level. Domestic consolidation as well as regional mergers could help address this. These could be mergers of equals or cross-border transactions, which may require some government guidance and consideration of risks associated with "mega banks."

South Korea should also address governance and regulatory issues that hold back sector development. No great global financial institution has been built by CEOs who are serving on three-year contracts. Building major financial services institutions requires long-range vision and sustained leadership, but the tenure of most of the heads of the Korean banks has been less than three years. Policy makers should also examine the roles that regulators and unions have been playing in discouraging growth and change.

Finally, Korean financial institutions need to pick the niches where they can win. There is too much unrealistic talk about Seoul becoming a "regional financial hub" or of institutions becoming "the Goldman Sachs of Asia." It is more realistic to define a successful niche strategy for South Korean financial services leaders. Asset management is an area in which South Korea could grow further. The

77 In 2012, the National Pension Service placed 14 percent of its holdings with external managers.

recent introduction of mandatory retirement pensions, an aging society, and declining interest rates for bank deposits set up a perfect foundation for the growth of asset management in South Korea. Building on South Korea's strengths in derivatives and consumer electronics, financial service leaders could plausibly strive for leadership in new opportunities in the region, such as the move to index or passive fund management, or of mobile financial transactions.

Despite rhetoric over the past few years about the financial services sector becoming more competitive, the growth of the sector remains disappointing. The new government needs a new approach to kick-start the sector. Policy makers could draw on the experience of London and New York, whose mayors established industry task forces to develop programs to raise the competitiveness of their financial services sectors.

Expand tourism

The number of inbound tourists and total spending in tourism has doubled in the past decade, thanks to a strong flow of visitors from China and the growing allure of the Korean cultural wave.[78] However, revenue from the tourism industry still accounts for only about 2.4 percent of GDP compared with the OECD average of 3.8 percent (it ranges as high as 10.2 percent, in the case of Spain). Consequently employment in tourism in Korea accounts for just 2.2 percent of jobs, compared with 5 percent across the OECD.[79]

There are many reasons for the limited size of the South Korean tourism industry. To date, the market has been dominated by cost-conscious visitors who arrive on low-cost package tours. As a result, expenditure per inbound tourist has not increased much for the past ten years.[80] The number of return visitors has declined in the past three years.[81] Moreover, tourism infrastructure is underdeveloped, with an insufficient stock of hotels, stadiums, and other venues to meet even existing demand (e.g., there are 5,000 too few hotel rooms for peak season in Seoul).[82] In particular, South Korea lacks the facilities to compete in the global MICE (meetings, incentives, conventions, and expositions) industry. The lack of facilities for pop culture events, limitations of the transportation system, and the difficulties in managing a visit to South Korea severely restrict the number of affluent independent travelers who come.

We believe that South Korea can become a top tourist destination in Asia, but only with a focused effort and government support. It badly needs to diversify the base of tourism customers and products to include business travelers and increase repeat visitors. That effort should also include leveraging South Korea's growing popularity as a destination for skiers from other parts of Asia and for people seeking to participate in the Korean "cultural wave." By diversifying tourism products and investing in infrastructure such as convention centers and improved transportation, government can build a globally competitive tourism industry.

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78 *Korea tourism statistics*, Korea Tourism Organization, December 2012.

79 The figures include only direct contribution to tourism in terms of GDP and employment in 2010. OECD Tourism and Policies, 2012; Korea employment data are from World Travel and Tourism Council, 2010.

80 Nominal spending per tourist was $1,241 in 2001 and $1,250 in 2011. Source: Ministry of Culture, Sports and Tourism.

81 *Korea tourism statistics*, Korea Tourism Organization, December 2012.

82 *International visitor survey*, Ministry of Culture, Sports and Tourism, February 2012.

Develop business tourism

Revenue from business meetings and conventions has been growing at about 15 percent annually for the past five years and is expected to grow at even faster rates in the next few years, creating 300,000 jobs by 2020.[83] But the industry remains underdeveloped, accounting for just 0.5 percent of GDP in 2010. Total convention space in Seoul is only about 70,000 square meters today. Based on current projections of demand, 300,000 square meters could be needed by 2020. In addition to helping develop more facilities, the government will need to support a global marketing effort to bring conventions and meetings to South Korea.

A useful model for developing MICE tourism is Singapore's support for Marina Bay Sands, a resort, casino, and convention center located in the 24/7 Marina Bay entertainment zone. Singapore changed regulations for development, provided operational support, and set the overall marketing strategy to make the project a global destination (see Box 9, "How Singapore built up business tourism").

Increase repeat visits

South Korea attracts one-third fewer repeat visitors than Japan (41.5 percent of visitors make more than one trip compared with 60 percent in Japan), and the number has been declining. This is largely because of the relatively limited range of destinations and activities that South Korea offers. Tourists from all over the world visit Japan repeatedly to sample new experiences and visit different cities and regions, from Hokkaido in the north to Okinawa in the south. By contrast, 80 percent of visitors to South Korea never leave Seoul.

To inspire repeat visits, South Korea needs to identify additional tourist venues and build the infrastructure to bring visitors to other parts of the nation—while creating more reasons for visitors to come to Seoul, too. Skiing presents an excellent opportunity for tourism expansion. In recent years, the flow of skiers from China has accelerated as South Korea has emerged as a closer, less costly alternative to Japan. Many visitors to Korean ski areas also spend time at the nation's health spas and use their visits to shop. The number of foreign skiers visiting South Korea has already jumped from 190,000 in 2007 to 400,000 in 2011, and the global exposure from the Pyeongchang Winter Olympics can drive further growth.

South Korea's flourishing K-pop scene and other pop culture offerings can also be used to drive repeat tourist business. South Korean music and film have large audiences across Asia and, increasingly, around the world. To make pop culture a draw for repeat visits, South Korea needs to increase its marketing efforts and think about ways to create a culture cluster, in which entertainment venues are located near each other—as with the Broadway theater district in New York. In Seoul, it is very difficult now for tourists to make their way between venues. In Hong Kong government, the government has developed a $3 billion cultural district in Kowloon that includes large-scale concert arenas and exhibit halls. The Korean government is making efforts to promote existing pop culture venues and events to tourists, but these initiatives are not well coordinated. The South Korean government can consider taking the lead in efforts to develop cultural districts that will showcase cultural offerings, enable expansion of cultural offerings, and attract more tourists.

83 *Travel and tourism in South Korea*, Euromonitor International, September 2012.

Box 9. How Singapore built up business tourism

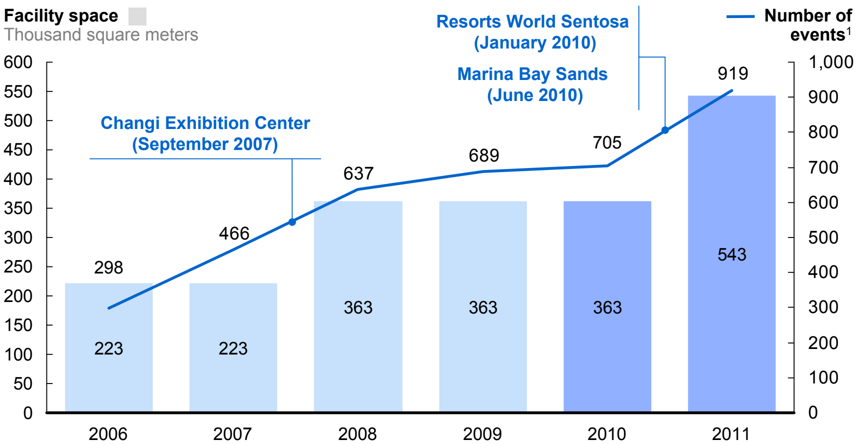
Since 2007, Singapore has actively pursued a strategy to make the nation a prime regional and global destination for the meetings and conventions business. The focus has been around Marina Bay Sands, a resort, casino, and convention center located in the 24/7 Marina Bay entertainment zone. The 120,000-square-meter convention hall can accommodate crowds of up to 45,000 people. The Singapore government has led the Marina Bay Sands development, from designing the infrastructure to providing regulatory, administrative, and operational support, to amending regulations to allow the casino (Exhibit 39).

To manage all this, the government created a dedicated organization, the Industry Development II Group under the Singapore Tourism Board, that collaborates with the private and academic sector to drive the meetings and convention business at Marina Bay and elsewhere. The organization even plays a role in selecting and training employees, particularly in the marketing function. Since the complex opened in 2010, the government has led a global marketing effort, reaching out to convention decision makers through 21 overseas branches and industry ambassadors.

Exhibit 39

Singapore has helped spark the convention and business meetings industry by building a large-scale convention infrastructure

Business exposition and meeting spaces; events held in the past 5 years



1 International conference hosting performance based on Union of International Associations.

SOURCE: Union of International Associations; expert interviews, literature search; McKinsey Global Institute analysis

Whether they are coming for pop culture, skiing, or other reasons, independent tourists today find South Korea difficult to navigate. To improve satisfaction and encourage repeat visits, South Korea needs to become an easier place to get around for visitors who have little knowledge of the country or do not understand the Korean language. Important improvements would include high-tech solutions, such as GPS in taxis, as is done in Singapore, which would assure passengers that they are traveling the fastest route. These solutions can reduce the abuses (e.g., taking long routes to increase fares) that have given the taxi industry a poor reputation. The authorities should also raise training requirements for taxi drivers and enforce high service standards through the licensing process. The tourist bus network needs to be expanded, and the frequency of service should improve. Tourist promotion agencies should pay for the development of smartphone apps that translate Korean and provide information about shopping, cultural activities, and hotels and restaurants.

Build up strong service industries

South Korea also has an opportunity to build on the momentum in successful service industries, including engineering construction and entertainment. While these services are smaller in revenue and employment than health care, social welfare services, and tourism, they are globally competitive and growing at healthy rates. In 2012, South Korean firms contracted for overseas plant engineering projects worth $65 billion, including the $3.2 billion Jeddah South Thermal Power Plant in Saudi Arabia by Hyundai Heavy Construction and the $2.7 billion Australia INPEX project by Samsung Engineering. These contracts were won despite a slow global economy and political instability in the Middle East, where most of these projects are located. Exports of online games and TV programs are growing at 15 percent annually, and even though these industries generate less than $1 billion in annual revenue, they merit government attention and support, given their contribution to South Korea's global stature and the "halo" effect they have on the national "brand."

FOSTER ENTREPRENEURSHIP AND BOOST TECHNOLOGICAL AND OPERATIONAL CAPABILITIES OF SMALL FIRMS

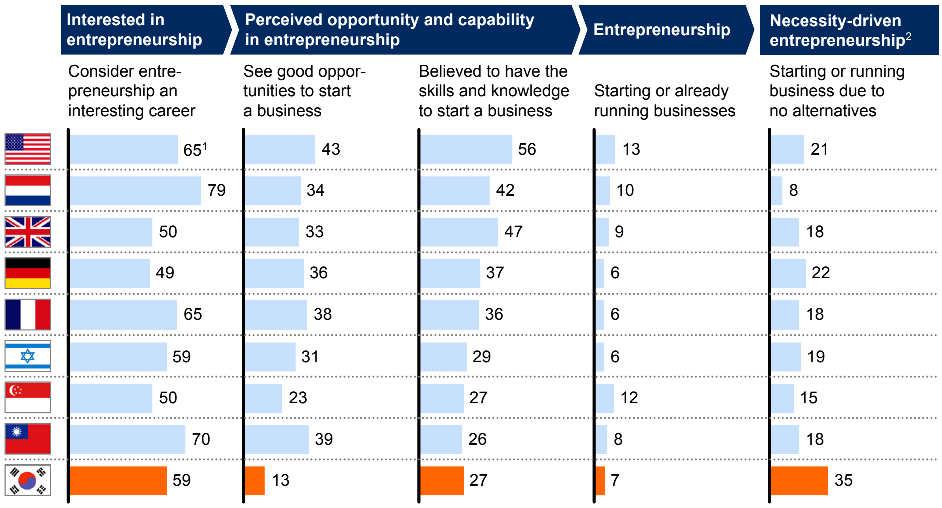
To raise the productivity and vitality of the SME sector and allow it to create high-quality jobs, more small companies need to grow into larger enterprises. This will require building a much stronger culture of entrepreneurship and innovation than is apparent in South Korea today—reviving the spirit of entrepreneurism that drove the founders of the great chaebols back in the 1960s. Today, rather than encouraging youth to take risks and try to be the next Steve Jobs, South Korean parents push their children to follow the standard path to employment at a major corporation or in government, academia, and the professions. Their highest goal for their children is job security.

Young people have few role models who show what an entrepreneur is. So, although South Koreans express a strong interest in launching or building a business, they are among the least likely to see opportunities to open a business or to have started a business. And they are the least confident in their entrepreneurial skills (Exhibit 40). Indeed, South Koreans are the most likely to be entrepreneurs by necessity—people who launch or buy a business because they believe it is their only path to employment.

Exhibit 40

South Koreans have little confidence in their entrepreneurial skills and opportunities; many are entrepreneurs by necessity

% of respondents, 2012



1 2010 data.
2 Share of entrepreneurs who just started or are already running businesses.
SOURCE: Global Entrepreneurship Monitor, Global Report 2012; McKinsey Global Institute analysis

Building a culture of entrepreneurism requires more than confidence and entrepreneurial skills. It also requires a financial and legal environment that will provide a “safety net” for inventors and experimenters. Today, the price of failure—the result of most experiments—is too high in South Korea. A business owner has very little chance of rebounding from a bankruptcy. Also, relatively weak protections for intellectual property (i.e., patents, trademarks, and copyrights) may inhibit innovations in products and processes. South Korea ranks seventh out of 19 Asian nations for intellectual property protection, behind Hong Kong and Taiwan.[84] Bankruptcy reform and stronger intellectual property protections must be in place before a culture of entrepreneurism takes root again in South Korea.

Clear the path to entrepreneurship

It is not possible to change South Korea into a nation of risk takers and innovators overnight. But it is possible to create the conditions under which entrepreneurs are likely to flourish and to start training future generations in the skills that entrepreneurs need. Today, South Korea does not have a good environment for entrepreneurs: 43 percent of those who see opportunities to start a business in South Korea say they fear failure, compared with 32 percent of US entrepreneurs and 38 percent of Taiwanese.[85] Also, as noted above, bankruptcy laws and attitudes toward bankruptcy are not entrepreneur-friendly. South Korea can also provide much stronger intellectual property protections so that innovators can be sure they receive full value for their inventions.

84 *International property rights index report 2012*, Property Rights Alliance.

85 Global Entrepreneurship Monitor, 2012.

The focus and breadth of entrepreneurship training need to be addressed. Students should be exposed to the basic concepts of entrepreneurism in secondary school, and curricula should emphasize practical skills and allow students to experience entrepreneurism in addition to receiving classroom training. Ireland, for example, includes "learning by doing" activities in state education. Students actually run mini-companies to learn how it is done.

Helping small businesses scale up

The average South Korean small business has just three employees. The average medium-sized company consists of 35 people, and even among large companies the average is 599 people.[86] Small company sizes reflect how limited growth opportunities are for Korean start-ups and mid-sized businesses. Small companies lack scale to compete effectively with more productive enterprises and often cannot generate enough revenue to survive: only about 30 percent of new businesses in South Korea are still in operation at the fifth anniversary of their launches.[87] The government has done little to help small businesses scale up, so few companies grow large enough to have the resources to fund R&D, invest in expansion, hire more workers, and compete globally.

To help more small companies thrive and grow to mid-sized companies—and more mid-sized companies to make the jump to large-scale enterprises—will require separate but overlapping efforts. Government support will be needed in four areas: reforming regulations and tax policies that inhibit growth, providing assistance in building operational skills and technology, increasing access to capital, and encouraging entrepreneurism.

Today, policies remain in place that tend to inhibit growth. For example, under the current tax rules, owners can pass on businesses without paying inheritance taxes if the company has been in business for ten years and under a certain level of revenue.[88] This means that owners of small companies have less incentive to invest in the R&D and innovation that would help their companies grow and make them globally competitive. Nor do they seek outside partners to help them expand or look for merger opportunities—steps that would help strengthen their industries. We suggest, for example, that regulation be structured to reflect different stages of SME development, rather than company size.

The government cannot turn low-growth companies into dynamic, innovative, and fast-growing enterprises. But it can help provide critical building blocks. To encourage entrepreneurialism in technology sectors, we would recommend that government-sponsored (sovereign) investment funds furnish enabling technologies to SMEs. By sharing patents or innovations freely or at a low price, the government can help seed new industries. Where new technologies are not developing rapidly at home, the Korean government can acquire overseas technology either directly (e.g., by acquiring companies) or through investments via a sovereign wealth fund. It will be important to set guidelines on how to support SMEs and secure independent expert guidance on the fund's investments to avoid favoritism to particular companies or industries. One model in this area might be Temasek, Singapore's large state-owned investment

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86 *Business survey report,* Statistics Korea, 2011.

87 *Statistics of births and deaths of enterprises*, Statistics Korea, 2012.

88 The exemption applies to businesses with revenue of less than 150 billion won (or about $133 million) and inheritances of less than 10 billion won (or $9 million).

fund, which manages state-owned enterprises and invests in a variety of industry sectors.

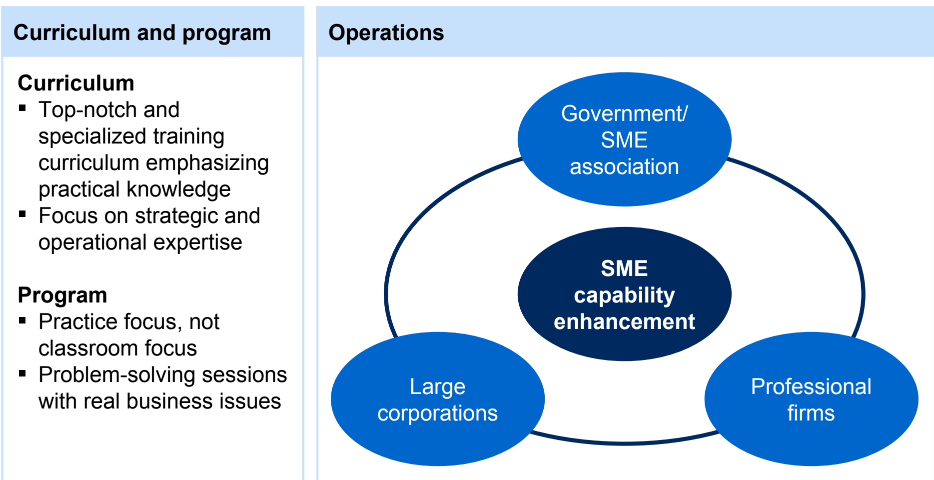
Teach operational skills and strategic capabilities

Another important contribution by government would be increasing SME capability building. Small-business owners cite lack of capabilities as one of the biggest obstacles to growth; in many cases, they are experts in their particular specialty, but they lack the operational skills and the knowledge about strategy to drive efficiency and seize new opportunities.[89] In Japan, the government has established an SME university system, a combination of nine campuses and e-learning systems to provide training in these disciplines. Most of the funding comes from public sources and includes financial assistance for participants.

In South Korea, we would recommend a "field and forum" approach to deliver SME university training (Exhibit 41). Selected employees would get specialized training and then become teachers and coaches in the field when they return to their operations. During training, SME employees can bring actual company or departmental issues to the class to solve. The training must be rigorous and should lead to certification in some functional specialties (e.g., supply-chain management, purchasing management). Getting this right will require coordination among government, large companies (whose executives can act as teachers and mentors), SMEs, professional firms, and industry associations.

Exhibit 41

SME university involves stakeholders throughout capability-building process



SOURCE: OECD; McKinsey Global Institute analysis

89 Korea Federation of Small and Medium Business, 2007.

Financing a small business in South Korea is not simple. Most companies rely on bank loans; a small share use government opportunity funds. As noted in the previous chapter, South Korea ranks poorly in terms of access to venture capital, which is important not only for providing growth capital, but also for driving the M&A activity that helps build stronger competitors. M&A is a critical route to liquidity for venture capital funds and other private investors, and lack of M&A opportunities inhibits investing. According to the Korean Venture Capital Association, only 7.4 percent of venture investment returns in South Korea arise from M&A, compared with nearly 71 percent in the United States. Government policy should be to encourage M&A activity as a way to boost entrepreneurism. Loosening regulatory restrictions on leveraged buyouts could help raise M&A volume, too.

The government should also develop policies and incentives to boost the size and capabilities of the venture capital industry. In economies with mature venture capital industries, venture capital firms act as key advisers, helping portfolio companies with recruiting and management expertise and identifying merger and investment targets. Venture partners are important centers of innovation clusters, connecting entrepreneurs with academics, product-development experts, and other resources. In South Korea, entrepreneurs are left to their own devices, quietly nurturing their enterprises to the point where they can go public. This means years of struggle to master new skills—and high risk of failure. The average age of a company floating an initial public offering in South Korea is around 14 years, compared with about nine years in the United States.[90] To catch up in venture capital capabilities, South Korea can consider actively developing its venture capital industry as Israel did in the 1990s (see Box 10, "How government support sparked the Israeli venture capital industry").

Box 10. How government support sparked the Israeli venture capital industry

Israel is an acknowledged leader in innovation today, with a vibrant community of entrepreneurs, investors, and business development experts. This did not happen by accident. In 1993, the Israeli government set up Yozma, a state-funded venture capital fund, to allow easy access to capital for innovative companies. To attract foreign venture investors, Yozma offered to double any investment they made. Between 1991 and 2000, annual venture capital outlays rose nearly 60-fold, from $58 million to $3.3 billion, and the number of companies launched by Israeli venture funds rose from 100 per year to 800. Many of these investments were in information technology, helping annual industry revenue rise from $1.6 billion to $12.5 billion. Government participation was critically important to jump-starting the venture capital sector, but its role has been eclipsed. In 1993, there were only ten venture funds, all of them government-funded; in 2006, 150 venture capital firms were established in Israel and only 2 percent were government-funded.

90 *Rebuilding the IPO on-ramp: Putting emerging companies and the job market back on the road to growth*, IPO Task Force, US Securities and Exchange Commission, October 2011.

RAISE FEMALE LABOR MARKET PARTICIPATION RATES

The stereotypical middle-income Korean household has changed little in 30 years—a single-income family dependent on a college-graduated male, working in a large manufacturing company from his late 20s to his 50s. When the economy was growing rapidly and South Korea's large manufacturing companies were offering lifetime employment to well-educated young men, middle-class Korean households could thrive on one income and look forward to growing wealth. In the low-growth economy of recent years, a single job cannot easily support a middle-income family, especially in the face of rising costs for housing and education.

To move to a new phase of growth, Korea will need to redefine the middle-income family from a single-earner to a dual-income model, which is prevalent in most advanced economies. In Korea, only 44 percent of households have two incomes, which is lower than the OECD average of 57 percent.[91] Many Korean women quit their jobs to marry or to care for a child, which has kept the employment rate of women in their 30s down at around 42 percent, or about 15 percentage points below the OECD average.

It will take a concerted, long-range effort to change this behavior. The government should reset its approach and focus on measures that have direct impact on female labor participation. The government can consider offering a tax deduction for child-care expenses for dual-income families as Germany does, for example. The Netherlands adopted tax policies that created credits and allowances for working parents as well as incentives to create part-time employment that would accommodate mothers. The result has been soaring labor market participation among Dutch women—rising from 32 percent in 1981 to 73 percent in 2010. Roughly 60 percent of Dutch women work part-time.

The government can also fine-tune how it delivers social welfare services to make sure they have the desired effect. For example, increased funding has raised the capacity of the preschool child-care system but has not had significant impact on labor participation rates among mothers because spaces have not been prioritized for working mothers. To correct this, the child-care system should be aligned with employment, giving working mothers slots ahead of mothers who are not in the labor force.

In addition to reliable child care and after-school care, working mothers (and fathers) need flexibility in their work schedules. This may involve flexible hours—starting late and working late—part-time assignments, and work-from-home options. To promote work/life balance and enable more mothers to participate in the labor force, Sweden has adopted a series of workplace rules that make part-time work a more attractive option. For example, employees have a right to work part-time and to convert to full-time status when they wish (see Box 11, "How Sweden redefined part-time work").

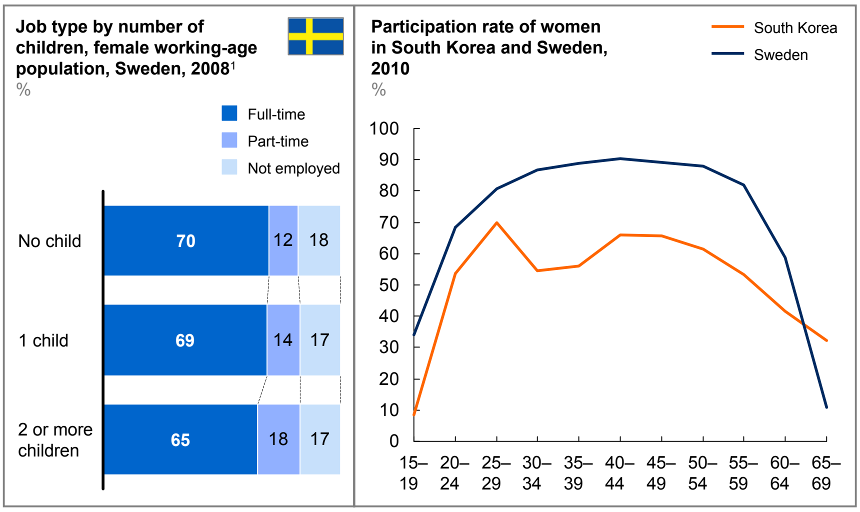
91 *Statistics of dual-income families and career discontinuity*, Statistics Korea, December 2012. See also Jiseon Lee, "Lacking housework time for dual-income households in Korea," *LG Business Insight*, March 2012

Box 11. How Sweden redefined part-time work

Part-time jobs in Sweden occupy a central role in a comprehensive national project to ensure the work/life balance, and rules governing part-time work are closely aligned with the nation's policy for child care and maternity/paternity leave (Exhibit 42). Because most part-time jobs in Sweden are created when a worker needs time to attend to family responsibilities—rather than to give an employer labor force flexibility—part-time jobs can be converted back to full-time jobs at the worker's request. The boundaries between part-time and full-time jobs have blurred, and there is little distinction between the status of full- and part-time employees. Nor is there discriminatory treatment of part-timers when it comes to fringe benefits and social security contributions. As a result of these policies, the proportion of women in the labor force has risen. Women account for some 60 percent of part-time positions. However, the data suggest that the policy has done more to bring economically inactive women back to the labor force than to turn women into part-timers.

Exhibit 42

Sweden's program to upgrade part-time work has produced high labor participation rates among working mothers



1 Working age: 15–64 years.
SOURCE: OECD Employment Outlook Database; McKinsey Global Institute analysis

□ □ □

Devising a new growth strategy for a leading economy that has achieved as much as South Korea has is an act of daring. It will require clear vision and conviction, as well as tenacity by leaders and consensus among the public, government, and industry. The recommendations in this chapter are only a starting point for a discussion of how the nation can proceed. However, we believe that if they can be implemented, a new chapter in South Korea's economic and social history will be written. That chapter, it must be said, should also include a sustained effort to improve both corporate and political governance. Companies must not only observe the letter of the law, but also embrace the spirit of the law. And there must be strong political support for enforcing the laws and eliminating corruption.

4. Implications for stakeholders

To implement the recommendations outlined in the previous chapter, it will be important for the government and other stakeholders to work together and execute effectively. Many initiatives in the past have fallen short because leaders relied only on rhetoric. They did not resolve conflicts, agree on goals, and muster the resources and capabilities to carry out new policies. Our call to action is for policy makers to take a purposeful, concerted, and systematic approach to addressing South Korea's structural challenges. We also identify ways in which private enterprises and Korean households can support these critically important changes.

WHAT THE PUBLIC SECTOR CAN DO

In our experience, reforms fall short because, in too many cases, they skim the surface, cover too little ground, take too long, and leave much of the public sector relatively untouched.

There are few instances of governments taking this type of comprehensive, integrated approach to reform, but a pair of examples show how powerful such reforms can be. After Sweden's financial crisis in the mid-1990s, Prime Minister Göran Persson's government shaved 11 percent from operational budgets, with no apparent damage to performance, and then maintained tight control over spending after budget deficits had receded. In 2004, UK Prime Minister Tony Blair announced the "Gershon targets"—named for Peter Gershon, then head of the Office of Government Commerce—which cut costs by 2.5 percent and generated about $40 billion a year in savings.[92]

Set a comprehensive vision

In any kind of change program, whether in the public sector or the private sector, success begins with a clear vision of what the objectives are and how they will be achieved. This process begins by defining and prioritizing strategic goals and establishing a clear view of what success will look like (e.g., reducing average household debt payments to 10 percent of disposable income within five years). Before committing to specific goals, policy makers must allow time for meaningful public debate over whether such a target is both ambitious enough and realistic enough. Once the vision and goals are agreed to, they need to be communicated across the public-sector organizations that will be involved in implementation, with clear performance metrics and milestones. Leaders will need to prioritize strategic objectives and set targets for completion dates. They must also ensure targets remain prominent for the entire public-sector system and enforce clear performance metrics and milestones. For the initiative to succeed, accountabilities must be clear, and performance indicators and scorecards must be designed and used throughout implementation.

92 Peter Gershon, *Releasing resources to the front line: Independent review of public sector efficiency*, Crown, 2004.

Build capability and develop incentive systems

The initiatives we recommend will require collaboration across governmental organizations and jurisdictions. This requires a strong strategic center that establishes and maintains routines that track performance effectively and ensure a focus on performance. For example, to ensure that its public-sector initiatives were carried out in a collaborative manner, the United Kingdom established the Prime Minister's Delivery Unit (PMDU) in 2001. The PMDU is charged with identifying the necessary capabilities and opportunities for collaboration to carry out new policy initiatives in education, health care, crime prevention, and transportation. The group reports to the prime minister on the performance of government agencies against goals, provides analytical support and recommendations to overcome delivery challenges, helps departments with capability building, and develops performance management systems within departments. After three years of PMDU supervision, the proportion of accident and emergency patients waiting more than four hours declined from 20 percent in 2001 to 3 percent in 2004.[93]

The training and incentive system in the government yields lower performance than in private-sector organizations. To build necessary capabilities, the government should conduct programs to teach skills and competencies in operational areas and develop an incentive system that rewards exceptional achievements by departments and individuals. Under current public-employee evaluation schemes, there are few rewards for a job well done, but there are disciplinary actions such as state audits when something goes wrong. These negative incentives impede implementation of new policies and innovation in government services and operations. Only when the public-sector employees can pursue new policies—and be rewarded for success—will the initiatives suggested here be executed effectively. The UK National Audit office provides an example of how government can bring positive change to agencies and operations (see Box 12, "How the National Audit Office raises performance").

South Korea can benefit from approaches like NAO oversight. Such an agency not only can raise the odds of success of the programs aimed at removing current barriers to growth, but also can lead to permanent improvements in the way government agencies function and are managed.

Implement operational improvements to boost productivity

We have learned from our work with governments around the world that governments can achieve dramatic improvements in performance and productivity without drastic system-level measures such as wholesale privatizations. Simply doing the same tasks in new ways can be extremely powerful.

93 The Department of Health (UK).

Box 12. How the National Audit Office raises performance

The United Kingdom's National Audit Office (NAO) scrutinizes public spending on behalf of Parliament, but also performs many other functions that help raise performance, rather than simply documenting it. NAO audits the financial statements of all central government departments, agencies, and other public bodies, and reports the results to Parliament. The agency also facilitates operational improvements and promotes effectiveness in the public sector by monitoring progress toward specific goals and providing consulting support.

The key role of NAO is to build consensus for long-term policies and to check on continuous implementation. The NAO recommends policy changes to address problems, rather than merely pointing out deficiencies. The NAO also succeeds because of the caliber of its personnel. Employees are highly qualified, with experience in the private sector or in consulting services, and the agency is known for its high level of employee satisfaction.

WHAT THE CORPORATE SECTOR AND POLITICAL COMMUNITY SHOULD DO

There are important roles for private enterprises, political leaders, and South Korean households in the effort to restore the financial health of middle-income families, strengthen the service and SME sectors, and enhance female labor participation. In addition to government action, voluntary efforts by company leaders and families will be needed to achieve these goals.

Companies should continue to improve corporate governance, increase social investments, and build service businesses

Inevitably, what is good for South Korean families will be good for South Korean companies. The increasing economic burden on middle-income households will raise the pressure on the private sector to help, including by accepting regulation. Companies should embrace their ethical and social responsibilities. This makes sense both in terms of risk management and from an economic perspective.

- As has been discussed, large corporations can support the SME sector by buying more services from the SME sector and not from in-house companies.

- Today Korean corporate boards are dominated by academics and retired civil servants. Governance and performance would benefit from bringing in board members from outside Korea who can encourage best practices. The best-run global companies embrace the spirit of good governance because it is good for business, not just because it is the law.

- In general, large conglomerates can make stronger contributions to South Korean society through corporate social responsibility (CSR) programs. Large conglomerates, for example, can assist in capability building in the SME sector. Leading companies could consider expanding their corporate training universities and opening them to SME sector employees.

Large companies have a great potential to make contributions in vocational education. According to McKinsey research on vocational training, the most important factor to ensure the success of the vocational training system is “early involvement of employer into the vocational school system from admission, curriculum design, apprenticeship opportunity provision, and employment.”[94] The participation of top employers in the Meister school program will elevate the status of vocational training and encourage students to follow this career path. The South Korean government should also consider deregulation in the education sector to attract new private-sector players, including large corporations. Helping raise the skills of the labor force will give companies access to the talent they need and will be of enormous benefit to South Korean families.

- Finally, large corporations should put efforts into building their service businesses. They have the financial, human, and material resources to build global services business.

South Korea needs a political environment that enables long-term change

Designing and implementing comprehensive reforms to address issues such as the crunch on middle-income households, vocational training, and the weakness of service industries and SMEs requires sustained multi-year strategies and broad consensus across government, business, and the general public. The political community has a critical role to play in forging compromise among diverse stakeholders and creating the atmosphere in which long-range plans can be carried out. South Korea’s current system, in which the president is elected for a single five-year term, creates too short a political time horizon to carry out major programs.

South Korea can learn from advanced nations where the ruling party and the opposition party (or parties) cooperate to build a national consensus on major policies to ensure they are carried out regardless of which party is in power. For example, in Ireland, the government, politicians, and even labor unions agreed that seeking foreign direct investment (FDI) was a national priority. They were able to also enlist public support for the relevant policies by demonstrating direct benefits to citizens. Tax holidays and Irish Development Authority grants were portrayed as job-creation policies, for example. Ireland went from a country where FDI was once highly restricted to protect industry to a place where politicians across parties, union leaders, employers, and the media all supported measures to lure more foreign investment.[95]

In Denmark, when the 1970s oil shock hit, the government introduced a policy to become a “renewable energy-based society” under a 50-year plan that is still being pursued despite transfers of power between parties over the years. As a result, Denmark is now a global leader in the green industry.

While South Korea has had many five-year economic plans, it lacks the mechanisms needed to pursue longer-term policies. The new Korean government has promised to introduce a “compromise committee” as a vehicle to narrow the

94 Ibid. *Education to employment*, McKinsey Center for Government, November 2012.

95 Y. A. Wei and V. N. Balasubramanyam, eds., *Foreign direct investment: Six country case studies*, Edward Elgar Publishing Inc., 2004.

gap between the interests of current and future generations and resolve conflicts between different income groups. Building a consensus on ways to improve household finances, upgrade the educational system, and strengthen the service sector and SMEs should be at the top of the agenda for this new body.

The political community should do its part

Making these comprehensive reforms requires broad consensus across diverse sectors and the general public. The political community can take the lead in arbitrating the interests of diverse stakeholders as it forges new policy. The experiences of Ireland with FDI and Sweden in government reform provide good models. Political leaders also have an important role in meeting citizens' expectations for competent and ethical government. Citizens are more likely to put their faith and energy into programs and strategies of a government that demonstrates zero tolerance for corruption.

What Korean citizens can do

While South Korean families may have the greatest motivation to change, they also face some of the greatest obstacles. It is not a simple thing to rethink core assumptions, such as the belief in the need to own a home or in the absolute necessity of a college education for the success of their children. Parents who benefited from the sacrifices of their parents naturally feel obliged to make the same sacrifices for their children. Changing the mindsets that contribute to the financial woes of middle-income South Korean households will require strong, consistent leadership by government, industry, and other institutions. Specific policies and actions will do more to change the thinking of Koreans than any marketing campaign. Young people and their parents need to see that other Koreans—people they know—are benefiting from the Meister school program or are living comfortably in rental housing. They will need to see that the environment is right for entrepreneurs to grow their businesses and that small businesses can compete on a level playing field. Even then, new mindsets will not take hold quickly. In any culture, the biggest obstacle to change is fear. The best way to allay fear of an unknown future is to show that it works better than what people have now. South Koreans must also be willing to take a leap of faith and be willing to question their assumptions. For that to happen, they must have confidence in the integrity and competence of institutions and in their own abilities. Perhaps then they can reproduce the economic miracles of an earlier era.

Appendix: Technical notes

In this appendix we provide more detail on the data and methodology used in this report. The material covers the following topics:

1. Employment share and productivity of South Korean service sectors compare with the EU average
2. Household spending
3. Net present value of education expenditure and lifetime earnings
4. Housing-related household borrowing
5. Potential impact of looser loan-to-value limits on primary mortgages

1. EMPLOYMENT SHARE AND PRODUCTIVITY OF SOUTH KOREAN SERVICE SECTORS COMPARE WITH THE EU AVERAGE

To document the relative state of development of South Korea's service industries, we assess the level of employment and productivity of South Korean industries compares with an index of employment and productivity data of those industries in six advanced economies. We start with data on employment and calculated productivity from the STAN Database for Structural Analysis (ISIC Rev. 4). Averaging 2009 data from Denmark, Finland, France, Germany, Italy, and the Netherlands, we create the index. We then compare South Korean statistics. The employment index for each industry shows how many South Korean workers are employed in the sector compared with the average in advanced nations. We calculate the plot point for each industry by dividing South Korea's industry share by the advanced economy average sector share. Productivity is measured by dividing sector value added by sector employment. We calculate productivity level by dividing South Korea's sector productivity by the index average. The conclusion is that South Korea has too many jobs in low-productivity local services and too few in high-value services.

2. HOUSEHOLD SPENDING

To understand how household spending has evolved over the past 20 years, we used data from Statistics Korea. We look at more than 500 spending categories by middle-income households in 1990 and 2010 and calculate how each category grew or shrank as a share of income over that period. We plot the share of income in the final year (2010) on the X axis and the change in share on the Y axis. Debt payments, including both principal and interest, rose from 15 percent of income in 1990 to 24 percent in 2010, and spending on educational services rose from 5 percent to 9 percent over that period.

3. NET PRESENT VALUE OF EDUCATION EXPENDITURE AND LIFETIME EARNINGS

To understand the payback on spending on private education in South Korea, we calculate the net present value of lifelong income streams of two hypothetical Koreans: one who attends only public schools and is employed immediately after completing high school and one who goes through private elementary school, secondary school, and university. We assume that the publicly educated Korean enters elementary school at age 7 and completes high school at age 18. We assume that private education begins at age 3 in preschool and continues to age 22 with university graduation. We calculate the income streams of the two Koreans from when they enter the labor force, at age 19 and 23, to when they retire at 57.2 (the average retirement age). The annual income at age 58 of the high school graduate is $20,000 (23 million won) and the annual income of the college-educated Korean is $45,000 (51 million won). However, if we deduct the cost of private schooling, the net present value at age 58 of the privately educated Korean's earnings is $142,000 (160 million won), compared with $146,000 (164 million won) for the Korean who went directly to work from high school. We use average income and education expenditures by age data from Statistics Korea, the Ministry of Employment and Labor, and the Ministry of Education, Science and Technology. We use a 5 percent discount rate for the NPV calculation, which is the average interest on a loan from commercial banks in South Korea in January 2013.

4. HOUSING-RELATED HOUSEHOLD BORROWING

Using December 2012 data from Financial Supervisory Service (FSS), Bank of Korea, Korea Housing Finance Corporation (KHFC), we estimate the total borrowing related to housing by South Korean households as of December 2012. For total mortgage loans outstanding, we aggregated data from several sources and derived estimates of bank mortgages ($282 billion, 318 trillion won) and mortgages issued by non-bank depository institutions ($76 billion, 86 trillion won), and mortgages held by other financial institution mortgages ($40 billion, 45 trillion won). The last category includes mortgages issued by insurance companies ($20 billion, 23 trillion won), specialized credit specialized companies ($0.9 billion, 1 trillion won), and KHFC mortgage ($19 billion, 21 trillion won). The sum of all these mortgages is $400 billion (449 trillion won).

Next, we added up the value of unsecured loans used in real estate. Total unsecured loans include bank credit loans ($132 billion, 149 trillion won), credit loans from non-deposit institutions ($95 billion, 107 trillion won), loans issued by other financial institutions for housing purposes ($173 billion, 195 trillion won), and sales credit loans credit ($52 billion, 59 trillion won). These loans totaled $453 billion (510 trillion won). To calculate the unsecured loans used in real estate, we multiplied the total unsecured lending to the portion of credit loan used in real estate in 2012, based on data from Statistics Korea, which estimates that 13 percent of credit loans in 2012 were used to purchase real estate (8.3 percent for purchasing homes and 4.7 percent for other real estate purchases). The 13 percent share of unsecured credit loans amounts to $59 billion (66 trillion won). Therefore, we arrive at a total of $457 billion (515 trillion won) in housing-related borrowing by South Korean households at the end of 2012 ($400 billion in mortgages and $60 billion in unsecured loans, 449 trillion won in mortgages and 66 trillion won in unsecured loans).

5. POTENTIAL IMPACT OF LOOSER LOAN-TO-VALUE LIMITS ON PRIMARY MORTGAGES

As noted in Chapter 3, South Korean households rely on costly unsecured credit loans to finance part of housing purchases because loan-to-value rates on mortgages are set very conservatively. As a result, and as noted above, South Korean households have taken out $59 billion (66 trillion won) in unsecured loans for real estate purchases. We assume that if LTV is loosened, this $59 billion (66 trillion won) in high-cost debt could be replaced by lower cost mortgages issued by banks. The average interest rate for credit loan is 12.8 percent and 4.6 percent for bank loans (as of January 2013). So we calculate the savings from credit loans being replaced by bank loans as $59 billion (66 trillion won) multiplied by the difference in interest rates (12.8 percent minus 4.6 percent) = $5 billion (5.4 trillion won).

There would also be savings from households shifting their borrowing from non-bank depository institutions, which charge an average 7.2 percent, to bank mortgages. We calculate the savings as $116 billion (131 trillion won) times the interest-rate difference (7.2 percent minus 4.6 percent) = $3 billion (3.4 trillion won). So the total interest saved from loosening LTV limits could be $5 billion (5.4 trillion won) + $3 billion (3.4 trillion won) = $8 billion (8.8 trillion won). We believe this is a conservative estimate because we assume that the mortgage interest rate would not drop.

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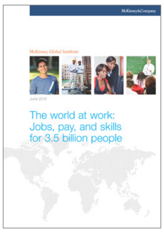
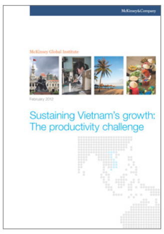


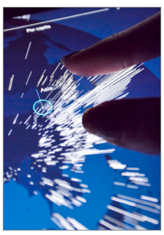
The world at work: Jobs, pay, and skills for 3.5 billion people (June 2012)

Over the past three decades, as developing economies industrialized and began to compete in world markets, a global labor market started taking shape. This report explores the hurdles, based on population, education, and labor demand, which the global economy faces as the global labor force approaches 3.5 billion people in 2030.



Sustaining Vietnam's growth: The productivity challenge (February 2012)

Vietnam's economy has come an extraordinarily long way in a short time. China is the only Asian economy that has grown faster since 2000. But today Vietnam's economy faces complex challenges that require a transition to a productivity-driven growth trajectory. Vietnam now needs to boost labor productivity growth by more than 50 percent to maintain its rapid growth.



Urban world iPad app (March 2013)

An unprecedented wave of urbanization is driving the most significant economic transformation in history, as the center of economic gravity shifts decisively east. MGI's new iPad app offers an intuitive sense of this new urban world, showcasing GDP, population, and income levels for over 2,600 cities worldwide in 2010 and 2025. The app is available from the Apple App store. An Android version will be available soon.

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