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THE FUTURE OF JAPAN: REIGNITING PRODUCTIVITY AND GROWTH

MARCH 2015

EXECUTIVE SUMMARY



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IN BRIEF

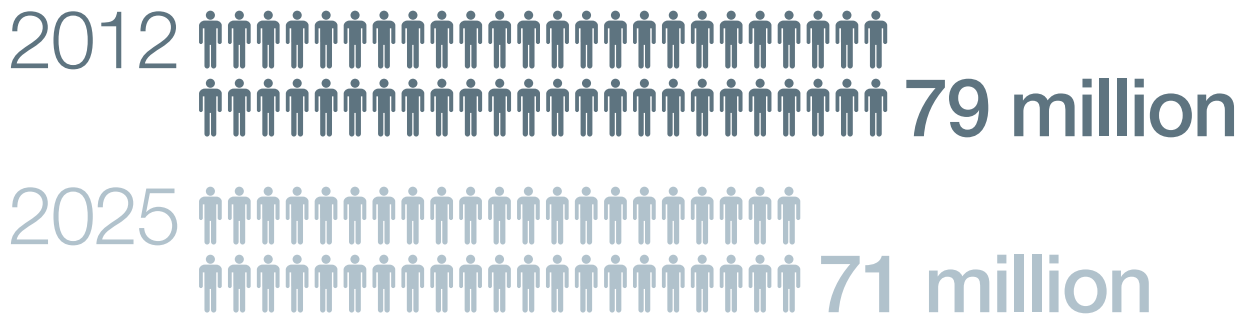
THE FUTURE OF JAPAN: REIGNITING PRODUCTIVITY AND GROWTH

Over the course of two painful “lost decades,” Japan has lost much of its competitive edge. Its economy continues to operate below its potential. Productivity growth has steadily eroded in almost every sector, including its signature advanced manufacturing industries. Policy changes can create the right conditions for reigniting growth, but Japan needs a greater focus on what individual companies can do immediately and on their own. In fact, launching a major private-sector initiative to transform Japan’s productivity performance can constitute a “fourth arrow” of economic reform to complement the Abenomics agenda.

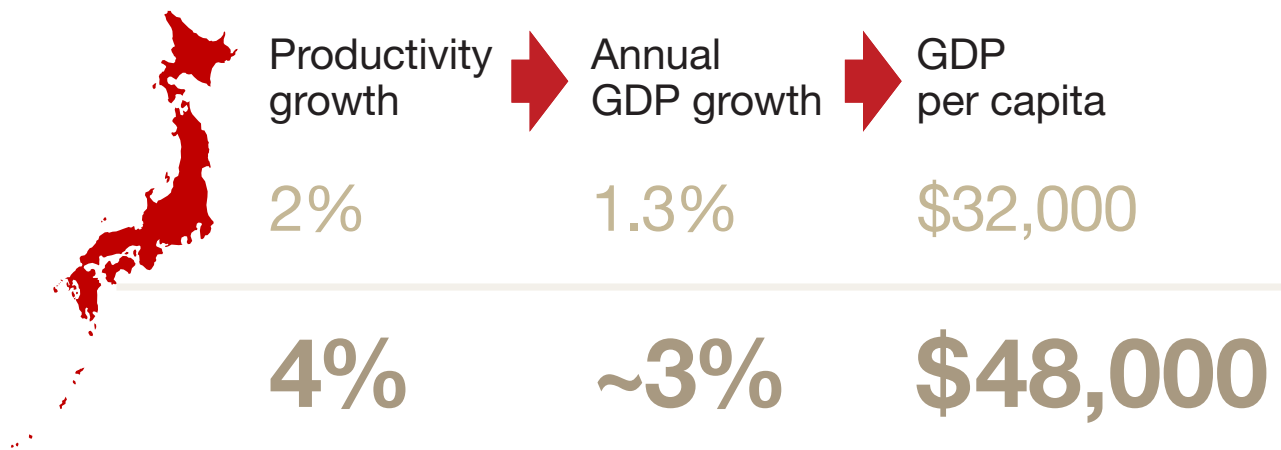
- A demographic challenge of historic proportions has arrived on Japan’s doorstep. Its working-age population will decline from 79 million in 2012 to 71 million in 2025, and its dependency ratio is set to soar from 0.60 to 0.73 over the same period. With its workforce shrinking, Japan has to rely on productivity as its primary catalyst for growth.
- Japan’s labor productivity growth has been stalled below 2 percent for much of the past two decades, and today there is a substantial and widening gap between Japan and other major advanced economies. Capital productivity has similarly eroded: the return on investment generated by listed non-financial companies in Japan is 23 percentage points below the performance of equivalent US corporations. Japan is on pace for sluggish annual GDP growth of just 1.3 percent through 2025 if these trends continue. But there is still time to head off this outcome.
- If Japan can successfully double its rate of productivity growth, with a sharp focus on increasing value added as well as reducing costs, it could boost annual GDP growth to approximately 3 percent. This would increase Japan’s GDP by up to 30 percent over the current trajectory by 2025 and improve its fiscal outlook. Some \$1.4 trillion in GDP growth is at stake in 2025 alone.
- Multiple fast-moving forces are realigning the global economy, including immense flows of global trade, the rise of billions of new urban consumers in the emerging world, and technology breakthroughs. Japan can ride these trends to gain new momentum.
- Companies have multiple avenues for growing revenues and finding deeper operational efficiencies. These strategies fall into three main categories: adopting global best practices, deploying next-generation technologies, and organizing for discipline and performance. Japan can reach some 50 to 70 percent of its productivity goal by applying practices that are already in use elsewhere around the world.
- Around one-third of the productivity potential can be captured within four sectors: advanced manufacturing, retail, financial services, and health care. In the case of health care, we estimate that Japan can slow the rate of annual expenditure growth from 3.7 percent to just 1.5 percent.
- Implementing productivity improvements such as increased automation will affect jobs in many industries. But the pursuit of new growth markets and a projected 3.7 percent decline in Japan’s labor force by 2025 can cushion the net impact on employment.
- The public and private sectors will have to work together to create the right environment for growth, focusing on talent and skills development, labor market frameworks, entrepreneurship, innovation, competition, and infrastructure productivity.

The task of continuously capturing new productivity improvements grows more difficult over time, but it is achievable, particularly if Japan takes steps to create new competitive dynamics across entire industries. This effort goes beyond cost cutting; it is about spurring growth and increasing value added by launching business lines, pushing the boundaries of innovation, and entering new markets. Private-sector initiative and drive will be key to the resurgence of Japan.

Japan's working-age population is declining



With Japan's labor force shrinking, productivity will determine its economic outlook for 2025



A private-sector "fourth arrow" could accelerate productivity and boost value added by 28%



Global best practices



Next-generation technologies



Organizing for discipline and performance



EXECUTIVE SUMMARY

Despite two painful “lost decades,” Japan remains the third-largest economy and the fourth-leading exporter in the world. It is a nation with advanced technological know-how, a formidable manufacturing base, world-class infrastructure, and a large and affluent consumer market. This is a rare combination of strengths—and yet the world remains pessimistic about Japan’s prospects for growth and reinvention.

A demographic challenge of historic proportions has arrived on the nation’s doorstep, and many Japanese themselves regard the future with anxiety. Japan passed the tipping point at which its population began to decline in 2011. As of 2013, a quarter of its population was age 65 or older; by 2040, that share will rise to more than one-third. The implications of this shift are already being felt economically and socially.

Japan’s productivity growth has been stalled below 2 percent for much of the past two decades, reflecting both missed opportunities to grow value added and deteriorating cost competitiveness. A continuation of this trend would put the economy on pace to grow by only 1.3 percent annually through 2025. Another decade of sluggish growth would do little to boost household purchasing power. Even more ominously, it would constrain the resources available for social security and health care just as demand for them intensifies.

There is still time to head off this outcome. With its working-age population shrinking, Japan has to focus on productivity as the primary catalyst for economic momentum. If Japan can successfully double its rate of productivity growth, it could boost annual GDP growth to approximately 3 percent. By 2025, this would increase Japan’s GDP by up to 30 percent over the current trajectory. The size of the prize is \$1.4 trillion in annual GDP growth in that year alone.

Public policy changes can create the right conditions for growth, but most of the outcome is in the hands of the private sector. Individual companies can do a great deal immediately and on their own without waiting for government action. Reigniting the Japanese economy will depend on their willingness to invest and take risks. The good news is that our research has identified areas within multiple industries that are ripe for revenue growth and efficiency improvements. This effort is not simply about cost cutting. It is also about spurring growth by launching business lines, pushing the boundaries of innovation, and entering new markets. A major private-sector initiative to accelerate productivity growth can constitute a “fourth arrow” of economic stimulus that complements the Abenomics agenda.

Japan’s productivity growth has been hobbled by inadequate competitive pressures and a rigid labor market

After making rapid leaps forward in the 1970s and 1980s, productivity growth has steadily eroded in almost every sector, including Japan’s signature advanced manufacturing industries. Today there are substantial and widening labor and capital productivity gaps between Japan and other advanced economies (Exhibits E1 and E2). In 2010, the mean return on invested capital for large listed Japanese companies was 23 percentage points lower than that of non-financial institutions in the US S&P 500, a symptom of large-scale misallocation of capital.¹ Japan has been unable to sustain consistent growth in value added, and the economy continues to operate below its potential.

2x

Acceleration in productivity needed to push Japan’s GDP growth to approximately 3%

¹ In the first and second sections of the Tokyo Stock Exchange, excluding financial institutions.

Exhibit E1

Japan's labor productivity gap with the United States has been widening across most industries

Labor productivity gap by sector (% based on \$ 2009 at purchasing power parity) Index: 0 = United States



NOTE: Education, public administration, and domestic employees not included.

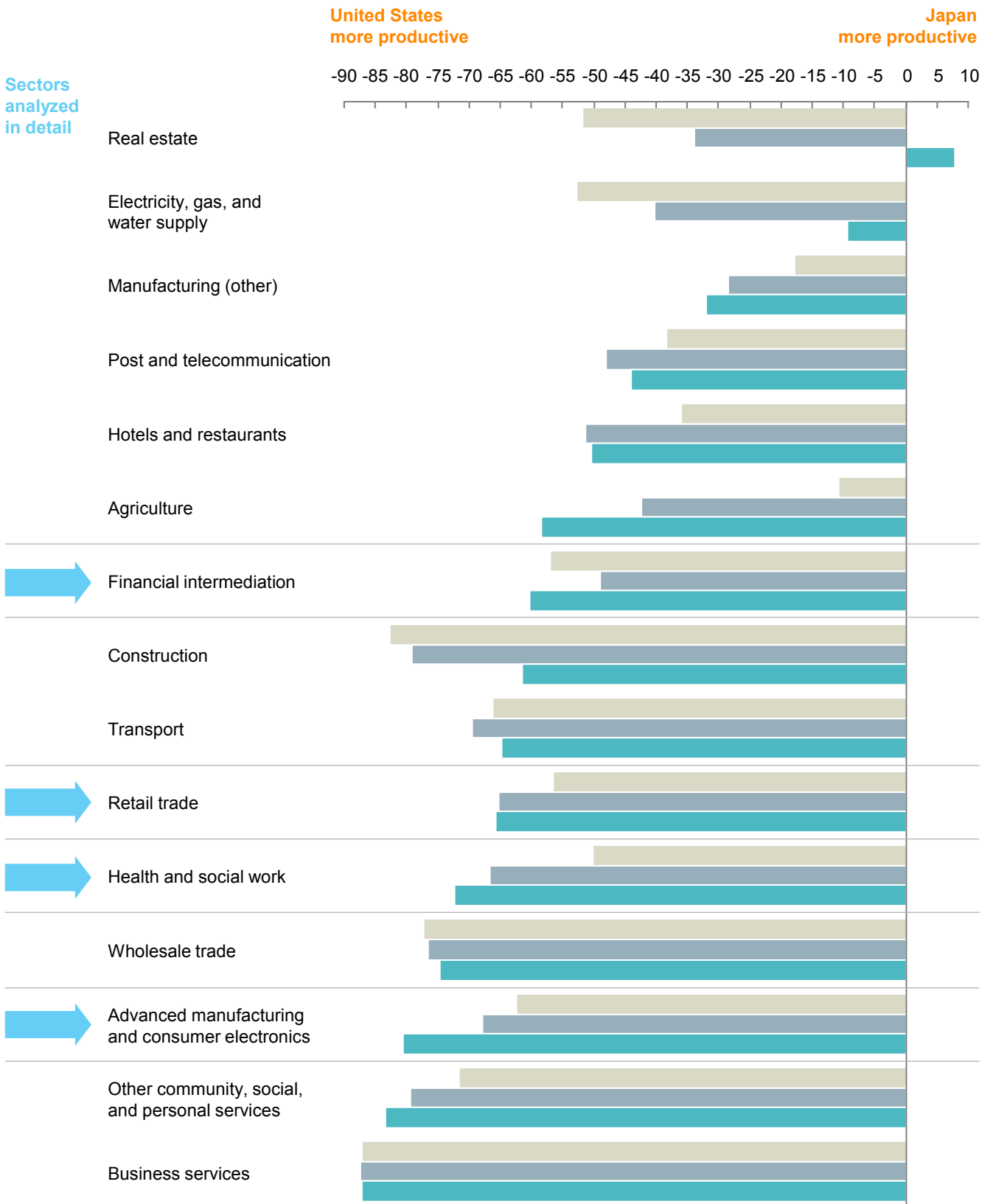
SOURCE: World Input-Output Database; World Bank; McKinsey Global Institute analysis

Exhibit E2

Japanese sectors are also falling behind US sectors in capital productivity

Capital productivity gap by sector (%)
 Index: 0 = United States

2000 2005 2011



NOTE: Education, public administration, and domestic employees not included.

SOURCE: World Input-Output Database; World Bank; McKinsey Global Institute analysis

Competition fuels productivity, as the most nimble and innovative companies win out over less efficient firms. But in Japan, highly indebted firms and even uncompetitive divisions of large conglomerates have often been kept alive in the interest of stability.² As banks continue to roll over bad loans, and corporate headquarters continue to allocate funds to underperforming units, resources are diverted that could be put to better use elsewhere and the process of creative destruction is impeded. In addition, regulatory barriers make it difficult for new competitors to challenge incumbents in certain sectors. The presence of multinationals could provide additional competitive intensity, but Japan attracts very little foreign direct investment (FDI).

Japan's long-standing lifetime employment model has also contributed to a certain degree of stasis. Today the legal strictures around lifetime employment have mostly been lifted, making the labor market more flexible in theory. But downsizing is viewed in a strongly negative light in practice, producing inefficient bureaucracies that lack agility. Workers, too, are reluctant to advance their careers by changing employers, which limits their incentive to develop new skills.

Japan has partially addressed this issue by allowing firms to hire non-regular (temporary) workers, or *haken*. By 2013, more than one-third of workers were covered by these arrangements, which offer limited legal protections and no pensions. At the current rate of growth, *haken* could account for 50 percent of the workforce by 2030. Paradoxically, this has taken a toll on productivity: temporary workers have fewer incentives to excel, and employers do not invest in their development. At a broader societal level, this situation has created a two-tiered workforce and contributed to inequality.

A continuation of current trends would have profound consequences, but Japan can change course

Although unemployment has remained low for the past two decades, deflation has eaten away at income growth and discouraged consumer spending. Japan has maintained global market share in automotive and other select industries, but many of its companies are being outperformed by Korean, Chinese, and US competitors. Few Japanese startups have broken through on a global scale. Perhaps most worrisome is Japan's fiscal trajectory; in 2014, its public debt stood at 234 percent of GDP.

Japan has an opportunity to once again outpace the world in efficiency and quality.

If current trends hold, Japan's GDP per capita would grow by a mere 1.3 percent annually over the next decade. Its overall labor productivity gap with the United States is on track to widen from 29 percent in 2011 to 37 percent in 2025. Japan could face a third decade of stagnation—one that would collide with an unprecedented demographic shift, creating even more damaging consequences.

But Japan has a window of opportunity to create a different outcome—to once again outpace the world in efficiency and quality, emerging as a global leader in fields such as advanced materials, 3D manufacturing, and the life sciences.

² Richard C. Koo, *The holy grail of macroeconomics: Lessons from Japan's Great Recession*, Wiley, 2009.

In this scenario, Japan would open the door to greater competition from multinationals, and its large companies would rise to the challenge. The Japanese education system would foster experimentation and critical thinking. Entrepreneurship would become rooted in campus life, with students in Tokyo University dorms cooking up plans for the next Google, Facebook, or Alibaba.

In this future, Japan proves that it is possible to provide an aging population with top-quality medical care while containing costs. Improved health allows experienced workers to remain on the job as they age, as physically demanding tasks are automated. Millions of women join the workforce, and many rise through the leadership ranks.

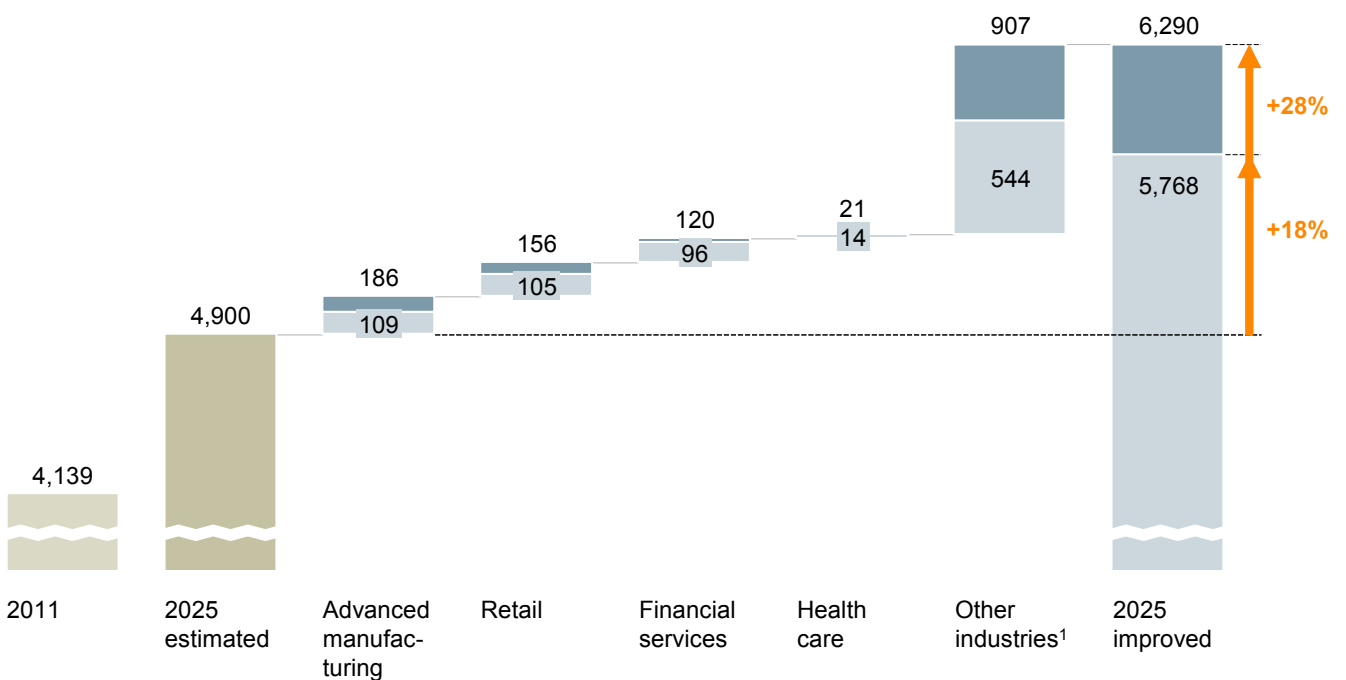
This vision is highly aspirational, but Japan can begin to move in this direction. Instead of settling for 1.3 percent annual GDP growth, Japan could grow by an average of approximately 3 percent through 2025. This would lift Japan's projected annual GDP in 2025 by almost 20 to 30 percent over current trends—for an increase of up to some \$1.4 trillion in that year alone (Exhibit E3).

Exhibit E3

Productivity initiatives in specific industries can help Japan increase value added by up to 28 percent above the current trajectory

Value added
\$ billion, 2009

■ High range
■ Low range



1 Increases in value added and productivity in the sectors examined in detail were used to extrapolate gains in similar industries (e.g., gains in advanced manufacturing were applied to all manufacturing).
NOTE: Numbers may not sum due to rounding.

SOURCE: World Input-Output Database; IHS; McKinsey Global Institute analysis

To get there, Japan will need to more than double its labor productivity growth rate, boosting it to approximately 4 percent. This is an ambitious goal for any economy, but with its labor force shrinking, Japan has to focus on productivity to accelerate growth. Increased labor force participation will also play a part, as will innovative business models and social paradigms. Japan's capital productivity could improve by 25 percent through better allocation of resources, higher revenues, and a push for greater cost effectiveness in infrastructure spending.

New efficiency measures such as increased automation will affect jobs in many industries. But a growing economy combined with a projected 3.7 percent decline in Japan's labor force by 2025 can cushion the net impact on employment.

Japan's productivity challenge ultimately has to be met by the private sector—and there is a great deal that individual companies can do immediately and on their own.

Firing a fourth arrow: Individual companies can transform Japan's productivity performance

A nationwide effort to accelerate productivity growth—led by the business community and spanning every sector of the economy—could amount to a “fourth arrow” for Abenomics. Many of the barriers and bottlenecks that have constrained growth are not imposed by regulation; they stem from traditional ways of doing business. Japan can reach some 50 to 70 percent of its productivity goal by adopting practices that are already in use around the world, while most of the remaining improvement can be captured by deploying new technologies.

Incorporating global best practices

- **Become more globally integrated.** Rather than relying heavily on the domestic market, Japanese companies have to become more aggressive about entering the fastest-growing overseas markets. But rather than just going global, enterprises have to *become* truly global, thinking beyond borders with regard to their operational footprint and talent development. Organizations can retain their Japanese roots while cultivating deeper connections to global value chains.
- **Improve capabilities across the value chain.** Japanese companies have historically excelled in manufacturing and product development, but they need to invest in building world-class capabilities in other functions such as sourcing, supply-chain management, customer relationship management, marketing, and after-sales service.
- **Continue the journey of digitization.** In most companies, an end-to-end review will likely reveal areas that have received a lack of IT investment and process innovation. Replacing outdated IT systems and equipping employees with mobile tools can enable massive improvements in performance.
- **Determine the optimal physical footprint.** Organizations may need to reconfigure in a more digital world with changing demographics. In retail, for example, smaller urban storefronts (or, conversely, big-box stores) offering innovative customer experiences can help to reduce costs and increase proximity to customers. Health-care providers

may need to consider whether their locations, scale, and degree of specialization match the needs of patients by age and geography. Financial institutions may need to close some of their least profitable branches and incorporate new interactive technologies into others.

Adopting next-generation technologies

- **Harness the power of big data.** Big data is a powerful tool for pricing, customer segmentation and marketing, sales forecasting, risk management, and R&D—and many large Japanese companies have yet to begin using it to transform their operations.
- **Take automation to the next level.** Intelligent software systems and robotics could help Japanese companies address critical labor shortages in the years ahead.
- **Deploy advanced technologies in manufacturing processes.** Technology can reinvent the assembly line yet again, from the adoption of low-cost sensors and big data analytics for better accuracy in production to the use of 3D printing for mass customization.

Organizing for discipline and performance

- **Restructure as needed to create a more competitive and fluid industry landscape.** If additional policies that have constrained market forces are removed, companies will have to adapt to a much more intense level of competition. Some may need to reorganize or exit unprofitable markets, while others may undertake mergers and acquisitions to achieve economies of scale.
- **Create a culture of performance and accountability.** Shareholders and top executives can reinforce that productivity is a top organizational goal by tying performance goals to incentives. Some of Japan's largest companies have already begun shifting away from the traditional seniority-based advancement system in favor of merit-based pay structures, and other firms can follow their lead. Promoting younger talent into management ranks and rewarding results can create agile organizations with fresh ideas.
- **Draw on all sources to build talent, leadership, and skills for the future.** Individual companies can attract and retain female talent by implementing supportive human resource policies and making tangible changes in workplace culture (such as relaxing the demands for long hours that make it difficult for new mothers to return to work). It is especially critical for companies to invest in programs that develop and mentor female leaders who can drive growth and productivity in the future. Employers will also need to retain valuable skills and experience by reengineering the workplace to accommodate aging workers, perhaps by automating physically demanding tasks, offering flexible hours, or focusing on ergonomics. Older workers could also transition to mentorship and training roles.
- **Focus on the customer to achieve a better return on R&D investments.** Instead of focusing on technology itself, the development process has to start with understanding what the customer wants and deliver solutions based on that insight. Innovation has to evolve from closed and tightly managed R&D operations to more fluid, open processes involving teamwork across the organization and collaboration with customers and suppliers.

Box E1. Riding global trends for faster growth

What is different about today's environment that could support a fundamental shift in Japan's direction? The answer is simple: everything.

This is an era of explosive growth in global trade, yet Japan's share of global exports has fallen from 7 percent in 2000 to 4 percent in 2013. But Japan has the manufacturing, export, and innovation capabilities to make up for lost time and lost market share. As emerging economies continue to industrialize, they will become growth markets for vehicles, machinery and equipment, and electronics, all long-standing areas of strength for Japan.

Much of the developed world is aging—and it will be watching intently to see if Japan, the nation at the leading edge of this trend, can pioneer policy responses. The private sector will also have to develop new business practices and technologies to alleviate labor shortages, all of which will have positive implications for productivity. Japan could be well positioned to export innovative products and services geared to seniors, who represent a lucrative consumer segment.

The world is undergoing a historic surge of urbanization, a shift that puts the spotlight on infrastructure. There is a huge opportunity for Japan to improve capital productivity in its own infrastructure projects as well as providing project finance and engineering expertise to the rest of the world.

Today multiple transformative technologies, from artificial intelligence and 3D printing to the Internet of Things, have already appeared on the horizon. Japan is already adopting—and even inventing—some of these breakthroughs. Now the challenge is to accelerate adoption throughout entire industries so that technology moves the needle on productivity performance.

As one of the most rapidly aging, urbanized, globally connected, and technologically advanced societies on the planet, Japan stands smack in the forefront of a global wave of disruption. These trends present both pressures and incentives to act. Japan can turn the current wave of global disruption into opportunity.

Four sectors illustrate Japan's untapped productivity potential

Around one-third of the estimated productivity potential can be captured within the four sectors discussed below, which were selected to illustrate differing parts of the Japanese economy. The strategies outlined here are by no means exhaustive, but they do offer a starting point for action and an indicator of the size of Japan's opportunity.

Advanced manufacturing

Advanced manufacturing (which includes automotive, industrial machinery, and electronics) represents the vanguard of Japan's industrial capabilities and the source of its signature exports. But over the past 15 years, this sector's global market share has eroded in the face of new competition. Japan's advanced manufacturers once raised the bar for the rest of the world in efficiency and quality, but today their labor productivity is 29 percent below that of the US sector and 32 percent below Germany's. This gap is not only significant; it has been widening.

At the firm level, Japanese auto companies have remained excellent performers, but the biggest names have shifted much of their production outside of Japan to local markets. The consumer electronics space has not fared as well. Lean players such as Samsung, LG, Xiaomi, Huawei, and Lenovo have grabbed market share for products such as TVs, PCs, and smartphones—often at the expense of Japanese firms. The major Japanese conglomerates have spent the past decade fighting for profitability. In some cases, they made unfortunate bets on technologies that did not win out in the marketplace. The Japanese consumer electronics industry includes many subscale companies and plants focusing on products with declining margins.

Our research has identified multiple industries that are ripe for revenue growth and efficiency improvements.

One of the advanced manufacturing sector's major challenges has been downward pricing pressure, but this is a worldwide phenomenon that does not fully explain Japan's productivity gap. Four other issues have been at play. First and foremost has been an insufficient focus on fast-growing global markets. Japanese automakers have successfully tailored their vehicles for emerging markets, but other Japanese products have failed to resonate in lower-income economies. Second, Japan's electronics sector remains heavily weighted toward hardware in an era when the market has shifted toward software, IT services, mobile applications, and integrated solutions. Third, Japan spends more on manufacturing R&D than almost any other country, but in recent years, that investment has not adequately paid off in the form of new hit products. Fourth, Japan has to contend with a higher non-labor cost base, due in part to inefficiencies in global operations and in functional areas such as supply chains (Exhibit E4). Japan's advanced manufacturing industries could face a future of declining global market share and slow productivity growth. The sector's value added is on pace to increase by a mere 1.4 percent annually through 2025.

But Japanese companies can change this outcome by aggressively adopting global best practices, starting with redirecting their formidable R&D capabilities to higher-value spaces. In an era of rapid-fire technology breakthroughs, there is enormous potential to create entirely new goods and services—not to mention applying innovation to management and production practices. Companies will have to make smart decisions about where to

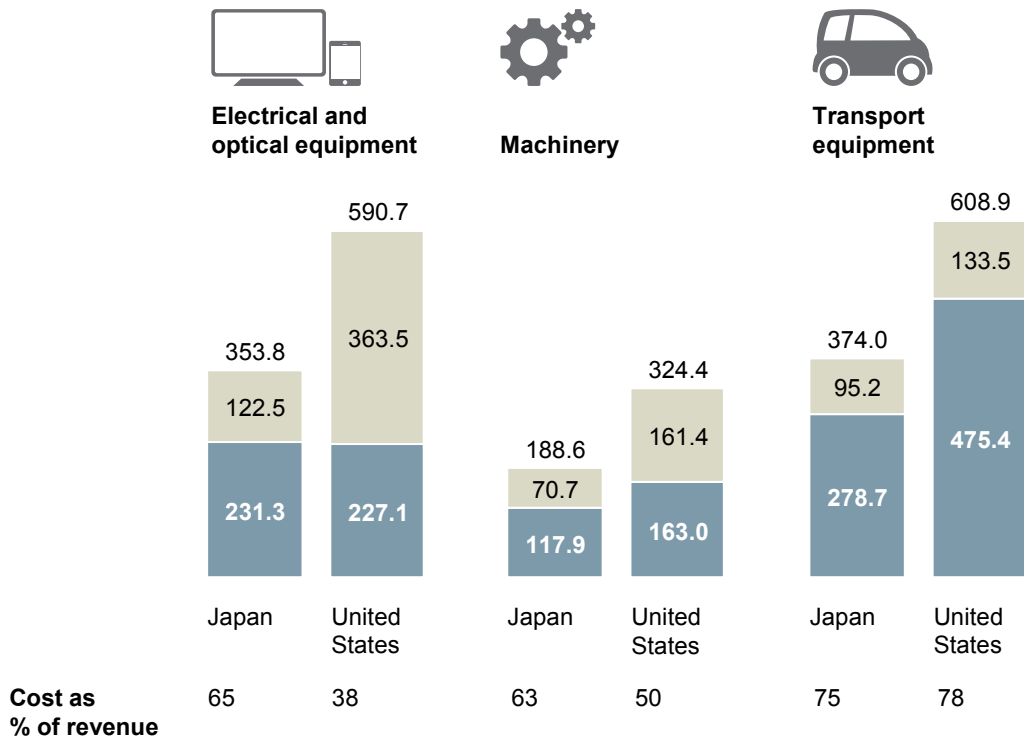
compete globally and which market segments to target; adopting international standards can broaden their appeal. They will have to strive for operational excellence in areas such as supply-chain management, product platforms, sourcing, procurement, revenue management, and support costs. Manufacturers can also create new revenue streams by adding after-sales services, such as delivery and installation, operation, maintenance, or systems integration. Mergers and acquisitions would allow companies to reach the critical size necessary to benefit from economies of scale and better deploy their capital and human resources.

Exhibit E4

Japan has a high non-labor cost base, particularly in the electrical and optical equipment industry

Revenue breakdown by subsector, 2011
\$ billion, 2009 at purchasing power parity

■ Value add (includes labor cost)
■ Non-labor cost of intermediate inputs



NOTE: Numbers may not sum due to rounding.

SOURCE: World Input-Output Database; McKinsey Global Institute analysis

The coming decade will bring an ongoing wave of innovation in manufacturing. Software is increasingly being integrated into traditional manufactured goods. The coming wave of connected cars, for example, represents a new competitive challenge—and a major market opportunity—for Japan’s automakers. Japan can also capitalize on growth in robotics and 3D printing for its own production processes and for export.

By 2025, these combined strategies have the potential to boost the sector’s value added by more than 50 percent above the current trajectory. If a critical mass of Japanese manufacturers were to adopt breakthrough technologies, they could virtually close the productivity gap with the United States.

Retail

Japan's retail sector benefits from a large and sophisticated consumer base as well as excellent logistics. High Internet and mobile penetration has underpinned growth in online shopping. But small specialty shops, many of them family-owned, account for approximately half of all retail sales—and because these businesses are less productive, they create a drag on the overall sector. Segments such as traditional convenience stores, supermarkets, and drugstores also remain highly fragmented; the relative lack of large chains has prevented investment in automation and technology. Only 40 percent of Japanese retailers are among the top ten national players, compared with 75 percent in the United Kingdom and 76 percent in Germany.

Since the 2000 repeal of the Large Scale Retail Store Law, traditional store formats have been on the decline. With a greater weighting of modern-format stores, the retail sector increased its labor productivity by 2.2 percent annually between 2000 and 2011. But Japan has not kept pace with the US sector in terms of operational innovations. Even those formats with higher consolidation and revenue growth have struggled to reduce costs and improve operating margins. Legacy IT systems and overinvestment in floor space have also weighed on profit margins.

On its current trajectory, the sector's value added would increase by just 1.1 percent annually through 2025. By then, the Japanese sector's productivity would stand at only 71 percent of the US level. In addition, if the industry continues to expand total floor space at its current rate, sales per square meter would decline by about 1 percent annually through 2025.

But the retail sector can make a quantum leap in performance by deploying new technologies, responding to changing demographics, and increasing its efficiency. We estimate that there is potential to boost labor productivity by anywhere from 22 to 39 percent by 2025.

One element in this formula is achieving smarter store footprints. By introducing innovative customer experiences and multiple channels, retailers can rationalize floor space, saving costs and boosting revenues. Retailers also need to adopt global best practices in operations along the entire value chain, some of which employ cutting-edge technologies. In addition to managing complex shipments from vendors, the Internet of Things can use sensors and tags in stores to avoid stock-outs and signal when reorders are necessary. Becoming fluent in big data and advanced analytics can help retailers better understand and segment their customers and make both front- and back-end operations (such as sales forecasting and employee scheduling) more efficient. With the return of some limited inflation, Japanese retailers may finally have an opening to raise prices. Companies can capture new value added by implementing pricing strategies built on a deeper level of marketing insights from big data.

The continuing growth of e-commerce is another important source of retail productivity. Japan has already developed the world's third-largest e-commerce market, but sales are growing more slowly than in the United States (and are well below the dramatic rate of growth in China). E-tailers such as Rakuten and Amazon are making strides, but there is still ample room for adoption by brick-and-mortar incumbents—and for disruptive new players to emerge in this space.

Accelerating consolidation and the transition to more modern-format stores (and perhaps “leapfrogging” directly to more innovative digital-hybrid formats) will be crucial to improving the sector's productivity.

Financial services

Japan's financial sector was the third-largest in the world in 2012, with \$11 trillion in assets. But its low-risk, low-margin operating model has produced limited revenue growth. More than half of personal financial assets are held in cash or cash deposits. Between 2005 and 2011, annual labor productivity growth was 4.5 percent in the US sector and 7.6 percent in the German sector, while Japan actually experienced a decrease of 2 percent.

During Japan's long period of muted demand, banks tended to funnel excess cash into low-risk, low-return government debt. The government's most recent and most aggressive program of quantitative easing is meant to reverse this trend and spark new lending and investment. Jumpstarting the flow of financing and investment is an Abenomics priority, and the conditions may be coming together for the financial services sector to achieve higher margins, increase its value added, and create momentum in the broader economy.

Looking specifically at the banking industry, Japanese institutions serve their customers with fewer branches and fewer employees than US banks. Despite this advantage, their labor productivity was 22 percent lower than that of US banks in 2011. The major factors driving this gap include low returns on assets, risk aversion, simpler product offerings, and intense competition that has driven down pricing. Japan's persistently low interest rate environment has limited spreads and depressed returns on investments—and because loan demand has stagnated, banks have been unable to compensate for declining interest margins by boosting volumes. A failure to build deeper relationships harms banks' ability to increase advisory revenues.

Japan's insurance sector trailed the US sector in labor productivity by 29 percent in 2011. There is high market penetration for life insurance products, but policies produce lower revenues. Product offerings and pricing strategies tend to be relatively basic across all types of coverage, and there has been little growth in demand for property and casualty coverage. Insurers, like banks, have struggled with low returns on their investments.

Whatever Japan's macroeconomic conditions, individual firms still have scope to improve productivity and growth. Players can rethink their investment strategies to shift toward higher-yield assets, finding a better balance between risk and reward. They also need to find new ways to maximize value from customers. Many firms already segment their customers by wealth and life stage to develop tailored offerings, but new analytics tools can take this to an entirely new level of detail. There are opportunities to launch a wider variety of financial products, using big data tools to monitor risk and determine pricing. In particular, financial firms can create products and advisory services to meet the needs of seniors and affluent individuals.

Japanese banks are already the world's largest international lenders, but further emphasis on foreign lending and foreign expansion (especially into the most promising markets in emerging Asia) could be an avenue for growth. Insurers have similarly increased their overseas operations in response to declining revenues at home.

Banks and insurers alike can undertake an end-to-end review of processes and focus attention on areas that have received little IT investment and digital process transformation. Financial institutions will have to continue their efforts to deliver a truly seamless online and offline experience while slimming down or reimagining their branch formats, with more advisory and sales centers.

By 2025, these initiatives could increase the sector's value added by up to 44 percent while reducing the labor required by 9 percent. This would boost labor productivity up to 24 percent over the current trajectory—and provide a lift to the entire economy by putting cash reserves to work in productive investment.

Health care

Providing universal access to quality health care is a point of national pride. Japan manages to achieve good outcomes while holding health-care spending to 8.1 percent of GDP (well below Germany, at 11.3 percent, or the United States, at 17.7 percent). But there are serious questions about whether the current trajectory is sustainable. Government estimates indicate that health-care expenditures could reach some \$515 billion by 2025, for average annual growth of 3.7 percent. If health care swallows an ever-larger share of national spending, it could crowd out consumption and investment in other parts of the economy and force painful tax and social security reforms.

The aging population is frequently discussed as the driver of health-care costs, but that is only part of the story. Utilization rates remain very high by international standards; Japanese patients consult physicians an average of almost 13 times per year, more than twice the OECD average. The average hospital stay is three times longer in Japan than in other advanced economies—partly due to reimbursement formulas, but also because hospitals often continue to care for patients who might be better served in rehabilitation centers or nursing homes, which are in short supply. The ongoing process of medical innovation also contributes to rising expenditures.

Measures such as increasing taxes to shore up the system or adjusting reimbursement rates are only partial solutions, and repeated rounds will not be feasible. Japan needs to bend the cost curve in a more fundamental way. The good news is that other nations facing similar pressures have managed to implement successful reforms, and Japan can draw on their experiences. One of the most important lessons they offer is that reimbursement changes drive provider changes.

The current system rewards providers for generating a high volume of procedures. Japan took a positive step by introducing a diagnosis procedure combination (DPC) payment system, much like the billing system used by Medicare in the United States (although Japan's version includes a length-of-stay component). It shows promise for controlling costs and standardizing data, but a limited number of institutions participate. Policy makers can reopen this issue and consider deeper reforms such as mandating DPC adoption across the entire system, implementing capitation (which pays providers a set amount for each enrollee, whether or not the individual seeks treatment), or directly linking reimbursement to performance and outcomes.

Because Japan has some 3,000 private insurers, a crucial part of the health-care landscape is fragmented. Insurers do not perform a gatekeeping or cost-control function, as they do in other countries—but Japan could transform them from payors to real players. Instead of imposing uniform reimbursement rates, Japan could give them greater flexibility to negotiate with providers and design their own formulas. Germany's experience indicates that once insurers are given responsibility for real management, a wave of consolidation could follow.

Reducing the number of visits per capita requires significant changes on both the demand and supply sides. Requiring continuing medical education and recertification could promote a greater culture of trust among patients. The clinical data aggregated by electronic medical records can be used to create a ratings-based system that allows patients to compare providers (much like the UK National Health Service's Choices website). On the other side, steeper co-payments could discourage unnecessary additional visits or repetitive testing.

Japan's Ministry of Health, Labour and Welfare has made progress in expanding the use of generic drugs; meeting its goal of achieving a 60 percent penetration rate by 2017 would save some \$8 billion annually. But this would still leave Japan below international benchmarks. Japan can set a more ambitious target and take steps to bring the price of generics down to international levels.

Japan has a fragmented provider landscape, with many small generalist hospitals. Surprisingly few institutions specialize in specific therapeutic areas, with repercussions for the quality of care. Financial incentives could encourage some hospitals—especially subscale institutions—to merge or specialize. Mergers could lead to major savings in IT systems, purchasing, and the allocation of resources. Greater specialization would prevent high-risk procedures from being performed at low-volume centers. It would also improve housing and treatment options for elderly patients, particularly those with dementia. There are major efficiency gains still to be captured from electronic medical records and big data tools. Most hospitals do have solid technology systems in place, but the key will be connecting these systems and ensuring interoperability across providers.

This is an age of medical breakthroughs. Already, 3D printers are being used to produce artificial organs and implants, robots are being deployed in medical settings, and nanodevices are making more procedures minimally invasive. In addition to adopting advances in patient care, Japan has the scientific and manufacturing capabilities to pioneer many of these technologies.

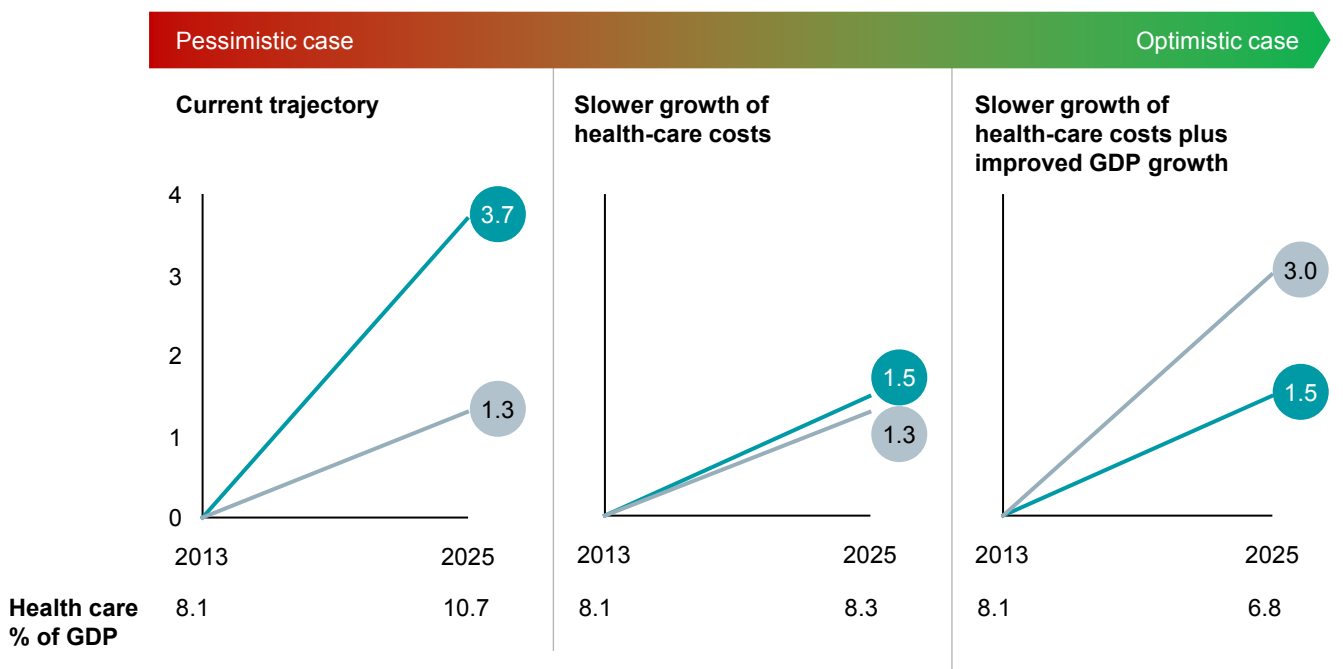
Today Japan's health-care expenditures are growing faster than GDP and are on track to swell to 10.7 percent of GDP by 2025. But we estimate that the reforms described above can slow the annual rate of growth from the anticipated 3.7 percent to just 1.5 percent. By 2025, expenditures could come in some 22 percent below projections, holding the line at 8.3 percent of GDP, only slightly above the level in 2013 (Exhibit E5). This would free up resources that could be used to develop a more comprehensive long-term care sector. Furthermore, if Japan's productivity initiatives successfully boost GDP growth to 3 percent, health-care spending would grow more slowly than GDP, putting the system on a more sustainable path.

Exhibit E5

Reforms could help Japan cut the growth rate of health-care expenditures in half, potentially even bringing it below the rate of GDP growth

Compound annual growth rate (%)
Index: 0 = 2013

— Health-care costs ● Growth rate (%)
— GDP



SOURCE: Ministry of Economy, Trade and Industry; Ministry of Health, Labour and Welfare; McKinsey Global Institute analysis

Japan has a road map, and now it needs the political will to start the journey. Reform will be a process of “continuous improvement” that will require periodic readjustment. It will take a steady commitment to create a more sustainable system—one based on a vision that looks decades ahead and is insulated from short-term political pressures.

The right policies and enablers can spur growth

Deregulating and reforming individual sectors can inject new dynamism into the economy. But Japan also has to create a broader environment that is conducive to growth. While Abenomics speaks to a number of these priorities, the agenda for change needs to be even broader.

Tapping new talent sources

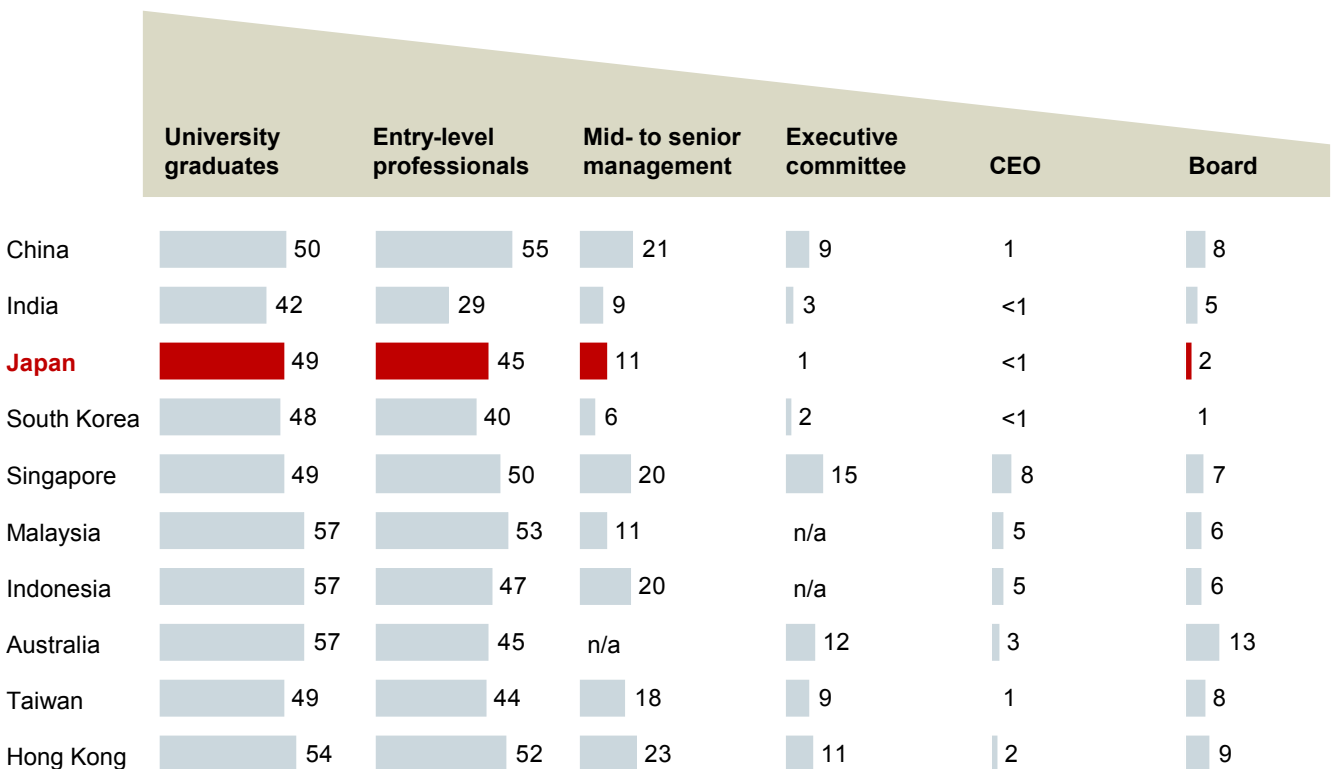
- Encourage more women to participate in the workforce and create pathways to success.** Many Japanese feel that women should focus on household duties, and this cultural attitude is exacerbated by a sharp gender gap in pay and a glass ceiling. But Japan cannot afford to lose so much potential talent. The participation rate drops sharply when women reach prime childbearing age; they step off the career ladder when they might otherwise begin moving up into managerial roles (Exhibit E6). The government has recognized that expanding child care is a critical starting point. Additionally, Japan can follow through with removing tax policies that encourage married women to opt out of the workforce or to choose low-paying part-time work. Companies and institutions have a critical role to play in helping women fulfill their potential as future leaders of Japan. They need to make gender diversity a top strategic priority, with executive teams demonstrating visible support for this change.

Exhibit E6

Japanese women step off the career ladder during their prime child-bearing years and occupy few senior leadership roles

ESTIMATES

%



SOURCE: McKinsey proprietary database, 2011; government publications

- **Retain experienced workers as they age.** Japan is gradually raising the mandatory retirement age that companies can impose from 60 to 65 by 2025, requiring employers to offer continuing employment options to workers who hit retirement age and offering subsidies to employers that hire and retain older workers. In fact, Japan already has one of the highest labor force participation rates in the world for older workers. But since a quarter of the population is expected to be over age 75 by 2055, further policy adjustments may be needed—and, as mentioned above, individual companies will have to drive this effort forward by implementing more flexible working models and ergonomic adjustments that can entice seniors to stay on the job.
- **Address supply constraints by rethinking immigration policies.** Japan will need to identify critical roles that are being affected by an undersupply of labor and consider whether foreign workers could provide at least a partial solution. Increasing their presence would not only fill gaps in specific roles; it could also bring an infusion of diverse ideas, new energy, and best practices developed in other countries.

Creating a more dynamic labor force with the skills demanded in a fast-changing environment

- **Make the workforce more equitable.** The greater flexibility afforded by the use of temporary workers has harmed productivity while creating a two-tiered workforce, as discussed above. Faster economic growth will not be enough in and of itself to create a more equitable system. Policy makers may need to take formal steps to provide better conditions and benefits for temporary workers—both to ensure they are protected and to increase their motivation to become more productive.
- **Create ambitious retraining programs to meet new business requirements.** Since multiple industries face wide-ranging technology transformations, the public and private sectors will have to ensure that well-chosen, well-designed training programs are available on a large scale. Companies can also collaborate at the industry level to offer apprenticeships and partner with education providers to design vocational training and certificate programs.

Reforming the education system to build talent and capabilities over the longer term

- **Instill critical thinking skills.** The next generation of workers will need critical thinking skills and an open attitude toward experimentation to enhance Japan's productivity and competitiveness. The current educational experience leaves graduates at a disadvantage in this area compared with their international peers.
- **Promote a global mindset.** Japan could benefit from achieving greater foreign language fluency and expanding international student exchanges, which lay the groundwork for future research collaborations and business deals.
- **Create a true education-to-employment pipeline.** In most countries, the education-to-employment system fails many young people and employers alike. But employers and educators can bridge this gap by moving more fluidly into each other's worlds. Companies can help to design curricula and lend their employees as "faculty," while education providers can integrate internships into their programs and secure hiring guarantees for graduates. Sustaining long-term growth requires careful, ongoing evaluation of evolving shifts in demand for specific skills.

Fostering a startup culture

- **Increase access to funding.** Despite favorable regulatory changes, there is little angel investing in Japan. Information platforms can help to build a community of angel investors, and large corporations could play a role where individual investors currently do not. Japan's venture capital industry is also underdeveloped. Israel offers a useful template; it rapidly expanded its fledgling VC industry in the 1990s by offering tax incentives to foreign investors and matching private capital. The Innovation Network Corporation of Japan is a positive step in this direction, but unlocking private investment will require sustained effort.
- **Promote a supportive legal and regulatory framework for startups.** Making the process of setting up a new business more user-friendly could motivate more aspiring entrepreneurs to take a leap with their ideas. Japan can also revisit the framework around intellectual property protection and its incentive structure for commercializing university research.
- **Create an ecosystem that allows entrepreneurs and innovation to flourish.** Japan's current network of business incubators has a limited reach, and the public sector may need to mobilize resources. New York, for example, has undertaken an ambitious public-private partnership to build Cornell Tech, which will offer an MBA program with a digital, entrepreneurial focus. University-affiliated business incubators (such as Waseda University's) can expose Japanese students to the process and excitement of turning ideas into profitable realities.

Implementing market-oriented reforms to unleash competition

Reducing government intervention in specific sectors could open the door to a wave of consolidation that would allow companies to realize economies of scale. A number of market distortions, such as barriers to entry for startups, protectionist measures that limit imports, zoning restrictions, and subsidies that keep unproductive firms afloat, could be removed.

- **Promote competition by allowing companies to enter and exit the market.** The birth of new firms and the closure of failing companies are akin to a healthy circulatory system—and the continued support of highly indebted firms as well as uncompetitive divisions of large conglomerates represents a disorder that hinders that dynamic. Resolving the continuing overhang would improve the allocation of capital across the economy.
- **Deepen global trade ties.** New trade agreements would open the door for Japanese companies to penetrate new markets and grow revenues. Japan is engaged in a number of bilateral and multilateral negotiations, the largest of which is the proposed Trans-Pacific Partnership. Bringing these agreements to a successful conclusion could provide Japan with new sources of growth.
- **Move toward open standards.** Shifting away from proprietary technologies to globally accepted standards and platforms that allow for interoperability (and participating in the creation of these standards) will broaden the market for Japanese products.
- **Promote a culture of performance at the macro level, including increased shareholder pressure.** Proposed new regulatory standards call for at least two outside directors on each corporate board, but even stronger measures may be needed to ensure accountability and improved corporate governance. Shareholders in Japan have traditionally exercised relatively little pressure for performance, but a more activist approach would push management to increase revenues and achieve operational efficiencies.

Improving productivity in infrastructure

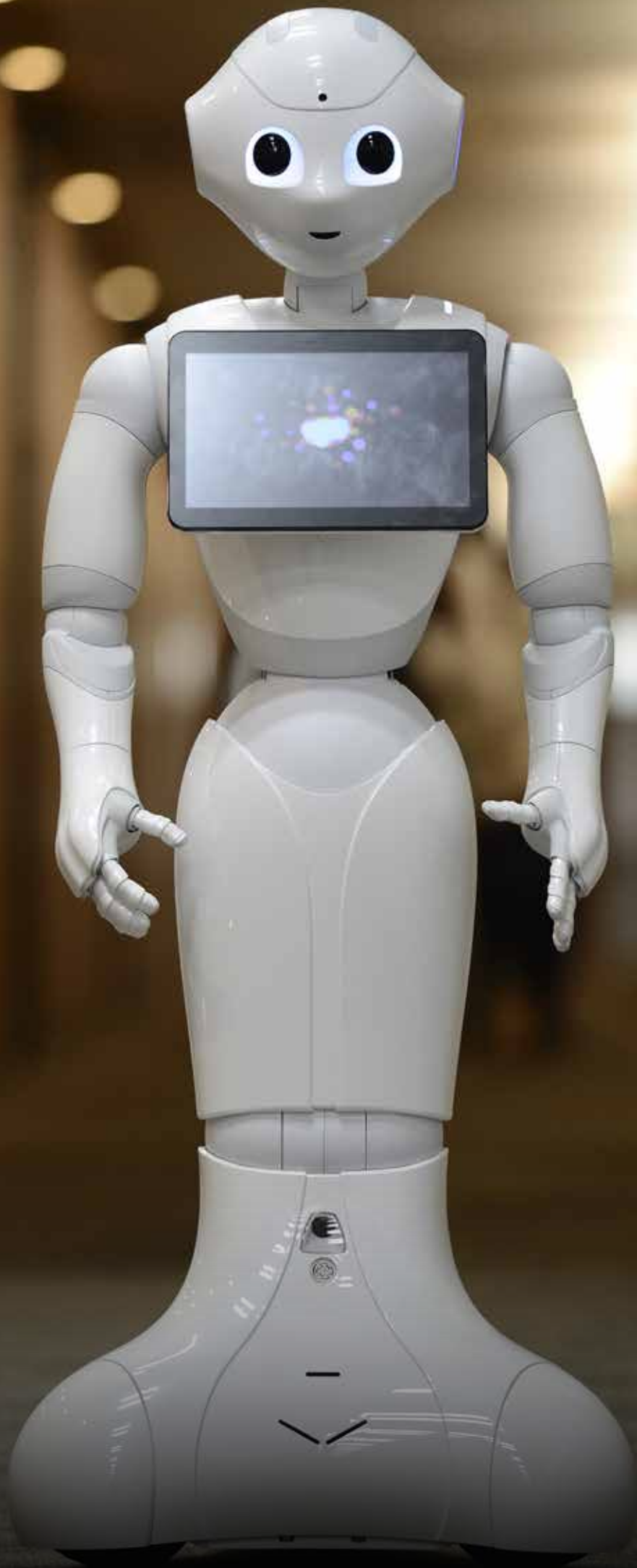
Modern infrastructure comes at a high public cost if projects encounter long delays or if they are underutilized after their completion. While the value of infrastructure stock in most economies averages around 70 percent of GDP, Japan has the world's highest infrastructure stock, at 179 percent of GDP in 2012.³ Given the size of its investment, Japan needs to maximize every dollar.

- **Make project selection and project management as rigorous as possible.** It is critical to direct investment to where it can underpin economic growth or societal goals rather than to “showcase” projects. Proposals should be subjected to a sophisticated cost-benefit analysis and prioritized using a transparent, fact-based decision-making process. An important source of savings would come from speeding up the approval and land acquisition processes and using the latest technology to plan and manage projects. Advanced 5D building information modeling systems, for example, can ensure design accuracy and feasibility to prevent substantial changes and delays later in the process.
- **Use maintenance, optimization, and demand management to extend the life of existing infrastructure assets.** In many cases, it is more cost-effective to invest in extending the life span and capacity of existing assets than to build new projects. Refurbishment and optimization strategies can save approximately 15 percent on infrastructure investment.
- **Export world-class infrastructure.** Japan can export its engineering expertise to the rest of the world. Recent MGI research estimated that Southeast Asia alone has some \$3.3 trillion in infrastructure needs through 2030. There are many opportunities to serve as either financier or provider of infrastructure services in developing economies around the world, but Japan will have to compete for them.

• • •

The next decade offers a window of opportunity for Japan to shift its trajectory, in part by capitalizing on immense flows of global trade, the rise of billions of new urban consumers in the emerging world, and technology breakthroughs. But the new global economy is not simply realigning; it is also accelerating. The time is right for Japan to undertake bolder moves, bigger investments, and deeper reforms. Decades ago, Japanese manufacturers famously introduced the world to “lean” practices. Today businesses throughout the Japanese economy can apply these concepts to new industries and use digital technologies to take them to the next level. Focusing on the priorities discussed here can help to address persistent legacy issues and put Japan on a faster track toward recovery and renewal.

³ *Infrastructure productivity: How to save \$1 trillion a year*, McKinsey Global Institute, January 2013.



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