McKinsey on **Economics**

An in-depth look at the challenges facing senior managers | Published by *The McKinsey Quarterly* | May 2005

Lloyd Miller

The economic impact of an **aging Japan**

The rapid aging of the Japanese population will dramatically reduce savings and wealth—and cut off an important supply of capital to the world.

Article at a glance: By 2024, more than a third of Japan's population will be over the age of 65, making it one of the oldest in the developed world. Retired households will outnumber households in their prime saving years, so savings rates will fall dramatically, and Japan's financial wealth will begin to decline. The continual improvement in living standards that the country has enjoyed over the past half century will come to an end.

The take-away: A decline in financial wealth could bring down Japan's living standards and spread the economic misery to other countries. But this outcome isn't inevitable. Japan's future growth will depend on concerted efforts to increase the returns earned on financial assets and to persuade younger people to save more.

The economic impact of an **aging Japan**

Diana Farrell and Ezra Greenberg

During the next 20 years, the financial wealth of Japanese households will stop growing and begin to decline, leaving them with $8 trillion less than they would have if historical growth rates persisted, according to new research from the McKinsey Global Institute (MGI).[1] Wealth will decline not only in the aggregate but also for average Japanese households, which will be no wealthier in 2024 than they were in 1997. The continual improvement in living standards the Japanese have enjoyed during the past half century will come to an end.

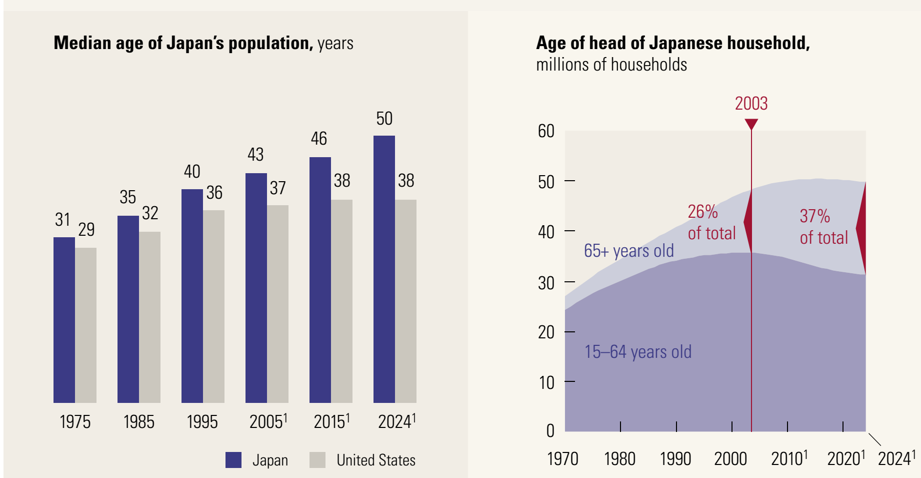
The heart of the problem, as many observers have noted, is the fact that Japan is getting much older. By 2024, more than a third of the population will be over age 65—one of the developed world's largest proportions of elderly citizens. Retired households will outnumber households in their prime saving years, so savings rates will fall drastically. Equally important but less noticed is the fact that younger Japanese people are saving much less than their elders did. Exacerbating both of these trends are the low returns earned on Japanese savings because of the penchant of Japanese workers for putting money in extremely low-yielding accounts, particularly in the national postal savings system.

A sharp drop in savings will cause the accumulation of wealth to slow and eventually fall. Japan was once a nation of frugal supersavers, but its savings rate is projected to decline to nearly zero over the next 20 years. A savings drought could jeopardize economic growth. In a nation where households build wealth primarily through new savings rather than through asset appreciation, living standards will suffer. And the damage may extend to other countries as well. Japan has historically run large current-account surpluses and exported savings to other nations, such as the United States. As the world's savers retire, the United States in particular will feel the pinch.

There are no easy ways to avert the coming crisis. Japan can improve its situation significantly,

EXHIBIT 1

Going gray



[1] Projected.

Source: *Family Income and Expenditure Survey*, 1975–2000, Japan; National Institute of Population and Social Security Research, Japan; US Census Bureau; McKinsey analysis

[1] The full report, *The Demographic Deficit: How Aging Populations Will Reduce Global Wealth*, is available free of charge at www.mckinsey.com/mgi. Unless otherwise noted, all growth rates are given in real terms. Values in yen and the equivalent dollar conversions are based on 2000 figures.

however, if it moves quickly to increase the low rates of return earned on household savings and to boost productivity throughout its economy.

Japan's setting sun

Demographics tell part of the story. By 2024, the median age in Japan will have increased by seven years, to 50, and will be more than ten years higher than the median age in the United States (Exhibit 1). Older people are a large and growing segment of Japan's population, resulting in falling birthrates and a rising mortality rate, which for the first time will exceed the birthrate in 2006. That year, Japan's population—and the number of savers—will stop growing and actually start to decline.

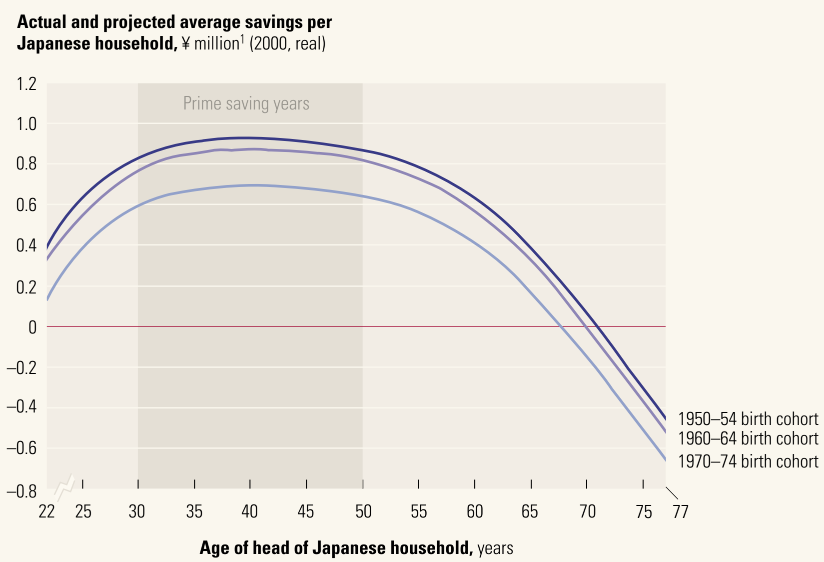
The prime savers ratio, which compares the number of households in their prime saving years (30 to 50 years old) with the number of elderly households (aged 65 and older), has been declining in Japan since 1975 and dipped below one in the mid-1980s. In other words, elderly households, which tend to save less or actually consume savings, outnumber middle-aged households, which tend to increase their savings. The prime savers ratio is expected to remain well below one in the future.

Further contributing to the challenge, the younger generation is saving far less than older generations have. Households led by people born in the 1960s and 1970s have been moving into the prime saving years since 1990. These households have higher disposable incomes than earlier generations did, but they also spend more. The net effect is that this younger generation saves less (Exhibit 2). When current retirees were 35, they saved 26 percent of their disposable income. Today, 35-year-olds save just 6 percent of their income. This change in generational savings behavior will amplify the effects of a decline in the number of savers.

All these trends will dramatically decrease the flow of new savings. Average household savings will shrink because fewer people will be in their prime saving years, because households that consume more and save less will become increasingly dominant, and because many elderly households

EXHIBIT 2

Japan's younger generation saves less



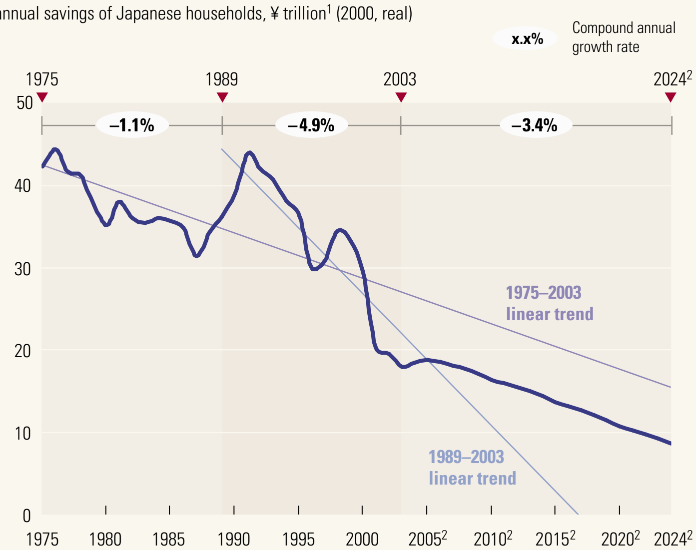
[1]¥1 = $0.01.

Source: *Family Income and Expenditure Survey*, 1975–2000, Japan; McKinsey analysis

EXHIBIT 3

Declining savings

Actual and projected annual savings of Japanese households, ¥ trillion[1] (2000, real)



Savings as % of disposable income	23.4	17.3	15.5	13.9	11.9	9.6	4.9	3.5	2.2	1.1	0.2

[1]¥1 = $0.01.
[2]Projected.

Source: Bank of Japan; Economic and Social Research Institute (ESRI), Japan; *Family Income and Expenditure Survey*, 1975–2000, Japan; McKinsey Global Institute household-financial-wealth model

will start to spend their savings. The savings rate will continue its precipitous decline (Exhibit 3).

A nation's wealth declines

Households accumulate wealth when they save money from their income or when the value of their savings increases. Japanese households invest mostly in low-yielding savings accounts, so household wealth is built primarily through new savings. In contrast, 28 percent of the increase in US household wealth from 1975 to 2003 came from asset appreciation.

We expect the liabilities of Japanese households to increase over the next 20 years, putting yet another damper on the accumulation of wealth. Younger generations have taken on much higher debt levels than their elders did: today's 35-year-old Japanese adult has accumulated debts nearly equal to those that someone who was the same age in 1975 didn't accumulate until the age of 60. Driven by these two forces of declining assets and rising liabilities, financial wealth in Japan is projected to fall by 0.2 percent annually from 2003 to 2024—after increasing by 5.5 percent a year from 1975 to 2003. It will end up nearly $8 trillion below what it would have been if historical growth rates had continued (Exhibit 4).

This trend will erode Japanese living standards, since wealth, representing the ability to finance future spending, is a broad measure of economic well-being.[2] On a household basis, we expect financial wealth to fall by 0.4 percent annually over the next 20 years. This shift may seem small, but by 2024 household wealth will be no higher than it was in 1997. That's a startling fact, since most people expect to do better than their parents did.

[2] Barry P. Bosworth, Ralph C. Bryant, and Gary Burtless, *The Impact of Aging on Financial Markets and the Economy: A Survey*, Brookings Institution, July 22, 2004 (www.brookings.edu); and Marshall B. Reinsdorf, "Alternative measures of personal saving," *Survey of Current Business*, Bureau of Economic Analysis, September 2004, Volume 84, Number 9 (www.bea.doc.gov).

From saver to borrower

Since 1981, Japan has produced enough savings to finance its domestic investment needs and still export savings. In 2004, it sent about $170 billion in savings to other countries.[3] But as Japan grows older and its pool of savings shrinks, it is likely to become a net borrower.[4]

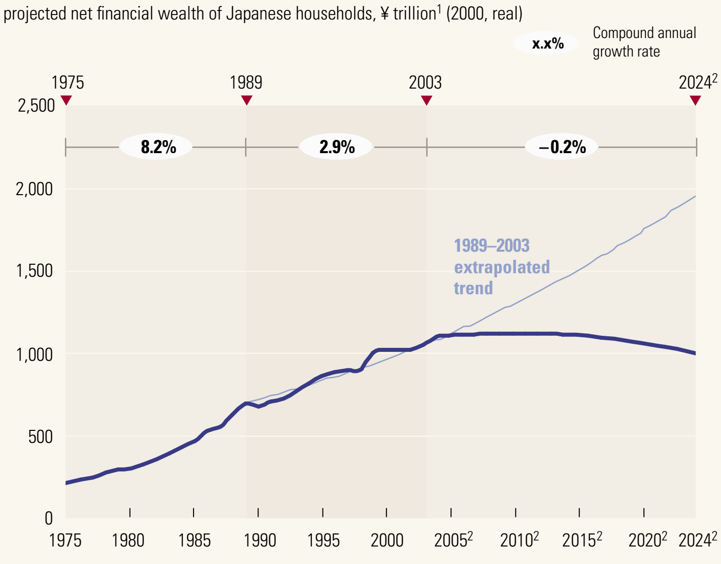
If that happens, the United States in particular could face a painful adjustment, since Japan has played an important role in financing the massive US current-account deficit. As of October 2004, Japan owned more than $715 billion in US Treasury bonds—nearly 40 percent of the Treasuries held by foreigners. As Japanese funding dries up, the United States will probably be forced to trim its trade deficit. This could have enormous repercussions for the global economy, since strong US demand, paid for with large amounts of foreign lending, has helped fuel economic growth in many countries, including many nations in Asia after the 1997 financial crisis.

Some observers believe that rapidly industrializing countries, including Brazil, China, India, and Russia, could step up to fill the gap in savings as Japan's savings rate declines. Of these countries, China offers the most realistic possibility of playing that role, but it is unlikely to supply truly meaningful amounts of capital to the developed world in the necessary time frame. In 2003, China's real GDP was less than 30 percent of Japan's. If China maintained an annual 10 percent real growth rate and Japan's economy continued to grow slowly, the Chinese economy would take almost 20 years to catch up with Japan in terms of GDP. And if China is to sustain this growth, it will need to finance considerable domestic investment before it can export excess savings.

EXHIBIT 4

Losing ground

Actual and projected net financial wealth of Japanese households, ¥ trillion[1] (2000, real)



[1]¥1 = $0.01.
[2]Projected.

Source: Bank of Japan; Economic and Social Research Institute (ESRI), Japan; *Family Income and Expenditure Survey*, 1975–2000, Japan; McKinsey Global Institute household-financial-wealth model

[3]This estimate is based on the Japanese current-account surplus as of the third quarter of 2004.
[4]This view is supported by Robert Dekle, "Financing consumption in an aging Japan: The role of foreign capital inflows in immigration," National Bureau of Economic Research, Working Paper 10781, September 2004; and Koichi Haji and Yasuhide Yajima, *The Disappearing Household Financial Surplus: An Analysis of the Recent Plunge in Saving Rate*, Economic Research Group, NLI Research Institute, June 2004.

Mitigating the impact

No easy policy solutions could blunt the impact of an aging population on savings and wealth. Frequently mentioned options, such as increasing immigration or encouraging families to have more children, will have little effect. Immigration represents only a tiny part of the population, and children born today won't enter their prime saving years for several decades.

There are only two ways to counteract the coming demographic pressure in a meaningful way: increasing household savings and boosting the returns earned on them. In Japan, as elsewhere, raising the retirement age in order to extend the period when households are most prone to save would make sense, given the significant increase in average life spans during the past 50 years. Another helpful step would be to encourage younger Japanese households to save more.

But the most effective change for Japan would be to raise the rates of return on its financial assets. From 1975 to 2003, they appreciated at a real annual rate that was 2.8 percent lower than the corresponding rates in the United Kingdom and the United States. Raising Japanese rates of return to UK and US levels will be difficult but could make up nearly half of the projected wealth shortfall. To do so, Japan will have to raise productivity throughout the economy and increase the efficiency of the financial system in allocating capital.

Raising economy-wide productivity

Japan must increase productivity throughout its economy if it is to raise the returns on its financial assets. Despite a handful of world-leading industries and companies, overall productivity in Japan has faltered: labor productivity is roughly 30 percent lower there than it is in the United States, and capital productivity is nearly 40 percent lower.[5] Higher productivity brings not only efficiency gains but also stronger earnings growth and broader growth throughout the economy.

Raising productivity, growth, and overall financial returns in the lackluster Japanese economy will require basic structural reform. Primarily as a result of a shrinking population and labor force, Japan's potential GDP growth will slow to 1.1 percent annually, down from the already anemic 1.8 percent growth that followed the end of the bubble years, in 1990.[6] To maintain living standards, Japan will need to raise potential growth by raising productivity.

Japan must increase competition and spark innovation to reform its economy structurally. This transformation will require the elimination of a raft of product market regulations and tax policies that protect inefficient companies.[7] The government will also have to ease zoning and land regulations that prevent larger companies from expanding and from creating jobs, and it will have to make it easier for start-ups to do business.

Increasing the financial system's efficiency

Raising rates of return will also require improved financial intermediation so that savings are channeled to the most productive investments. More transparent and liquid financial systems expose and deny funds to poorer performers, thereby encouraging corporate managers to improve the performance of their companies.

Japan's financial system has long been ailing, particularly the banks, which play a larger role than

[5] William W. Lewis, *The Power of Productivity: Wealth, Poverty, and the Threat to Global Stability*, Chicago: University of Chicago Press, 2004; and M. James Kondo, William W. Lewis, Vincent Palmade, and Yoshinori Yokoyama, "Reviving Japan's economy," *The McKinsey Quarterly*, 2000 special edition: Asia revalued, pp. 19–37 (www.mckinseyquarterly.com/links/17354).

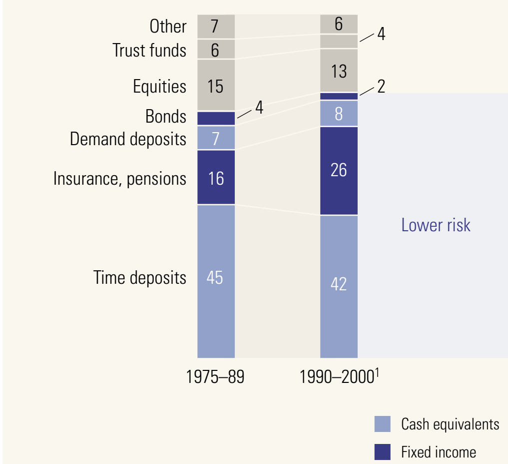
[6] We cross-checked our microeconomic approach using a macroeconomic analysis of trend growth, or "potential GDP," which we estimated by projecting the growth of the capital stock (driven by new investment), the labor force, and total factor productivity. Our assumption was that the growth of productivity and capital intensity (the amount of physical capital used to produce a unit of output) would follow historical trends. Labor force projections came from the government of Japan. For a complete discussion, see the technical note to the full report, *Why the Japanese Economy Is Not Growing*, available free of charge at www.mckinsey.com/mgi/publications/japan.

[7] For more detail, see M. James Kondo, William W. Lewis, Vincent Palmade, and Yoshinori Yokoyama, "Reviving Japan's economy," *The McKinsey Quarterly*, 2000 special edition: Asia revalued, pp. 19–37 (www.mckinseyquarterly.com/links/17354).

EXHIBIT 5

Overly risk averse?

Average share of household assets in Japan (real)



[1]Figures do not sum to 100%, because of rounding.

Source: Bank of Japan; Economic and Social Research Institute (ESRI), Japan; McKinsey analysis

they do in the United Kingdom or the United States. Still, the consolidation and government bailouts of recent years have helped Japanese banks reduce their mountain of bad debt. To further improve financial intermediation, policy makers must increase competition and encourage innovation in the financial sector and the broader economy, enhance legal protections for investors and creditors, and end preferential lending by banks to selected companies.

Japan's people also have a role to play. After being burned by the stock market and real-estate crashes of 1990 and seeing negative equity returns since then, Japanese households have devoted a low share of their financial assets to equities and bonds (Exhibit 5). The share of household assets in low-yielding deposit accounts is 52 percent, compared with only 15 percent in the United States. And of the bank deposits held in Japan, 22 percent are in the postal system, which for many years offered negative rates of return after adjustments for inflation (although near-zero inflation and bouts of deflation in the past five years have created positive real returns).

If productivity rises throughout the economy, thus lifting returns, Japan's households may benefit by moving their money into riskier asset classes. In recent years, corporations there have begun raising dividend payouts, albeit in response to takeover threats. The diversification of household financial assets is an important means of increasing the efficiency of capital allocation. To promote a better allocation of assets, policy makers should increase the amount that can be invested in tax-deferred and tax-advantaged accounts, improve investor education, and create incentives for well-diversified portfolios.

Japan's rapidly aging population and low investment returns are driving a decline in savings and wealth that will dramatically reduce the capital available to fuel the economy. As a result, living standards will fall and growth will slow just as Japan tries to pull itself out of its long economic malaise. These trends could also cause a fundamental restructuring of global capital flows as the United States and other countries find it more difficult to finance their massive deficits with foreign savings. But if Japan starts to work on the difficult challenges now, it can take some of the sting out of aging. Q

Diana Farrell is director of the McKinsey Global Institute, where **Ezra Greenberg** is a consultant.