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How the growth of emerging markets will strain global finance

Surging demand for capital, led by developing economies, could put upward pressure on interest rates and crowd out some investment.

Richard Dobbs, Susan Lund, and Andreas Schreiner

Short-term doldrums aside, the world's corporations would seem to be in a strong position to grow as the global economy recovers. They enjoy healthy cash balances, with $3.8 trillion in cash holdings at the end of 2009, and they have access to cheap capital, with real long-term interest rates languishing near 1.5 percent. Indeed, as developing economies continue to pick up the pace of urbanization, the prognosis for companies that can tap into that growth over the next decade looks promising.

Yet all those new roads, ports, water and power systems, and other kinds of public infrastructure—and the many companies building new plants and buying machinery—may put unexpected strains on the global financial system. The McKinsey Global Institute's (MGI) recent analysis finds that by 2030, the world's supply of capital—that is, its willingness to save—will fall short of its demand for capital, or the desired level of investment needed to finance all those projects.[1] Indeed, household saving rates have generally declined in mature economies for nearly three decades, and an aging population seems unlikely to reverse that trend. China's efforts to rebalance its economy toward increased consumption will reduce global saving as well.

The gap between the world's supply of, and demand for, capital to invest could put upward pressure on real interest rates, crowd out some investment, and potentially act as a drag on growth. Moreover, as patterns of global saving and investment shift, capital flows between countries will likely change course, requiring new channels of financial intermediation and policy intervention. These findings have important implications for business executives, investors, government policy makers, and financial institutions alike.

Surging demand for capital

Several economic periods in history have required massive investment in physical assets such as infrastructure, factories, and housing.[2] These eras include the industrial revolution and the post–World War II reconstruction of Europe and Japan. We are now at the beginning of another investment boom, this time fueled by rapid growth in emerging markets.

Across Africa, Asia, and Latin America, the demand for new homes, transport systems, water systems, factories, offices, hospitals, schools, and shopping centers has already caused investment to jump. The global investment rate increased from a recent low of 20.8 percent of GDP in 2002 to 23.7 percent in 2008 but then dipped again during the global recession of 2009. The increase from 2002 through 2008 resulted primarily from the very high investment rates in China and India but reflected higher rates in other emerging

[1] See the McKinsey Global Institute report *Farewell to cheap capital? The implications of long-term shifts in global investment and saving*, available on the McKinsey & Company Web site, where you may also download the report as an eBook (both ePub and Amazon Kindle formats offered).

[2] Throughout this article, "investment" refers to investment in physical assets but not to investment in stocks, bonds, or other financial assets. "Savings" refers to after-tax income minus consumption, so any type of borrowing that increases consumption also reduces savings.

markets as well. Considering the very low levels of physical-capital stock these economies have accumulated, our analysis suggests that high investment rates could continue for decades.

In several scenarios of economic growth, we project that global investment demand could exceed 25 percent of GDP by 2030. To support growth in line with the forecasters' consensus, global investment will amount to $24 trillion in 2030, compared with about $11 trillion in 2008[3] (Exhibit 1). When we examine alternative growth scenarios, we find that investment will still increase from current levels, though less so in the event of slower global GDP growth.

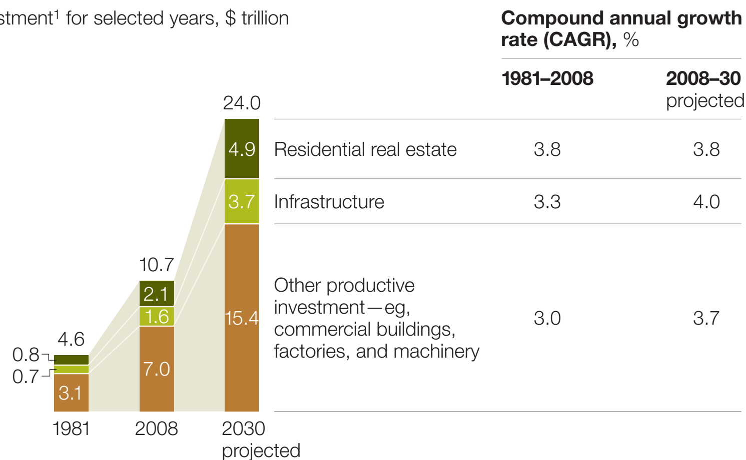
The mix of global investment will shift as emerging-market economies grow. When mature economies invest, they are largely upgrading their capital stock: factories replace old machinery with more efficient equipment, and people make home improvements. But the coming investment boom will involve relatively more investment in infrastructure and residential real estate. Consider the fact that emerging economies already invest in infrastructure at a rate more than two times higher than that of mature economies (5.7 percent of GDP versus 2.8 percent, respectively, in 2008). The gap exists in all categories of

[3]At constant 2005 prices and exchange rates. The consensus GDP forecast is an average of forecasts by the Economist Intelligence Unit, Global Insight, and Oxford Economics.

Exhibit 1

In 2030, global demand for investment is expected to reach $24 trillion.

Global investment[1] for selected years, $ trillion



[1]At constant 2005 prices and exchange rates; forecast assumes price of capital goods increases at same rate as other goods and assumes no change in inventory.

Source: Economist Intelligence Unit; Global Insight; Oxford Economics; World Development Indicators, World Bank; McKinsey Global Institute analysis

infrastructure but is particularly large in transportation (for instance, roads, airports, and railways), followed by power and water systems. We project global investment demand of about $4 trillion in infrastructure and $5 trillion in residential real estate in 2030, if the global economy grows in line with the consensus of forecasters.

A decline in savings

The capital needed to finance this investment comes from the world's savings. Over the three decades or so ending in 2002, the global saving rate (saving as a share of GDP) fell, driven mainly by a sharp decline in household saving in mature countries. The global rate has increased since then, from 20.5 percent of GDP in 2002 to 24 percent in 2008, as household saving rebounded in mature economies and many of the developing countries with the highest rates—particularly China—have come to account for a growing share of world GDP. Our analysis suggests, however, that the global saving rate is not likely to rise in the decades ahead, as a result of several structural shifts in the world economy.

First, China's saving rate will probably decline as it rebalances its economy so that domestic consumption plays a greater role. In 2008, China surpassed the United States as the world's largest saver, with the national saving rate reaching over 50 percent of GDP. But if China follows the historical experience of other countries, its saving rate will decline over time as the country grows richer, as happened in Japan, South Korea, Taiwan, and other economies (Exhibit 2). It is unclear when this process will begin, but already the country's leaders have started to adopt policies that will increase consumption and reduce saving.[4] If China succeeds at increasing consumption, it would reduce the 2030 global saving rate by around two percentage points compared with 2007 levels—or about $2 trillion less than China would have accumulated by 2030 at current rates.

Moreover, expenditures related to aging populations will increasingly reduce global saving. By 2030, the proportion of the population over the age of 60 will reach record levels around the world. The cost of providing health care, pensions, and other services will rise along with the ranks of the elderly. Recent research suggests that spending for the retired could increase by about 3.5 percentage points of global GDP by 2030.[5] All of this additional consumption will lower global saving, either through larger government deficits or lower household and corporate saving.

Skeptics may point out that households in the United States and the United Kingdom have been saving at higher rates since the 2008 financial crisis, especially through paying down debt. In the United States, household saving rose to 6.6 percent of GDP in

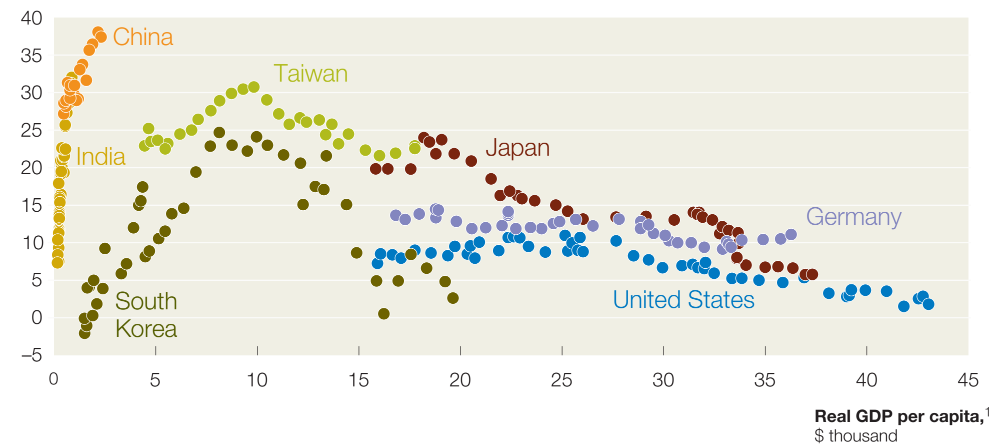
[4] Officials of China's government have said publicly that increasing consumption, and hence reducing the current-account surplus, will be a goal in the 12th five-year plan. See also the MGI report *If you've got it, spend it*: *Unleashing the Chinese consumer*, available free of charge on mckinsey.com/mgi.

[5] See *Fiscal Monitor: Navigating the Fiscal Challenges Ahead*, International Monetary Fund (IMF), Fiscal Affairs Department, 2010; and *Global Aging 2010: An Irreversible Truth,* Standard & Poor's, 2010.

Exhibit 2

Historically, as countries grow wealthier their household saving rates decline.

Household saving rate and GDP per capita for selected countries, 1960–2008



[1] At constant 2005 prices and exchange rates.

Source: Bank of Japan, Bank of Korea; Directorate-General Budget Accounting and Statistics, Republic of China; Global Insight; Reserve Bank of India; World Development Indicators, World Bank; US Bureau of Economic Analysis; McKinsey Global Institute analysis

the second quarter of 2010, from 2.8 percent in the third quarter of 2005. In the United Kingdom, saving rose from 1.4 percent of GDP in 2007 to 4.5 percent in the first half of 2010. But even if these rates persist for two decades, they would increase the global saving rate by just one percentage point in 2030—not enough to offset the impact of increased consumption in China and of aging.

Together, these trends mean that if the consensus forecasts of GDP growth are borne out, the global supply of savings will be around 23 percent of GDP by 2030, falling short of global investment demand by $2.4 trillion. This gap could slow global GDP growth by around one percentage point a year. What's more, sensitivity analysis of several scenarios suggests that a similar gap occurs even if China's and India's GDP growth slows, the world economy recovers more slowly than expected from the global financial crisis, or other plausible possibilities transpire, such as exchange-rate appreciation in emerging markets or significant global investment to combat and adapt to climate change (Exhibit 3).

Implications

Our analysis has important implications for both business leaders and policy makers. Businesses and investors will have to adapt to a new era in which capital costs are higher and emerging markets account for most of the world's saving and investment.

Governments will play a vital role in setting the rules and creating the conditions that could facilitate this transition.

Higher capital costs

Nominal and real interest rates are currently at 30-year lows, but both are likely to rise in coming years. If real long-term interest rates returned to their 40-year average, they would rise by about 150 basis points from the level seen in the autumn of 2010. The growing imbalance between the supply of savings and the demand for investment capital will be significant by 2020. However, real long-term rates—such as the real yield on a ten-year bond—could start rising even within the next five years as investors anticipate this structural shift. Furthermore, the move upward isn't likely to be a one-time adjustment, since the projected gap between the demand for and the supply of capital widens continuously from 2020 through 2030.

Capital costs could easily go even higher. Real interest rates can also include a risk premium to compensate investors for the possibility that inflation might increase more than expected. History shows that real interest rates rise when investors worry about the possibility of unexpected spikes in inflation. Today, investors are beginning to anticipate higher inflation resulting from expansive monetary policies that major governments have pursued.

Finally, as the recent crisis demonstrated, short-term capital isn't always available in a capital-constrained world. Companies should seek more stable (though also more expensive) sources of funding, reversing the trend toward the increasing use of short-term debt over the past two decades. The portion of all debt issued for maturities of less than one year rose from 23 percent in the first half of the 1990s to 47 percent in the second half

Exhibit 3

Even if investment demand slows, the supply of savings still falls short.

Global investment demand and saving rate as % of global GDP

	2030 scenarios		
	Consensus global growth	Slower long-term growth in China and India	Weak global recovery
Global demand for investment	25.1	23.7	23.6
Global saving rate	22.6	21.3	22.7
2030 savings shortfall	$2.4 trillion	$2.2 trillion	$0.8 trillion

Source: Economist Intelligence Unit; Global Insight; Oxford Economics; World Development Indicators, World Bank; McKinsey Global Institute analysis

of the 2000s. Financing long-term corporate investments through short-term funding will be riskier in the new world, compared with financing through equity and longer-term funding. To better align incentives, boards should revisit some of their inadvertent debt-oriented biases, such as using earnings per share (EPS) as a performance metric.

Changing business models

If capital costs increase, companies with higher capital productivity—greater output per dollar invested—will enjoy more strategic flexibility because they require less capital to finance their growth. Companies with direct and privileged sources of financing will also have a clear competitive advantage. Traditionally, this approach meant nurturing relationships with major financial institutions in financial hubs such as London, New York, and Tokyo. In the future, it might also mean building ties with additional sources of capital, such as sovereign-wealth funds, pension funds, and other financial institutions from countries with high saving rates.

Moreover, for companies whose business models rely on cheap capital, an increase in real long-term interest rates would significantly reduce their profitability, if not undermine their operations. The financing and leasing arms of consumer-durables companies, for example, would find it increasingly difficult to achieve the high returns of the recent past as the cost of funding increases. Companies whose sales depend on easily available consumer credit would find growth harder to achieve.

Shifting investor strategies

Investors will want to rethink some of their strategies as real long-term interest rates rise. In the short term, any increase in interest rates will mean losses for current bondholders. But over the longer term, higher real rates will enable investors to earn better returns from fixed-income investments than they have in the years of cheap capital. This change could shift some investment portfolios back to traditional fixed-income instruments and deposits and away from equities and alternative investments.

For pension funds, insurers, endowments, and other institutional investors with multidecade liabilities, the world's growing infrastructure investment could be an attractive opportunity. Many of these institutions, however, will need to improve their governance and incentive structures, reducing pressure to meet quarterly or annual performance benchmarks based on mark-to-market accounting and allowing managers to focus on longer-term returns. This change would be required as institutions come to manage portfolios with a growing proportion of less liquid, long-term investments, since volatility in market prices may reflect market liquidity conditions rather than an investment's intrinsic, long-term value.[6]

[6]See the comments of Blackstone cofounder Stephen Schwarzman on mark-to-market accounting during the Seoul G20 Business Summit: Sewell Chan, "Schwarzman takes on an old foe: Accounting rules," *New York Times*, November 11, 2010.

Emerging markets, though they may present attractive opportunities, also pose many risks and complexities, and returns could vary significantly across countries. As incomes in emerging markets rise and capital markets develop, nonfinancial businesses can expect healthy growth from investing in both physical and financial assets. Returns to financial investors are less certain, however, particularly in countries with low returns on capital or savings trapped in domestic markets by capital controls or a "home bias" among domestic savers and investors.[7] These countries will remain susceptible to bubbles in equity, real-estate, and other asset markets, with valuations exceeding intrinsic levels. Foreign investors will need to assess valuations carefully before committing their capital. They will also have to take a long-term perspective, since volatility in these bubble-prone markets may remain higher than it is in the developed world.

A call for government action

Governments will need to encourage the flow of capital from the world's savers to places where it can be invested in productive ways while minimizing the risks inherent in closely intertwined global capital markets. Governments in countries with mature markets should encourage more saving and domestic investment, rebalancing their economies so they depend less on consumption to fuel growth. Policy makers in these countries, particularly the United Kingdom and the United States, should start by putting in place mechanisms to sustain recent increases in household saving. They could, for instance, implement policies that encourage workers to increase their contributions to saving plans, enroll in pension plans, and work longer than the current retirement age. Further, governments can themselves contribute to gross national savings by cutting expenditures.

To replace consumption as an engine of economic growth, governments in these countries also should adopt measures aimed at boosting domestic investment. They could, for example, provide accelerated tax depreciation for corporations, as well as greater clarity on carbon pricing—the current uncertainty is holding back clean-tech investment. They should also address their own infrastructure-investment backlog, although this could require them to revise government accounting methods that treat investment and consumption in the same way.

In emerging economies, governments should promote the continued development of deep and stable financial markets that can effectively gather national savings and channel funds to the most productive investments. Today, the financial systems in emerging markets generally have a limited capacity to allocate savings to users of capital. We see this in these countries' low level of financial depth—or the value of domestic equities, bonds, and bank

[7]The home bias is the tendency of individuals to hold too little of their wealth in foreign assets to achieve the full benefits of portfolio diversification. See, for instance, Karen Lewis, "Trying to explain home bias in equities and consumption," *Journal of Economic Literature*, 1999, Volume 37, Number 2, pp. 571–608; Harald Hau and Helene Rey, "Home bias at the fund level," *American Economic Review*, 2008, Volume 98, Number 2, pp. 333–38; and Kiichi Tokuoka, "The outlook for financing Japan's public debt," International Monetary Fund (IMF) working paper, 10/19, January 2010.

Related thinking

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deposits as a percentage of GDP.[8] Policy makers should also create incentives to extend banking and other financial services to the entire population.

At the same time, policy makers around the world should create the conditions to promote long-term funding and avoid financial-protectionist measures that obstruct the flow of capital. This will require removing constraints on cross-border investing, whether through restrictions on pension funds and other investors or on capital accounts. Policy makers must also create the governance and incentives that enable managers of investment funds with long-term liabilities, such as pension funds, insurance companies, and sovereign-wealth funds, to focus on long-term returns and not on quarterly results that reflect market movements and can deviate from long-term valuations.

At this writing, global investment already appears to be rebounding from the 2009 recession. The outlook for global saving is less certain. A climate of costlier credit will test the entire global economy and could dampen future growth. The challenge for leaders will be to address the current economic malaise and simultaneously create the conditions for robust long-term growth for years to come.

[8] See the MGI report *Global capital markets: Entering a new era*, available free of charge on mckinsey.com/mgi.

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Richard Dobbs is a director of the McKinsey Global Institute (MGI) and a partner in McKinsey's Seoul office, **Susan Lund** is director of research at MGI, and **Andreas Schreiner** is a consultant in the New York office. This article is adapted from *Farewell to cheap capital? The implications of long-term shifts in global investment and saving*, available on the McKinsey & Company Web site, where you may also download the report as an eBook (both ePub and Amazon Kindle formats offered). Copyright © 2010 McKinsey & Company. All rights reserved.