

One of the prerequisites for putting India on a high growth path is a substantial rise in domestic saving. This will require tighter fiscal policies and strong structural reforms, including liberalization of financial markets.

HE DOUBLE task of alleviating poverty and keeping up with fast-growing Asian neighbors prompted the Indian government to announce a target of 7 percent or more for annual GDP growth over the next 10 years. A key question is whether India will be able to finance the investment necessary to reach this target through increased domestic saving and avoid a much greater recourse to foreign saving with its associated risks on the external front.

A strategy to improve India's saving performance needs to take account of recent insights in the saving literature. Over the past few years, several studies of saving in developing countries have found that tax and interest rate incentives have

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been largely ineffective. Moreover, empirical studies suggest that higher growth generally tends to precede higher saving. In light of this evidence, it may be more effective to increase domestic saving by raising public saving and implementing a strong structural reform program, including financial liberalization.

## Measuring saving

India's saving rate is relatively high, compared with that of other countries. It has shown an uneven upward trend over the past four decades (Chart 1), and there have been considerable changes in its composition. Historically, domestic saving has

been dominated by household saving in physical assets. However, the recent increase in saving has been driven mainly by financial household saving, partly reflecting a continuing expansion of financial institutions' branch networks into rural areas and, more recently, the increasing availability of alternative investment opportunities. Private corporate saving has also shown a steady increase over the last twenty years, although it remains below 5 percent of GDP. Public saving weakened in the early 1990s to reach a low of 0.5 percent of GDP in 1993/94, a significant reduction compared with the levels of 4-5 percent of GDP seen in the early 1980s.

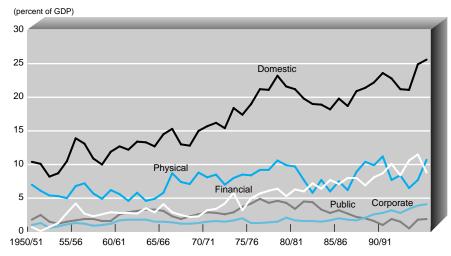


Chart 1 Components of domestic saving in India

Source: India's National Accounts.

*Measurement problems.* The interpretation of Indian saving trends is complicated by a number of weaknesses in the Central Statistical Office's (CSO) methodology for measuring both investment and saving. The most important shortcomings are:

• The estimate for physical household saving is set equal to household investment, which itself is calculated only indirectly as a residual. Not surprisingly, measured physical household saving has been highly volatile.

• There are errors and omissions in the estimates of both savings and investment, but adjustments are made only to investment. The CSO thinks the saving estimate is more reliable (based on the greater accuracy of public, financial, and corporate saving data) and therefore adjusts investment to equal the sum of domestic and foreign saving.

• The commodity flow method used to estimate total investment—based on fixed production coefficients—has remained unchanged for decades. While it might still be useful for comparing investment in adjacent years, new technologies and the growing amount of investment in the informal sector are not adequately reflected in the estimates.

• The estimates of corporate saving and investment are based on a small, unrepresentative sample, and rely largely on voluntary responses from enterprises.

• Finally, the CSO estimates do not cover some assets preferred by households, namely jewelry and gold. Household saving in gold probably increased after import restrictions were liberalized in 1992, implying an increase in the underestimation of saving.

What can be said about underlying saving trends in the face of these problems? We have tried to generate alternative estimates of saving in two ways:

• First, reversing the present CSO practice, we adjusted domestic saving to include errors and omissions, so that the sum of adjusted domestic saving and foreign saving equals the original investment estimate. This yields a much smoother, more plausible path for domestic saving (Chart 2).

• The second approach is based on an alternative estimate of physical saving, the weakest component in the CSO's methodology. Assuming that physical saving is negatively related to financial saving, we estimated physical saving using an econometric regression on financial saving and a time trend to obtain a second path for domestic saving.

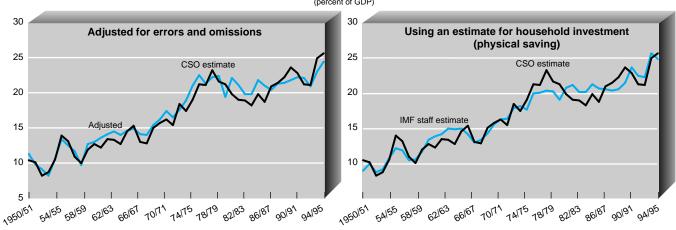
Although these two alternative saving measures differ in some respects, they both suggest that the recent fluctuations in domestic saving may have been exaggerated. Both measures show that the saving rate was fairly constant for most of the 1980s, before it picked up in the early-to-mid-1990s.

Sufficient savings? Econometric regression analysis suggests that private saving is likely to continue to increase—albeit gradually—over the coming years, driven by rising per capita income and continued financial deepening. In addition, a lower share of agriculture in the economy and an increase in the age dependency ratio would tend to increase private saving. Taking into account likely developments in public saving, this would result in a saving rate of about 28 percent of GDP after 2000. But this is not likely to be enough to finance the investment needed to reach the government's growth objective. Even assuming some improvement in investment efficiency (in the absence of reliable employment and capital stock data, there are no estimates of total factor productivity growth), the growth target implies that the investment rate would need to increase to well above 30 percent, which—even with higher recourse to foreign saving—would require a domestic saving rate of around 30 percent by the turn of the century. If the growth target is to be achieved, stronger action on both the public and private saving fronts is called for.

### Strategy for higher saving

While higher domestic saving is needed to finance faster growth, policies aimed directly at mobilizing saving are not necessarily the best instrument to achieve this target. In the case of India, it has been argued that growth has suffered less from a low saving rate than from inefficient investment, in part because of the dominant role of the public sector in the economy.

There is also a growing literature that, based on cross-country studies, has found little evidence that policy efforts to boost saving have been very effective. This research suggests that the main policy focus should be on initiating a virtuous growth-saving circle by fostering growth through fiscal consolidation and strong structural reforms, including privatization and financial liberalization. Under such a strategy, initially, growth would need to be financed mainly through higher public saving. Private saving, which eventually would have to provide the bulk of additional investment financing, would follow with a lag, responding to higher growth. Financial liberalization-in particular, reform of



#### Chart 2 Alternative estimates of saving in India (percent of GDP)

Source: India, Central Statistical Office (CSO), and IMF staff calculations.

long-term saving instruments—would help to ensure that private saving was efficiently allocated.

The case for an indirect approach to higher private saving is supported by recent findings that traditional saving policy instruments—like higher interest rates or special tax incentives—fail to raise the private saving rate in the long run. Although these results were established mainly for industrial countries, they are likely to apply just as forcefully in developing countries. For example, Ogaki, Ostry, and Reinhart (1996) have found that the responsiveness of private saving to changes in real interest rates is less at lower levels of per capita income, as a

higher share of income must be devoted to subsistence consumption. They estimated that the response of saving to changes in interest rates in India was among the lowest in the developing world. Moreover, Chelliah (1996) and others have pointed out that most Indian households do not

pay income tax, either because their income is too low or because they fail to report to the tax authorities. Changes in the tax regime would therefore affect only a small part of the population, and would be unlikely to significantly alter overall saving behavior.

**Public saving.** Studies suggest that the most direct way to raise domestic saving is by generating higher public saving. However, India has seen a steady decline in public saving over the past two decades, both at the central and state government levels. This trend has been partly reversed since 1993/94, but further strong efforts would be needed to restore public saving to the level of the early 1980s. Such efforts would need to involve a series of actions in the areas of tax policy, expenditure management, center-state relations, and public enterprise reform.

To some extent, higher public saving may be offset by lower private saving. However, judging from an estimated longrun relationship between private and public saving, the offset factor for India could be as low as 25 to 30 percent. Nevertheless, in the short run, the trade-off could be somewhat larger, as fiscal consolidation would have to be achieved partly through higher taxation.

*Incentives for private saving.* While instruments to directly raise private saving have proven largely ineffective, structural reform measures could have a large impact on growth and, indirectly, on private saving, mainly by improving the efficiency of resource allocation and raising total factor productivity growth. Broadly, the reform agenda for India would include public enterprise restructuring and privatization; increased private involvement in infrastructure; agricultural reform; labor market reforms and exit policies; lifting of privileges for smaller enterprises; and, especially, financial reform.

The impact of financial sector reform could be large. In India, the link between low growth and the inefficient allocation of saving has become increasingly relevant, particularly in infrastructure. Although overall investment has increased in recent years, investment in infrastructure has

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declined, and worsening infrastructure conditions have become a major obstacle to growth. The Mohan Committee on infrastructure development recently concluded that the lack of long-term financing was a substantial hindrance to such investment, and listed the development of domestic debt markets and the effective use of longterm saving among the highest reform priorities.

Consequently, efforts to raise private saving should focus on financial liberalization, particularly on the development of longterm saving instruments, such as pensions, life insurance, and mutual funds. While providing an attractive investment vehicle for individual savers, their main role would be to improve the allocation of savings, ensuring that funds would flow to the most productive investment projects, thus generating the highest rate of growth for a given amount of investment. As a result, the virtuous growth-saving circle would become more dynamic, and savings could accumulate faster.

## Long-term instruments

In India, unlike other countries, the share of major instruments for long-term household saving—pension and life insurance in gross financial saving has stagnated over the past 30 years. By contrast, mutual funds had growing success through the early 1990s, particularly after the sector was opened to competition from the private sector. However, they have also experienced considerable problems in recent years. These developments reflect two fundamental weaknesses:

• The markets are dominated by the public sector. The three largest institutional investors in India—the Life Insurance Corporation of India (LIC), the Unit Trust of India (UTI), and the Employees' Provident Fund (EPF)—account for about a third of total financial saving. These public sector institutions face little competition. In the pension and life insurance sectors, the EPF and the LIC hold a near monopoly, while the UTI still accounts for more than 80 percent of the mutual fund business.

• Portfolio allocation is heavily regulated, resulting in comparatively low re-

turns and little flexibility to react to market developments.

Owing to these weaknesses, long-term saving markets have failed to attract investors at a time when more lucrative alternatives have emerged in other markets, particularly as interest rates on bank deposits and cor-

porate paper have increased. A sustained increase in long-term saving would require giving market participants greater flexibility in portfolio allocation, while greater private sector involvement would help to boost competition and more innovative product development. The government has taken preliminary steps in this direction, but a stronger reform impetus is still required in some areas.

**Provident funds.** The Indian provident fund system—consisting of the EPF and a number of smaller provident funds —provides fully funded defined-contribution retirement schemes for about 8 percent of the labor force. Those not covered under these schemes—over 90 percent of the population—rely mainly on extended family networks and informal saving arrangements for old-age security. The entire portfolios of provident funds are invested in government or quasi-government securities and special deposit schemes.

The funds have been a sizable factor in the financing of the public sector deficit; however, their investment yields have been relatively low. The average real rate of return was below 1 percent in the 1980s and only slightly higher—1.5 percent—in 1994/95. These returns are too low to generate a sizable accumulation of pension assets during a lifetime, and they also encourage withdrawal of funds when allowed under certain defined circumstances.

The government has begun to respond to these problems. Mutual funds have been

allowed to offer pension plans-although they are still subject to provident fund portfolio allocation rules-and the recent introduction of an LIC pension plan was directed mainly at workers in the informal sector who had no access to the system before. Moreover, the government has recently changed the investment schedule for private pension funds, increasing the ceiling for investment in debt instruments issued by the public financial institutions to 40 percent, and lowering the ceiling on special deposit schemes that earn a lower rate of return. As a result, the return on investment could increase by up to 2-3 percentage points.

The Indian provident fund system could be reformed to follow the examples of countries like Chile that have successfully raised their saving rates through pension and financial market reforms. Key aspects of reforms would involve providing an increased role for private pension fund management and substantially liberalizing portfolio allocation rules, with an appropriate regulatory structure to ensure prudent investment allocation.

*Life insurance.* The life insurance sector was nationalized and consolidated into the LIC in 1956, jointly with the general insurance sector. Since then, the LIC has been a monopoly operator, charged with the tasks of making life insurance available throughout the country, particularly in rural areas, and mobilizing savings by providing attractive insurance products. On the first count, LIC has been fairly successful. Having built up a large regional distribution network comprising some 2,000 branches, rural areas now account for over 40 percent of new policies. However, the Indian insurance market, with an estimated \$5 in annual premiums paid per capita, has not made a significant contribution to savings mobilization.

Like other long-term saving instruments, life insurance has experienced a relative decline recently, mainly owing to the comparatively low interest rate paid on life insurance funds. The LIC is subject to similar, although somewhat less restrictive portfolio allocation constraints as pension funds. Some 75 percent of annual portfolio investments must be allocated to government securities or socially oriented purposes, while the remaining 25 percent can be invested in private sector debt. The average vield has remained low, reaching only 1-2 percent in the early 1990s. In addition, high administrative costs, related to high staffing levels and insufficient computerization, have dampened profitability.

Based on far-reaching recommendations by the Malhotra Committee, the government has been considering plans to open the insurance sector to private competitors, including those from abroad, within the next four years. So far, an Insurance Regulation Authority has been set up to establish rules for the broader market structure. In order to prevent private competitors from focusing exclusively on profitable, specialized (urban) markets, the Malhotra Committee recommended that new entrants be obliged to cover to some extent rural sectors and to contribute to the financing of socially oriented projects. It also recommended strengthening the LIC's competitiveness by lowering the current mandatory investment norm to a level that allowed portfolio allocation more in line with international levels.

*Mutual funds.* When the mutual funds industry was liberalized in 1992, the UTI had held a monopoly in the market for almost 30 years. Indian retail investors (some 24 million shareholders) had been accustomed to guaranteed high returns on their UTI investments. This good record, combined with aggressive marketing by new entrants, led to expectations of high profits by investors who began to invest strongly in the new private mutual funds. However, they were generally unprepared for the risks they were taking after liberalization.

The net asset value of mutual funds declined when stock prices began to fall in 1992. The situation was exacerbated because existing market regulations did not allow portfolio shifts into alternative investments, leaving funds with no choice but to hold cash or continue investing in shares. Moreover, since only closed-end funds had been introduced in the market. investors who wanted to disinvest had to sell their holdings at a loss in the secondary market. These losses, the after-shocks of the 1992 stock market scandal, and the lack of transparent rules rocked confidence in shares and mutual funds. Partly owing to a relatively weak stock market performance, mutual funds have not yet recovered, with funds trading at an average discount of 10–20 percent of their net asset value.

The stock market supervisory authority has recently adopted a set of measures creating a transparent and competitive environment for mutual funds. These include relaxing investment restrictions into money market and debt instruments, listing openended funds, and permitting mutual funds to launch pension schemes. In response to these changes, the UTI is to be reorganized internally into a number of separate, competing units, and foreign banks have again begun to launch new funds. The intention is that mutual funds could become the key instrument for long-term saving, offering a variety of investments ranging from pure equity funds to pension plans.

These measures should help to increase public confidence in the stock market. Nevertheless, the key to a revival of investor interest would be a solid recovery of Indian stock markets—something that depends to a large extent on government policies. As long as public financing needs continue to keep real interest rates high, both lower enterprise profitability and the higher attractiveness of competing investment alternatives will have a negative impact on Indian stocks.

## Looking to the future

How should India raise its domestic saving rate? Traditional tax and interest rate incentives are unlikely to lead to a strong response of the private saving rate. Instead, the most promising way to boost domestic saving is through increased public saving and a strong structural reform program, including financial liberalization, which would initiate a virtuous circle in which higher growth would prompt further increases in private saving. With a view to increasing the efficiency of savings allocation and financing the heavy infrastructure needs of the Indian economy, particular attention should be paid to long-term saving instruments.

A sustained increase in long-term saving would require two major policy changes. First, the government would need to sharply reduce its recourse to captive financing from pension funds and the LIC, thus giving market participants greater flexibility in their portfolio allocation. At the same time, greater private sector involvement would be required to help boost competition and more innovative product development, which would make saving instruments more remunerative and thus attractive to individual investors. FED

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