Growth and investment: the interlinks

Speedy completion of projects is the short-term answer, but long-term growth can only happen with higher savings

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A review of India's saving and investment behaviour over the last decade provides some interesting insights on the growth performance over this period.

Growth performance falls into two distinct periods, marked by high growth over the first eight-year period followed by a sudden and sharp decline in the last two years.

India's annual growth rate over the eight-year period beginning 2004-05 was 8.2 per cent. The average for the next two years was 4.6 per cent.

The difference in performance is even more striking in relation to manufacturing. The average annual growth rate in manufacturing in the first eight years was a little over 9 per cent. In the last two years, growth was negligible at an average rate of 0.2 per cent (Table 1).

How much of this difference in growth performance is explained by changes in the levels of saving and investment?

Behaviour of saving

Detailed data on saving are available only up to 2012-13. Domestic saving rate rose from 32.4 per cent of GDP in 2004-05 to reach a peak of 36.8 per cent in 2007-08 (Table 2).

Thereafter, it started declining and touched a low of 30.1 per cent in 2012-13. During the later period, there was a perceptible decline in the saving of the public sector.

It fell from 5.0 per cent of GDP to 1.2 per cent. Within public sector, saving of government administration fell from 0.5 per cent in 2007-08 to (-)1.9 per cent in 2012-13. This was a period marked by high revenue deficit.

The saving of the private corporate sector fell from 9.4 per cent to 7.1 per cent.

However, the saving of the household sector showed only a minor change declining from 22.4 per cent in 2007-08 to 21.9 per cent in 2012-13. But the composition of household sector saving underwent a big change.

Saving in financial assets declined from 11.6 per cent to 7.1 per cent while saving in physical assets increased from 10.8 per cent to 14.8 per cent. Thus, while in the first four years beginning 2004-05, the saving rate rose sharply, subsequently it started declining particularly because of a sharp decline in public sector and corporate saving.

However, it needs to be borne in mind even after such a decline the saving rate in 2012-13 was high. If the investment is the driver of growth, saving provide the wherewithal for the creation of investment. That is why saving plays a crucial role in the growth process particularly in a developing economy.

Behaviour of investment

Gross capital formation which is the technical term used for investment comprises of three elements, Gross Fixed Capital Formation, Change in Stocks and Valuables.

The gross capital formation rate after reaching a peak of 38 per cent in 2007-08 declined to 34.7 per cent in 2012-13 (Table 3).

The decline in investment rate during the period is less than the decline in the saving rate because of the rise in the current account deficit which amounts to net inflow of resource from abroad.

Focusing our attention on gross fixed capital formation rate, it rose from 28.7 per cent of GDP in 2004-05 to 32.9 per cent in 2007-08 and then declined to 30.4 per cent in 2012-13.

The public sector gross fixed capital formation rose from 6.9 per cent in 2004-05 to reach a peak of 8.0 per cent in 2007-08 and it stood at 7.8 per cent in 2012-13. This decline was negligible.

The household sector investment continued to rise throughout the period. In fact the peak was reached in 2011-12 at 15.2 per cent. In 2012-13, it stood at 14.1 per cent.

However, the private corporate sector investment rate rose from 9.1 per cent in 2004-05 and reached a peak of 14.3 per cent in 2007-08 and thereafter declined sharply to 8.5 per cent in 2012-13.

Thus through the decade, public sector investment rate and household sector investment rate remained unchanged at a high level. It was only the corporate sector investment which traced a path similar to growth performance of rising sharply in the first four years and thereafter declining slowly but falling very steeply in 2012-13.

While the ratio of gross fixed capital formation to GDP varied in a narrow range from 2007-08 onwards, the growth rate of fixed capital investment in constant prices showed a sharp decline in the last two years (Table 4).

Two things stand out from the analysis of investment behaviour.

First, fixed investment rate by the corporate sector which is most productive, declined sharply in the latter period.

The decline from the peak was as high as 5.8 per cent. Second, the decline in the overall gross fixed investment rate was modest.

From the peak, it fell only by 2.5 per cent. In 2012-13, the rate stood at 30.4 per cent (While detailed data are not available, the overall rate is estimated to have declined further to 28.4 per cent in 2013-14.)

The decline in the growth rate is much sharper than the decline in the investment ratio which calls for a different explanation for the growth slowdown other than the fact of a decline in investment rate.

The way forward

The sharp decline in corporate investment rate has attracted much attention. The decline has been attributed to many factors.

The weakening of investment sentiment is traced to certain policy decisions and more particularly to the one relating to the retrospective application of tax changes.

This particular decision has weighed heavily on the corporate sector. Strong efforts are needed to allay unnecessary fears.

Rebuilding confidence has to be an important part of policy. A second reason attributed is the tight monetary policy.

Given the high level of inflation, the monetary authorities had little choice. It is overlooked that in a period of declining ratio of household saving in financial assets, higher fiscal deficit automatically puts pressure on interest rate.

As inflation comes down, the monetary authorities may have greater room for relaxing.

A decline in the efficiency of the use of capital is evident. With an investment rate of around 30 per cent of GDP and an incremental capital output ratio of 4:1 which has been the observed ratio in the recent past, the growth rate should have been around 7.5 per cent.

On the other hand, the actual growth rate turned out to be below 5 per cent. Obviously, this implies a steep rise in the incremental capital-output ratio.

This may be because projects have not been completed in time or complementary investments have not been made.

A delay in the completion of projects will mean that output is not flowing even after significant amount of investment has been made on a project.

The delay in the generation of output out of investment made in one sector may also be caused by the lack of adequate investment in related or complementary sectors.

For example, an increase in capacity creation in the power sector must be matched by appropriate increases in investment in the coal sector. Inadequate output out of investments could also be due to non-availability of critical inputs.

Many power plants, for example, remain idle because of the non-availability of gas. An early completion of projects will also demand certain policy decisions.

Issues relating to environment and land acquisition have assumed greater urgency.

Obviously, we cannot ignore environmental concerns but we need to work out a suitable compromise between the compulsions of growth and concerns for environment.

The fact that even today saving and investment rates are at high levels despite having declined from a much higher level reassures us that if we are able to find ways to complete projects speedily, we shall be able to usher in rapid growth in income even in the short run. This should enable us to grow between 7 and 7.5 per cent in the short run.

However, only a return to higher levels of saving and investment can take us back to the growth rate of 9 per cent.

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Table 1

Growth in GDP at Factor Cost and its Components at 2004-05 prices (Percent per annum)

	Agriculture forestry & fishing	Mining & quarrying	Manufacturing	Construction	Electricity, gas, and water supply	Trade, hotels, storage, transport and communications	Finance, insurance, real estate & business	Community, social and personal services	GDP at factor cost
2004-05	0.18	7.9	7.4	16.3	7.9	9.7	8.7	4.9	7
2005-06	5.1	1.3	10.1	12.8	7.1	12.1	12.6	7.1	9.5
2006-07	4.2	7.5	14.3	10.3	9.3	11.6	14	2.8	9.6
2007-08	5.8	3.7	10.3	10.8	8.3	10.9	12	6.9	9.3
2008-09	0.1	2.1	4.3	5.3	4.6	7.5	12	12.5	6.7
2009-10	0.8	5.9	11.3	6.7	6.2	10.4	9.7	11.7	8.6
2010-11	8.6	6.5	8.9	5.7	5.3	12.2	10	4.2	8.9
2011-12	5	0.1	7.4	10.8	8.4	4.3	11.3	4.9	6.7
2012-13	1.4	-2.2	1.1	1.1	2.3	5.1	10.9	5.3	4.5
2013-14	4.7	-1.4	-0.7	1.6	5.9	3	12.9	5.6	4.7

Source (Basic data): National Income Accounts, CSO

Table 2

Domestic saving by type of institutions (at current prices) (% GDP)

Item	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
1 Household Sector	23.6	23.5	23.2	22.4	23.6	25.2	23.1	22.8	21.9
1.1 Financial saving	10.1	11.9	11.3	11.6	10.1	12.0	9.9	7.0	7.1
1.1.1 Gross financial saving	13.8	16.8	17.9	15.4	13.0	15.1	13.5	10.2	10.3
1.1.2 Financial liabilities	3.7	5.0	6.6	3.8	2.9	3.1	3.6	3.2	3.2
1.2 Saving in physical assets	13.4	11.7	11.9	10.8	13.5	13.2	13.2	15.8	14.8
2 Private Corporate Sector	6.6	7.5	7.9	9.4	7.4	8.4	8.0	7.3	7.1
2.1 Joint stock companies	6.0	7.0	7.4	8.9	7.0	7.9	7.6	6.9	6.7
2.1.1 Non-financial	5.9	6.7	7.7	9.0	7.4	8.2	7.9	7.0	6.8
2.1.2 Financial	0.4	0.6	0.3	0.5	0.3	0.3	0.4	0.3	0.4
2.1.3 Less: reinvested earnings of foreign companies	0.3	0.3	0.6	0.6	0.7	0.6	0.8	0.4	0.5
2.2 Cooperative banks & societies	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
3 Public Sector	2.3	2.4	3.6	5.0	1.0	0.2	2.6	1.2	1.2
3.1 Public authorities	- 1.8	-1.6	-0.5	1.1	-2.4	-2.7	-0.2	-1.7	-1.6
3.1.1 Government administration (including autonomous institutions)	-2.3	-2.1	-1.0	0.5	-2.8	-3.1	-0.5	-2.0	-1.9
3.1.2 Departmental (comm.) enterprises	0.5	0.5	0.6	0.6	0.4	0.4	0.3	0.3	0.3
3.2 Non-departmental enterprises	4.1	4.0	4.0	3.9	3.3	2.8	2.8	2.9	2.8
3.2.1 Government companies	2.5	2.3	2.3	2.0	1.6	1.6	1.4	1.3	NA
3.2.2 Statutory corporations (including port trusts)	1.7	1.7	1.7	1.9	1.7	1.2	1.4	1.7	NA
4 Gross Domestic Saving (1+2+3)	32.4	33.4	34.6	36.8	32	33.7	33.7	31.3	30.1

Table 3

Gross capital formation at current prices as a % to GDP

Item	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
1 Gross Fixed Capital Formation	28.7	30.3	31.3	32.9	32.3	31.7	30.9	31.8	30.4
1.1 Public sector	6.9	7.3	7.9	8	8.5	8.4	7.8	7.1	7.8
1.1.1 Construction	4.4	4.9	5.3	5.4	5.6	5.5	5.1	4.7	5.4
1.1.2 Machinery & equipment	2.5	2.4	2.6	2.7	2.9	2.9	2.7	2.4	2.4
1.2 Private corporate sector	9.1	11.8	12.5	14.3	10.3	10.2	10.4	9.4	8.5
1.2.1 Construction	2.3	3.6	3.8	4.3	2.2	2.5	2.9	2.7	2.4
1.2.2 Machinery & equipment	6.8	8.2	8.7	10	8.1	7.7	7.5	6.8	6
1.3 Household sector	12.7	11.2	10.9	10.6	13.5	13.2	12.7	15.2	14.1
1.3.1 Construction	9.1	8	8.2	8.5	10.3	9.8	9.1	10.4	9.7
1.3.2 Machinery & equipment	3.6	3.1	2.7	2.1	3.1	3.3	3.5	4.9	4.4
2 Change in Stocks	2.5	2.8	3.4	4	1.9	2.8	3.5	1.9	1.7
2.1 Public sector	0.5	0.6	0.4	0.8	0.9	0.8	0.6	0.6	0.3
2.2 Private corporate sector	1.2	1.7	2.1	3	1	2	2.4	0.7	0.7
2.3 Household sector	0.8	0.5	1	0.2	0	0	0.5	0.6	0.7
3 Valuables+	1.3	1.1	1.2	1.1	1.3	1.8	2.1	2.7	2.6
4 Gross Capital Formation	32.5	34.3	35.9	38	35.5	36.3	36.5	36.4	34.7
4.1 Public sector	7.4	7.9	8.3	8.9	9.4	9.2	8.4	7.7	8.1
4.2 Private corporate sector	10.3	13.6	14.5	17.3	11.3	12.1	12.8	10.1	9.2
4.3 Household sector	13.4	11.7	11.9	10.8	13.5	13.2	13.2	15.8	14.8