*A Review of the Trends in National Income Aggregates**

Introduction

The Central Statistics Office (CSO) released the Quick Estimates of national income aggregates including savings and investment for 2010-11 on January 31, 2012 and the Advance Estimates of national income for 2011-12 on February 7, 2012. This article reviews the trends in various macroeconomic parameters based on the Quick and Advance Estimates.

Trends in Economic Growth

Real GDP growth dropped sharply to 6.9 per cent in 2011-12, after two successive years of fairly robust growth of 8.4 per cent (Table 1). The growth rate in 2011-12 was only slightly higher than that recorded in 2008-09, the year in which the Indian economy was indirectly and adversely affected by the global financial crisis, and reflected the impact of myriad factors *viz.*, sharp deterioration in the external environment mainly due to the seemingly intractable sovereign debt ramifications in the Euro area, domestic monetary policy actions to restrain unabated inflation and inflationary expectations and non-monetary factors such as hindrances to execution of investment projects.

The deceleration in real GDP during 2011-12 *vis-à-vis* the previous year was evident across the major sectors – largely in agriculture on account of the base effect, followed by industry and, to some extent, in services. Within industry, while the mining & quarrying sector contracted and the growth rate of the manufacturing sector (which accounts for around 80.0 per cent of the industrial sector) nearly halved, the electricity, gas & water supply sector picked up sharply in 2011-12. Within services, the growth rates of all the sub-sectors moderated except those of 'trade, hotels

Table 1: Sectoral Growth of Gross Domestic Product at Factor Cost
(At 2004-05 Prices)

(Per cent)

Sector	2005-06	2006-07	2007-08	2005-08 (average)	2008-09	2009-10	2010-11@	2011-12 #	2008-12 (average)
1	2	3	4	5	6	7	8	9	10
I. Agriculture and allied activities	**5.1**	**4.2**	**5.8**	**5.0**	**0.1**	**1.0**	**7.0**	**2.5**	**2.7**
II. Industry	**8.5**	**12.9**	**9.2**	**10.2**	**4.1**	**8.9**	**6.8**	**3.6**	**5.9**
(i) Mining & quarrying	1.3	7.5	3.7	4.2	2.1	6.3	5.0	-2.2	2.8
(ii) Manufacturing	10.1	14.3	10.3	11.6	4.3	9.7	7.6	3.9	6.4
(iii) Electricity gas & water supply	7.1	9.3	8.3	8.2	4.6	6.3	3.0	8.3	5.6
III. Services	**11.1**	**10.1**	**10.3**	**10.5**	**9.4**	**10.0**	**9.2**	**8.8**	**9.4**
(i) Construction	12.8	10.3	10.8	11.3	5.3	7.0	8.0	4.8	6.3
(ii) Trade, hotels, restaurant, transport, storage & communication##	12.0	11.6	10.9	11.5	7.5	10.3	11.1	11.2	10.0
(iii) Financing, insurance, real estate & business services	12.6	14.0	12.0	12.9	12.0	9.4	10.4	9.1	10.2
(iv) Community, social & personal services	7.1	2.8	6.9	5.6	12.5	12.0	4.5	5.9	8.7
IV. GDP at factor cost	**9.5**	**9.6**	**9.3**	**9.5**	**6.7**	**8.4**	**8.4**	**6.9**	**7.6**

@: Quick Estimates. **#** : Advance Estimates.
##: The figure is combination of 'trade, hotels and restaurant' and transport, storage & communication.
Sources: Central Statistics Office.

* Prepared in the National Accounts Analysis Division of Department of Economic and Policy Research, Reserve Bank of India, Mumbai. The article on the Quick Estimates of National Income, 2008-09 and Revised Estimates of National Income, 2009-10: A Review had appeared in the August 2010 issue of the RBI Bulletin.

and restaurants' and 'community, social and personal services'.

Thus, during the four years since the global financial crisis indirectly impacted on the Indian economy, the growth rate of real GDP averaged 7.6 per cent which was lower by nearly 2 percentage points than that during 2005-06 to 2007-08, with moderation reflected across most sub-sectors. Only, the 'community, social and personal services' sub-sector accelerated sharply during the latter period, largely reflecting the impact of the fiscal stimulus measures during 2008-09 and 2009-10. Even so, the Indian economy generally outperformed the other economies, with the notable exception of China, right through 2007 to 2010 and is expected to continue to do so in 2011 and 2012 (Table 2).

Table 2: Growth Rate of Real GDP
(at market prices)*

(Per cent)

Country	2007	2008	2009	2010	2011 P	2012 P
1	2	3	4	5	6	7
Advanced Economies	**2.8**	**0.1**	**-3.7**	**3.2**	**1.6**	**1.2**
Germany	3.4	0.8	-5.1	3.6	3.0	0.3
Japan	2.4	-1.2	-6.3	4.4	-0.9	1.7
United Kingdom	2.7	-0.1	-4.9	2.1	0.9	0.6
United States	1.9	-0.3	-3.5	3.0	1.8	1.8
Euro Area	**3.0**	**0.4**	**-4.3**	**1.9**	**1.6**	**-0.5**
Emerging and Developing Economies	**8.9**	**6.0**	**2.8**	**7.3**	**6.2**	**5.4**
Russia	8.5	5.2	-7.8	4.0	4.1	3.3
Brazil	6.1	5.2	-0.6	7.5	2.9	3.0
China	14.2	9.6	9.2	10.4	9.2	8.2
India	10.0	6.2	6.8	9.9	7.4	7.0

*: Calendar Year P: Projected
Source: International Monetary Fund, World Economic Outlook, January 2012

Seasonally Adjusted Annualised Rates of Growth

Seasonally Adjusted Annualised Rate (SAAR) of growth of real GDP, based on available quarterly GDP data, corroborated the general slackening of momentum since the last quarter of 2009-10 (Chart 1). The slowdown of the SAAR of the industrial sector was more accentuated than those of the services and agriculture sectors. In fact, the agriculture sector witnessed some upturn in the SAAR in the second quarter of 2011-12, reflecting the robust *kharif* production. The growth rates in the recent quarters have been generally volatile which largely reflects the uncertain domestic and global

Chart 1: Seasonally Adjusted Annualized Growth Rates

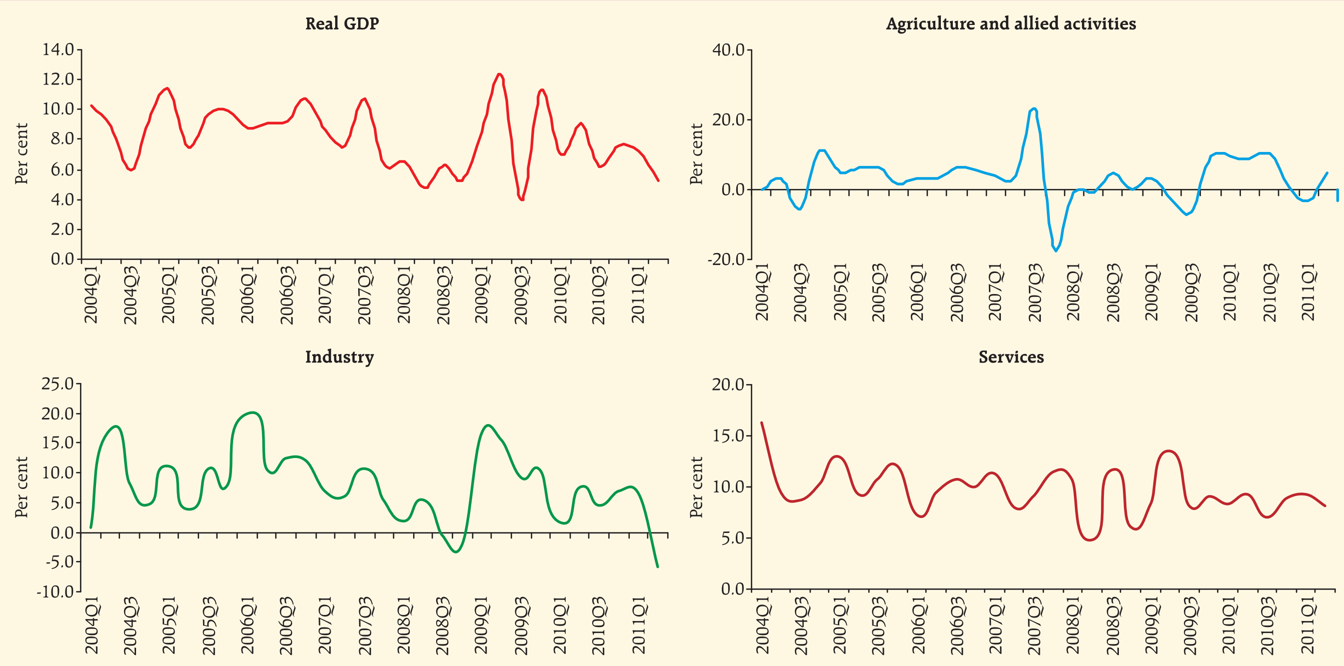
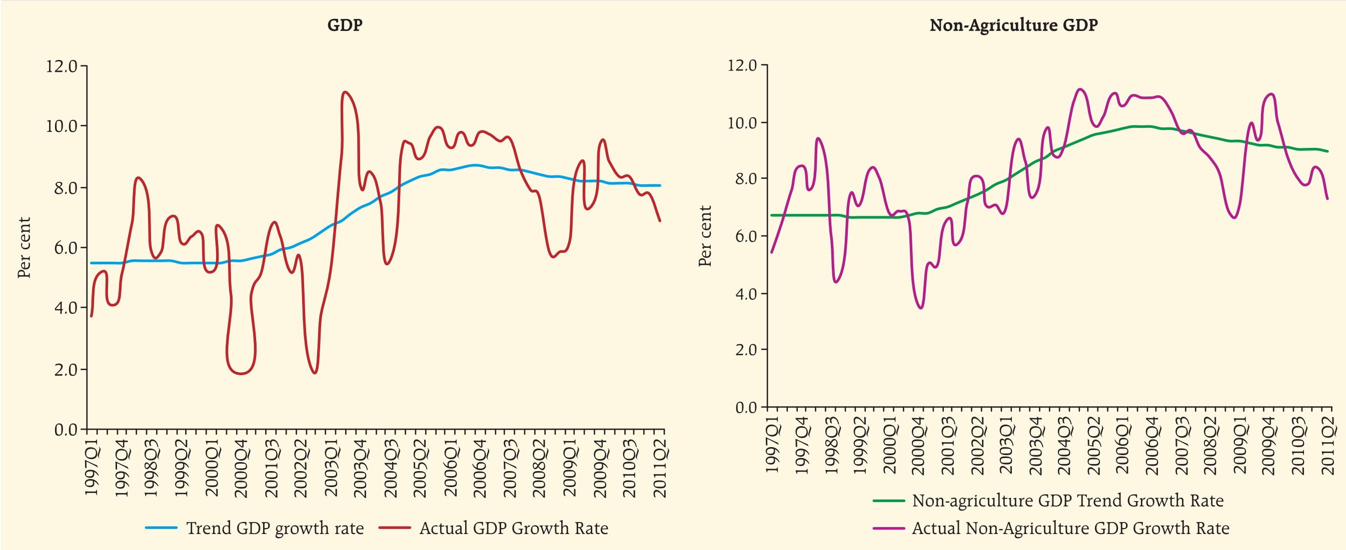


Chart 2: Trend Growth in GDP and Non-Agriculture GDP



economic environment. Furthermore, there is also clear evidence that after a phase of initial recovery during 2009-10, the growth momentum moderated in 2010-11 and real GDP growth rate remained well below the peak level of 2009-10:Q2.

Trend Output Growth Rate

The growth rate of trend output based on the HP (Hodrick-Prescott) filter method which was estimated at around 8.5 per cent on an average during 2005-06 to 2007-08, dipped gradually thereafter and was placed at about 8.0 per cent in 2011-12, indicating a structural decline in growth rate of the economy *vis-a-vis* 2005-08 (Chart 2).

Composition of GDP – Supply Side

The sectoral composition of real GDP since 2005-06 shows a decline in the share of agriculture, a marginal decline in the share of industry and an increase in the share of services (Table 3). Within services, the shares of 'trade, hotels, transport and communication' and 'financing, insurance, real estate

Table 3: Sectoral Composition of Gross Domestic Product at Factor Cost
(At 2004-05 Prices)

(Per cent)

Sector	2005-06	2006-07	2007-08	2005-08 (Avg.)	2008-09	2009-10	2010-11*	2011-12 #	2008-12 (Avg.)
1	2	3	4	5	6	7	8	9	10
I. Agriculture& allied activities	**18.3**	**17.4**	**16.8**	**17.5**	**15.8**	**14.7**	**14.5**	**13.9**	**14.7**
II. Industry	**20.1**	**20.7**	**20.6**	**20.5**	**20.1**	**20.2**	**19.9**	**19.3**	**19.9**
(i) Mining & quarrying	2.6	2.6	2.5	2.6	2.4	2.3	2.2	2.0	2.2
(ii) Manufacturing	15.3	16.0	16.1	15.8	15.8	16.0	15.8	15.4	15.8
(iii) Electricity, gas & water supply	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	2.0
III. Services	**61.7**	**62.0**	**62.5**	**62.1**	**64.1**	**65.1**	**65.5**	**66.7**	**65.4**
(i) Construction	7.9	8.0	8.1	8.0	8.0	7.9	7.9	7.7	7.9
(ii) Trade, hotels, & restaurant, transport, storage & communication	25.1	25.5	25.9	25.5	26.1	26.6	27.2	28.3	27.1
(iv) Financing, insurance, real estate & business services	15.1	15.7	16.1	15.6	16.9	17.1	17.4	17.8	17.3
(v) Community, social & personal services	13.5	12.7	12.4	12.9	13.1	13.5	13.1	12.9	13.2
IV. Gross Domestic Product at factor cost	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

* Quick Estimates. # Advance Estimates.
Sources: Central Statistics Office.

Table 4: Sectoral Contribution to Growth in Gross Domestic Product at Factor Cost
(At 2004-05 Prices)

(Per cent)

Sector	2005-06	2006-07	2007-08	2005-08 (Avg.)	2008-09	2009-10	2010-11*	2011-12 #	2008-12 (Avg.)
1	2	3	4	5	6	7	8	9	10
I. Agriculture& allied activities	**10.3**	**7.9**	**10.8**	**9.7**	**0.2**	**2.0**	**12.3**	**5.4**	**5.0**
II. Industry	**18.2**	**27**	**20.5**	**21.9**	**12.6**	**21.4**	**16.5**	**10.5**	**15.3**
(i) Mining & quarrying	0.4	2.1	1.0	1.2	0.8	1.8	1.4	-0.7	0.8
(ii) Manufacturing	16.3	22.9	17.6	18.9	10.4	18.2	14.4	9.0	13.0
(iii) Electricity gas & water supply	1.6	2.0	1.8	1.8	1.4	1.5	0.7	2.2	1.5
III. Services	**71.4**	**65.0**	**68.7**	**68.4**	**87.2**	**76.6**	**71.2**	**84.1**	**79.8**
(i) Construction	10.4	8.6	9.2	9.4	6.4	6.7	7.5	5.5	6.5
(ii) Trade, hotels, & restaurant, transport, storage & communication	31.1	30.4	29.9	30.5	28.9	32.1	35.2	44.4	35.2
(iv) Financing, insurance, real estate & business services	19.6	22.1	20.2	20.6	28.8	19.0	21.2	23.1	23.0
(v) Community, social & personal services	10.3	4.0	9.4	7.9	23.1	18.8	7.3	11.2	15.1
IV. Gross Domestic Product at factor cost	**100**	**100**	**100**	**100.0**	**100**	**100**	**100**	**100**	**100.0**

* Quick Estimates. # Advance Estimates.
Sources: Central Statistics Office.

and business services' sub-sectors have increased over time. The contribution of the 'trade, hotels, transport and communication' sector to overall real GDP growth has remained the highest amongst all sub-sectors (Table 4)

Over the years, in a cross-country context, the share of agriculture has generally declined or remained very small, and that of services has increased (except in the case of Korea Republic and South Africa) (Table 5). The share of agriculture in India, however, has remained higher than those in many countries, including China.The share of industry in advanced economies has tended to decline over the years, with a corresponding increase in the share of services. The share of industry in India in 2010 was higher than that in the United Kingdom and the United States, but substantially lower than that in many other countries such as China, Korea, Mexico and Russia. The share of services in India in 2010 was comparable to that of Russia and Korea but higher than that in China.

Table 5: Sectoral Shares in GDP – Cross Country Experience

(Per cent)

Countries	Agriculture			Industry#			Services		
	2005	2008	2010	2005	2008	2010	2005	2008	2010
1	2	3	4	5	6	7	8	9	10
Brazil	6.0	6.1	5.8	27.3	26.6	25.8	66.7	67.4	68.4
China	12.9	10.4	9.5	54.0	54.6	56.8	45.3	46.5	46.8
India	**18.3**	**15.7**	**14.4**	**28.0**	**28.1**	**27.9**	**53.8**	**56.2**	**57.7**
Japan	1.5	1.6	NA	30.5	30.2	NA	68.0	68.2	NA
Korea, Rep.	3.3	3.3	3.0	37.7	38.3	39.7	59.0	58.5	57.3
Mexico	3.8	3.7	3.8	32.6	32.0	31.7	63.6	64.3	64.5
Russian Federation	5.5	5.0	4.6	38.9	35.0	35.2	55.6	60.1	60.1
South Africa	2.5	2.5	NA	29.5	30.0	NA	67.9	67.5	NA
United Kingdom	0.7	0.6	0.6	23.5	21.9	21.0	75.9	77.5	78.4
United States	1.2	1.1	1.1	22.1	21.0	20.2	76.6	77.9	78.7

#: Including Construction. NA: Not Available.
Source: World Bank (WDI Database).

Table 6: Real Growth Rates - Expenditure Side of GDP

(Per cent)

Item	2005-06	2006-07	2007-08	2005-08 (Avg)	2008-09	2009-10	2010-11 QE	2011-12 AE	2008-12 (Avg.)
GDP at market prices	9.3	9.3	9.8	**9.5**	3.9	8.2	9.6	7.5	**7.3**
Private Final Consumption Expenditure	8.5	8.7	9.2	**8.8**	7.1	7.4	8.2	6.5	**7.3**
Government Final Consumption Expenditure	8.9	3.8	9.6	**7.4**	10.4	14.3	7.8	3.9	**9.1**
Gross Capital Formation	16.2	13.4	18.1	**15.9**	-5.2	17.1	7.4	5.8	**6.3**
Net Exports	-98.7	-29.6	-35.4	**-54.6**	-60.9	-10.2	5.5	-30.1	**-23.9**

QE: Quick Estimates. AE: Advance Estimates.
Source: Central Statistics Office (CSO).

Expenditure side of GDP

The expenditure side of GDP also reflected the general slowdown in the post-global crisis scenario (Table 6).While the growth rate of private final consumption expenditure which accounts for around 60 per cent of GDP moderated, the deceleration in gross capital formation, which accounts for around 35 per cent of GDP, was quite severe. Net exports which had declined by nearly 55 per cent, on an average, during 2005-08, continued to decline in the post-crisis milieu, even though the rate of decline nearly halved. Government final consumption expenditure (which includes wages and salaries and purchase of commodities and services by the government, but excludes transfer payments such as subsidies and interest payments), which accounts for around 11 per cent of GDP, was stepped up sharply in 2008-09 and 2009-10 reflecting the payment of Sixth Pay Commission arrears and fiscal stimulus measures. Consequently, the average growth rate of government final consumption expenditure continues to remain relatively high in the post-crisis scenario, even though substantial moderation was evident in 2010-11 and 2011-12.

In a cross-country context, the share of private final consumption expenditure in GDP in India is higher than that of China, Korea and Thailand, and comparable to that in Japan but much lower than that in many of the other emerging market and advanced economies (Table 7). In contrast, the share of gross capital formation in GDP in India remains higher than that in most economies, with the notable exception of

Table 7: Share of Expenditure Side Aggregates in Real GDP at Market Prices

(Per cent)

	Household Final Consumption			Government Final Consumption			Gross Capital Formation		
	2005	2008	2010	2005	2008	2010	2005	2008	2010
Brazil	62.4	64.8	67.2	19.4	18.6	18.7	15.0	18.4	18.8
China	36.9	30.0	28.9	14.4	13.9	14.1	40.2	41.0	45.2
India@	**57.8**	**60.4**	**56.2**	**10.9**	**10.9**	**11.2**	**34.5**	**35.9**	**38.2**
Japan	57.0	56.5	57.9	18.1	17.9	19.3	23.6	22.1	19.2
Korea, Rep.	53.7	52.9	52.2	13.9	14.4	14.7	29.7	28.3	26.1
Mexico	68.8	70.0	68.9	11.1	10.6	11.4	22.0	23.1	21.0
Russian Federation	56.3	72.3	69.5	12.1	10.6	11.3	22.2	28.5	22.5
South Africa	63.1	64.1	NA	19.5	19.4	NA	18.0	20.4	NA
Thailand	55.4	52.9	52.1	8.9	9.1	9.9	25.4	23.6	21.6
United Kingdom	65.0	64.3	64.7	21.4	21.1	22.4	17.1	17.4	16.1
United States	70.1	70.5	71.1	15.8	15.8	16.4	19.9	17.4	15.7

@: Private Final Consumption Expenditure.
Source: World Bank (WDI Database).

China. Consequently, the share of government final consumption expenditure in GDP in India is lower than that in most countries.

Trends in Domestic Saving and Investment

As per quick estimates released by CSO, gross domestic savings (GDS) rate moderated to 32.3 per cent of GDP in 2010-11 from 33.8 per cent in 2009-10 and a record high of 36.8 per cent in 2007-08.The decrease in the overall savings rate in 2010-11 was mainly due to fall in household sector and private corporate sector saving rates. The public sector savings, however, increased which was largely due to a decline in the dis-savings of Government Administration rather than an improvement in the savings of non-departmental enterprises (Table 8).

The household sector continued to account for the predominant share (over 70 per cent) of overall savings (Chart 3). The household sector savings rate,which had hovered around 23 per cent since 2003-04, had shot up to a record high of 25.4 per cent in 2009-10 largely on account of a sharp jump in savings in life insurance. The household savings rate declined to 22.8 per cent in 2010-11. Within household savings, while the financial savings rate declined sharply to 10.0 per cent, physical savings rate increased to 12.8 per cent in 2010-11. As explained in the RBI's Annual Report for 2010-11, the decline in the net financial savings rate of the household sector reflected the slower growth in households' savings in bank deposits and life insurance as well as an absolute decline in investment in shares and debentures, mainly driven by redemption of mutual fund units. Even so, there was a shift in favour of small savings and currency during the year. Households' financial liabilities, however, increased reflecting higher borrowings from commercial banks. Notwithstanding the robust growth in real GDP growth rate during 2010-11, persistently high inflation, relatively slower adjustment of bank deposit rates and the volatility in the Indian equity market impacted by global macroeconomic uncertainties, affected the level and composition of net financial savings of the household sector.

Table 8: Savings and Capital Formation by Institutions

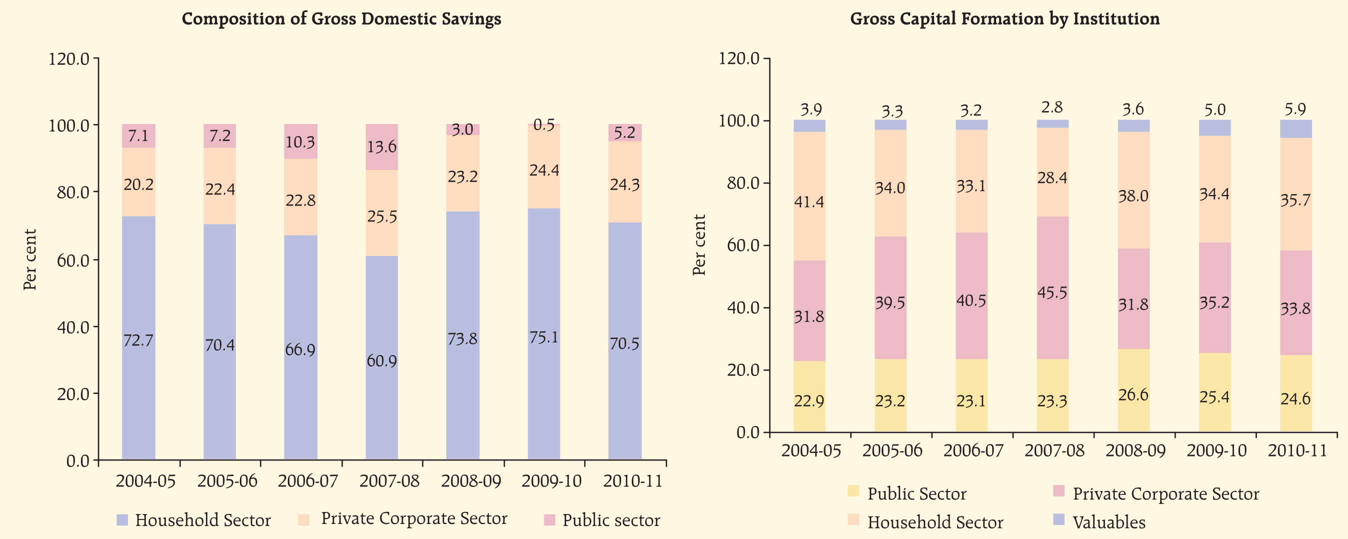
(Per cent of GDP at current market prices)

Item	2005-06	2006-07	2007-08	2008-09	2009-10*	2010-11#
1	2	3	4	5	6	7
1. Gross Domestic Saving	**33.4**	**34.6**	**36.8**	**32.0**	**33.8**	**32.3**
(i) Household Sector	23.5	23.2	22.4	23.6	25.4	22.8
(a) Financial Saving	11.9	11.3	11.6	10.1	12.9	10.0
(b) Physical Assets	11.7	11.9	10.8	13.5	12.4	12.8
(ii) Private Corporate Sector	7.5	7.9	9.4	7.4	8.2	7.9
of which: Joint stock companies	7.0	7.4	8.9	7.0	7.8	7.4
(iii) Public Sector	2.4	3.6	5.0	1.0	0.2	1.7
of which: Non-departmental enterprises	4.0	4.0	3.9	3.3	2.9	3.0
2. Gross Capital Formation	**34.3**	**35.9**	**38.0**	**35.5**	**36.1**	**35.8**
(i) Household Sector	11.7	11.9	10.8	13.5	12.4	12.8
(ii) Private Corporate Sector	13.6	14.5	17.3	11.3	12.7	12.1
(iii) Public sector	7.9	8.3	8.9	9.4	9.2	8.8
(iv) Valuables	1.1	1.2	1.1	1.3	1.8	2.1
3. Gross Capital Formation##	**34.7**	**35.7**	**38.1**	**34.3**	**36.6**	**35.1**
4. Saving-Investment Gap	**-1.2**	**-1.1**	**-1.3**	**-2.3**	**-2.8**	**-2.7**
(i) Household Sector	11.9	11.3	11.6	10.1	12.9	10.0
(ii) Private Corporate Sector	-6.1	-6.6	-7.9	-3.9	-4.5	-4.2
(iii) Public Sector	-5.5	-4.7	-3.9	-8.5	-9.0	-7.1

* : Provisional Estimates # : Quick Estimates. ##: Adjusted for errors and omissions

Source: Central Statistics Office

Chart 3: Composition of Saving and Investment



The rate of gross capital formation declined to 35.1 per cent in 2010-11 from 36.6 per cent in the previous year, mainly due to decline in private corporate sector and public sector investment rates (Table 8). The composition of gross capital formation showed that after 2007-08, the household sector generally replaced the private corporate sector as the highest investing sector (Chart 3).

The household sector continued to remain the net supplier of funds to the private corporate and public sectors. The public sector draft on private savings (*i.e.*, the saving investment gap), however, increased sharply after 2007-08 largely reflecting the fiscal stimulus and other measures.

Conclusion

Recent data indicate that after a smart recovery during 2009-10 and 2010-11, real GDP growth slipped sharply to 6.9 per cent during 2011-12, largely on account of the deterioration in the external environment and the slowdown in domestic investment. The slackening of real GDP growth to below its trend in 2011-12 was also evident. Seasonally adjusted growth rates also corroborated the loss of momentum in overall activity. Notwithstanding the recent slowdown, the rate of growth of the Indian economy remained quite impressive in a cross-country context.

The structural changes in the Indian economy over the years point towards a reduction in the share of agriculture, near-stability in the share of industry and increase in the share of services. The share of the industrial sector in India is lower than that in many emerging market countries which has implications, *inter-alia*, for enhancing employment opportunities and sustainability of a high growth momentum.

Both savings and investment rates dipped during 2010-11 mainly reflecting a decline in household financial savings and private corporate sector investment, respectively. The public sector's draft (*i.e.* its saving-investment gap) on private savings has also increased substantially in recent years. A high saving rate is imperative for sustaining the high growth trajectory of the Indian economy. Going forward, rejuvenating the current levels of savings may require further increase in public sector savings and sustaining the momentum of private corporate sector savings.