

# II

## ECONOMIC REVIEW

*Macroeconomic risks arising from domestic weakness and global uncertainty came to the fore during 2013-14 following the US Fed's indication that it would taper its large-scale asset purchase programme. The Reserve Bank responded through several policy actions to mitigate the risks to macro-financial stability. It aimed at containing exchange rate volatility, compressing the current account deficit (CAD) and rebuilding buffers. It also accorded primacy to containing inflation, the persistence of which over the years had caused several macroeconomic imbalances. Though these measures helped in stabilising the economy, keeping it on a disinflationary path, the slowdown continues to pose policy challenges into 2014-15. The economy requires policies that address growth through increased productivity, as well as greater investment and use of labour.*

### II.1 THE REAL ECONOMY

*Growth slows to sub-5 per cent for the second consecutive year, but growth may increase from here*

II.1.1 Real GDP growth improved marginally to 4.7 per cent in 2013-14 from 4.5 per cent in 2012-13, recording a sub-5 per cent growth for the second consecutive year (Chart II.1). In the absence of a clear legal and regulatory framework in key areas such as natural resources, especially mining activity, environmental clearances and land acquisition, business confidence dipped and affected investments in the economy. Consumption also decelerated on the back of the growth slowdown. However, growth may increase from here, with a moderate-paced recovery likely in

2014-15. Recovery in growth would essentially come from an improvement in the investment climate through better governance, transparent, effective and efficient regulatory and legal regimes, gains in technical efficiency, institutional improvements, improved labour mobility and other reforms. Better business sentiment, anticipating such improvements following the elections, is a welcome development.

II.1.2 In 2013-14, the agriculture sector's rebound to an above trend growth rate on the back of a normal monsoon, supported overall growth. The industrial sector contracted, while services sector growth remained unchanged at the previous year's level. Structural impediments, high inflation and domestic policy uncertainties continued to weigh down growth prospects.

Chart II.1: Growth in Real GDP

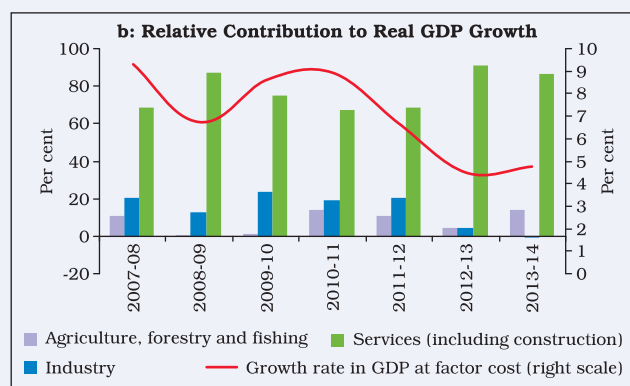
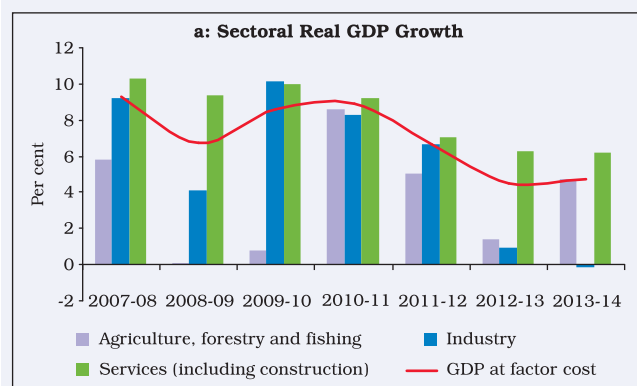
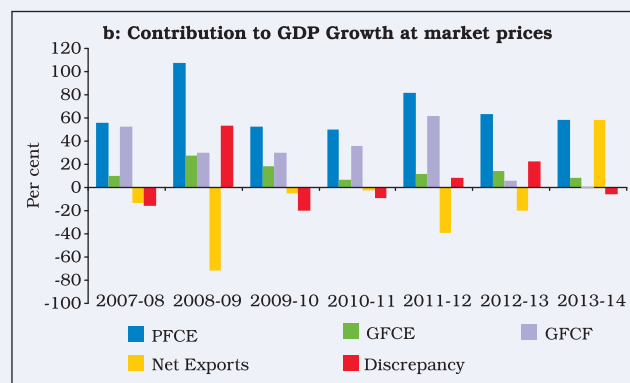
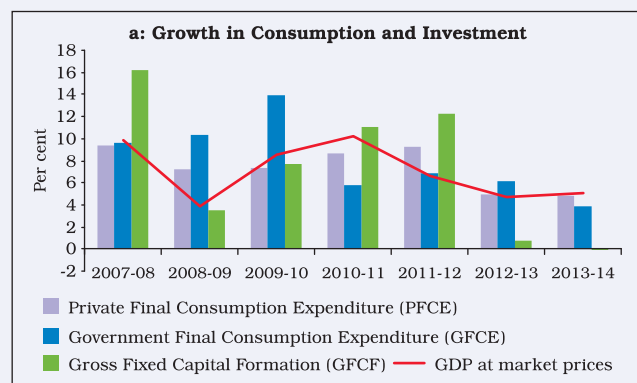


Chart II.2: Growth in Real GDP at Market Prices



### Continued deceleration in consumption and sluggish investment

II.1.3 The growth in real GDP at market prices increased modestly to 5 per cent during 2013-14 led by a pickup in exports coupled with a decline in imports (Chart II.2a). The contribution of net exports to overall growth increased significantly in 2013-14 (Chart II.2b). In contrast, there was a slowdown in the pace of growth of the private final consumption expenditure (PFCE) mainly due to the persistence of inflation and slackening of

disposable incomes, notwithstanding higher growth in agriculture.

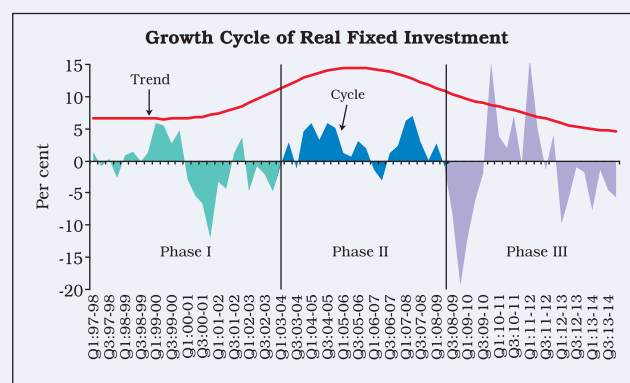
II.1.4 Real fixed investment growth decelerated for the second consecutive year and turned negative in 2013-14 (Chart II.3a). Statistical measures indicate that while the trend growth rate of real fixed investment had peaked in mid-2005-06, it declined markedly thereafter largely on account of the structural bottlenecks that choked investments. The cyclical component also showed a substantial downturn in recent years (Box II.1).

### Box II.1 Investment Cycles in India and the Recent Downturn

Empirical evidence suggests that both structural and cyclical factors have caused investment to slow down in recent years. Moreover, these two factors have reinforced each other. The trend component has declined since mid-2005-06, largely reflecting the impact of structural impediments. The empirical analysis based on quarterly data over the past fourteen years also reveals that fiscal imbalances, fuel inflation, world growth (as a proxy for external demand) and the monetary policy stance impact the cyclical component of real fixed investment growth.

The trend component of real investment in India was estimated using the Hodrick-Prescott (HP) filter on the deseasonalised series of real gross fixed capital formation (GFCF) adopting a growth cycle approach. The cyclical component of investment was extracted by subtracting the

estimated trend growth from its actual growth over the period 1997-98:Q1 to 2013-14:Q4. The series of the growth cycle



(Contd...)

and trend growth of real fixed investment is shown in the chart below. The time period was divided into three phases, based on the generally evolving path of real GDP growth, *i.e.*, Phase I (1997-98:Q1 to 2002-03:Q4), Phase II (2003-04:Q1 to 2008-09:Q2) and Phase III (2008-09:Q3 to 2013-14:Q4).

The trend growth in GFCF declined significantly from 14.5 per cent in H2 of 2005-06 to below 5 per cent in 2013-14. In Phase I, the rate of investment growth alternated, exceeding and remaining below trend for nearly the same number of quarters. On the other hand, the investment growth generally remained above trend in Phase II but dipped below trend for the larger part in Phase III. The cyclical component of real investment growth dipped and turned negative especially since Q1 of 2012-13. The cyclical component of real investment growth and real GDP growth showed fairly strong co-movement (statistically significant correlation of +0.62), implying that falling

investment growth and GDP growth, as evident in the recent period, are related.

In line with the observation on following trend growth in investment a recent study by Anand and Tulin (2014) also highlights the importance of economic policy uncertainty and deteriorating business confidence in the recent investment slowdown. Interest rates appears to explain a smaller portion of investment slowdown.

Further work will be necessary to examine the contribution of specific factors, like delays in land acquisition and environment clearances, reduction in the marginal productivity of capital despite lower real interest rates, weak business confidence and policy uncertainty that may have adversely impacted the growth rate of real investment.

**Reference**

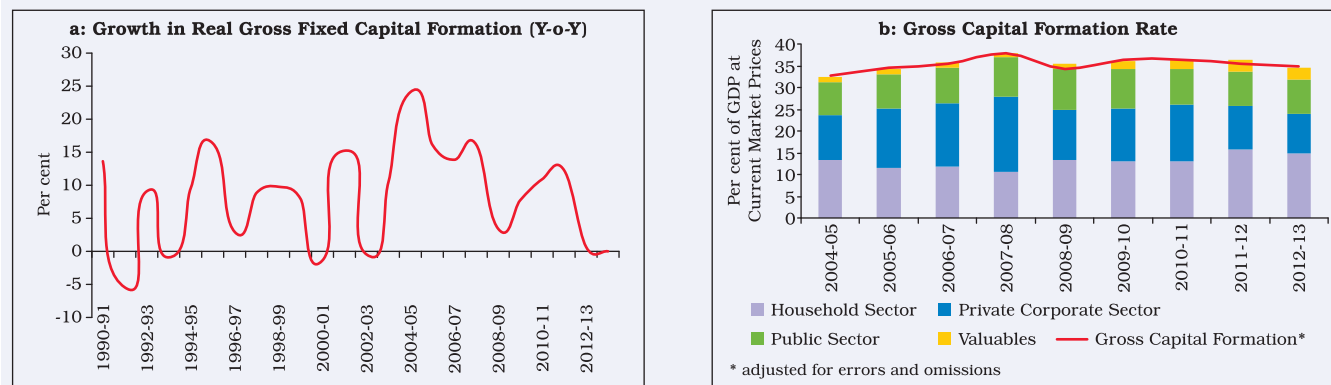
Anand Rahul and Tulin Volodymyr (2014), 'Disentangling India's Investment Slowdown', IMF working paper WP/1447.

II.1.5 The rate of gross capital formation (investment rate) declined for the second consecutive year to 34.8 per cent in 2012-13 as compared to 35.5 per cent in 2011-12 and 36.5 per cent in 2010-11(Chart II.3b). The sectoral composition of fixed investment shows that the private corporate sector accounted for most of the reduction in the overall investment rate in recent years particularly in 'machinery and equipment' (Table II.1). On the other hand, fixed investments of the public and household sectors which are concentrated in 'construction' remained somewhat less volatile.

*Productivity changes may have had a significant impact on growth*

II.1.6 Over the previous decade, productivity changes may have had a significant impact on the growth rate for the Indian economy. India KLEMS (Capital, Labour, Energy, Material and Services) project study has shown significant productivity improvements in the previous decade up to 2008-09 (Box II.2). Much of this period overlapped the high growth phase in the Indian economy. Though estimates are not available for the subsequent

**Chart II.3: Trend in Investment**



**Table II.1: Gross Fixed Capital Formation**

(as percentage of GDP at current market prices)

Year	Public Sector			Private Corporate Sector			Household Sector		
	Construction	Machinery & equipment	Total	Construction	Machinery & equipment	Total	Construction	Machinery & equipment	Total
1	2	3	4	5	6	7	8	9	10
2008-09	5.6	2.9	<b>8.5</b>	2.2	8.1	<b>10.3</b>	10.3	3.1	<b>13.5</b>
2009-10	5.5	2.9	<b>8.4</b>	2.5	7.7	<b>10.2</b>	9.8	3.3	<b>13.2</b>
2010-11	5.1	2.7	<b>7.8</b>	2.9	7.5	<b>10.4</b>	9.1	3.5	<b>12.7</b>
2011-12	4.7	2.4	<b>7.1</b>	2.7	6.8	<b>9.4</b>	10.4	4.9	<b>15.2</b>
2012-13	5.4	2.4	<b>7.8</b>	2.4	6.0	<b>8.5</b>	9.7	4.4	<b>14.1</b>

**Source:** Central Statistics Office.

years, the increase in capital-output ratios during 2011-12 to 2013-14 suggests that productivity improvements have not continued at the same pace over the last three years.

*Household financial saving rate stays low in 2013-14*

II.1.7 The Reserve Bank's preliminary estimates showed that the household financial saving rate

### Box II.2 Productivity Growth in India

Productivity improvement remains an important contributory factor in the overall growth process. Empirical studies relating to productivity growth in India largely relate to the 1980s and 1990s. While these studies differ in terms of the methodology used, some of the studies based on the growth accounting framework, reveal that there was a sharp acceleration in the rate of total factor productivity (TFP) growth in the Indian economy after 1980. Further, the rate of growth in TFP in the post-reform period is found to be even higher than that in the 1980s, mainly due to improved productivity performance of the services sector.

Recent estimates on TFP growth for 26 industries and at the aggregate level have been prepared for the period 1980-81 to 2008-09 under the aegis of India KLEMS research project (RBI, 2014) which indicate that the TFP increased significantly in the 2000s (up to 2008-09) as compared to the previous two decades. The increase in TFP at the economy level in the 2000s was primarily due to manufacturing, electricity and services sectors. In agriculture and mining sectors, however, the rate of TFP growth decelerated in the 2000s. In the case of construction, the steep fall in TFP growth during 1980-99 was largely arrested in the 2000s.

Looking at the reasons for productivity growth, the opening up of the economy post-1991 has been identified as an important factor which resulted in a significant jump in services sector productivity which continued during the 2000s. The electricity sector is found to have economised on the use of

energy and services input in 2000s raising the value added per kilowatt hour of production. The manufacturing sector has seen a more broad-based phenomenon of productivity growth with 8 out of 14 industries showing faster productivity growth during 2000-08. The liberal market reforms in the 1990s seem to have helped in the accumulation of capital in some segments of manufacturing immediately after the reforms, while opening up to foreign technology and import of capital goods might have translated into better productivity gains in the latter period (2000s) (Das, 2014). In some other studies, increase in manufacturing productivity in 2000s has been attributed to factors, such as, removal of trade barriers and increasing openness. Infrastructure facilities as well as labour market conditions also exerted a significant influence on technical efficiency and productivity growth of manufacturing industries in India.

As productivity might have been adversely impacted over the last 3 years, going forward, removing infrastructure bottlenecks and labour market rigidities holds the key to improving output growth *vis-à-vis* factor accumulation. Continuing relocation of labour out of low productivity sectors to high productivity sectors is also akin to increase in productivity. In India, although there is some migration from agriculture, there is a need to create further employment opportunities in industrial and services sectors to ensure gainful employment of migrated labour and for enhancing overall productivity level.

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**Period wise trend growth rate of Total Factor Productivity by broad sector (using labour input and capital service)**

Sector	1980-2008	1980-1999	2000-2008
1	2	3	4
Agriculture, Hunting, Forestry, Fishing	1.52	1.78	0.71
Mining and Quarrying	-0.24	0.22	-1.59
Manufacturing	0.73	0.04	2.76
Electricity, Gas and Water Supply	2.96	1.14	6.93
Construction	-3.31	-4.19	-0.69
Services	1.84	1.74	2.14
<b>Total Economy</b>	<b>1.40</b>	<b>1.11</b>	<b>2.26</b>

Source: KLEMS database available at [www.rbi.org.in](http://www.rbi.org.in)

The recent thrust to infrastructure spending is expected to boost productivity along with employment. Further, the opening up of various sectors to FDI will promote greater competition and productivity.

**References**

Das Deb Kusum (2014), 'Productivity Growth in India under Different Policy Regimes 1980-2012', Presentation at Third World KLEMS Conference, Tokyo, Japan, June.

Reserve Bank of India (2014), 'Estimates of Productivity Growth for Indian Economy', KLEMS project report, <http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/EPGIKLEMS110614>, June 11, 2014.

remained low during 2013-14, increasing only marginally to 7.2 per cent of GDP in 2013-14 from 7.1 per cent of GDP in 2012-13 and 7.0 per cent of GDP in 2011-12 (Chart II.4). During 2013-14,

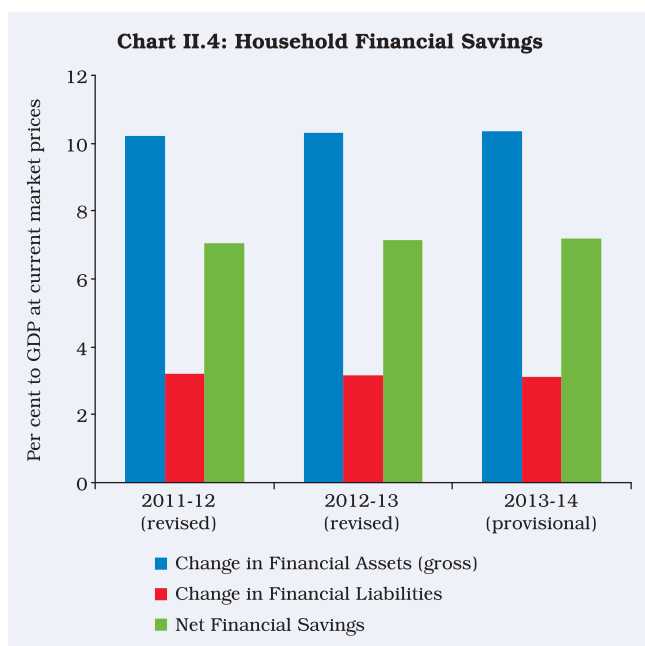
households increased their saving in deposits (especially with commercial banks) and small savings, while that in currency and mutual funds declined (Table II.2).

**Table II.2 : Financial Saving of the Household Sector**

Item	Per cent to Gross Financial Saving				₹ billion			
	2010-11	2011-12 (R)	2012-13 (R)	2013-14 (P)	2010-11	2011-12 (R)	2012-13 (R)	2013-14 (P)
1	2	3	4	5	6	7	8	9
A. Change in Financial Assets (Gross Financial Saving)	100.0	100.0	100.0	100.0	10,518	9,215	10,437	11,741
a. Currency	13.0	11.5	10.7	8.7	1,371	1,062	1,116	1,018
b. Deposits	49.9	59.1	56.6	58.8	5,248	5,445	5,906	6,908
i) With Commercial Banks	46.5	53.4	51.1	53.1	4,886	4,923	5,338	6,233
ii) With Cooperative Banks and Societies	3.0	3.6	3.9	4.2	311	336	412	489
iii) With Non-banking Companies	0.5	2.0	1.5	1.6	51	186	157	185
iv) Trade Debt (Net)	0.6	0.5	0.3	0.4	68	45	32	48
c. Shares and Debentures	-0.4	-0.3	4.1	2.9	-43	-28	430	337
of which :								
i) Private Corporate Business	0.6	0.4	0.4	0.3	68	41	44	31
ii) Banks	0.1	0.0	0.1	0.0	8	1	7	5
iii) Bonds of Public Sector Undertakings	0.1	0.0	0.0	0.8	8	1	2	92
iv) Mutual Funds (including UTI)	-1.1	-1.2	3.4	1.8	-116	-106	350	210
d. Claims on Government	2.7	-2.4	-0.8	0.4	287	-219	-83	46
i) Investment in Government securities	0.0	0.1	0.0	0.0	3	5	5	4
ii) Investment in Small Savings, etc.	3.4	-2.4	-0.7	0.6	361	-218	-73	75
e. Life Insurance Funds	20.0	21.3	17.3	17.0	2,101	1,958	1,803	1,996
of which :								
i) Life Funds of LIC and private insurance companies	19.9	21.2	17.2	16.6	2,095	1,955	1,800	1,943
f. Provident and Pension Funds	13.4	10.3	11.7	11.6	1,410	949	1,223	1,359
B. Change in Financial Liabilities					2,804	2,870	3,213	3,555
C. Net Financial Saving of Household Sector (A-B)					7,713	6,345	7,224	8,186

R: Revised Estimates. P: Preliminary Estimates.

Note : Components may not add up to the totals due to rounding off.



### Gross domestic saving rate declines further in 2012-13

II.1.8 The gross domestic saving rate as per Central Statistics Office's (CSO's) estimates declined to 30.1 per cent in 2012-13 from 31.3 per

cent in 2011-12, mainly on account of a decline in the rate of household physical savings (Table II.3). The saving rate dipped to the lowest in the past 9 years and has accentuated macroeconomic imbalances. The household saving rate had generally hovered around 23 per cent since 2003-04. Following a one-off sharp increase to 25.2 per cent in 2009-10, it declined to 21.9 per cent in 2012-13. This decline was led by a reduction in the household financial saving rate that dipped sharply from 12 per cent in 2009-10 to 7.1 per cent in 2012-13.

### Agricultural sector rebounds in 2013-14

II.1.9 After a subdued performance in 2012-13, agriculture emerged as the driver of growth during 2013-14. The south-west monsoon was 6 per cent above the long period average (LPA) and the north-east monsoon was 18 per cent above LPA. As per the Fourth Advance Estimates, foodgrains production during 2013-14 is placed at 264.8 million tonnes, 3.0 per cent higher than in 2012-13 (Table II.4).

**Table II.3: Gross Domestic Savings: Sector-wise**

(As percentage to GDP at current market prices)

	Average (2005-06 to 2007-08)	2008-09	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5	6	7
<b>Gross domestic saving (1+2+3)</b>	<b>35.0</b>	<b>32.0</b>	<b>33.7</b>	<b>33.7</b>	<b>31.3</b>	<b>30.1</b>
<b>1. Household sector (i+ii)</b>	23.0	23.6	25.2	23.1	22.8	21.9
(i) Financial saving (Net)	11.6	10.1	12.0	9.9	7.0	7.1
(ii) Saving in physical assets (Gross)	11.4	13.5	13.2	13.2	15.8	14.8
<b>2. Private corporate sector (i+ii)</b>	8.3	7.4	8.4	8.0	7.3	7.1
(i) Joint Stock Companies	7.8	7.0	7.9	7.6	6.9	6.7
(ii) Cooperative Banks and Societies	0.5	0.4	0.4	0.4	0.4	0.4
<b>3. Public sector</b>	3.7	1.0	0.2	2.6	1.2	1.2
Of which:						
a) Government administration (including quasi govt. bodies)	-0.9	-2.8	-3.1	-0.5	-2.0	-1.9
b) Non-departmental enterprises	4.0	3.3	2.8	2.8	2.9	2.8

**Note :** Household financial saving is arrived at by netting out of household's financial liabilities from their gross investment in financial assets. Household physical saving is shown in gross terms *i.e.* inclusive of depreciation.

**Source:** Central Statistics Office.

**Table II.4 : Agricultural Production 2013-14**

(in million tonnes)

Crop	2012-13	2013-14*	Percentage Change
1	2	3	4
<b>Foodgrains</b>	<b>257.1</b>	<b>264.8</b>	<b>3.0</b>
Rice	105.2	106.5	1.2
Wheat	93.5	95.9	2.6
Coarse Cereals	40.0	43.1	7.8
Pulses	18.3	19.3	5.5
<b>Oilseeds</b>	<b>30.9</b>	<b>32.9</b>	<b>6.5</b>
Groundnut	4.7	9.7	106.4
Rapeseed & Mustard	8.0	8.0	0.0
Soyabean	14.7	12.0	-18.4
<b>Cotton #</b>	<b>34.2</b>	<b>36.6</b>	<b>7.0</b>
<b>Jute &amp; Mesta ##</b>	<b>10.9</b>	<b>11.6</b>	<b>6.4</b>
<b>Sugarcane (Cane)</b>	<b>341.2</b>	<b>350.0</b>	<b>2.6</b>

\*: Fourth Advance Estimates as on August 14, 2014.

#: Million bales of 170 kgs. each.

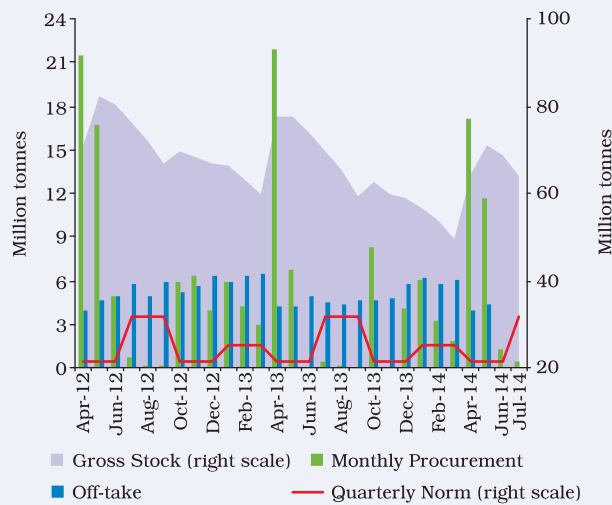
##: Million bales of 180 kgs. each.

Source: Ministry of Agriculture, Govt.

*Food security management assumes importance in the face of a sub-normal monsoon*

II.1.10 Though it is still early to assess the quantum, 2014-15 may not be as favourable for agriculture growth as last year (see also Box I.1 in Chapter 1). If managed well, the current stocks of rice and wheat (63.8 million tonnes at end-July 2014) are adequate to meet food security and buffer requirements despite a sub-normal monsoon (Chart II.5). However, it may prove a challenge to bring down price pressure for perishable food items, in particular, vegetables and fruits. Further reforms are necessary covering the entire gamut of food management. This could cover the unbundling of functions of the Food Corporation of India (FCI) and the removal of perishable items from the ambit of the agricultural produce marketing committee (APMC) Act, with adequate safeguards to farmers. The latter will be a significant step towards instilling competition and price discovery.

**Chart II.5: Food Stock and its Determinants**



Note: 1. Data for off-take is up to May 2014 and stock as at end-July, 2014.  
2. Off-take data are monthly figures.  
3. Data for procurement is up to July 31, 2014.

*Industrial sector contracted in 2013-14*

II.1.11 Industrial sector declined during 2013-14. This was only the third instance since 1951-52, when the Indian industry recorded contraction, the previous instances being 1979-80 (during the second international oil crisis) and 1991-92 (fallout of the Gulf war and the external payments crisis). Moderation in demand, both domestic and global, and rising input costs adversely affected industrial performance during 2013-14. The contraction in the industrial sector was reflected in mining and manufacturing sectors and more than offset strong growth in the electricity sector. Including 2013-14, mining sector has contracted for 3 consecutive years. Contraction in the manufacturing sector reflected poor investment demand and weakness in consumer spending.

II.1.12 As per the use-based classification, the production of capital goods and consumer durables declined, reflecting subdued investment and consumption demand (Table II.5). However, the performance of intermediate goods and consumer non-durable goods segment improved during the year.

**Table II.5: Index of Industrial Production (IIP)**

(Per cent)

	Weight	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Apr-Jun 2014
1	2	3	4	5	6	7	8	9	10	11	12
<b>Overall IIP</b>	<b>100.0</b>	<b>8.6</b>	<b>12.9</b>	<b>15.5</b>	<b>2.5</b>	<b>5.3</b>	<b>8.2</b>	<b>2.9</b>	<b>1.1</b>	<b>-0.1</b>	<b>3.9</b>
<b>Sectoral Classification</b>											
Mining	14.2	2.3	5.2	4.6	2.6	7.9	5.2	-2.0	-2.3	-0.6	3.2
Manufacturing	75.5	10.3	15.0	18.4	2.5	4.8	8.9	3.0	1.3	-0.8	3.1
Electricity	10.3	5.2	7.3	6.3	2.7	6.1	5.5	8.2	4.0	6.1	11.3
<b>Use-Based Classification</b>											
Basic goods	45.7	6.1	8.9	8.9	1.7	4.7	6.0	5.5	2.5	2.1	7.6
Capital goods	8.8	18.1	23.3	48.5	11.3	1.0	14.8	-4.0	-6.0	-3.6	13.9
Intermediate goods	15.7	6.6	11.5	7.3	0.0	6.0	7.4	-0.6	1.6	3.1	3.1
Consumer goods	29.8	10.7	16.1	17.6	0.9	7.7	8.5	4.4	2.4	-2.8	-3.6
Consumer durables	8.5	16.2	25.3	33.1	11.1	17.0	14.2	2.6	2.0	-12.2	-9.6
Consumer non-durables	21.3	8.6	12.3	10.2	-5.0	1.4	4.2	5.9	2.8	4.8	0.7

Source: Central Statistics Office.

II.1.13 Industrial output data for Q1 of 2014-15 shows an improvement over the corresponding period last year. Growth of Index of Industrial Production (IIP) during Q1 of 2014-15 at 3.9 per cent is the highest in last 11 quarters. Further, the acceleration in exports growth is expected to provide a boost to industrial recovery.

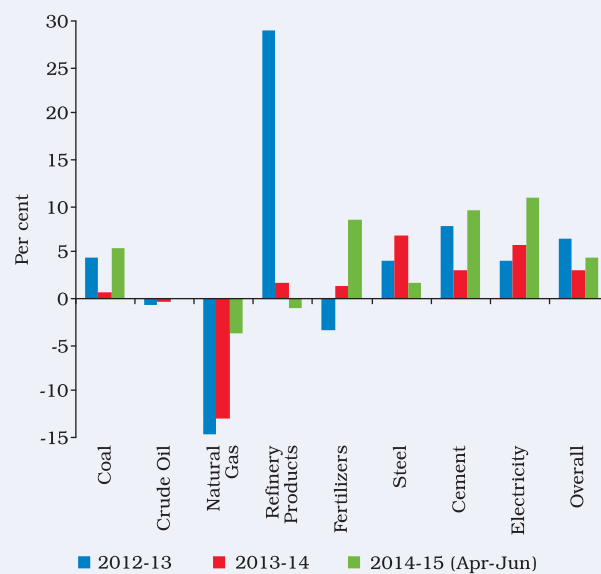
II.1.14 Growth in the eight core industries decelerated to 3.1 per cent during 2013-14, compared to 6.5 per cent in the previous year (Chart II.6). Three consecutive years of contraction in natural gas production from the KG-D6 block from 56 mcm/d in 2010-11 to 14 mcm/d in 2013-14 has adversely affected capacity utilisation of gas based thermal power plants while crude oil production continued to suffer from ageing oil fields and delay in the execution of new oil-field projects. However, electricity generation accelerated during the year driven mainly by hydel power. Thermal power generation decelerated during 2013-14.

II.1.15 Growth in the eight core industries growth, however, improved during Q1 of 2014-15 to 4.6 per cent from 3.7 per cent in the corresponding period in the previous year. The turnaround was caused

by growth acceleration in the production of coal, fertilisers, cement and electricity, as also markedly lower contraction in natural gas output. Growth in steel and refinery products decelerated.

*Slowdown seen in planned corporate investment amid economic slowdown*

II.1.16 Fixed investment plans of the corporate sector slowed down during 2013-14. The Reserve

**Chart II.6: Growth in the Index of Eight Core Industries**



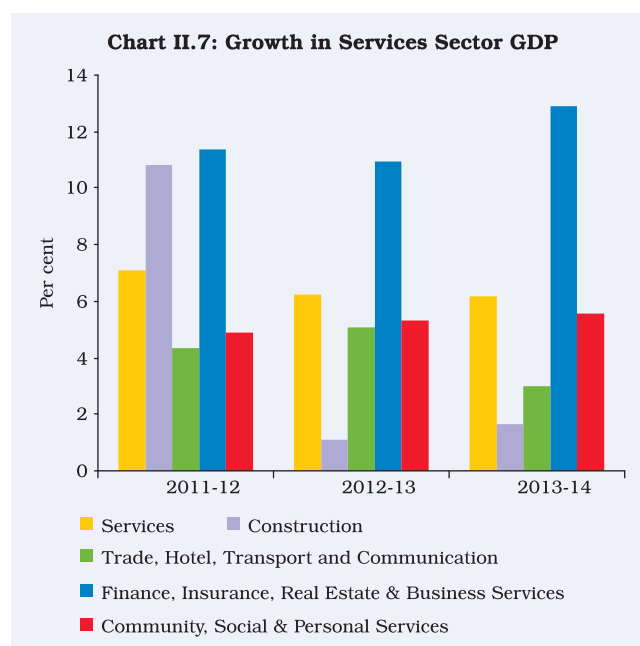
Bank's data on the time phasing details of the major projects, which were sanctioned financial assistance by banks and other financial institutions or raised funds through external commercial borrowings (ECBs)/ foreign currency convertible bonds (FCCBs) or domestic equity issuances, indicated that investment intentions of 1,065 companies were to the tune of ₹2.5 trillion in 2013-14. This was lower by 17.9 per cent than the revised estimate for 2012-13. Investment in 2013-14 was mainly envisaged in 'power', 'metal & metal products', 'textiles', 'cement' and 'construction' industries.

II.1.17 Based on the investment plans up to 2013-14, the capital expenditure envisaged in 2014-15 aggregated ₹1.2 trillion, which implies that for improving the level of aggregate capital expenditure in 2014-15 from that of 2013-14, a capital expenditure of more than ₹1.2 trillion will need to come from new investment intentions of the private corporate sector in 2014-15. This could be realised as forward looking surveys and economic indicators along with rising business confidence provide hope that the decline in private corporate investment could be arrested in 2014-15.

#### *Services sector stayed weak in 2013-14*

II.1.18 Growth of services sector during 2013-14 was mainly driven by the sub-sector 'financing, insurance, real estate & business services' which grew in double digits followed by 'community, social & personal services' (Chart II.7). However, the construction sector suffered a major setback in the last 2 years on account of the economic slowdown (Appendix Table 2). A recovery in domestic services such as transport, trade and logistics is contingent upon the recovery of the domestic economy.

II.1.19 Various lead indicators of the services sector for 2014-15 signal improvement in most segments except steel consumption and commercial vehicle sales. Trade and transport related indicators like cargo handled at ports, foreign tourist arrivals and civil aviation show improved prospects.



However, moderation in steel consumption indicates a sluggish outlook for the construction sector. Weak consumer spending on the back of elevated inflation and interest rates has affected the automobile sector. However, there has been some pickup in passenger car sales during May-July of 2014-15.

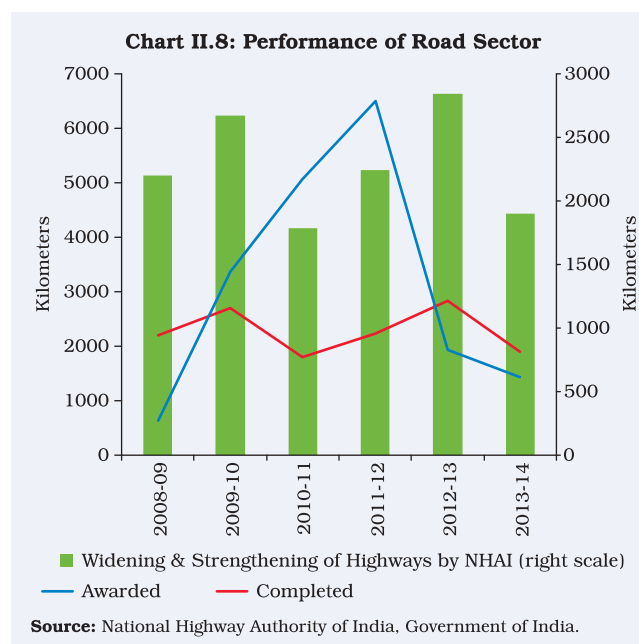
#### *Persistent efforts to address infrastructural constraints, though revival remains modest*

II.1.20 In the last few years, infrastructure sector has been experiencing sluggish growth mainly due to macro economic factors and policy gridlock coupled with sector specific bottlenecks. However, over the last one year, the government attempted several reforms aimed at reviving the sector viz., streamlining approvals through the Cabinet Committee on Investments (CCI), increasing domestic availability of coal supply through fuel supply agreements and coal imports at a cost-plus basis, streamlining coal block auctioning, financial restructuring of state electricity distribution companies and gas pricing guidelines. These supply-side measures have yielded some benefits, though more efforts will be needed to turnaround the investment in the sector. Along with supply side

constraints, of late, the power sector is also facing demand side pressures, associated with both slow growth as well as the financial weaknesses of most of the state and privately owned electricity distribution companies, which has made them reluctant to buy power. This has led to many power producers operating at sub-optimal capacities. Plant load factor (PLF) of thermal power plants declined to 65.6 per cent during 2013-14 from 70.3 per cent recorded in the previous year, putting pressure on the profitability of power producers. In addition, several power projects have been stuck due to issues such as environment clearances and land acquisition.

II.1.21 For the last 2 years, the road sector seems to be experiencing stagnancy. Notwithstanding several sector-specific measures, the road sub-sector failed to attract private investment during 2013-14, partly due to increased leverage of many construction firms operating in this area and partly due to difficulties in land acquisition, obtaining environmental clearances and concerns about the financial viability of the projects. There were only few takers for public private partnership (PPP) projects for roads in 2013-14; less than 1,500 km was awarded under the engineering, procurement and construction (EPC) mode. During 2013-14, the National Highways Authority of India (NHAI) recorded a growth that was 33.2 per cent lower than that during the same period in the previous year with regard to the strengthening/widening of national highways (Chart II.8). During the current financial year, the new government has set a target of 8,500 km of national highway construction; with the majority to be awarded through the EPC route.

II.1.22 A series of governmental initiatives were taken in 2013-14 to boost infrastructure investment. These included establishment of the CCI and the Project Monitoring Group (PMG) to expedite the clearance of key mega infra projects, enactment of new legislation for land acquisition, rehabilitation and resettlement, treating debts due to the lenders

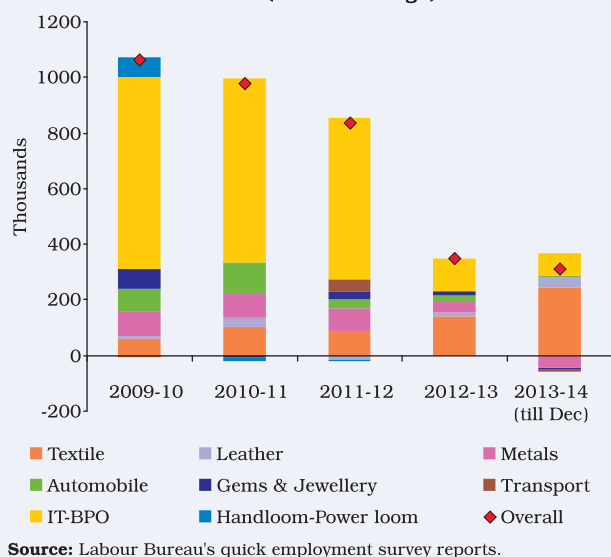


as 'secured' loan in the case of PPP projects, relaxation of external commercial borrowing (ECB) norms for infrastructure finance companies and facilitation of infrastructure debt funds (IDFs). However, these initiatives yielded limited benefits. Since its inception PMG has undertaken the resolution of issues pertaining to projects worth ₹5.8 trillion. A majority of the projects resolved by PMG were in the power sector followed by coal projects and related mainly to fuel supply agreements. However, as on May 1, 2014, of the 727 central sector infrastructure projects (worth ₹1.5 billion and above) monitored by the Ministry of Statistics and Programme Implementation (MoSPI), about 39 per cent of the projects were reported to be delayed and 41 per cent were without any specific date of commissioning. The cost overruns of these projects continue to remain high at 20 per cent.

*Employment generation during 2013-14 showed mixed trends*

II.1.23 India being a highly populated developing economy, employment generation serves as an important indicator of inclusive and sustainable

**Chart II.9: Employment generation in export-oriented sectors (annual change)**



growth. The quarterly employment surveys conducted by the Labour Bureau for select export-oriented sectors reveal that there was a significant moderation in the rate of employment generation in 2012-13, though some improvement was seen in 2013-14. Employment generation in the IT-BPO sector has been declining over the years while the textile sector saw an increase, especially in 2013-14 (till December) (Chart II.9). Some private data sources of employment in the organised sector also present a mixed picture during 2013-14. The third Annual Employment-Unemployment Survey for 2012-13 conducted by Labour Bureau showed that the unemployment rate was 4.0 per cent on UPSS<sup>1</sup>. Unemployment rate in urban areas at 5.3 per cent was higher than 3.5 per cent in rural areas. The latest Annual Survey of Industries' (ASI) results pertaining to 2011-12 indicated that there was a fall in the growth rate of organised sector employment in 2011-12 over the previous year.

### *Real activity set to improve in 2014-15*

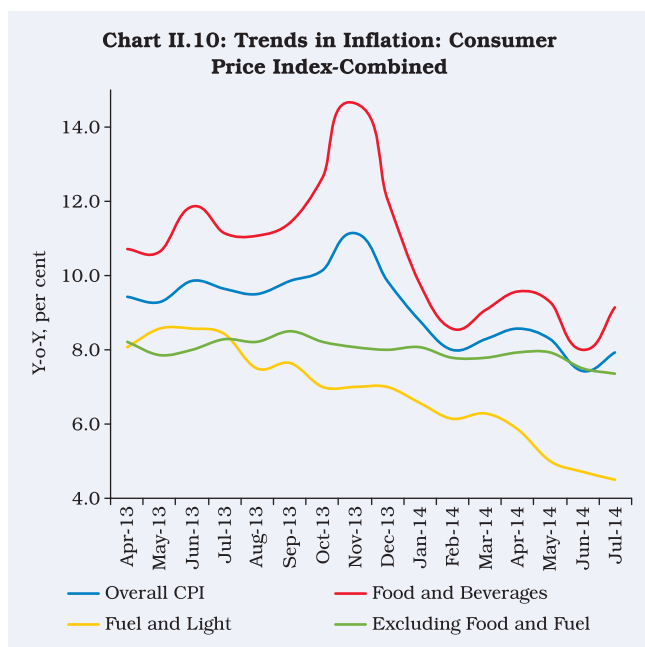
II.1.24 Stronger business sentiments, improved consumer confidence and increased capital inflows in the recent quarters appears to indicate a start to a modest recovery in the growth of the economy. The key priority is to enhance the growth rate of the economy by addressing structural impediments that are constraining investment activity in the economy.

## II.2 PRICE SITUATION

*Headline CPI inflation moderated during 2013-14 but remains high with pressure from food prices and other second round effects*

II.2.1 Inflation in terms of consumer price index (CPI) eased during the period December 2013 to February 2014, declining to 8.0 per cent after remaining above 9 per cent for 22 successive months and touching a high of 11.2 per cent in November 2013. The moderation in consumer price inflation resulted from a sharp correction in food prices. However, the disinflationary momentum has not gathered strength as decline in food prices was temporary and second round effects from high food inflation continue to exert pressures on the general price level. CPI excluding food and fuel inflation showed considerable persistence at an elevated level during H1 of 2013-14, followed by a fall from 8.5 per cent in September 2013 to 7.8 per cent in March 2014 and further to 7.4 per cent in July 2014 (Chart II.10). This decline in a component that has exhibited stickiness was supported by a tight monetary policy stance. Going forward, while growth revival on a sustainable basis will remain an objective, inflation risks will need to be factored in. Given the unsatisfactory progress of south-west

<sup>1</sup> UPSS-Usual (principal + subsidiary) status- The UPSS measure takes into account the activity accounting for a majority of a person's time over the year as well as the activity undertaken on a short term basis.



monsoon so far and its impact on food prices, as also risks emanating from potential crude oil price shocks, upside risks persist to the disinflationary glide path set out by the Expert Committee to revise and strengthen the monetary policy framework (Chairman: Dr. Urjit Patel) (to 8.0 per cent by January 2015 and 6.0 per cent by January 2016).

**II.2.2** Food and beverages group in CPI, with a weight of 47.6 per cent contributed more than half to headline inflation during 2012-13 and 2013-14. The main contributors to food inflation, however, changed over time as cereals prices dominated during 2012-13, whereas it was the spike in vegetable prices that kept food inflation high during 2013-14. Notwithstanding the pressure from the food group, the contribution of CPI excluding food and fuel inflation remained persistent. Monetary policy response during the second half of 2013-14 was aimed at anchoring inflation expectations and containing second round impact in the wake of such persistence. The Reserve Bank increased the repo rate under Liquidity Adjustment Facility (LAF) by a total of 75 basis points to 8.0 per cent during September 2013 to January 2014.

*Insights into disinflation momentum since December 2013 suggest more is required to tame inflation*

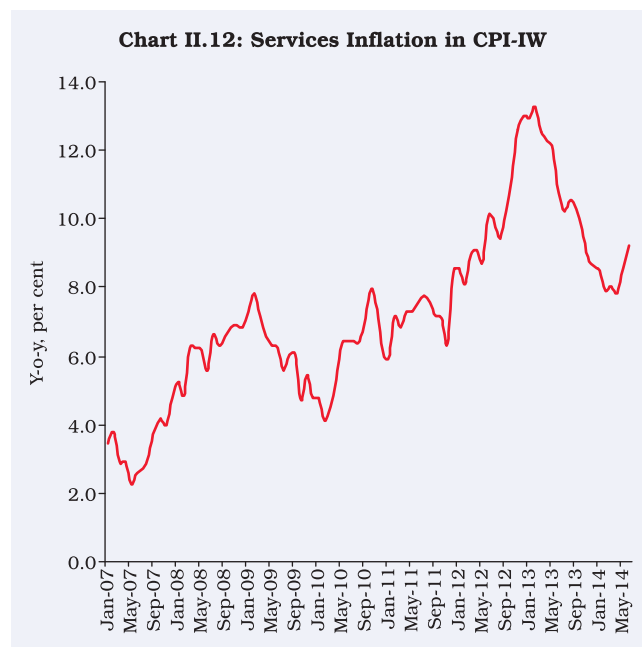
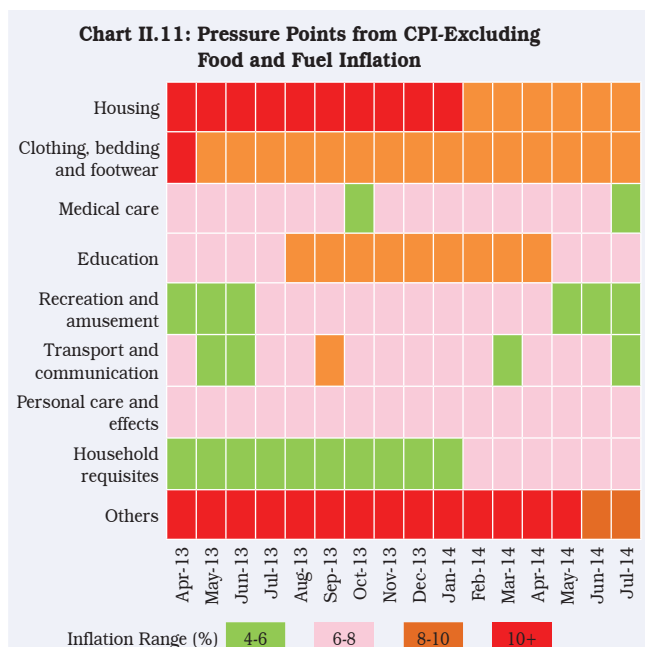
**II.2.3** CPI inflation moderated during December 2013-February 2014, driven largely by seasonal moderation in vegetable prices. CPI-Combined inflation remained above 8 per cent till May 2014 but declined to 7.5 per cent in June 2014 on account of favourable base effect. It, however, rebounded to 8.0 per cent in July 2014 as vegetable prices went up by 16.9 per cent over the month. Though some moderation in CPI excluding food and fuel inflation is visible in recent months, the extent of moderation warranted by the significant growth slowdown is yet to manifest in CPI. Such rigidity in the core component of inflation points to the inertial nature of inflation feeding into the elevated inflation expectations, which would necessitate credible anti-inflationary monetary policy to provide a nominal anchor and break the inflation persistence.

*Services led components drive CPI excluding food and fuel inflation*

**II.2.4** The stickiness in CPI inflation excluding food and fuel emanated from the pressures from housing, transport and communication and services led components such as medical care, education and stationery, household requisites and 'others' sub-category, which includes charges paid to barbers, beauticians, washer-men, tailors and iron-men. High inflation in the services constituents reflected the role of wage pressures and other second round effects. The disaggregated data in this respect suggest that prices of most of the items grew in a band of 6-8 per cent, while the 'others' sub-category grew at more than 10 per cent during 2013-14 (Chart II.11). Inflation in the housing sub-group declined to 8.9 per cent in July 2014 after remaining in double digits during 2012 and 2013.

*Services inflation starts to taper*

**II.2.5** Given that more than 60 per cent of India's GDP emanates from services, understanding



movements in services prices is critical to gauge the growth-inflation dynamics. Also, much of the services are labour intensive and, therefore, the second round effects from wage-price spiral could be much stronger in services inflation. The CPI-Combined data do not have a separate services category. However, the miscellaneous sub-category that largely represents services has shown considerable inflation persistence. Using the disaggregated information on 32 individual price series for services available from CPI-Industrial Workers (IW), a composite service price index was constructed to assess the trends in services inflation. Inflation trends available from this index indicate moderation in services inflation beginning March 2013, though its level continues to remain high at over 8 per cent (Chart II.12).

II.2.6 One key indicator of inflation persistence is inflation expectations. As highlighted in the report of the Expert Committee to revise and strengthen the monetary policy framework (Chairman: Dr. Urjit Patel), the elevated and entrenched nature of inflation expectations in India – as measured by the RBI’s households’ surveys – is likely a key reason

why elevated inflation currently co-exists with negative output gaps. The results of the Inflation Expectations Survey of Households (IESH) indicate that household inflation expectations continued to remain elevated at double digit level during 2013-14. As per the latest IESH Round 36 (*i.e.*, April – June 2014), the short-term inflation expectations in terms of median for next three months moved up marginally whereas the one-year ahead median inflation expectations of households decreased fractionally as compared with the previous quarter. Also, about 72 per cent (75 per cent in the last round) and 74 per cent (77 per cent in the last round) of the respondents expected double digit inflation rates for three-month ahead and one-year ahead period, respectively (Box II.3).

*Volatility in inflation pointed to supply side rigidities*

II.2.7 Volatility in prices, especially of select food items continues to pose a major challenge to managing inflation. It is observed that since January 2012 both inflation and volatility in vegetable prices has been the highest across the food items (Chart II.13). Inflation in the case of cereals, milk,

## Box II.3

## Trends in Inflation Expectations: Evidence from Survey Based Measures in India

Forward looking monetary policy attaches a lot of importance to inflation expectations as inflation expectations of economic agents significantly influence their inter-temporal as well as current economic choices. High inflation expectations could lead workers to bargain for higher wages, thereby putting cost pressure on prices leading to high actual inflation resulting in a wage-price spiral. Monetary policy, by committing to a credible anti-inflationary stance, endeavours to influence inflation expectations so that they remain anchored at levels close to the target/medium term objective (Mohanty, 2012). Well-anchored inflation expectations imply that inflation expectations are relatively insensitive to incoming data, *i.e.*, the long-run expectation of inflation of public changes little, in a period witnessing inflation that is higher than their long-run expectation (Bernanke, 2007). Central banks in most advanced as well as emerging economies, especially those which operate with an inflation targeting framework, place emphasis on assessment and outlook for inflation expectations in their monetary policy communication.

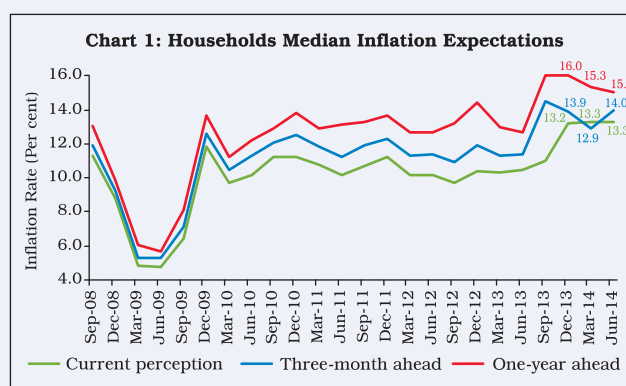
Unlike the economic variables, inflation expectations are not directly observable, and therefore would have to be either derived from other indicators or measured using survey based methods. From the financial market data, the differential yields between ordinary and inflation-indexed government bonds of similar maturity as well as the shape of the yield curve throws light on the expected rate of inflation. The survey based approach for measuring inflation expectations could be in the form of direct survey of households, survey of producers' outlook on input and output prices or survey of professional forecasters.

In India, the absence of time series data on inflation indexed bonds limits the source of information on inflation expectations. The yield spreads, on the other hand, are influenced by the outlook relating to government borrowing programme, statutory g-sec holding requirements on banks and inflation expectations. Therefore, a lot of emphasis has been placed on survey based measures of inflation expectations. In the recent period, the Reserve Bank has been conducting qualitative and quantitative surveys at quarterly frequency to assess the inflation expectations for India. These surveys cover households, producers and professional forecasters.

The Inflation Expectations Survey of Households (IESH) initiated in September 2005 elicits qualitative and quantitative responses for three-month ahead and one-year ahead period on expected price changes. The Technical Advisory Committee on Surveys constituted in 2009 by the Reserve Bank regularly deliberates on the concept, methodology and data quality and suggests methodological improvements in the survey. It is recognised that inflation expectations of households are subjective and are based on individual consumption baskets and hence may differ from the official inflation numbers released periodically by the government.

The households' expectations are generally observed to be higher than the official inflation estimates (Chart 1). The near-term, *i.e.*, three-month ahead inflation expectations of the households are believed to be a better indicator of consumer expectations as compared with one-year ahead expectations, which have wider variations.

The Reserve Bank has been conducting the survey of professional forecasters (SPF) since September 2007. The forecasters provide medium-term (5-year ahead) and long-term (10-year ahead) quantitative forecasts of inflation. As the professional forecasters consider all the available information, both past and future, their expectations could be considered more rational than that of households.

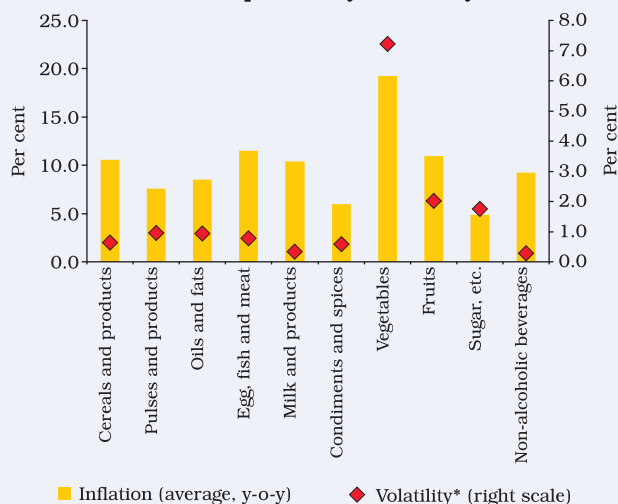


The professional forecasters survey suggests a fall in the inflation expectations and the medium-term CPI inflation has been trending down in the recent period. The 5-year and 10-year ahead median CPI inflation expectations in the latest survey round released in July 2014 have fallen to 7.0 per cent and 6.0 per cent, from 7.75 per cent and 7.0 per cent, respectively, in the survey round released in January 2014. Such a fall in long-term inflation expectations augurs well for the economy at a time when the central bank seeks to build its credibility in aiming to lower inflation further.

## References:

- Bernanke, B. (2007). Inflation Expectations and Inflation Forecasting, Speech delivered at the Monetary Economics Workshop of the National Bureau of Economic Research Summer Institute, Cambridge, Massachusetts, July 10, 2007.
- Mohanty, D. (2012). The Importance of Inflation Expectations, *Reserve Bank of India Monthly Bulletin*, December 2012, 2295- 2303.
- Reserve Bank of India (2009). Report of the Technical Advisory Committee on Inflation Expectations Survey of Households, *Reserve Bank of India Monthly Bulletin*, May 2010, 1161- 1226.

**Chart II.13: Inflation and Price Volatility in CPI Food Group: January 2012-July 2014**

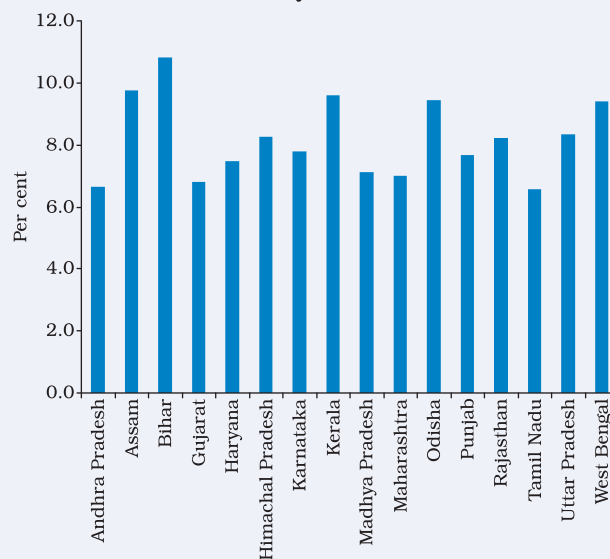


\* Volatility is defined as standard deviation of difference in log of price index.

egg, fish and meat remained, on an average, at double digit level and exhibited low volatility indicating that the pressures in these commodities were persistent.

II.2.8 Apart from the large volatility, there is also significant variation in inflation across the states in

**Chart II.14: CPI Inflation Across Major States: July 2014**



the country (Chart II.14). Empirical results suggest that although over time prices tend to converge across regions in India, inflation spikes are usually associated with increase in variability in inflation across regions pointing to region-specific factors playing a role (Box II.4).

**Box II.4  
Regional Inflation Dynamics in India**

Given large differences in economic structure in a diverse country like India, there could be a number of region specific factors that influence inflation dynamics. Economic literature has identified several reasons for inflation differentials among regions within a common currency area (Hendriks and Chapple, 2002). Following a food price shock, it is likely that inflation pressure is more severe in areas where the share of food in total consumption is high and also in areas which depend on imports from rest of the country for consumption. Disparities in the product and labour market structures could also lead to inflation differentials across regions. If a country is experiencing a phase of economic integration between regions within the country, the Balassa-Samuelson effect could result in inflation differentials as the productivity differentials between tradable and non-tradable sectors in a region will lead to inflation pressures. Variation in transport costs could be another source of inflation differentials.

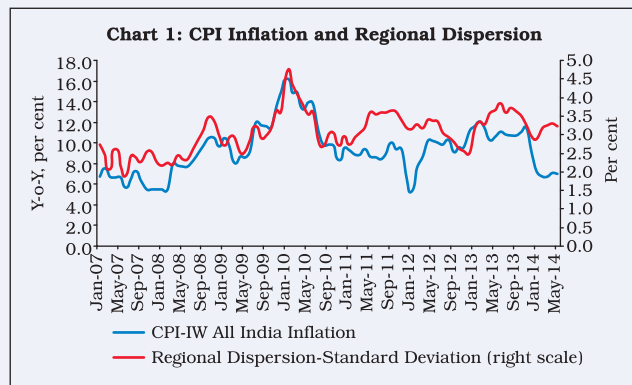
Monetary policy is primarily focused on price stability at the aggregate level, but heterogeneous price movements at the regional level and inflation differentials could have a significant impact on monetary policy efficacy. Large inflation differences can create real interest rate deviations across regions with uniform nominal interest rate across the country. If inflation is manifested by demand pressures, this would imply that the regions with high aggregate demand may further fuel inflation due to prevailing lower real rate of interest (Cecchetti *et al*, 2002). Therefore, regional dispersion of inflation is an important input that may be useful in designing the appropriate policy response.

The trends in regional dispersion are analysed using the data for Consumer Price Index for Industrial Workers (CPI-IW), which give detailed information on price movements across 78 centres in the country. A plot of the inflation trends

(Contd....)

in CPI-IW and the regional dispersion in inflation as measured by the standard deviation indicates that there is considerable co-movement between the two and most of the inflation spikes are also associated with increase in regional inflation dispersion (Chart 1). This shows that region specific supply and demand factors play a crucial role in shocks to inflation.

Notwithstanding the disproportionate impact of supply-side shocks on inflation across regions, an important issue is



whether, over the long-run, price levels across regions within the country converge. The law of one price and product and factor mobility, over time, should lead to price equalisation between regions. Empirical evidence in the case of euro area supports the law of one price. Applying panel unit root tests on monthly CPI-IW data for India from April 1990 to January 2014, it is found that the price level deviations from national average do not have a common unit root. This shows that, following a deviation from the national average, price level in a particular region reverts. This implies that the law of one price holds for India as well and the role of aggregate demand management policies like monetary policy remains significant in controlling inflation.

**References**

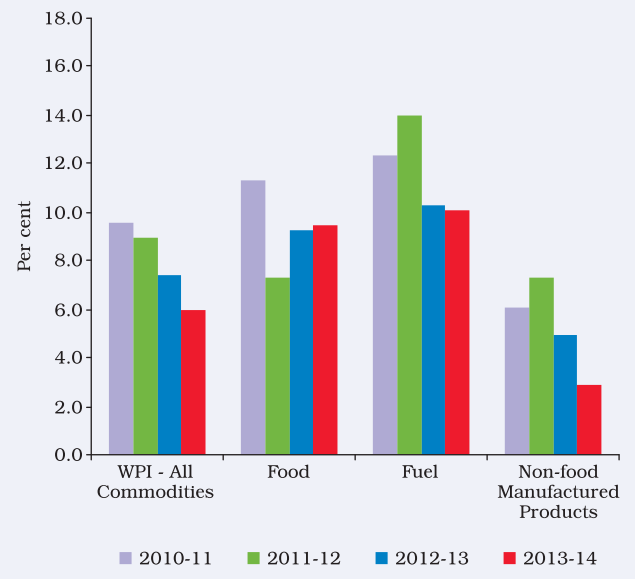
Hendriks, Maarten and Bryan Chapple (2002). "Regional Inflation Divergence in the Context of EMU," *MEB Series 2002-19*, Netherlands Central Bank, Monetary and Economic Policy Department.

Cecchetti, Stephen G., Nelson C. Mark and Robert J. Sonora (2002). "Price Index Convergence among United States Cities", *International Economic Review*, Vol. 43, No. 4.

*WPI Inflation too showed moderation during 2013-14*

II.2.9 Average wholesale price index (WPI) inflation during 2013-14 at 6.0 per cent was significantly lower than 7.4 per cent during the previous year (Chart II.15 and Appendix Table 3). Whereas inflation in food articles picked up, inflation in the fuel group remained persistent. The decline in overall inflation in terms of the WPI was largely driven by the fall in average inflation in non-food manufactured products, reflecting weak pricing power of the Indian corporate. Softer global commodity prices, especially of metals played a significant role in keeping inflation low in this segment. However, on a year-on-year basis, non-food manufactured product inflation steadily edged up from 2.2 per cent in July 2013 to 4.0 per cent in March 2014 reflecting input cost

**Chart II.15: Trends in Wholesale Price Index Inflation**



pressures. Subsequently, it declined to 3.6 per cent in July 2014.



*Administered fuel price revisions reduced suppressed inflation, but the process remains incomplete*

II.2.10 Although international crude prices (Indian basket) declined by about 2 per cent in dollar terms in 2013-14 over the previous year, sharp rupee depreciation since May 2013 and an increase in international crude oil prices resulted in a rebound in WPI fuel inflation to double digit level during 2013-14 (Chart II.16). Administered prices were adjusted in a staggered manner during the course of the year, especially for diesel. The hike in electricity prices in August and December 2013 exerted further pressure on the fuel group inflation. The revision in administered petroleum prices has caused some reduction in the extent of under-recoveries of the Oil Marketing Companies (OMCs). The estimated under-recovery of the OMCs during 2013-14 was high at ₹1.4 trillion, of which 45 per cent was on account of diesel. Currently, the OMCs are incurring daily under recovery of ₹2.26 billion (effective August 1, 2014) on the sale of diesel, PDS kerosene and domestic LPG. Geopolitical developments in the Middle East and Ukraine remain an upside risk to global crude prices with significant implications for inflation and under-

recoveries. These will need to be managed by greater flexibility in domestic prices and adequate budgetary provisions.

*Global inflation remained diverse among advanced and emerging economies*

II.2.11 Globally, inflation pressures vary across advanced and the emerging economies. In advanced economies, inflation remained low aided by range-bound commodity price movements, large spare capacity and high unemployment during 2013-14. Emerging market and developing economies (EMDEs), on the other hand, witnessed inflationary pressures driven by a weaker exchange rate and domestic supply side factors. Many central banks in EMDEs were faced with the trade-off arising from a combination of slowing economic growth and stubborn inflationary pressures. In view of high inflation and exchange rate depreciation, many central banks in the EMDEs including Turkey, Ukraine, Russia, Indonesia and Brazil hiked policy rates. In the case of advanced economies, the US Fed began tapering in a calibrated manner in view of a strengthening economic recovery. The European Central Bank (ECB) introduced negative deposit rate to encourage bank lending for business activity.

**Chart II.16: Global and Domestic Fuel Price Movements**

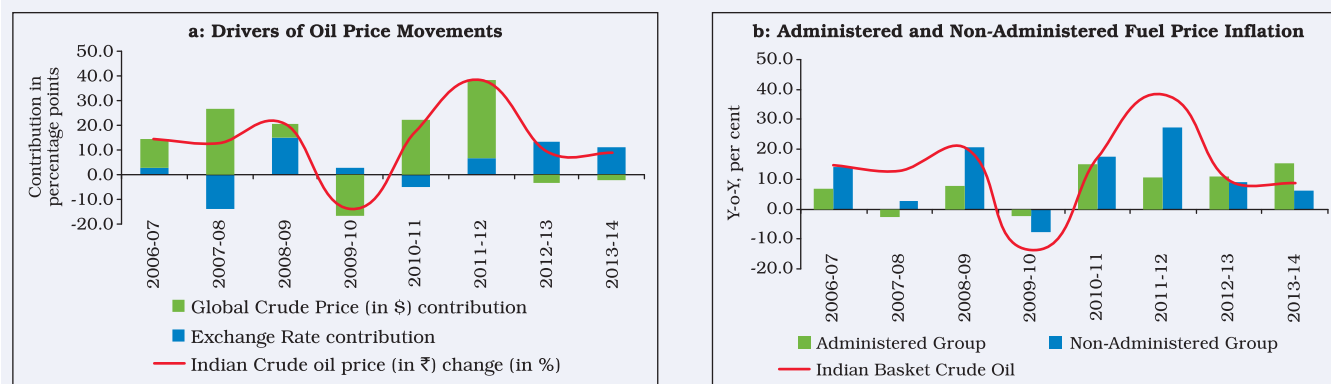
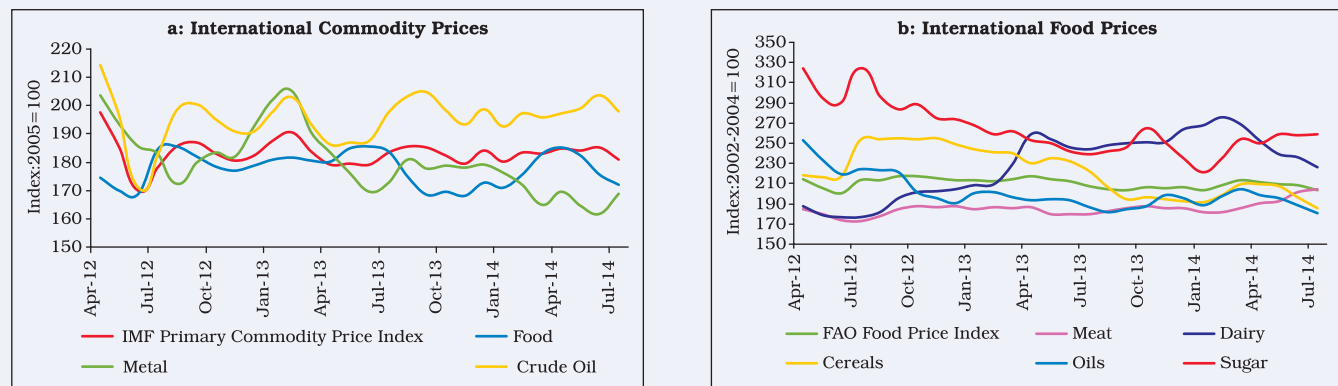


Chart II.17: Trends in Global Commodity Prices



*Global commodity prices remained range-bound but exchange rate depreciation during H1 of 2013-14 led to some pass-through effects*

II.2.12 Global commodity prices continued to soften amid improved supply and weak demand conditions in 2013-14 (Chart II.17). Global crude oil prices witnessed some uptick during H1 of 2013-14 driven by supply outages but declined in H2 of 2013-14 on account of easing supply concerns and tepid demand conditions. Metal prices edged down in 2013-14 aided by surplus supplies and slowing demand in emerging economies, particularly in China and India. The Food and Agriculture Organisation (FAO) food price index declined by 1.6 per cent in 2013 as large supplies pushed down the international prices of commodities such as cereals, oils and sugar.

II.2.13 Global commodity prices, especially of crude oil have remained volatile in 2014-15 so far on account of factors including supply disruptions from Libya, the Ukraine crisis and political developments in Iraq. Brent crude oil spot prices averaged US\$111.9/barrel in June 2014 but improved supply prospects in Libya led to subsequent correction in Brent crude oil prices to below US\$104 per barrel in early-August 2014. Further, sustained softer prices of non-oil commodities, especially metals offset some of the inflation risks. Weather-related concerns and increased geopolitical tensions have caused global prices of some cereals, especially wheat, maize and barley to firm up during February-April 2014.

*Inflation expected to be range-bound during 2014-15 but risks remain*

II.2.14 The pick-up in CPI inflation after significant moderation during December 2013-February 2014, especially in July 2014 driven by shocks to food prices indicates that the concerns on inflation are far from over. The unsatisfactory progress of south-west monsoon so far could further exacerbate pressures on food prices as is evident from the spikes witnessed in prices of certain vegetables such as tomato. Such pressures could drive inflation expectations up, necessitating policy actions to contain inflation and mute the second round effects unless supply side actions mitigate price pressures. Global commodity prices may remain range-bound, but pressure on crude oil prices from geopolitical tensions, especially in Iraq could be a major upside risk. With the marked reduction in external sector risks that have imparted stability to the rupee exchange rate, the likelihood of exchange rate pass-through pressures on domestic inflation have receded. However, administered price revisions, particularly in the case of fuel will need to continue in order to reduce the fiscal burden, which will also add some upside pressures on prices in the near-term. Over the medium term, however this will help lower inflation and inflation expectations. The persistence of negative output gap despite a fall in potential output growth should support the disinflation momentum going forward.

## II.3 MONEY AND CREDIT

*Tapering signal posed challenges to conduct of monetary policy in H1 of 2013-14*

II.3.1 The monetary policymaking during 2013-14 can be demarcated into three distinct phases. The easing cycle that began in January 2012 was followed by a 125 basis points (bps) reduction in the repo rate during April 2012 to May 2013. This phase was interrupted by large and sudden capital outflows. The trigger for such huge volumes of outflows emanated from the May 2013 communication by the US Fed regarding the possible tapering of its quantitative easing (QE) in the following months. Uncertainty about the timing and quantum of the tapering led to large capital outflows from emerging market and developing economies (EMDEs), particularly those with high current account deficits (CAD) and high inflation, including India.

II.3.2 EMDEs had to actively tighten their monetary policy stance so as to stem capital outflows and also rely on foreign exchange interventions. The anticipated impact of QE tapering on global liquidity, withdrawal of cross-border capital flows and their effect on asset prices put downward pressure on the rupee, especially in the presence of a large and unsustainable CAD.

*Monetary policy challenges from spillovers were not unique to India; significant contagion felt across EMDEs*

II.3.3 The monetary policy of central banks in large advanced economies (AEs) spilling over to emerging markets were evident from the developments during 2013-14. The experience of such spillovers provides a rationale for greater policy coordination in this arena (Box II.5).

II.3.4 Facing risks of currency turmoil that could spill over to various forms of macro-financial

### Box II.5

#### The risks from exiting unconventional monetary policies for emerging markets

Spillovers from the unwinding of unconventional monetary policies of the US Fed to the emerging markets economies (EMEs) occurred in significant intensity during 2013-14. Empirical evidence from the in-house research work in the Reserve Bank suggests a clear relationship between the US VIX and the volatility in various financial markets in EMEs, including India. US VIX is a widely tracked measure of volatility in the US equity markets.

Unconventional monetary policy generally refers to non-standard monetary measures. These measures include large-scale asset purchase programmes (LSAPs) also known as quantitative easing (QE) that change the size and composition of a central bank's balance sheet, such as through purchasing less credit worthy, illiquid private sector securities. It also includes forward guidance provided by the central banks to move expectations on long-term interest rates. For all practical purposes, even the policy rates at or near zero lower bound (ZLB) of nominal interest rates constitute unconventional measures. The Bank of Japan has resorted to QE since 2001. Since 2008, it has been joined by the US Fed and the Bank of England in resorting to a significant dose of unconventional monetary policy measures.

In 2013-14, a mere indication by the Fed on tapering of the QE resulted in stronger spillovers to EMEs. The response to the actual tapering under which the US Fed has reduced its QE asset purchases from US\$85 billion a month to US\$25 billion so far (up to August 2014) was relatively muted. However, risks of further spillovers remains if the US monetary policy tightening cycle takes an uncertain turn or significant tightening occurs in a relatively short span. In the past, several but not all of these tightening cycles have witnessed a significant impact on bond yields, currencies and equities in global financial markets.

In February 1994, when the Federal Open Market Committee (FOMC) indicated the start of the tightening, Federal funds rate rose by 300 bps in a year. There was a severe negative reaction in bonds in both AEs and EMEs, though in the case of equities it were essentially the EMEs equities that got battered. The spillovers also resulted in the occurrence of the Mexican peso crisis of 1994-95. The EMEs bond market spreads over US treasuries reached a high, up to 1500 bps in some cases at that stage. Regarding the spillovers from the tapering in 2013, Eichengreen and Gupta (2013) indicated that the largest impacts of the tapering were felt by countries

*(Contd....)*

that allowed exchange rates to run up in the earlier period in expectation of continuous Federal Reserve's easing. Countries with larger markets experienced more depreciation pressures and macroeconomic fundamentals like budget deficit, public debt, level of reserves and GDP growth rates which provided little insulation to countries that came under depreciation pressure during the summer of May 2013.

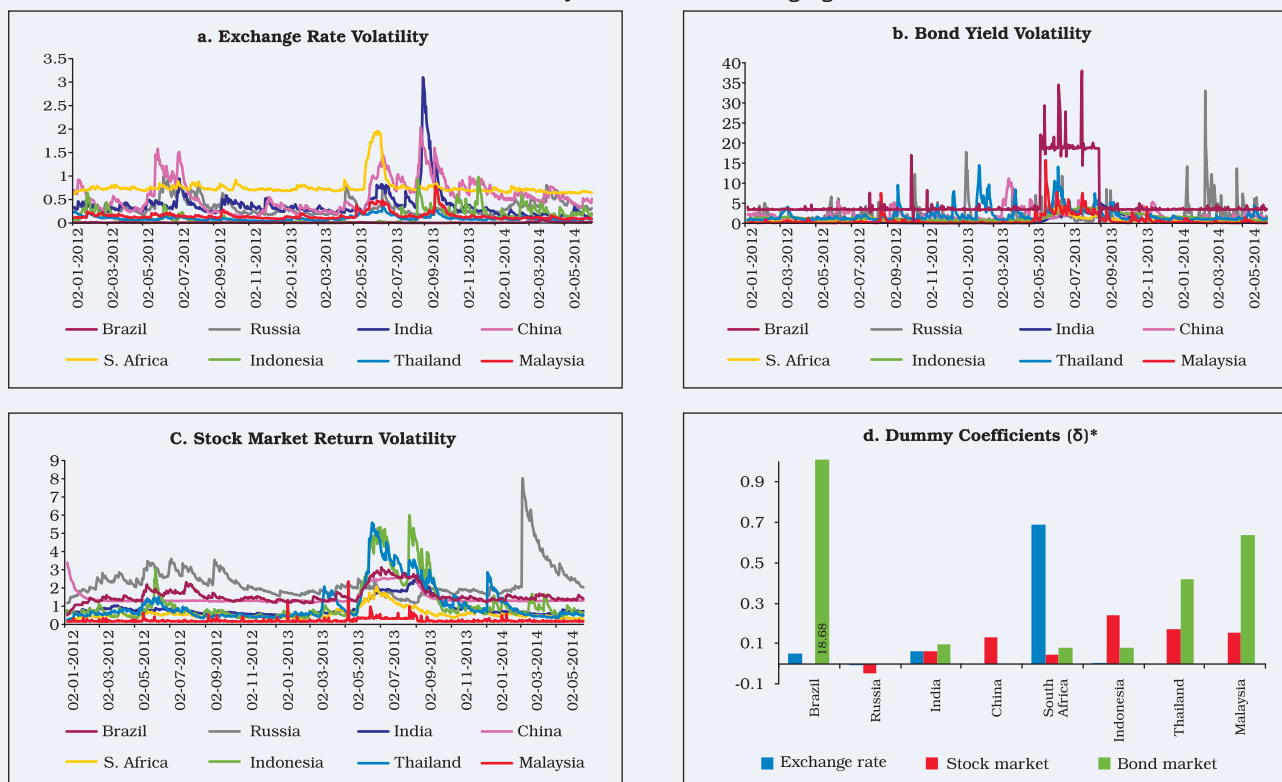
Besides currency depreciation pressures, financial market volatilities resulting from the QE taper have been a major concern in the policy arena especially for emerging market economies (EMEs). Following literature on clustering of financial markets volatility, an augmented GARCH(1,1) model was used to model the daily volatility of stock market returns, percentage change in the exchange rate (USD as the base currency) and changes in benchmark (10-years) yield for BRICS and a set of Asian emerging markets.

These estimations use daily data from January 2012 to May 2014. A dummy variable that takes value one for *Fed's tapering talk*, that is, May 22, 2013 to August 2013 otherwise zero was introduced in the volatility equation. The estimated conditional variance series are given in Chart 1.

The GARCH volatility estimates in most of the emerging market countries indicate a spillover in currency, bond and equity markets of the *Fed's tapering talk* during May to August 2013. Uncertainty about the magnitude of the taper and fears of future rate hikes led to the withdrawal of capital flows from emerging markets in this period. The estimated dummy variable coefficients were mostly significant and positive, indicating that the increase in volatility in the EMEs was due to the uncertainty surrounding the possibility and magnitude of QE withdrawal.

Rey (2013) in her Jackson Hole paper emphasised the role of a global financial cycle in capital flows, asset prices and credit growth, which co-moves with the VIX. Her central argument is the existence of the 'irreconcilable duo' rather than the 'impossible trinity', implying that independent monetary policies are only possible with managed capital accounts. The paper adds that one of the policy options to cope with the dilemma is to act on the policies of a large source country that generates these cycles (such as that from QE). However, these source countries are unlikely to agree to this. To further examine Rey's proposition during the

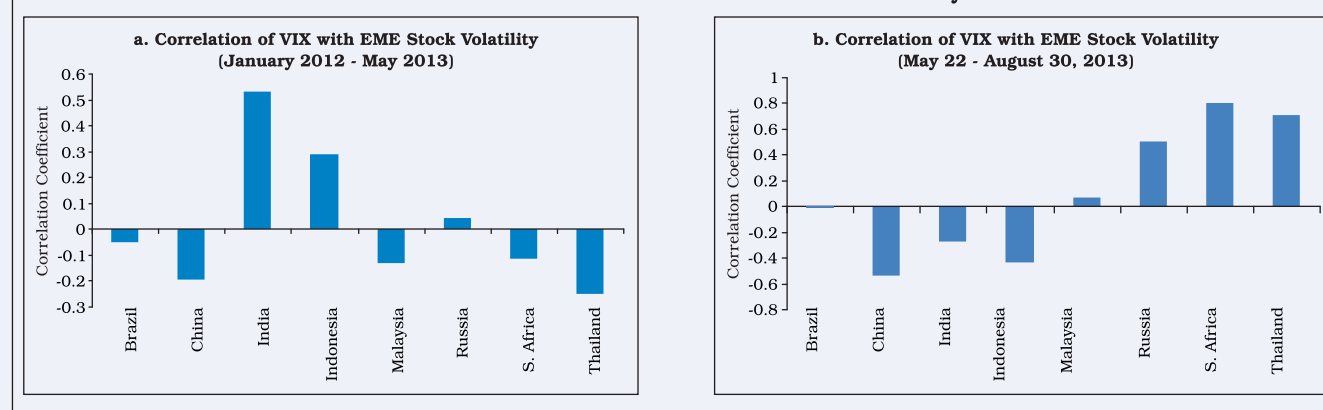
**Chart 1 : Volatility Estimates for Emerging Markets**



**Note:** In Chart d, statistically not significantly different from zero  $\delta$ -coefficients are plotted as zero.

(Contd...)

Chart 2 : Correlation of VIX with EME Stock Volatility



tapering of QE, an analysis of the US-VIX and the estimated GARCH volatility for the 8 emerging stock markets (including BRICS) indicate changes in the correlations during the taper announcement period. Chart 2 plots the changes in magnitude and signs of stock market volatility correlation during the Fed tapering talk (May-August 2013) indicating the impact of tapering on emerging stock markets.

Rajan (2014) has pointed out that the current 'non-system' in international monetary policy as a source of substantial risk, and argued for more consideration by source countries to the effect that their policies will have on other countries. The adverse effect of such a feedback loop might be minimised by greater coordination among systemically important central banks, multilateral arrangements for liquidity provision, better micro-prudential measures, or independent assessors who could analyse such policies and come to a judgement on whether they follow the rule of the game. These measures could minimise the snowballing of adverse feedback spillovers of QE-withdrawal taking the locus towards a globally optimal monetary policy framework. While international monetary

policy coordination where AE central banks prepare the markets and allow gradual adjustments remains the first best policy choice, EMEs domestic policy responses will need to gear up to convince markets on stable inflation, smooth exchange rate adjustments and effective micro and macro-prudential policies.

#### References:

Eichengreen, Barry and Poonam Gupta (2014), 'Tapering talk: the impact of expectations of reduced federal reserve security purchases on emerging markets', *Policy Research Working Paper Series* 6754, The World Bank.

Rajan, Raghuram G. (2014), 'Competitive monetary easing: is it yesterday once more?', *RBI Monthly Bulletin*, 1-12, available at: [http://www.rbi.org.in/scripts/BS\\_SpeechesView.aspx?Id=886](http://www.rbi.org.in/scripts/BS_SpeechesView.aspx?Id=886)

Rey, Helen (2013), 'Dilemma not Trilemma: The global financial cycle and monetary policy independence', Paper presented at the 25<sup>th</sup> Jackson Hole symposium, Wyoming, August.

stability and endanger growth over the medium term, the Reserve Bank gave priority to stabilisation of the rupee. In this the second phase, it effected a 200 bps hike in the Marginal Standing Facility (MSF) rate in July 2013 among other measures (see Box III.2, Chapter 3 for chronology of events), thereby increasing the spread between the repo and the MSF rates to 300 bps. With the MSF rate acting as the effective policy rate, the cost of money

market funds in the economy increased significantly. Caps on access to the LAF window and an increased average daily CRR requirement (initially to 99 per cent from 70 per cent, and thereafter to 95 per cent) contributed to the tightening domestic liquidity situation and increasing the cost of speculation (Chart II.18a). Increasing domestic interest rates was important to prevent narrowing of the spread that could have accelerated debt

outflows given that FII debt flows are found to be particularly sensitive to monetary policy variables (see Box II.6).

*Monetary and liquidity conditions re-calibrated to address rising inflation challenges in H2 of 2013-14*

II.3.5 While the pressures on the exchange market were effectively managed by timely measures including the forex swap facility for banks and oil companies, their gradual withdrawal and the calibrated normalisation of the interest rate corridor helped restore stability to the financial markets. However, increasing inflationary pressures and the possible impact on the long term valuation of the rupee, warranted a shift in the policy stance beginning October 2013. In view of the upturn in inflation and elevated inflation expectations and in order to avert the adverse impact of low real rates on financial savings, the Reserve Bank raised the repo rate by 50 bps during September-October 2013 even as the MSF rate was lowered so as to restore the interest rate corridor spread to 100 bps.

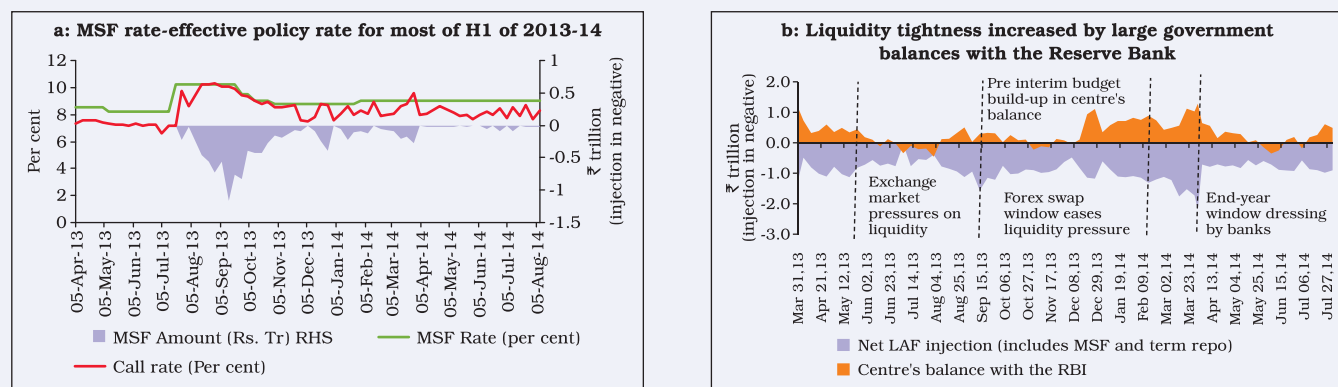
II.3.6 In order to rebuild buffers in the face of uncertainty regarding the global interest rate cycle and financial conditions, the Reserve Bank offered a forex swap window (September 4-November 30, 2013) for banks' overseas borrowing and non-resident deposit (FCNR(B)) funds, resulting in capital inflows in excess of US\$ 34 billion through

the swap facility. These facilities not only proved to be timely in strengthening external resilience but also helped in easing domestic liquidity significantly, which was reflected in under-utilisation of limits by the banks under overnight LAF repo and export credit refinance (ECR), a steady decline in access to MSF and the parking of excess liquidity with the Reserve Bank through reverse repos.

II.3.7 In order to prevent liquidity tightening measures from adversely impacting financing conditions and with a view to keeping a check on the long-term interest rates in the system, the Reserve Bank conducted OMO purchase auctions that led to net liquidity injection to the tune of about ₹520 billion during the year in addition to injection under LAF and MSF. Although access to overnight liquidity through LAF was restricted, variable rate term repos were introduced with 7 and 14 day tenors.

II.3.8 However, the build up of large surplus cash balances of the government with the Reserve Bank up until the interim budget (February 2014) caused the liquidity situation to tighten again. Despite the subsequent spending by the government, the year-end pressures on liquidity on account of annual closure of bank accounts caused the net recourse to LAF (including term repo and MSF) to shoot up to around ₹2 trillion at the end of the year (Chart II.18b). During 2014-15 so far, liquidity

**Chart II.18: Liquidity conditions remained generally tight in 2013-14**



conditions have remained broadly stable barring intermittent tightening of liquidity conditions on account of build up of government cash balances maintained with the Reserve Bank.

*Enhanced liquidity injection, revaluation gains lead to more balanced net domestic assets (NDA)-net foreign assets (NFA) led expansion in monetary aggregates*

II.3.9 Following inflows under swap facilities, the increase in reserve money during 2013-14 was supported by a more balanced NDA-NFA mix as compared with the skewed trend in recent years on the sources side (Chart II.19a).

II.3.10 The broad money growth remained largely in line with the indicative trajectory of 13 per cent for 2013-14. However, netting out the impact of the flows into FCNR(B) deposits through the forex swap facility, the growth in aggregate deposits of residents was lower at around 11 per cent and the corresponding resident money growth (NM3) was also lower. Near static deposit rates have also dampened the pace of deposit mobilisation (Chart II.19b).

II.3.11 Scheduled commercial banks (SCBs') credit off-take and deposit growth at around 14 per cent in 2013-14 remained comparable to that in 2012-13. The closing of the gap between credit and deposit helped reduce the pressure on liquidity.

*Uncertainty, slowdown and banking sector asset quality remain a drag on credit off-take*

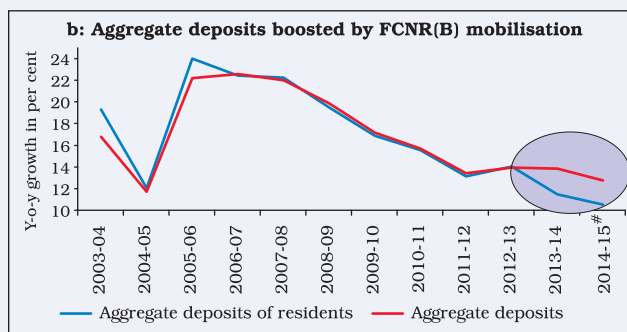
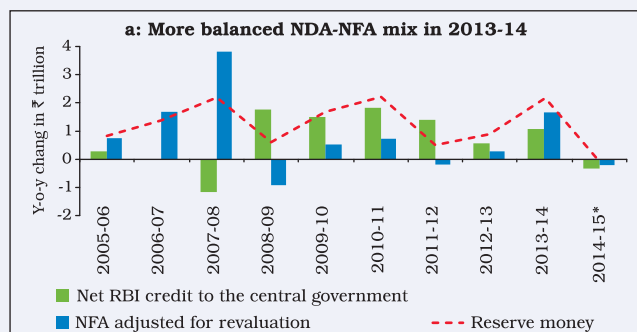
II.3.12 In line with the cyclical downturn, the banking sector has been passing through a challenging phase with deterioration in asset quality, increased provisioning requirements and decelerating profitability indicators. These factors have contributed to increased risk aversion, affecting credit off-take adversely. Although the gross NPAs to the gross advances ratio has increased y-o-y, especially in public sector banks, the pace of growth in NPAs has moderated recently, though it is too early to be confident that the worst is over (See Table VI.2 for banking asset quality indicators).

*Non-food credit growth led by services, personal loans*

II.3.13 The y-o-y credit growth to the industrial sector moderated during 2013-14 to 13.1 per cent as compared to 15.1 per cent in the previous year. Deceleration in credit growth was observed particularly in mining, chemicals, cement and textiles. However, credit flow was higher in construction, rubber and plastic, leather and paper.

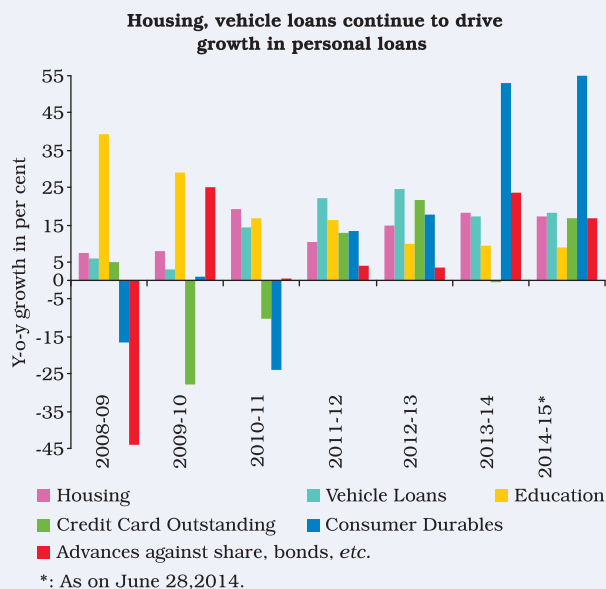
II.3.14 The y-o-y credit growth in services and personal loans was at around 16 per cent. While personal loans continued to be led by housing and vehicles there was a significant pick-up in consumer

Chart II.19: Variations in Monetary Aggregates



\*: Up to June 25, 2014. #: Up to July 25, 2014

Note: Since July 2014 definition of Net RBI credit to the central government changes following Technical Committee recommendation (Chairman: Shri Y. H. Malegam).

**Chart II.20: Trends in Sectoral Deployment of Credit**

durables and advances to individuals against shares and bonds (Chart II.20).

II.3.15 Monetary and liquidity policies in 2013-14 were shaped by twin risks emanating from external vulnerability and domestic inflation pressures amid downward sticky inflation expectations. While the monetary policy measures along with external sector measures helped in containing external sector risks in the near-term, inflation remains a major threat in achieving sustainable growth and currency stability. The Reserve Bank increased the repo rate in January 2014 to control inflation, anchor inflation expectations and mute their second round effects in line with the disinflationary path as recommended by the Expert Committee to Revise and Strengthen the Monetary Policy Framework. Further, in pursuance of the committee's recommendation to de-emphasise overnight 'guaranteed-access' windows for liquidity management and progressively conducting liquidity management through term repos, the Reserve Bank reduced access to overnight repos under LAF while compensating with a commensurate expansion of the market's access to term repos from the Reserve Bank to improve the transmission of policy impulses across the interest rate spectrum.

## II.4 FINANCIAL MARKETS

*Global financial markets continue to be liquidity driven, withstand the US taper and Ukraine crisis*

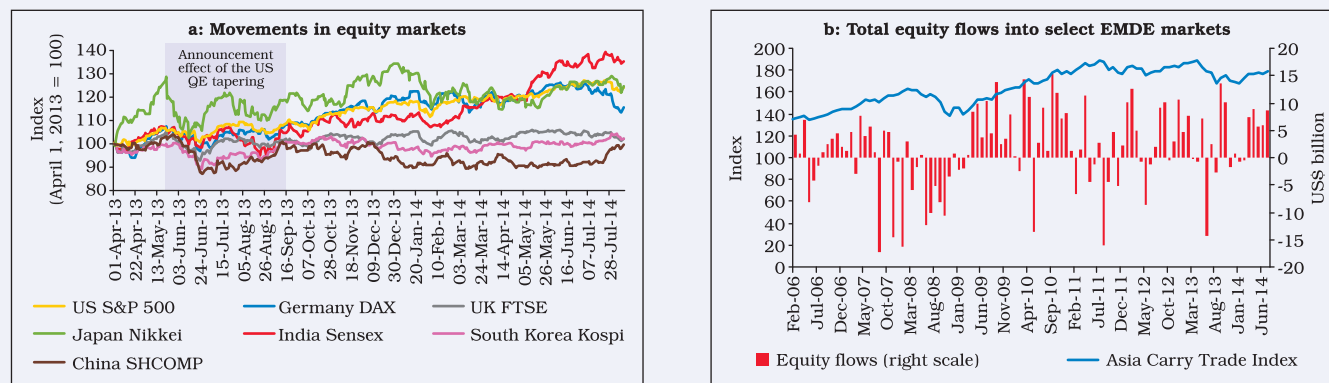
II.4.1 The year was marked by a spell of sharp increase in financial market volatility since May 2013 and a subsequent fall since September 2013. The US taper indication impacted the Indian financial markets, however, rebuilding buffers by the time the actual taper and the Ukraine crisis took place helped contain spillovers. While the unexpected strife in Iraq appears manageable so long as geopolitical uncertainties do not extend to the south of Iraq or the rest of the region, its ramifications are still unfolding and continued vigilance is warranted.

II.4.2 Overall, policy rate hikes by emerging market and developing economies (EMDEs) helped maintain the large bond interest rate spreads with advanced economies (AEs), thus helping to stem outflows. After initial volatility, markets stabilised both in AEs and EDMs. In the face of low growth and inflation and the prevailing easy monetary conditions in the AEs, the prices of riskier assets such as equity rose further in 2013-14, while bonds rallied as fears of imminent exit from accommodative monetary policies receded.

II.4.3 Although uncertainties about possible increases in policy rates in AEs, the on-going Iraq crisis and the slowdown in the Chinese economy persist, the measured and predictable pace of the US tapering programme, optimism in developed markets and policy commitments for supporting economic growth in the euro area have calmed financial markets. A number of equity markets including those in the US, Europe and EMDEs have recorded historical highs during 2014-15 so far. Driven by investors' search for yield, carry trade flows to EMDEs remained large, but exhibited a downward trend aided by some unwinding during May-June 2014 (Chart II.21).



Chart II.21: Global Markets Recover as Uncertainties Reduce



**Note:**

1. Select EMDEs include India, Indonesia, Philippines, South Korea, Taiwan and Thailand.
2. The Asian Carry Trade Index measures the cumulative total return of a buy-and-hold carry trade position that is long four Asian currencies (Indian rupee, Indonesian rupiah, Philippine peso and Thai baht) that are fully funded with short positions in the US dollar. It is assumed that the investment is in three-month money market securities, with each of the four Asian currencies assigned an equal weight in the currency basket.

**Source:** Bloomberg.

#### *Global asset prices factor low risk premium*

II.4.4 The recent surge in global equity markets has come amidst low global growth and inflation and slower earnings growth particularly in the US, suggesting that equity markets are pricing assets with a very low risk premium. With economic growth in the US and the UK expected to improve in the near future, there is a risk that central banks may start increasing policy interest rates earlier than what was previously assessed. Irrespective of whether this happens or not, markets may start pricing rate hikes, which in turn may lead to increased uncertainty and higher volatility. Further, an increase in interest rates in the US may trigger a reversal in carry trade flows to EMDEs leading to higher volatility in the forex, equity and bond markets (Box II.6).

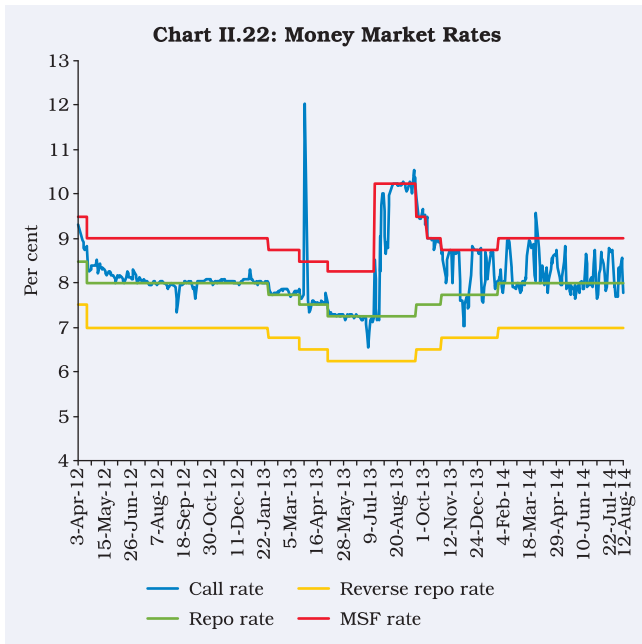
#### *Indian markets price increased risks in H1 followed by quick risk containment in H2 of 2013-14*

II.4.5 During 2013-14, the Indian financial markets were marked by periods of intense volatility, particularly during May-August 2013 (accompanying taper related announcements). As bond yields in the AEs, particularly the US, rose sharply, the

attractiveness of their fixed income securities *vis-à-vis* those of the EMDEs improved and triggered large-scale sell-offs in domestic financial markets by foreign institutional investors (FIIs), causing intense volatility. Weak macroeconomic fundamentals added to the volatility in the Indian markets, but the impact was largely in line with that of other EMDEs. Opening of forex swap windows combined with restrictions on gold imports restored confidence in the markets immediately. In addition, exceptional liquidity measures to contain volatility and their quick withdrawal helped restore stable market conditions in a sustainable way by September 2013 (see also Section II.3 and Chapter 3).

#### *Money market rates stay firm*

II.4.6 Money markets tracked the liquidity conditions and policy rates adjustments during the year. The marginal standing facility (MSF) rate became the effective policy rate after the Reserve Bank placed a cap on the amount provided under the repo window of the liquidity adjustment facility (LAF) as part of the tightening measures to manage exchange rate volatility during July-September 2013. Thereafter, the call rate generally moved



within the corridor set by the reverse repo and MSF rates as the Reserve Bank introduced auction-based variable rate term repo to ensure adequate liquidity (Chart II.22). The weighted average call and collateralised borrowing and lending obligation (CBLO) rates increased to 9.97 per cent and 9.90 per cent respectively in September 2013 from 7.76 per cent and 7.36 per cent respectively in July 2013. However, a calibrated unwinding of exceptional monetary measures during September-October 2013 coupled with easing liquidity conditions on the back of large capital inflows under the forex swap facilities contributed towards the softening of money

market rates and led to the restoration of stable conditions in the market. During 2014-15 so far, the money market has remained orderly with the rates moving within the corridor set by the reverse repo rate and the MSF rate.

II.4.7 The average fortnightly issuance of certificate of deposits (CDs) and commercial papers (CPs) decreased in 2013-14 (Chart II.23). The weighted average effective interest rate (WAEIR) of aggregate CD issuances increased to 9.74 per cent at end-March 2014 from 9.24 per cent at end-March 2013. The weighted average discount rate (WADR) of CPs increased to 9.92 per cent at end-March 2014 from 9.77 per cent at end-March 2013. However, reflecting easing short term liquidity conditions, both CD and CP rates decreased to 8.69 per cent in July 2014.

*G-sec yields rose during 2013-14, while the yield curve remained flat with inversions at few maturities*

II.4.8 G-sec yields softened in the early part of the year reflecting some moderation in domestic inflation and easing of global commodity prices. The 10-year generic yield touched a low of 7.12 per cent on May 24, 2013 compared with 7.99 per cent at end-March 2013. However, following the tapering indication by the US Federal Reserve (Fed) and the subsequent monetary and liquidity tightening measures announced by the Reserve Bank, the yields firmed up. The 10-year generic

**Chart II.23: Trends in CD and CP Segments**

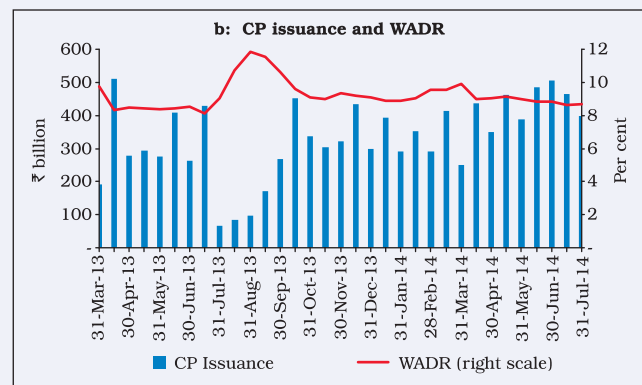
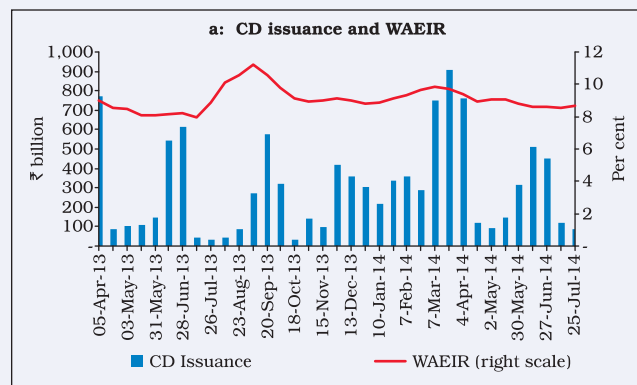
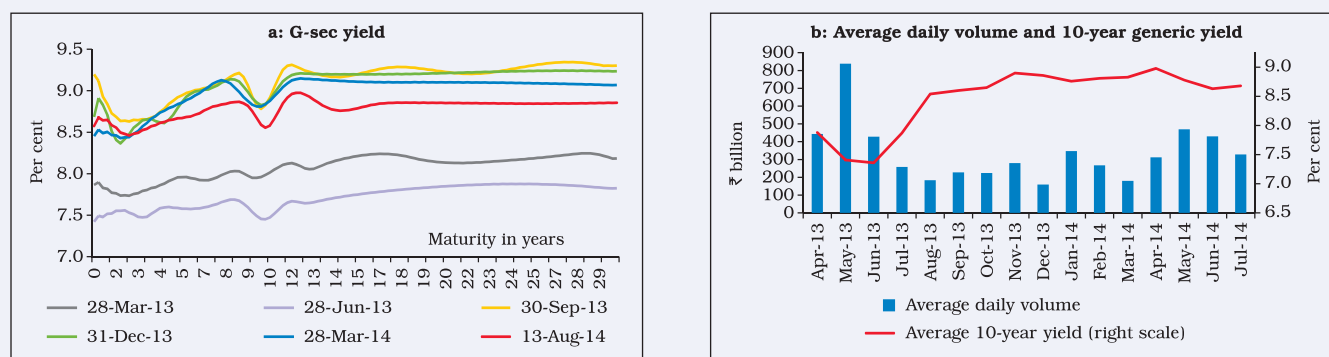


Chart II.24: Trends in the G-sec Market



Source: FIMMDA.

yield peaked at 9.27 per cent on August 19, 2013. However, yields softened thereafter on the back of open market operation (OMO) purchases in August 2013 and on gradual unwinding of exceptional measures to tighten liquidity. Subsequently, relatively higher government borrowings and continued monetary tightening with a view to containing inflation capped the downward movement. The 10-year generic yield closed the fiscal year higher at 8.84 per cent.

II.4.9 Yields have softened during 2014-15 so far reflecting easing of the US treasury yields, active buying by institutional investors, moderation in inflation, improvement in the fiscal situation and growing positive market expectations about government policy after the general elections. The gains had, however, been negated to an extent in June 2014 due to growing geopolitical tension in the Gulf region. The 10-year generic yield stood lower at 8.55 per cent on August 13, 2014 *vis-a-vis* its level at end-March 2014. The yield curve flattened at the longer end as compared to the previous year and the average volume generally varied inversely with the movement of the 10-year G-sec yield (Chart II.24).

*Liquidity in the secondary market has improved in recent years*

II.4.10 Liquidity in the secondary market for G-secs has improved considerably in recent years. The

annualised turnover ratio of outright transactions in the central G-secs has increased. The issuance strategy during the past focused on building volumes under benchmark maturities with a view to improving secondary market liquidity. The Reserve Bank has developed an interest rate derivative market for making the debt market more vibrant and liquid. The re-launch of interest rate futures (IRFs) on a cash settled basis in December 2013 will further augment secondary market activity.

*Exchange rate pressures contained in the year, recent appreciation reflects market optimism, stronger fundamentals*

II.4.11 The Rupee came under severe pressure after the signalling of tapering of quantitative easing by the US Fed in May 2013, reaching an all-time low of ₹68.36 (RBI reference rate) against the US\$ as on August 28, 2013. The Rupee began its recovery thereafter responding to the measures taken by the Reserve Bank and the government and a contraction in current account deficit (CAD). It moved in a range of ₹60.1 to ₹63.0 during Q4 of 2013-14 and appreciated further in Q1 of 2014-15. A cross-country comparison shows that the Rupee performed better than some other peer economies (Table II.6).

*FII flows into India remain volatile*

II.4.12 During 2013-14, capital inflows through foreign institutions remained highly volatile. The

**Table II.6: Movements in Cross-Country Exchange Rates against the US dollar**

(Per cent)

	End-Aug 2013 over end-Jun 2013	End-Dec 2013* over end-Aug 2013	Aug 12, 2014 over end-Dec 2013*
1	2	3	4
Argentine Peso	-5.0	-13.1	-21.1
Brazilian Real	-7.3	0.2	3.3
Chinese Yuan	0.1	1.1	-0.8
Euro	1.2	4.1	-3.2
<b>Indian Rupee</b>	<b>-10.3</b>	<b>7.4</b>	<b>1.3</b>
Indonesian Rupiah	-9.1	-10.6	4.5
Malaysian Ringgit	-3.7	0.2	3.1
Mexican Peso	-2.4	2.1	-0.6
Russian Rouble	-1.6	1.6	-9.3
South African Rand	-3.1	-1.6	-1.6
South Korean Won	3.5	5.2	2.4
Thai Baht	-3.0	-2.3	2.3
Turkish Lira	-5.3	-4.1	-1.6

\*: Data for end-December 2013 pertain to December 30, 2013.

tapering announcement by the US Fed in May 2013 led to heavy outflows by FIIs from equity and debt markets, aggregating to around US\$ 13 billion till August 2013 (Box II.6). However, flows to the equity segment turned positive in September following policy initiatives, and remained positive thereafter, boosting equity indices, except for a marginal outflow in January 2014 when the US Fed actually commenced a reduction in asset purchases. FII flows in the debt segment, however, continued to remain volatile (Chart II.25).

*Domestic equity market indicators improved; some sector-specific indices outperformed the broader indices*

II.4.13 The equity market remained subdued during May-August 2013, but started recovering following a number of reform measures announced since September 2013. During H2 of 2013-14, the BSE Sensex and the NSE Nifty recorded gains of 20.2

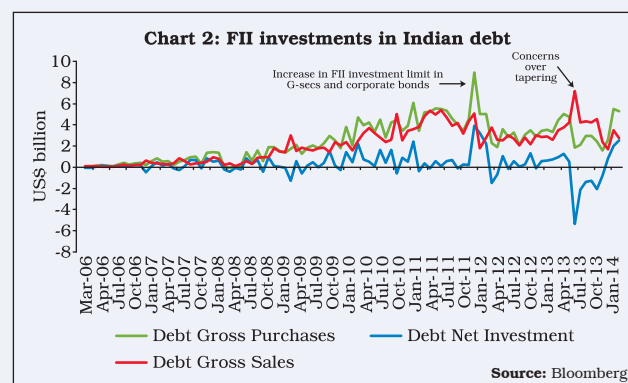
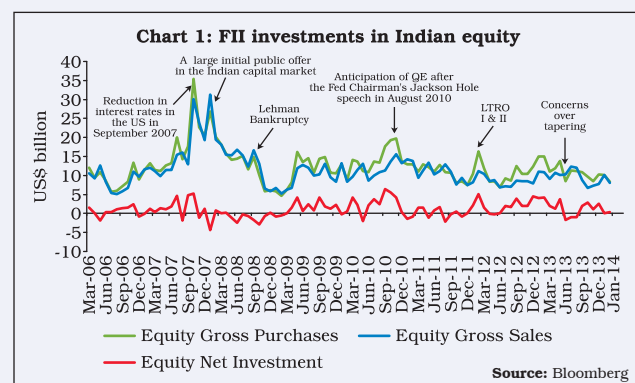
### Box II.6

#### Understanding Foreign Institutional Investor Debt and Equity Flows in India

Concerns about portfolio flows from foreign institutional investors (FIIs) centre around the destabilising effects of 'hot' money inflows during boom periods followed by retrenchment in crises. These concerns have led policy makers around the world to consider restrictions on FII flows, especially in times of macroeconomic stress. A recent Centre for Advanced Financial Research and Learning (CAFRAL)-Reserve Bank study on FII flows into the debt and equity segments of the Indian capital market during 2006 to 2014 has found that: there is moderate correlation between flows into equity and debt and the correlation is indistinguishable from zero

when purged of common economic drivers. Flows in the two segments share relatively few common co-determinants apart from past exchange rate movements. Neither equity nor debt flows Granger cause the other.

Past depreciation of the Rupee and other emerging market flows explain equity flows while domestic monetary variables such as interest rates and term spreads, besides Rupee depreciation drive debt flows (Chart 1 and 2). Impulse response functions suggest that most economic effects on equity flows decay within 1-3 months in a roughly exponential



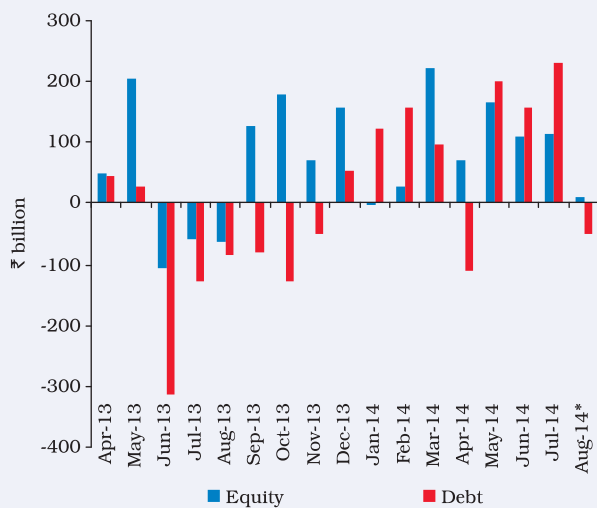
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fashion. For debt markets, positive shocks to domestic term spreads and past bond returns result in FII inflows, while positive shocks to inflation and other emerging market flows lead to FII outflow.

Past stock market returns were found to be the main drivers of sharp spikes in flows, especially reversals in equity markets. Few variables explain surges, while negative stock returns, higher treasury bill yields and a more upward sloping term structure influence equity reversals.

Spikes in FII flows in the debt market are influenced by domestic interest rates, term structure and partly by exchange rates, indicating that even domestic monetary variables matter for debt market inflows (see also para II.3.4). Sharp retractions in flows, particularly debt flows, followed the US talk of tapering of quantitative easing. The results suggest that the US monetary policy spillover is transmitted internationally and one channel is through the markets for sovereign debt.

**Chart II.25: Net FII flows in the equity and debt segments**



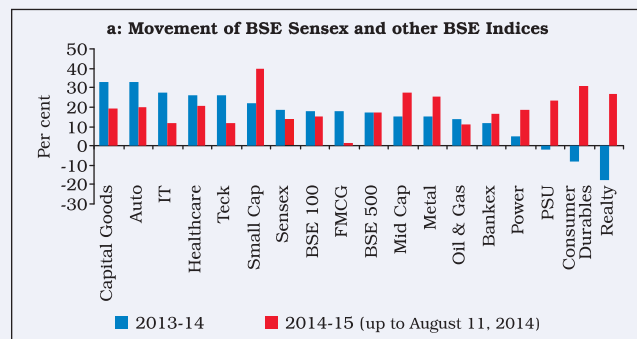
\*: up to August 8, 2014  
Source: SEBI.

than expected earnings results of some blue chip companies, revival of FII inflows and announcement by the US Fed to maintain adequate liquidity in the system also aided market sentiment. Except for a brief spell in January 2014, when the domestic equity market recorded correction amidst the US Fed's reduction of asset purchases and eruption of a political crisis in Ukraine, the markets continued their upward trend. Among the sectoral indices, BSE capital goods, BSE auto, BSE IT, BSE healthcare and BSE teck outperformed the benchmark index during 2013-14, while broader indices such as BSE 100 and BSE 500 underperformed (Chart II.26).

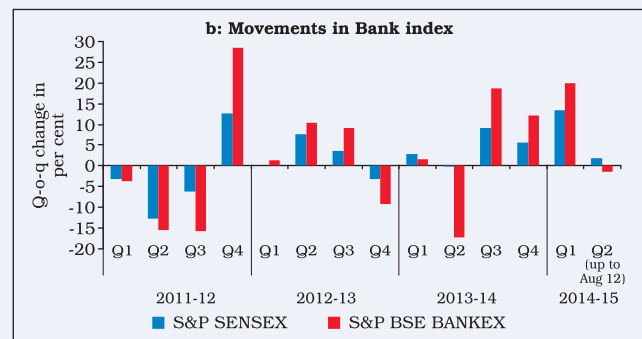
per cent and 22.5 per cent, respectively on expectations of formation of a stable government after the Lok Sabha elections in May 2014. Better

II.4.14 During 2014-15 so far (up to August 13, 2014), both the BSE Sensex and the S&P CNX Nifty have increased by 15.8 and 15.4 per cent, respectively on account of buying by FIIs following the formation of a stable government at the centre and initiation of various economic reforms, good

**Chart II.26: Trends in the Equity Market**



Source: Bloomberg



quarterly earnings results by major companies, improvement in macroeconomic indicators and positive global cues due to easing of geopolitical tensions and crude oil prices.

II.4.15 Concerns over the asset quality of banks and corporate governance arising from ownership structures of public sector banks, amongst other things have contributed to the low performance of the BSE Bankex since end-March 2013. However, recent regulatory initiatives and reform measures have helped its recovery and it has continued to

outperform the benchmark index since H2 of 2013-14. The global crisis highlighted the risks of contagion from bank balance sheets across countries and called for higher standards in regulation to check system-wide stability issues with particular attention to the banking industry. Taking a cue from the crisis, regulatory capital has been beefed up across countries including in India. Nonetheless, the dynamic global developments call for a more robust institutional structure for the banking industry (Box II.7).

### Box II.7

#### Structure of the Banking Industry – A Global Perspective

It is important to review the banking structure in India with a view to enabling it to cater to the needs of a growing and globalising economy as well as furthering financial inclusion. The global financial crisis of 2008 prompted many economies to review their banking structures.

Recently, based on its own research, the World Bank (2013) espoused a balanced view on the debate on state involvement in financial sector in the aftermath of the crisis. It argued that evidence suggests that the state needs to encourage contestability through healthy entry of well-capitalised institutions and timely exit of insolvent ones. While the crisis may have fuelled criticisms of 'too much competition' in the financial sector, leading to instability, research suggests that factors such as a poor regulatory environment and distorted risk taking incentives promote instability rather than competition itself.

Other empirical studies suggest that the banking structure in a country evolves in response to the quantum and types of demand for banking services. These demands, in turn, depend on the country's economic, demographic and geographical features.

In this backdrop, it is important to consider India's banking structure with a cross-country comparison based on some banking indicators (Table 1). These indicators capture size, inclusiveness, ownership pattern, concentration and soundness.

While the Indian banking sector compares favourably in terms of a low concentration ratio and the reasonable soundness indicators, it has some distance to cover in terms of inclusiveness, efficiency, size and ownership. The public sector owns a disproportionately large share of the total

**Table 1: Structure of banking industries across select economies**

Country	Advanced economies						Emerging market and developing economies				
	Denmark	France	Germany	Italy	UK	USA	Brazil	China	India	Russia	South Africa
1. No. of banks (per 100,000 persons)	2.2	1.1	2.3	1.3	0.5	2.1	0.1	0.02	<b>0.01</b>	0.7	0.1
2. Banking assets as per cent of GDP	245.0	368.0	124.0	204.0	607.0	84.0	105.0	189.0	<b>80.0</b>	75.0	130.0
3. No. of bank branches (per 100,000 adults)	38.7	41.3	15.5	66.0	24.2	35.2	45.5	-	<b>10.5</b>	36.8	10.5
4. % of public sector in banking assets	1.0	2.0	32.0	0.1	26.0	0.0	44.0	-	<b>74.0</b>	41.0	0.1
5. % of foreign entities in banking assets	21.0	12.0	12.0	18.0	18.0	-	18.0	-	<b>7.0</b>	18.0	28.0
6. Concentration ratio (per cent)	81.9	62.7	78.1	63.1	57.6	35.4	62.6	50.8	<b>28.9</b>	31.7	77.7
7. NIM (per cent)	1.1	1.0	0.8	1.4	1.5	3.6	5.0	2.9	<b>3.1</b>	4.0	2.8
8. Credit/deposit ratio (per cent)	-	131.6	90.0	141.7	-	63.4	115.7	251.4	<b>75.8</b>	110.5	110.1
9. CRAR (per cent)	17.2	12.3	16.4	12.7	15.7	14.7	16.3	12.7	<b>13.1</b>	14.7	15.1

**Note:** 1. Data relate to 2011.

2. Concentration ratio refers to the share of top three banking institutions in total assets of the banking industry.

3. NIM – Net interest margin; CRAR - Capital to risk weighted assets ratio.

**Source:** Financial Structure Database, World Bank; Financial Access Survey, IMF; Barth *et al.*, 2013; Financial Soundness Indicators, IMF; BankScope Database.

(Contd....)

banking industry, thus diluting the advantage of low concentration. NIMs are also high in the face of low competition and come in the way of efficiency.

This underscores the need for increasing the number of banking institutions, especially in the private sector. The discussion paper on 'Banking Structure in India - The Way Forward' released by the Reserve Bank in August 2013, advocated fresh bank licensing on a 'continuous authorisation' basis rather than a 'stop and go' licensing policy, though with stringent entry norms to encourage only well-qualified entities. It also spelt out a reoriented tiered banking structure for India having a few large banks with domestic and international presence, several mid-sized niche banks, regionally focused urban cooperative and regional rural banks and a large number of small privately owned local banks. The committee on Comprehensive Financial Services for Small Businesses and Low Income Households (Chairman: Dr Nachiket Mor) submitted its report in January 2014 and recommended a vertically differentiated banking structure in which banks specialise in one or more of 3 functions - payments, credit delivery and retail deposit taking. The committee, thus, recommended the licensing of new categories of specialised banks including payments banks and wholesale banks. Although regionally focussed small banks continue to have a strong appeal for inclusion, the committee noted that they may have low demonstrated stability in the Indian context. The committee also recommended the development of robust solutions *vis-à-vis* regulation, supervision, risk management

and governance of the existing regionally focussed banks before any new ones are created (also see Box VI.4).

As part of reorienting India's banking structure, the Reserve Bank undertook a mammoth exercise that culminated in granting 'in-principle' approval to 2 applicants: IDFC Limited and Bandhan Financial Services Private Limited, to set up banks under the Guidelines on Licensing of New Banks in the Private Sector issued on February 22, 2013. These two applicants were also recommended as suitable for grant of 'in-principle' approval by the High Level Advisory Committee (HLAC) (Chairman: Dr Bimal Jalan), set up by the Reserve Bank. HLAC's recommendation that the application of the Department of Posts be considered separately in consultation with the Government of India has also been accepted by the Reserve Bank. Going forward, more regular licences, *i.e.*, virtually 'on tap', would be provided.

#### References:

Barth, James R., Gerard Caprio, Jr., Ross Levine (2013), 'Bank Regulation and Supervision in 180 Countries from 1999 to 2011'.

Reserve Bank of India (2013), Discussion Paper on 'Banking Structure in India - The Way Forward.'

Reserve Bank of India (2014), 'Committee on Comprehensive Financial Services for Small Businesses and Low Income Households.'

The World Bank (2013), 'Rethinking the Role of State in Finance', *Global Financial Development Report*.

### *Subdued primary market in 2013-14, but may improve ahead*

II.4.16 During 2013-14, the initial public offering (IPO) segment had only one mega issue by Just Dial. Resource mobilisation through the primary market segment remained subdued due to sluggish investment activity and higher volatility in the secondary market. Private placements of non-convertible debentures (NCDs) also declined. However, public issues of debt increased by 150 per cent to a record high of ₹424 billion in 2013-14 mainly on account of higher resource mobilisation by public sector entities through tax free bonds (Table II.7, Appendix Table 4). Going forward, in

2014-15, the primary equity market may improve backed by an already buoyant secondary market. In order to revive the primary market, the Securities and Exchange Board of India (SEBI) announced a slew of measures related to IPOs and offer-for-sale including 25 per cent public shareholding norms for public sector undertakings as also issued guidelines for Real Estate Investment Trusts (REITs) and Infrastructure Investment Trusts.

### *Housing prices rose at a moderate pace*

II.4.17 Housing prices as captured by the Reserve Bank's House Price Index had been growing at an average rate of over 20 per cent

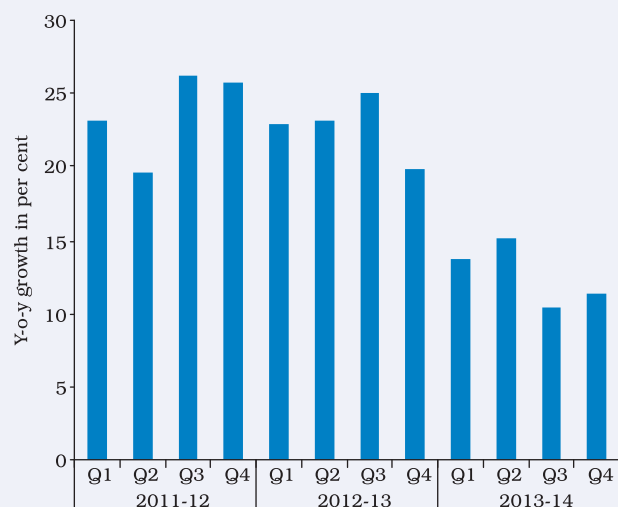
**Table II.7: Primary Capital Market Mobilisation Shows Some Improvement**

(₹ billion)

Category	2012-13	2013-14	2013-14*	2014-15*
1	2	3	4	5
a. Public Issues (i)+ (ii)	219.2	510.8	10.8	15.9
i) Public issues (Equity) of which	49.4	86.9	9.4	2.4
IPOs	49.4	12.4	9.4	2.4
FPOs	0.0	74.6	0.0	0.0
ii) Public issues (Debt)	169.8	423.8	1.3	13.4
b. Rights issue	89.4	45.76	4.2	7.3
<b>Total Equity Issues (i +b)</b>	<b>138.8</b>	<b>132.7</b>	<b>13.6</b>	<b>9.7</b>
c. ADR / GDR	10.4	1.2	1.2	0.0
d. Mutual fund mobilisation (net)	765.4	537.8	956.1	863.7
1. Private sector	637.9	488.4	773.8	780.0
2. Public sector	127.5	49.4	182.3	83.7
e. Private placement in corporate debt market	3,614.6	2,760.5	509.7	1,107.8
f. QIP	160.0	136.6	42.9	71.6

\*: April-June.  
Source: SEBI.

(y-o-y) in the past 3 years. However, the pace of growth slowed in 2013-14 with an average growth in the all-India index at 12.6 per cent reflecting a correction in trends on the back of subdued demand (Chart II.27).

**Chart II.27: Movement in the Housing Price Index**

**Note:** All India index is a weighted average of city indices; weights based on population proportion. The base year 2010-11 = 100.

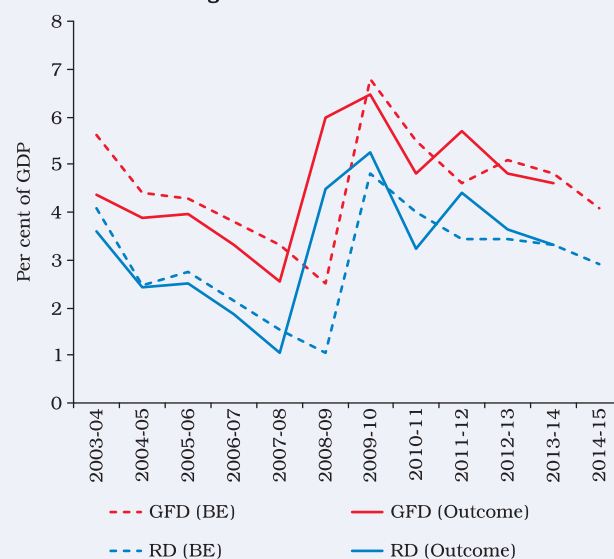
## II.5 GOVERNMENT FINANCES

*Continuation of fiscal consolidation in 2013-14 as reflected in improvement in key deficit indicators*

II.5.1 Fiscal consolidation is key for maintaining both internal and external stability. The twin deficit risks that loomed large during H1 of 2012-13 were brought under control by lowering the fiscal gap since H2 of 2012-13. Recognising the spillover of high fiscal deficit into larger CAD was an important motivation for the central government to continue the fiscal consolidation process in 2013-14, even though this was also needed from the perspective of aggregate demand management and its inflationary implications. Notable gains in containment of key deficit indicators in 2013-14 are apparent in the provisional accounts (PA) (Chart II.28). In terms of ratio of GDP, revenue deficit (RD), gross fiscal deficit (GFD) and primary deficit (PD) were placed lower at 3.2 per cent, 4.5 per cent and 1.2 per cent, respectively (Appendix Table 5).

*Quality of fiscal consolidation and transparency in fiscal accounting remain a concern*

II.5.2 Notwithstanding the progress in achieving deficit targets, there are concerns regarding the

**Chart II.28: Deficit Indicators - Budget Estimate vs Outcome**



quality of fiscal consolidation and transparency in fiscal accounting. Fiscal consolidation in 2013-14 *vis-à-vis* budget estimates (BE) was mainly achieved through reduction in capital expenditure and plan revenue expenditure, necessitated by a significant shortfall in tax revenues and disinvestment proceeds. Gross tax revenues suffered a shortfall of 7.9 per cent from the budgeted level in 2013-14, primarily due to lower indirect tax collections which were affected by industrial slowdown, deceleration in services sector growth and lower imports. Non-tax revenues exceeded the budgetary targets, aided in large part by *ad hoc* dividend receipts from various public sector enterprises (Table II.8).

II.5.3 Both capital expenditure and capital outlay, as per cent of GDP, were lower in 2013-14 (PA) than their budgeted levels. Non-defence capital outlay during 2013-14 was lower at 0.8 per cent of

GDP than 1.1 per cent budgeted for the year. Cutback in capital expenditure has potential adverse implications for growth prospects in the medium term.

II.5.4 Curtailment of expenditures through unpaid/deferred subsidies also helped to meet the deficit targets in 2013-14. This practice shifts the expenditure burden to subsequent years leading to fiscal imbalances over time. There is, therefore, a need for improving fiscal accounting and transparency.

*Further fiscal consolidation needed over the medium-term based on both expenditure cutting and revenue augmentation*

II.5.5 Further strides are needed on the fiscal consolidation front despite recent gains. Scope exists for expenditure reorientation by curtailing subsidies and increasing public investment. Subsidies accounted for nearly 23 per cent of the total non-plan spending during 2013-14. Notwithstanding some progress over the last 2 years in bringing subsidy expenditure under control, further expenditure reduction can be achieved through better targeting of subsidies, more frequent price revisions in domestic LPG and controlled fertilisers and by considerably limiting interest subventions. Of the remaining expenditure, it is important to preserve and increase expenditure on human and physical capital in order to improve the economy's growth potential (Table II.9).

II.5.6 Given that compressing expenditure alone may not deliver the targets set under the amended Fiscal Responsibility and Budget Management (FRBM) Act and could, beyond a point, hamper growth prospects, the fiscal strategy in the coming years has to accord greater focus to revenue augmentation. There has hardly been any improvement in the gross tax revenue-GDP ratio of the central government, notwithstanding the gradual withdrawal of fiscal stimulus. Barring personal income tax and service tax, all the major

**Table II.8: Fiscal Performance of the Central Government**

(Per cent of GDP)

Variables	2004-08 (Avg)	2007-08	2008-10 (Avg)	2010-2014 (Avg)	2013-14 (PA)
1	2	3	4	5	6
<b>Non debt receipts</b>	<b>10.4</b>	<b>11.1</b>	<b>9.5</b>	<b>9.5</b>	<b>9.3</b>
Tax revenue	7.8	8.8	7.5	7.2	7.2
Non-tax revenue	2.1	2.1	1.8	1.8	1.8
Non debt Capital Receipts	0.4	0.2	0.3	0.4	0.4
<b>Total Expenditure</b>	<b>13.8</b>	<b>13.6</b>	<b>15.8</b>	<b>14.4</b>	<b>13.8</b>
Revenue Expenditure	11.9	11.9	14.1	12.7	12.1
Capital Expenditure	1.9	1.7	1.7	1.8	1.7
<b>Gross Fiscal Deficit</b>	<b>3.4</b>	<b>2.5</b>	<b>6.2</b>	<b>5.0</b>	<b>4.5</b>
<b>Adjusted GFD*</b>	<b>3.9</b>	<b>3.1</b>	<b>7.2</b>	<b>5.0</b>	<b>4.5</b>

\*: GFD adjusted for bonds issued in lieu of subsidies. Avg: Average.

**Note:** Total expenditure, capital expenditure and non-debt capital receipts have been adjusted for pre-payment to National Small Savings Fund in 2004-05 and transactions relating to transfer of Reserve Bank's stake in State Bank of India (SBI) to the Government in 2007-08.

**Table II.9: Select Items of Expenditure of the Central Government**

(Per cent of GDP)

Components	2004-08 (Avg)	2007-08	2008-10 (Avg)	2010-14 (Avg)	2013-14 (RE)
1	2	3	4	5	6
Committed Expenditure#	4.7	4.4	4.9	4.4	4.6
Defence	2.1	1.8	2.1	1.9	1.8
Subsidies@	1.9	2.0	3.2	2.4	2.3
Non-Plan Grants to States	0.7	0.7	0.7	0.6	0.5
Expenditure on physical and human capital*	2.0	2.6	2.9	2.2	2.0
<i>Of which:</i>					
Human Capital	1.2	1.2	1.9	1.4	1.2
Physical Capital	0.8	1.4	1.0	0.8	0.8

#: Indicates expenditure on interest payments, pension and pay and allowances.  
@: Includes special securities issued in lieu of subsidies.  
\*: Indicates capital outlay and expenditure on education, health and rural development.

taxes as a percentage of GDP were significantly lower in 2013-14 than the level achieved in the pre-crisis year of 2007-08 (Table II.10). It is, therefore, imperative to improve the gross tax-GDP ratio through tax reforms, widening of the tax base

**Table II.10: Gross Tax Revenue Raised by Central Government**

(Per cent of GDP)

Components	2004-08 (Avg)	2007-08	2008-10 (Avg)	2010-14 (Avg)	2013-14 (PA)
1	2	3	4	5	6
<b>Gross Tax Revenue</b>	<b>10.6</b>	<b>11.9</b>	<b>10.2</b>	<b>10.1</b>	<b>10.0</b>
Corporation Tax	3.1	3.9	3.8	3.6	3.5
Income Tax	1.7	2.1	1.9	1.9	2.1
Customs Duty	1.9	2.1	1.5	1.6	1.5
Union Excise Duty	2.8	2.5	1.8	1.7	1.5
Service Tax	0.7	1.0	1.0	1.2	1.4

and better tax administration, to make further progress in fiscal consolidation. A more effective strategy for disinvestment that takes into account evolving market conditions and proper pricing of natural resources will also help to augment the resources of the government.

*Union Budget 2014-15 relies on buoyant tax revenues and higher disinvestment to reduce the fiscal gap*

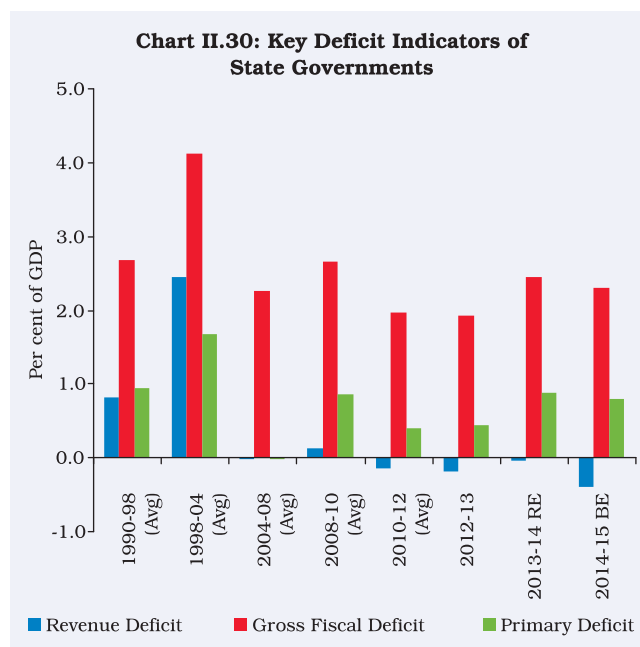
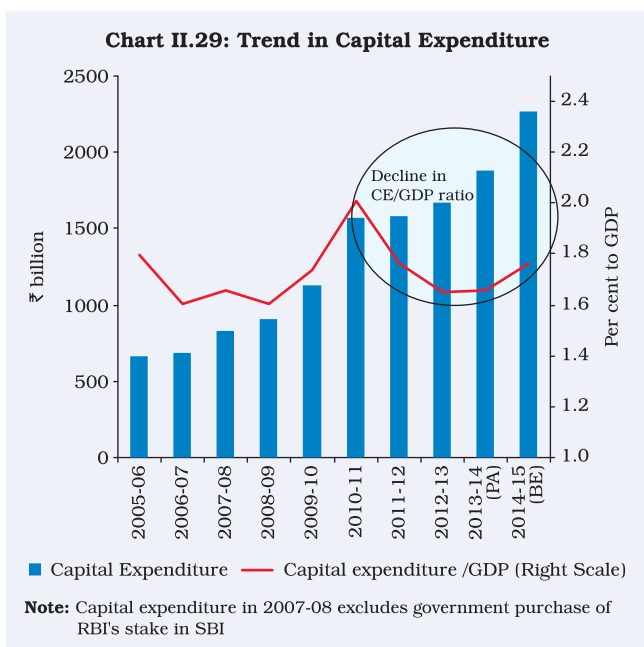
II.5.7 The Union Budget for 2014-15 has envisaged further reduction in key deficit indicators relative to GDP through higher non-debt receipts-GDP ratio which would more than offset a marginal increase in total expenditure-GDP ratio. With the expected growth of 19.8 per cent in overall tax revenues<sup>1</sup>, the gross tax revenue-GDP ratio is budgeted to improve by 0.6 percentage points to 10.6 per cent during 2014-15. Non-debt capital receipts are budgeted to increase by 84.6 per cent in 2014-15 mainly due to a sharp growth in disinvestment proceeds.

*Non-plan expenditure to moderate in 2014-15 through containment of subsidies; capital expenditure budgeted to increase*

II.5.8 Total expenditure is budgeted to increase by 14.8 per cent in 2014-15. Non-plan expenditure-GDP ratio is budgeted to decline by 0.3 percentage points to 9.5 per cent in 2014-15, mainly by containing subsidies. Among the other major non-plan expenditure items, while growth rates in interest payments and grants to states are envisaged to decelerate sharply in 2014-15, growth in defence expenditure is budgeted to show a moderate increase. Although plan expenditure is budgeted to increase at a significantly faster pace than non-plan expenditure, it will still remain less than one-third of the total expenditure.<sup>2</sup>

<sup>1</sup> All comparisons of 2014-15(BE) are with respect to 2013-14 provisional accounts.

<sup>2</sup> The actual plan expenditures in 2012-13 and 2013-14 were lower than their budgeted levels by 20.6 per cent and 18.4 per cent, respectively.



II.5.9 Capital expenditure as per cent of GDP is budgeted to increase marginally to 1.8 per cent in 2014-15, still below 2 per cent attained in 2010-11 (Chart II.29).

*States performed better in the second phase of fiscal consolidation*

II.5.10 States resumed their fiscal consolidation in 2010-11 consequent to the amendments in their FRBM Acts in line with the targets set by the Thirteenth Finance Commission (FC-XIII) (Chart II.30). Fiscal consolidation during 2010-13 was largely revenue-led, with significant increases in both own tax revenue as well as current transfers from the Centre, the latter reflecting the enhancements recommended by FC-XIII. The aggregate expenditure-GDP ratio was higher than that in the earlier high growth period of 2004-08 mainly on account of a sharp increase in development expenditure, particularly social sector expenditure.

*Some deterioration in state government finances was seen in 2013-14, while improvement is budgeted in 2014-15*

II.5.11 The consolidated fiscal position of state governments<sup>3</sup> indicates an increase in the GFD-GDP ratio to 2.4 per cent in 2013-14 (RE) from 1.9 per cent in 2012-13 due to an increase in aggregate expenditure, which more than off-set the increase in revenue receipts. Revenue surplus during the year was negligible as against a surplus of 0.2 per cent of GDP in 2012-13. The capital outlay-GDP ratio during 2013-14 (RE) increased by 0.4 percentage points over that in the previous year.

II.5.12 The BE for 2014-15 indicates a decline in the GFD-GDP ratio by 0.1 percentage point over 2013-14 (RE) mainly due to an increase in revenue receipts through higher current transfers from the Centre. The expenditure pattern shows that the committed expenditure-GDP ratio (comprising interest payments, administrative services and

<sup>3</sup> Based on budgets of 26 state governments for 2014-15, of which 5 are vote on account.

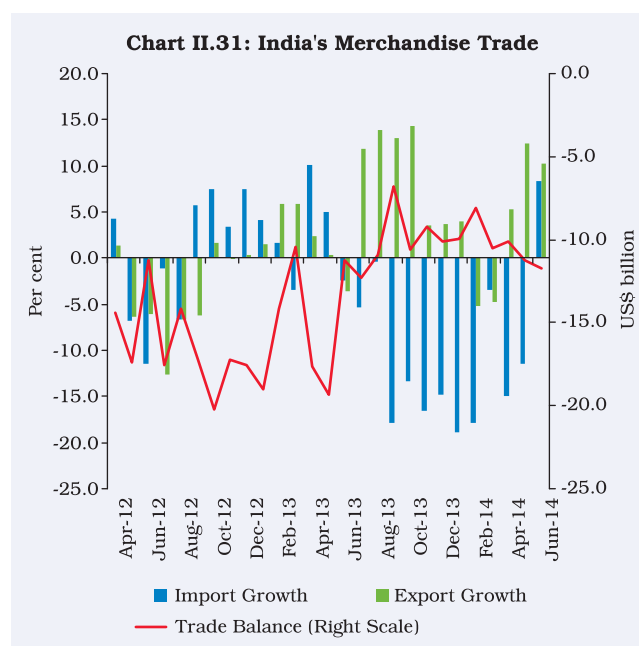
pension) will broadly remain unchanged during 2014-15 (BE), while overall expenditure as a ratio to GDP is budgeted to increase.

#### *Combined fiscal deficit shows deterioration in 2013-14*

II.5.13 The combined gross fiscal deficit of the Centre and the states is placed higher at 7.0 per cent of GDP in 2013-14 (RE) as compared to 6.8 per cent in 2012-13. The decline in the fiscal deficit of the central government by 0.2 percentage points during 2013-14 (RE) was more than off-set by the sharp increase in the fiscal deficit of states by 0.5 percentage points. In 2014-15 (BE), the combined fiscal position is, however, budgeted to improve, reflecting the process of fiscal consolidation, both at the Centre as well as state levels. The combined fiscal deficit in 2014-15 (BE) is placed lower at 6.4 per cent of GDP (Appendix Table 6). Adherence to this target will be important as high fiscal deficit financed through debt issuances and the resultant public debt accumulation have an adverse impact on the economy, both in the short-run as well as the long-run.

## II.6 EXTERNAL SECTOR

II.6.1 India's external sector underwent a major adjustment in 2013-14. After widening to a historical annual high of 4.7 per cent of GDP during 2012-13, the current account deficit (CAD) narrowed sharply in 2013-14 aided by a lower trade deficit. A modest recovery in exports and a sharp fall in imports, particularly gold imports, helped in improving India's trade balance. Following a lower trade deficit accompanied by robust growth in services export and stable flows of remittances, CAD declined to 1.7 per cent of GDP in 2013-14 (Chart II.31, Appendix Table 1). Various proactive policy measures undertaken by policy authorities helped in mitigating external sector vulnerabilities and containing CAD within sustainable limits.



#### *Modest recovery in exports albeit under-performance of some major sectors*

II.6.2 Reflecting the lagged impact of rupee depreciation and modest recovery in some trade partner economies, India's exports started improving in July 2013. However, the uptrend in exports was halted in February-March 2014 before it resumed in Q1 of 2014-15. Exports mainly benefitted from greater demand from Saudi Arabia, Iran, China, the US, EU countries and Japan (Table II.11). Although export demand in a majority of the sectors witnessed an upturn, exports in the gems and jewellery sector declined both due to a fall in international prices of gold and silver and lower demand in select economies such as UAE. In fact, the robust trend in demand for gems and jewellery from major destinations, viz., the US, Hong Kong and Belgium was nullified by a sharp decline in exports to UAE. Similarly, broadly reflecting a fall in gross refinery margins in the first three quarters of 2013-14, India's exports of petroleum products to Singapore, UAE and the Netherlands moderated significantly.

**Table II.11: Major Destinations of Export Growth in 2013-14**

Country	Exports (US\$ billion)		Contribution to Export Growth (%)		Major Commodities
	2012-13	2013-14	2012-13	2013-14	
1	2	3	4	5	6
US	36.2	39.1	-25.6	24.3	Gems and jewellery, petroleum products and marine products
Saudi Arabia	9.8	12.2	-73.8	19.8	Petroleum products, rice and transport equipments
Iran	3.4	4.9	-17.1	12.8	Rice basmati, oil meals and primary and semi-finished iron and steel
China	13.6	15.0	85.1	11.9	Cotton fabric, petroleum products and transport equipment
EU	50.4	51.7	38.4	10.5	Readymade garments, chemicals, leather and gems and jewellery
Tanzania	2.2	3.5	-9.9	10.6	Petroleum products

**Source:** DGCI&S.

*Lower imports largely reflective of domestic economic slowdown and policy measures*

II.6.3 Imports moderated significantly in 2013-14 reflecting the impact of the domestic economic slowdown, policy measures and fall in international prices of key import commodities. For instance, various policy measures and fall in international prices stemmed the import of gold in 2013-14. With a significant fall in natural gas prices in 2013, the international prices of fertilisers also eased, which limited the growth of India's fertiliser import bill. India's lower demand for imports of iron and steel items was attributed to various factors such as depreciation of the rupee and improved domestic supply. The slowdown in domestic economic activity and the delay in the implementation of various infrastructure projects probably reduced the demand for capital goods imports (Table II.12). Notwithstanding that international crude oil prices fluctuated due to geopolitical concerns and output disruptions (in Libya and Nigeria) on the supply side and changing growth prospects in major economies on the demand side, the average crude oil price (Indian basket) fell by 2.3 per cent, keeping India's oil import bill relatively contained in 2013-14.

*Lower CAD but no complacency as risks may resurface*

II.6.4 The recent upturn in exports and resumption of FII flows augur well for India's overall balance of

payments in 2014-15. As per provisional estimate for Q1 of 2014-15, India's net export of services stayed almost stable at the level of Q1 of 2013-14. However, going forward, certain upside risks to CAD, that had fallen significantly in 2013-14, cannot be ruled out. Potential risks to India's balance of payments could emanate from both domestic and global factors. First, as economic slack diminishes with recovery in the domestic economy, the upturn in the investment cycle will require higher non-oil non-gold imports, which already seem to be underway since May 2014. Second, speedy easing of norms for gold imports could lead to a widening of CAD in 2014-15. In fact, growth in gold imports turned positive in June 2014 after a span of 11

**Table II.12: Sector-wise Decline in Imports**

Sector	Imports (US\$ billion)		Relative Contribution to Import Decline (%)
	2012-13	2013-14	
1	2	3	4
Gold and Silver	55.7	32.1	58.0
Edible Oils	11.2	9.3	4.7
Fertilisers	9.1	6.5	6.3
Iron and steel	11.0	7.9	7.5
Machinery	27.6	23.6	9.8
Transport Equipment	17.2	15.0	5.4
Project goods	6.6	4.5	5.0
<b>Total Imports</b>	<b>490.7</b>	<b>450.1</b>	

**Source:** DGCI&S.

months. Third, even though international crude oil prices were earlier projected to stay low with gradual easing of the supply side, the re-emergence of geopolitical risks, particularly in Iraq and Russia's on-going tensions with Ukraine, may keep oil prices relatively firm and thus have implications for India's oil import bill. This may pose upward risks to India's CAD. Fourth, notwithstanding a modest recovery in exports on the back of stronger global demand and adjustment of the rupee exchange rate in 2013-14, downside risks continue due to uncertainty about the global growth outlook. Lastly, some sector specific issues, particularly relating to drugs and pharmaceuticals, iron ore and coal need redressal to ensure a better trade balance.

*Net FII flows turned positive since December 2013*

II.6.5 Quantitative easing (QE) by advanced countries in recent years boosted foreign portfolio inflows significantly in India mainly reflecting higher growth and interest rate differentials. After the US Fed's indication on QE tapering in May 2013, net FII flows retreated largely from the debt segment during June to November 2013. However, since the actual tapering of QE announced in December 2013, FII flows have remained broadly intact. This essentially reflects considerable improvement in India's external sector with CAD falling below a sustainable level, a build-up of forex reserves owing to special swap schemes offered by the Reserve Bank (during September-November 2013) and stability in the rupee exchange rate. Further, growing prospects of a better policy environment with a stable central government in place may also have boosted the confidence of foreign investors. However, going forward, FII flows may remain prone to volatility with expected tightening of monetary policy in the U.S., if domestic fundamentals do not improve and/or external sector risks re-emerge.

*BRICS-CRA to help in managing short-term BoP pressures*

II.6.6 On July 15, 2014 Brazil, Russia, India, China and South Africa signed an international treaty establishing the BRICS Contingent Reserve

Arrangement (CRA), in Fortaleza, Brazil. The initiative to implement the CRA was officially launched in June 2012 by the BRICS leaders at the sidelines of the G-20 Summit that took place in Los Cabos, Mexico. The CRA complements and reinforces the global financial safety net, which comprises the IMF, regional financial arrangements and bilateral swap agreements between central banks, in addition to the countries' own international reserves. The initial total committed resources under the CRA will be US\$100 billion. The CRA will become effective only after fulfilling all the legal requirements for its entry into force. It will then provide support through liquidity and precautionary instruments.

*Increase in India's external debt in 2013-14, but not an immediate challenge*

II.6.7 India's external debt as at end March 2014 increased by US\$ 31.2 billion over the year, mainly led by the special swap scheme introduced by the Reserve Bank for commercial banks to mobilise FCNR(B) and overseas borrowings. The borrowings under the Swap Scheme in combination with a decline in CAD and revival in equity flows helped in building up foreign exchange reserves (Appendix Table 2). In line with greater recourse to debt creating flows, India's external debt and net external liabilities have risen in recent years (Table II.13 and Chart II.32). However, since the incremental external debt during 2013-14 was mainly long-term in nature, it does not pose an immediate concern for India's external vulnerability. Moreover, with increase in foreign exchange reserves in H2 of 2013-14, most external sector vulnerability indicators have improved.

*Rupee in real terms continues to be above base year level*

II.6.8 Following indications of QE tapering by the US Fed coinciding with growing concerns about high CAD, the rupee depreciated sharply during June to August 2013. Subsequent policy actions undertaken both by the Reserve Bank and the

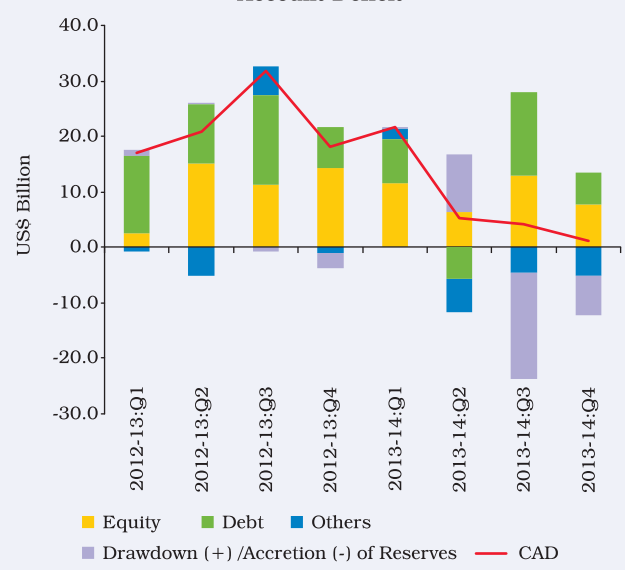
**Table II.13: External Sector Vulnerability Indicators**

(per cent)

Indicator	End-Mar 2011	End-Mar 2012	End-Mar 2013	End-Mar 2014
1	2	3	4	5
1. External Debt to GDP	18.2	20.5	22.0	23.3
2. Ratio of Short-term to Total Debt (Original Maturity)	20.4	21.7	23.6	20.3
3. Ratio of Short-term to Total Debt (Residual maturity)#	40.6	40.9	42.1	39.6
4. Ratio of Concessional Debt to Total Debt	14.9	13.3	11.1	10.5
5. Ratio of Reserves to Total Debt	95.9	81.6	71.3	69.0
6. Ratio of Short-term Debt to Reserves	21.3	26.6	33.1	29.3
7. Ratio of Short-term Debt (Residual maturity) to Reserves#	42.3	50.1	59.0	57.4
8. Reserves Cover of Imports (in months)	9.5	7.1	7.0	7.8
9. Debt Service Ratio (Debt Service Payments to Current Receipts)	4.4	6.0	5.9	5.9
10. External Debt (US\$ billion)	317.9	360.8	409.4	440.6
11. International Investment Position (IIP) (US\$ billion)	-207.0	-264.7	-326.7	-331.6
12. IIP/GDP ratio	-11.9	-14.8	-17.6	-17.6
13. CAD/GDP ratio	2.8	4.2	4.7	1.7

#: RBI estimate.

**Chart II.32: Financing Pattern of Current Account Deficit**



government, however, augured well for rupee stabilisation. The appreciating trend in the nominal value of the rupee was reflected in the real effective exchange rate too as inflation (CPI) remained higher in India compared to its trading partners (Box II.8). Rupee, in terms of both 6 and 36 currency baskets, continued to be above the base level in 2004-05 (Chart II.33).

**Box II.8  
Information Content from the CPI-based REER**

In order to ensure better comparability of India's external competitiveness *vis-à-vis* its trading partners, the Reserve Bank released the CPI based real effective exchange rate (REER) in April 2014. REER is a summary indicator for assessing the real value of a country's currency against the basket of trading partners of the country. REER is a frequently used variable in both theoretical and applied economic research and policy analysis for assessing the equilibrium value of a currency, change in external competitiveness, responsiveness of trade flows to price changes and incentives for reallocating production between the tradable and non-tradable sectors. In literature, there are a number of alternative measures of real exchange rates. For computation of relative prices, indices based on consumer prices, producer prices, GDP deflator and unit labour costs are often used. Each of these measures of relative prices has its own pros and cons.

Till recently, in the absence of a representative consumer price index (CPI) for India, the Reserve Bank was providing the REER index (6 and 36 currencies) using the wholesale price index (WPI) and consumer price indices (CPI) for partner countries. However, with the availability of an all India CPI index, the Reserve Bank began computing and releasing data on REER using this new CPI (combined) for India. With greater focus on CPI inflation as the primary objective of domestic monetary policy, it is pertinent to have an alternative index of REER based on CPI.

The methodology used to construct the CPI based REER index (both trade and export weights) is discussed in RBI (2014).

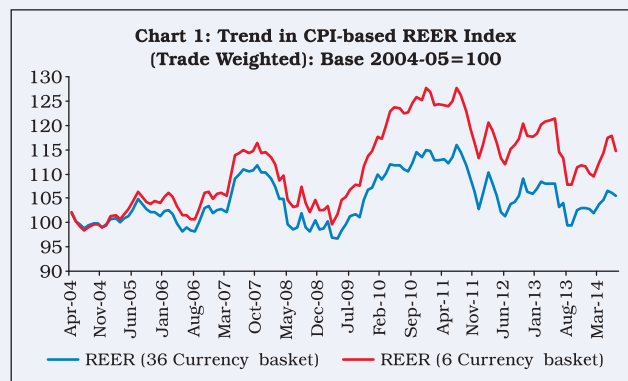
In line with the fall in the nominal value of the rupee, CPI based REER has also shown depreciation since

(Contd....)

2011-12 (Table 1 and Chart 1). However, given that the CPI based inflation differential with trade partner countries continues to be high, the REER of rupee is still above the base year level. Further, the REER based on the 6 currency basket is higher than that based on the 36 currency basket. This is mainly due to the CPI based inflation differential being higher with the former group of countries (mainly

**Table 1: CPI based REER (Trade weighted)**

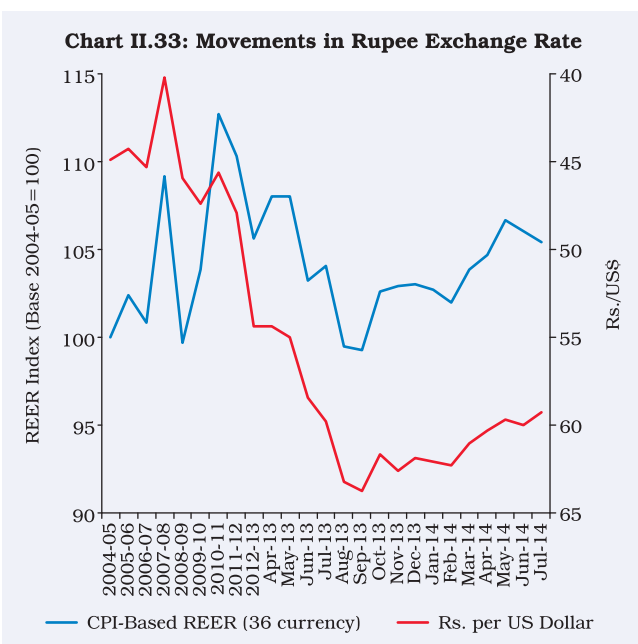
	CPI-36 Currency Basket	CPI-6 Currency Basket	₹ per US Dollar	CPI Inflation (%)
1	2	3	4	5
2004-05	100.0	100.0	44.9	4.0
2005-06	102.4	104.4	44.3	3.7
2006-07	100.8	103.8	45.3	6.8
2007-08	109.2	113.4	40.2	5.9
2008-09	99.7	103.9	45.9	9.2
2009-10	103.9	110.7	47.4	10.6
2010-11	112.7	124.5	45.6	9.5
2011-12	110.3	121.2	47.9	9.5
2012-13	105.6	117.1	54.4	10.2
2013-14	103.3	112.4	60.5	9.5
2014-15Q1	106.1	116.2	59.8	8.1



advanced economies in the 6 currency basket) than with the latter group of economies (36 currency basket) which also includes emerging and developing economies.

#### References:

Reserve Bank of India (2014), 'Real Effective Exchange Rate based on CPI as Price Index for India', *RBI Monthly Bulletin*, April.



#### Key policy priorities for managing external sector risks

II.6.9 Lower CAD, surge in foreign exchange reserves and exchange rate stability are signs of a

more resilient external sector. A modest improvement in external sector indicators, however, does not warrant any policy complacency. Spillovers from renewed external pressures through the trade channel and/or financial channel may resurface and thus pose a challenge for India's external sector. The policy focus should be on improving domestic macroeconomic fundamentals so as to minimise such spillovers. In particular, policy attention is required for (i) redressal of sector-specific structural issues impeding exports, (ii) low inflation for supporting the stability of the rupee and to enhance external competitiveness, and to reduce investment demand for gold, (iii) easing of binding supply constraints in certain sectors (for example, POL, coal and fertilisers) that are critical for the domestic economy and can induce a surge in total imports, (iv) a conducive business environment to ensure a better mix of capital flows for CAD financing by attracting stable non-debt creating flows, and (v) improved governance.