

## Survey of Professional Forecasters on Macroeconomic Indicators – Results of the 48<sup>th</sup> Round <sup>1</sup>

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*Professional forecasters have moderated their growth expectation for 2017-18 and 2018-19 in view of tempered assessment of private consumption demand and industrial growth. Nevertheless, they expect growth consolidation with higher saving and investment rate in 2018-19. Headline consumer price inflation is expected to increase to 5.0 per cent in Q1: 2018-19. On the external front, they anticipate improvement in foreign trade in the current year as well as in the next year.*

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The Reserve Bank has been conducting the Survey of Professional Forecasters (SPF) since September 2007. Thirty panelists participated in the 48<sup>th</sup> round of the survey conducted during September 2017<sup>2</sup>. The survey results are summarised in terms of their median forecasts and consolidated in Annexes 1-8, along with quarterly paths for key variables.

### **Highlights:**

#### **1. Output**

- Real gross domestic product (GDP) and real gross value added (GVA) are likely to grow by 6.8 and 6.6 per cent, respectively, in 2017-18 and at 7.4 per cent each in 2018-19 (Table 1).
- Expectations of both saving and investment rates in 2017-18 have moderated, but the both are anticipated to improve in the next year.

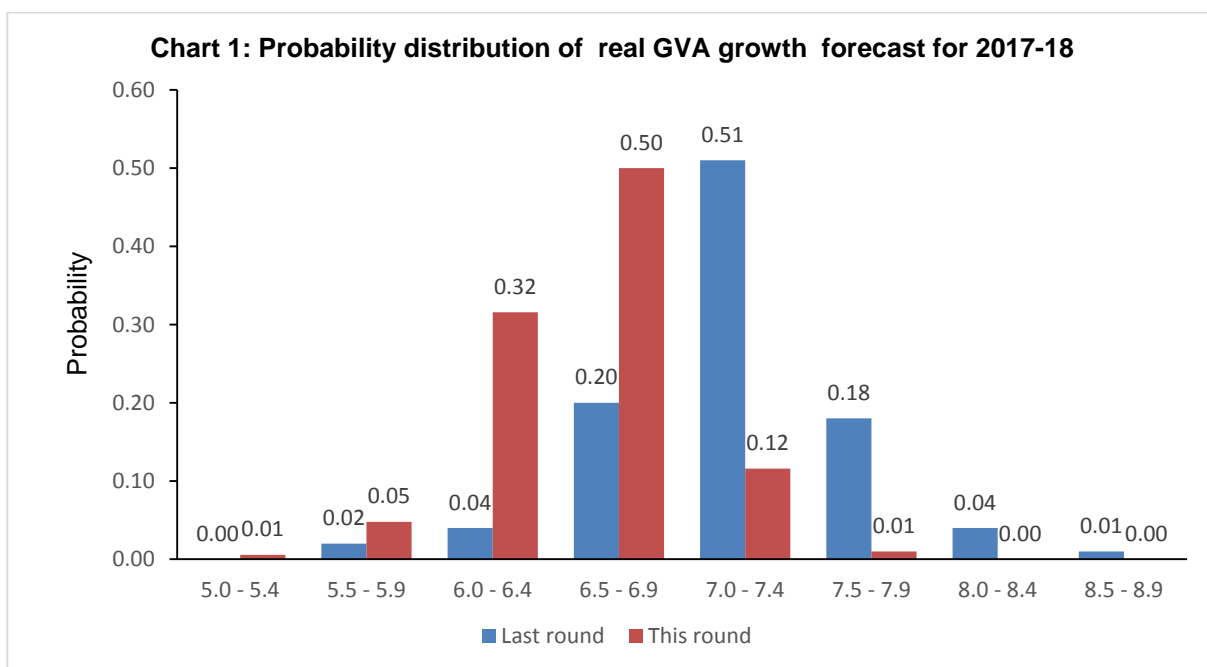
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<sup>1</sup> The results of the last survey round were released on [August 2, 2017](#) on the RBI's website.

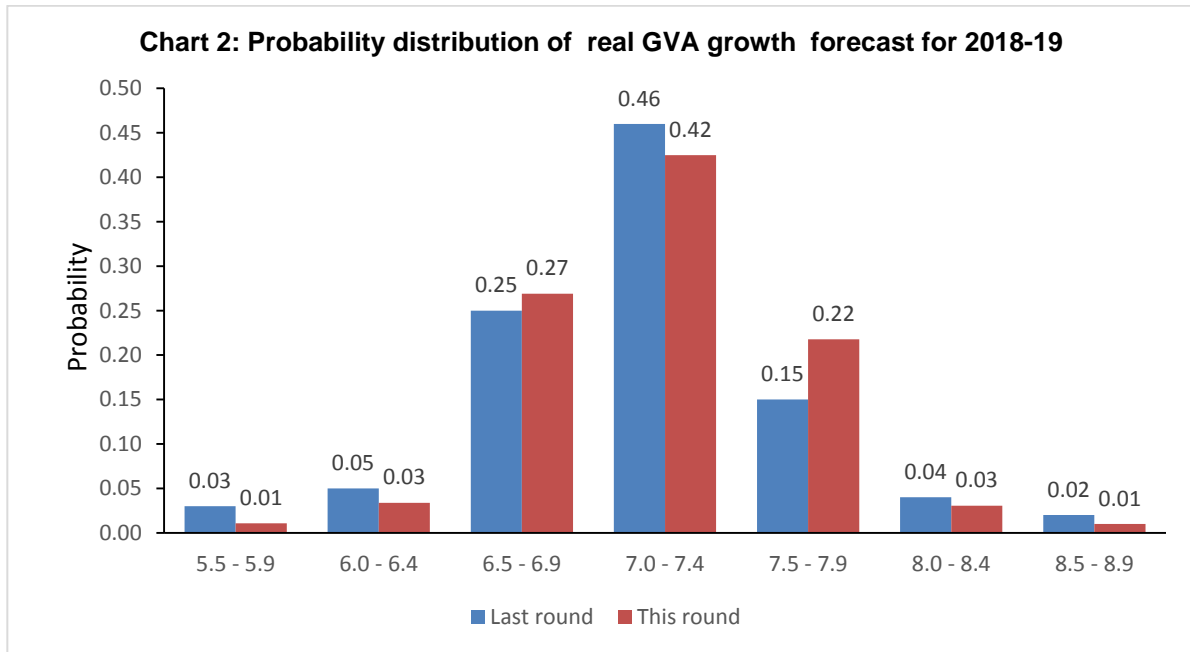
<sup>2</sup> The results presented here represent the views of the respondent forecasters and in no way reflect the views or forecasts of the Reserve Bank.

<b>Table 1: Median Forecast of Growth in Real GDP, GVA and Components</b> (in per cent)		
	<b>2017-18</b>	<b>2018-19</b>
Real GDP Growth	6.8 (-0.6)	7.4 (-0.4)
Real GVA Growth	6.6 (-0.6)	7.4 (-0.2)
a. Agriculture and Allied Activities	3.2 (-0.3)	3.0 (0.0)
b. Industry	4.8 (-2.4)	7.0 (-0.6)
c. Services	8.1 (-0.2)	8.7 (-0.1)
Private Final Consumption Expenditure (nominal) <i>(growth rate in per cent)</i>	11.0 (-1.5)	12.7 (+0.1)
Gross Saving Rate <i>[per cent of gross national disposable income (GNDI)]</i>	31.2 (-0.8)	32.3 (0.0)
Gross Fixed Capital Formation Rate <i>(per cent of GDP)</i>	26.5 (-1.5)	27.6 (-1.4)
<b>Note:</b> In all the tables, the figures in parentheses indicate the extent of revision in median forecasts (percentage points) relative to the previous SPF round.		

- The summary probability distribution of forecasts has shifted marginally lower when compared with the previous survey round; forecasters have assigned maximum probability to GVA growth being in the range 6.5-6.9 per cent (Chart 1).



- For 2018-19, forecasters assigned maximum probability to GVA growth in the range 7.0-7.4 per cent, with a flatter probability distribution than in the previous round (Chart 2).

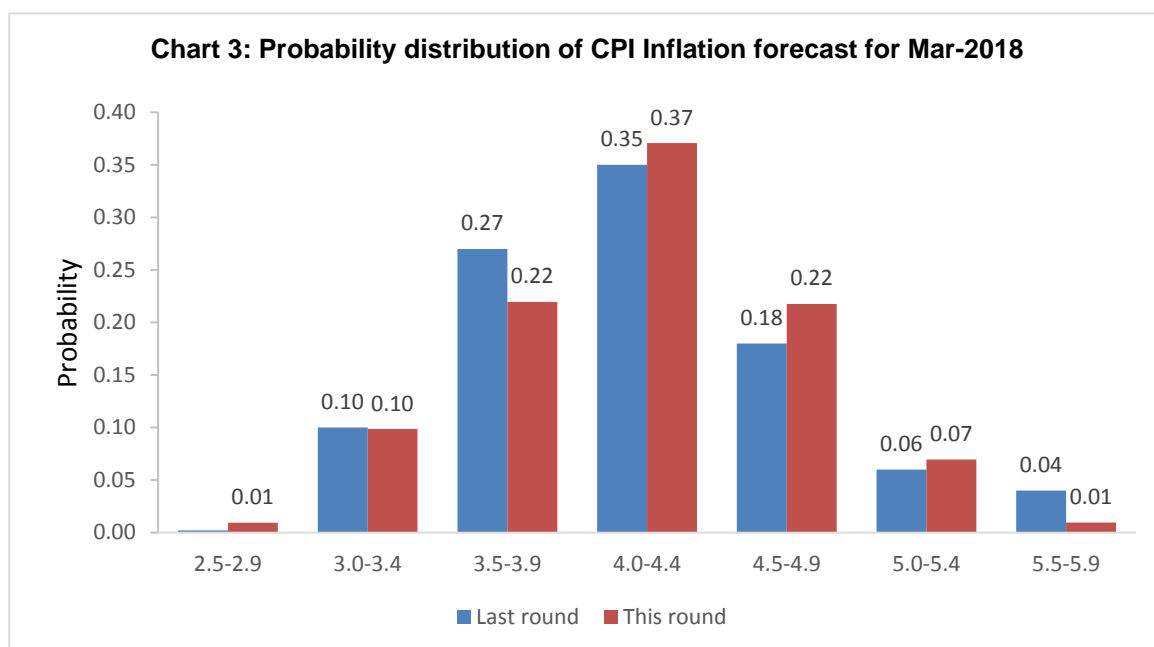


## 2. Inflation

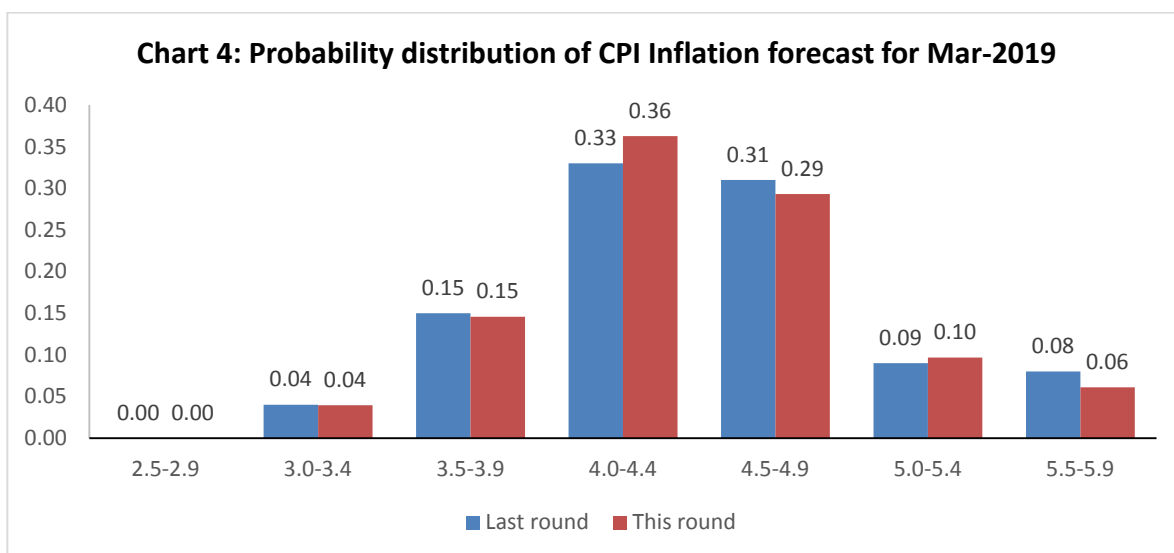
- Headline consumer price index (CPI) inflation is expected to gradually increase from current levels to 5.0 per cent in Q1:2018-19 (Table 2).
- Core inflation (*i.e.*, CPI excluding food and beverages, pan, tobacco and intoxicants, and fuel and light), which is currently higher than headline inflation, is also expected to be increase by 60 basis points to 4.9 per cent in Q2:2018-19.

<b>Table 2: Median Forecast of Quarterly Inflation</b>					
(in per cent)					
	<b>Q2:17-18</b>	<b>Q3:17-18</b>	<b>Q4:17-18</b>	<b>Q1:18-19</b>	<b>Q2:18-19</b>
CPI - Headline	3.1 (+0.6)	4.1 (+0.4)	4.5 (+0.2)	5.0 (+0.4)	4.5
CPI excluding <i>food &amp; beverages, pan, tobacco &amp; intoxicants and fuel &amp; light</i>	4.3 (+0.2)	4.6 (+0.1)	4.8 (0.0)	4.9 (+0.3)	4.9
WPI – All Commodities	2.8 (+0.7)	3.2 (+1.0)	2.8 (+0.6)	3.4 (+0.9)	3.3
WPI - Non-food Manufactured Products	2.5 (0.0)	2.5 (+0.1)	2.5 (+0.4)	2.7 (+0.5)	2.8

- Forecasters assigned highest probability to CPI inflation being in the range 4.0-4.4 per cent in March 2018 and the summarised probability distribution has marginally tilted up when compared with the previous survey round (Chart 3).



- For March 2019, forecasters assigned the highest probability to CPI inflation being in the range 4.0-4.4 per cent (Chart 4).



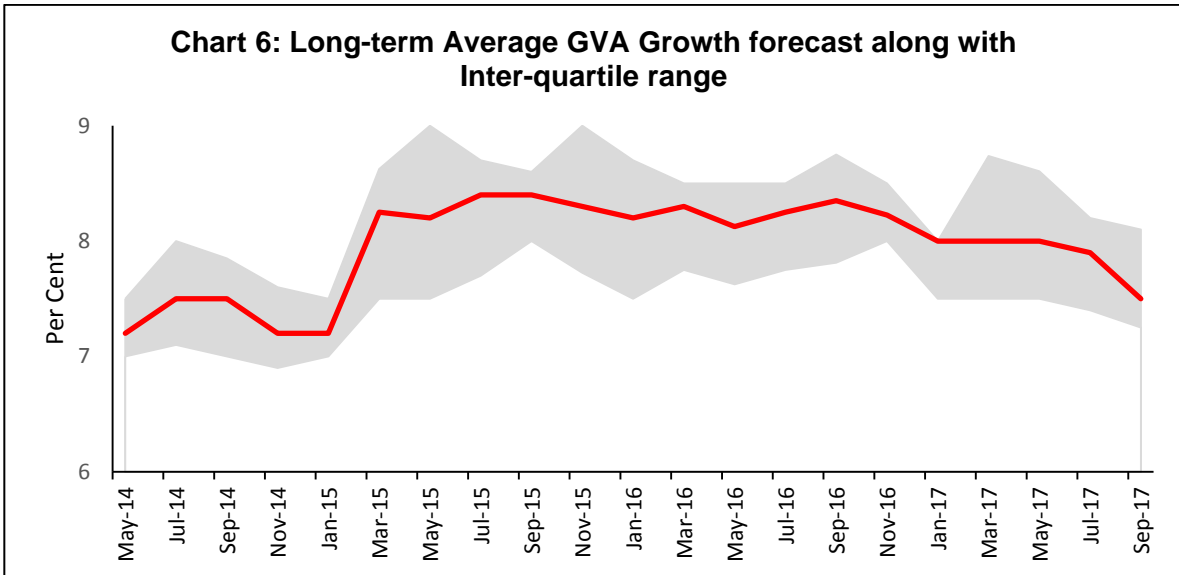
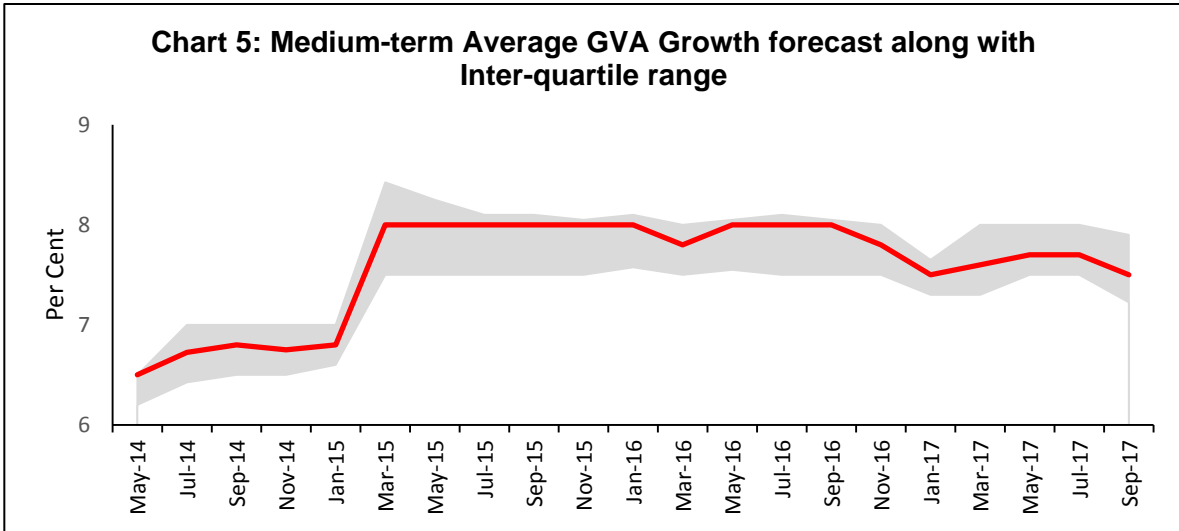
### 3. External Sector

- There is greater optimism around the growth of both exports and imports (in US dollar terms), shedding the sluggishness of recent years (Table 3).
- Forecasters expect higher import growth in 2017-18 and 2018-19 and consequently, a wider current account deficit (CAD) in these years.

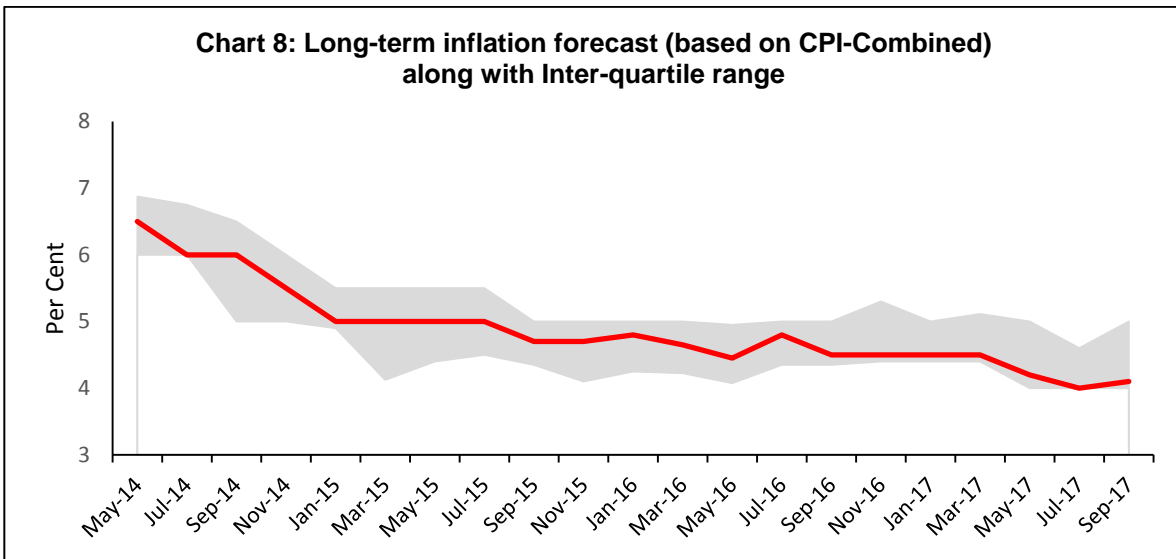
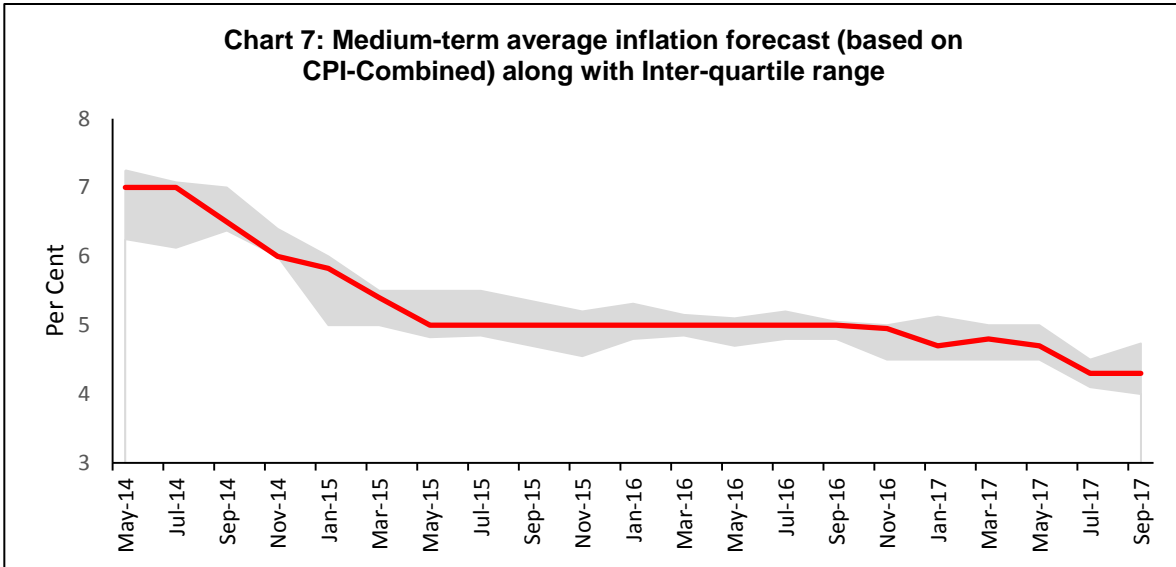
	<b>2017-18</b>	<b>2018-19</b>
Merchandise Exports – in US \$ terms (annual growth in per cent)	6.5 (-1.0)	7.9 (+0.3)
Merchandise Imports– in US \$ terms (annual growth in per cent)	11.5 (+2.5)	9.5 (+1.5)
Current Account Deficit (Ratio to GDP at current market price, in per cent)	1.5 (+0.3)	1.8 (+0.4)

### 4. Medium-term and Long-term Forecasts

- Real GVA growth is expected to be around 7.5 per cent both in the medium-term (five-year average) and in the long-term (ten-year average), a moderation of 20 basis points (bps) and 40 bps, respectively, from the previous survey round (Charts 5 and 6).



- CPI-headline inflation is expected to be around 4.3 and 4.1 per cent in the medium-term and the long-term, respectively (Chart 7 and 8).



*The Reserve Bank thanks the following institutions for their participation in this round of the Survey of Professional Forecasters (SPF):*

*Debopam Chaudhuri, Piramal Enterprises Limited; ICICI Securities Primary Dealership; Madan Sabnavis, CARE RATINGS; Upasna Bhardwaj, Kotak Mahindra Bank; Sameer Narang, Indranil Pan, IDFC Bank; Shailesh Kejariwal, B&K Securities India Pvt Ltd; Deepali Bhargava, Credit Suisse; CRISIL Limited; Gaurav Kapur, IndusInd Bank Ltd.; and Nikhil Gupta, Motilal Oswal.*

*The Bank also acknowledges the contribution of 20 others SPF panelists, who preferred to remain anonymous, to the survey.*

### Annex 1: Annual Forecasts for 2017-18

	Key Macroeconomic Indicators	Annual Forecasts for 2017-18					
		Mean	Median	Max	Min	1st quartile	3rd quartile
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	6.8	6.8	7.2	6.2	6.6	7.0
2	GVA at basic prices at constant (2011-12) prices: Annual Growth rate (per cent)	6.6	6.6	7.1	6.0	6.5	6.8
a	Agriculture & Allied Activities (growth rate in per cent)	3.2	3.2	4.1	2.1	3.0	3.6
b	Industry (growth rate in per cent)	4.8	4.8	6.3	3.4	4.2	5.2
c	Services (growth rate in per cent)	8.2	8.1	9.1	7.3	7.9	8.5
3	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	10.5	11.0	13.0	6.7	9.7	11.5
4	Gross Saving Rate (per cent of Gross National Disposable Income) - at current prices	31.1	31.2	33.7	28.2	30.0	32.0
5	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	26.7	26.5	33.3	20.9	26.1	28.0
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	3.3	3.2	3.9	3.2	3.2	3.3
7	Combined Gross Fiscal Deficit (per cent to GDP)	6.4	6.5	7.0	6.0	6.2	6.5
8	Bank Credit - Scheduled commercial banks: Annual Growth (per cent)	7.9	8.0	11.1	3.8	6.7	9.0
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	6.7	6.7	7.8	6.2	6.4	6.8
10	Yield on 91-day T-Bill of Central Govt. (end-period)	6.0	6.0	6.3	5.6	5.8	6.2
11	BSE Sensex (end-December)	32185.7	32000.0	34000.0	30000.0	31300.0	33500.0
12	Merchandise Exports - BoP basis - In US \$ bn.	297.8	297.0	325.0	285.3	293.0	301.1
13	Merchandise Exports - BoP basis - Annual Growth (per cent)	6.5	6.5	16.0	1.8	4.6	7.8
14	Merchandise Imports - BoP basis - In US \$ bn.	422.2	434.1	470.0	43.7	428.7	444.0
15	Merchandise Imports - BoP basis - Annual Growth (per cent)	11.7	11.5	19.7	6.3	10.0	13.3
16	Current Account Balance - In US \$ bn.	-39.9	-39.1	-25.6	-65.0	-45.8	-31.7
17	Current Account Balance - Ratio to GDP at current market price (per cent)	-1.6	-1.5	-1.1	-2.5	-1.9	-1.4
18	Overall BoP - In US \$ bn.	28.5	30.0	46.4	6.9	23.1	35.0
19	Inflation based on CPI-Combined - Headline	3.6	3.5	4.5	3.1	3.4	3.7
20	Inflation based on CPI-Combined - excluding 'Food & Beverages', 'Pan, Tobacco & Intoxicants' and 'Fuel & Light'	4.5	4.5	5.0	4.0	4.4	4.6
21	Inflation based on WPI - All Commodities	2.9	3.0	4.1	2.1	2.5	3.0
22	Inflation based on WPI -Non-food Manufactured Products	2.4	2.5	3.0	2.0	2.1	2.6



## Annex 2: Annual Forecasts for 2018-19

	Key Macroeconomic Indicators	Annual Forecasts for 2018-19					
		Mean	Median	Max	Min	1st quartile	3rd quartile
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.4	7.4	8.1	6.8	7.2	7.7
2	GVA at basic prices at constant (2011-12) prices: Annual Growth rate (per cent)	7.3	7.4	7.7	6.5	7.1	7.6
a	Agriculture & Allied Activities (growth rate in per cent)	3.3	3.0	5.0	2.5	3.0	3.4
b	Industry (growth rate in per cent)	7.1	7.0	8.5	5.5	6.5	8.0
c	Services (growth rate in per cent)	8.6	8.7	10.1	7.3	8.2	9.0
3	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	12.2	12.7	14.0	8.0	11.6	13.3
4	Gross Saving Rate (per cent of Gross National Disposable Income) - at current prices	31.6	32.3	33.9	28.0	31.2	32.5
5	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	27.7	27.6	33.3	24.0	25.5	29.5
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	3.1	3.0	4.2	3.0	3.0	3.0
7	Combined Gross Fiscal Deficit (per cent to GDP)	6.1	6.0	6.5	5.6	6.0	6.3
8	Bank Credit - Scheduled commercial banks: Annual Growth (per cent)	10.3	10.0	13.0	7.5	9.0	12.0
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	6.8	6.9	7.8	6.0	6.5	7.0
10	Yield on 91-day T-Bill of Central Govt. (end-period)	6.1	6.1	6.7	5.7	5.9	6.3
11	BSE Sensex (end-December)	34143	34500	36000	32000	33000	35000
12	Merchandise Exports - BoP basis - In US \$ bn.	324.8	322.9	390.0	300.3	312.7	331.1
13	Merchandise Exports - BoP basis - Annual Growth (per cent)	9.0	7.9	20.0	4.8	5.5	10.0
14	Merchandise Imports - BoP basis - In US \$ bn.	482.0	480.0	620.0	447.7	462.0	488.0
15	Merchandise Imports - BoP basis - Annual Growth (per cent)	10.7	9.5	31.9	3.3	7.3	11.3
16	Current Account Balance - In US \$ bn.	-50.5	-48.0	-35.1	-71.2	-56.1	-43.6
17	Current Account Balance - Ratio to GDP at current market price (per cent)	-1.9	-1.8	-1.2	-2.8	-2.3	-1.5
18	Overall BoP - In US \$ bn.	22.4	25.0	47.5	3.8	11.0	31.5
19	Inflation based on CPI-Combined - Headline	4.4	4.4	5.4	3.5	4.0	4.7
20	Inflation based on CPI-Combined - excluding 'Food & Beverages', 'Pan, Tobacco & Intoxicants' and 'Fuel & Light'	4.9	5.0	6.3	4.3	4.5	5.2
21	Inflation based on WPI - All Commodities	3.5	3.5	5.5	2.1	3.0	3.6
22	Inflation based on WPI -Non-food Manufactured Products	3.0	2.9	5.2	1.2	2.5	3.0

**Annex 3: Quarterly Forecasts from Q1:2017-18 to Q1:2018-19**

	Key Macroeconomic Indicators	Quarterly Forecasts											
		Q2: 2017-18				Q3: 2017-18				Q4: 2017-18			
		Mean	Median	Max	Min	Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	6.5	6.5	7.5	5.2	7.2	7.2	8.1	6.3	7.5	7.5	8.8	6.5
2	GVA at constant (2011-12) prices: Annual Growth (per cent)	6.3	6.2	7.3	5.1	6.8	6.8	7.6	6.2	7.3	7.2	8.8	6.4
a	Agriculture & Allied Activities (growth rate in per cent)	2.7	3.0	4.5	-1.0	3.6	3.5	5.7	1.2	3.5	3.5	6.0	1.0
b	Industry (growth rate in per cent)	4.1	4.0	7.1	0.5	5.7	5.8	7.6	3.7	6.5	6.5	9.1	3.2
c	Services (growth rate in per cent)	7.8	7.9	9.1	6.1	8.4	8.4	11.1	7.0	8.7	8.6	11.1	7.3
3	PFCE at current prices: Y-on-Y Growth (per cent)	10.7	10.4	13.1	7.8	11.2	11.2	14.3	7.0	11.4	11.9	14.5	7.2
4	GFCF Rate (per cent of GDP at current market prices)	27.1	26.5	28.9	25.9	27.0	26.6	28.7	25.1	27.0	26.5	30.7	24.6
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	2.2	2.3	3.7	0.5	3.3	3.2	5.2	1.8	3.5	3.4	5.7	1.9
6	Merchandise Exports - BoP basis (in US\$ bn.)	72.8	72.3	80.0	69.0	74.3	73.7	82.5	70.0	79.3	79.4	85.1	74.7
7	Merchandise Imports - BoP basis (in US\$ bn.)	107.6	106.2	117.9	100.0	110.1	109.6	120.5	105.7	110.9	108.6	124.5	102.5
8	Rupee - US_Dollar Exchange rate (RBI reference rate) (end-period)	-	-	-	-	64.7	64.6	66.0	63.0	64.5	64.5	66.5	62.5
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	-	-	-	-	53.0	53.0	56.3	48.0	53.1	54.0	57.5	47.4
10	Repo Rate (end-period)	-	-	-	-	6.00	6.00	6.25	5.75	5.96	6.00	6.25	5.50

	Key Macroeconomic Indicators	Quarterly Forecasts							
		Q1: 2018-19				Q2: 2018-19			
		Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.5	7.6	8.3	6.0	7.5	7.5	8.1	6.6
2	GVA at constant (2011-12) prices: Annual Growth (per cent)	7.3	7.6	7.8	6.2	7.3	7.5	7.9	6.3
a	Agriculture & Allied Activities (growth rate in per cent)	3.2	3.0	4.5	2.3	3.1	2.9	5.0	1.7
b	Industry (growth rate in per cent)	6.9	6.9	8.9	3.7	6.5	6.8	8.2	4.0
c	Services (growth rate in per cent)	8.5	8.4	9.5	7.4	8.4	8.5	9.2	7.2
3	PFCE at current prices: Y-on-Y Growth (per cent)	12.1	12.3	14.5	7.9	12.0	12.8	12.9	9.0
4	GFCF Rate (per cent of GDP at current market prices)	27.8	27.0	31.9	25.4	27.2	25.6	30.6	25.2
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	3.9	3.8	6.1	2.0	4.4	4.4	6.0	2.8
6	Merchandise Exports - BoP basis (in US\$ bn.)	79.2	77.9	86.0	75.0	80.9	79.0	90.0	73.9
7	Merchandise Imports - BoP basis (in US\$ bn.)	116.6	115.1	125.4	108.2	118.7	116.3	135.0	106.1
8	Rupee - US_Dollar Exchange rate (RBI reference rate) (end-period)	64.6	64.8	66.5	62.0	64.9	65.1	67.0	62.0
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	53.6	53.0	57.3	51.1	53.5	53.0	57.2	52.0
10	Repo Rate (end-period)	5.91	6.00	6.25	5.50	5.92	6.00	6.25	5.75

**Annex 4: Forecasts of CPI-Combined Inflation (per cent)**

	<b>CPI Combined Headline</b>				<b>Core CPI Combined (excluding 'Food &amp; Beverages', 'Pan, Tobacco &amp; Intoxicants' and 'Fuel &amp; Light')</b>			
	<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>	<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>
Q3:2017-18	4.0	4.1	4.5	3.0	4.6	4.6	5.3	3.7
Q4:2017-18	4.5	4.5	5.1	3.8	4.8	4.8	5.6	3.5
Q1:2018-19	4.9	5.0	5.4	4.4	5.0	4.9	6.5	3.8
Q2:2018-19	4.5	4.5	5.6	3.8	5.0	4.9	6.8	3.5

**Annex 5: Forecasts of WPI Inflation (per cent)**

	<b>WPI Headline</b>				<b>WPI-Manufactured Products</b>			
	<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>	<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>
Q3:2017-18	3.2	3.2	5.2	2.4	2.6	2.5	4.0	2.0
Q4:2017-18	2.7	2.8	5.2	1.1	2.3	2.5	4.2	1.3
Q1:2018-19	3.5	3.4	5.1	2.2	2.4	2.7	4.2	0.9
Q2:2018-19	3.6	3.3	5.6	2.4	2.7	2.8	4.2	1.1

**Annex 6: Mean probabilities attached to possible outcomes of Real GVA growth**

<b>Growth Range</b>	<b>Forecasts for 2017-18</b>	<b>Forecasts for 2018-19</b>
10.0 per cent or more	0.00	0.00
9.5 to 9.9 per cent	0.00	0.00
9.0 to 9.4 per cent	0.00	0.00
8.5 to 8.9 per cent	0.00	0.01
8.0 to 8.4 per cent	0.00	0.03
7.5 to 7.9 per cent	0.01	0.22
7.0 to 7.4 per cent	0.12	0.42
6.5 to 6.9 per cent	0.50	0.27
6.0 to 6.4 per cent	0.32	0.03
5.5 to 5.9 per cent	0.05	0.01
5.0 to 5.4 per cent	0.01	0.00
4.5 to 4.9 per cent	0.00	0.00
4.0 to 4.4 per cent	0.00	0.00
3.5 to 3.9 per cent	0.00	0.00
3.0 to 3.4 per cent	0.00	0.00
2.5 to 2.9 per cent	0.00	0.00
2.0 to 2.4 per cent	0.00	0.00
Below 2.0 per cent	0.00	0.00

**Annex 7: Mean probabilities attached to possible outcomes of CPI (Combined) inflation**

Inflation Range	Forecasts for March 2018	Forecasts for March 2019
8.0 per cent or above	0.00	0.00
7.5 to 7.9 per cent	0.00	0.00
7.0 to 7.4 per cent	0.00	0.00
6.5 to 6.9 per cent	0.00	0.00
6.0 to 6.4 per cent	0.00	0.00
5.5 to 5.9 per cent	0.01	0.06
5.0 to 5.4 per cent	0.07	0.10
4.5 to 4.9 per cent	0.22	0.29
4.0 to 4.4 per cent	0.37	0.36
3.5 to 3.9 per cent	0.22	0.15
3.0 to 3.4 per cent	0.10	0.04
2.5 to 2.9 per cent	0.01	0.00
2.0 to 2.4 per cent	0.00	0.00
1.5 to 1.9 per cent	0.00	0.00
1.0 to 1.4 per cent	0.00	0.00
0.5 to 0.9 per cent	0.00	0.00
0 to 0.4 per cent	0.00	0.00
Below 0 per cent	0.00	0.00

**Annex 8: Medium- and Long-term Forecasts of GVA Growth and Inflation**

	Annual average percentage change over the next five years				Annual average percentage change over the next ten years			
	Mean	Median	Max	Min	Mean	Median	Max	Min
Real GVA	7.6	7.5	8.7	6.9	7.7	7.5	8.9	7.0
CPI Combined	4.4	4.3	6.0	3.5	4.4	4.1	6.0	3.0

Note: CPI: Consumer Price Index; GDP: Gross Domestic Product; GNDI: Gross National Disposable Income; GVA: Gross Value Added; IIP: Index of Industrial Production; WPI: Wholesale Price Index.