

## **Survey of Professional Forecasters on Macroeconomic Indicators– Results of the 51<sup>st</sup> Round<sup>1</sup>**

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Growth is expected to firm up in 2018-19 on the back of higher private consumption and improvement in investment, according to the 25 forecasters surveyed by the Reserve Bank. Higher growth is expected to be driven mainly by the industry and to a lesser extent by the services sector. Consumer Price inflation is expected to remain below 5.0 per cent from Q2:2018-19 to Q4:2018-19.

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The Reserve Bank has been conducting the Survey of Professional Forecasters (SPF) since September 2007. Twenty five panellists participated in the 51<sup>st</sup> round of the survey conducted during March 2018<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) is likely to grow by 6.6 per cent in 2017-18 and accelerate by 70 basis points (bps) in 2018-19 on the back of support from private consumption and investment (Table 1).
- Real gross value added (GVA) is expected to grow by 7.1 per cent in 2018-19, supported by activity in the industry and services sectors.
- The investment rate, proxied by gross fixed capital formation, is expected to improve in 2018-19, commensurate with the upturn in the saving rate.

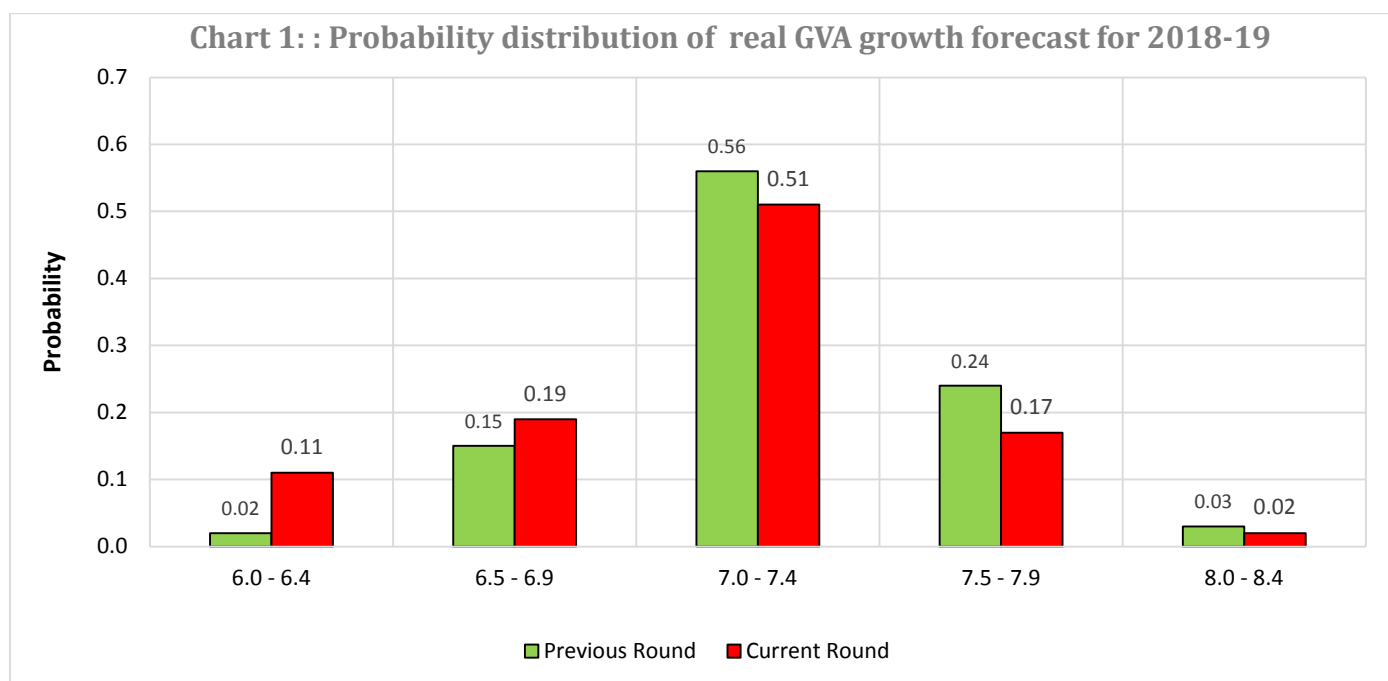
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<sup>1</sup> The results of the last survey round were released on [February 7, 2018](#) on the RBI's website.

<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	6.6 (+0.1)	7.3 (-0.1)
Real GVA Growth	6.4 (+0.3)	7.1 (0.0)
a. Agriculture and Allied Activities	3.0 (+0.9)	3.1 (-0.1)
b. Industry	5.0 (+0.4)	6.8 (+0.3)
c. Services	8.0 (+0.4)	8.4 (+0.1)
Private Final Consumption Expenditure (nominal) (growth rate in per cent)	9.5 (0.0)	11.2 (-0.6)
Gross Saving Rate [per cent of gross national disposable income (GNDI)]	30.2 (-0.7)	30.5 (-1.0)
Gross Fixed Capital Formation Rate (per cent of GDP)	28.5 (+2.1)	29.0 (+2.3)
<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.		

- Similar to the previous round, forecasters have assigned the maximum probability to GVA growth being in the range of 7.0-7.4 per cent in 2018-19 in the current round (Chart 1).

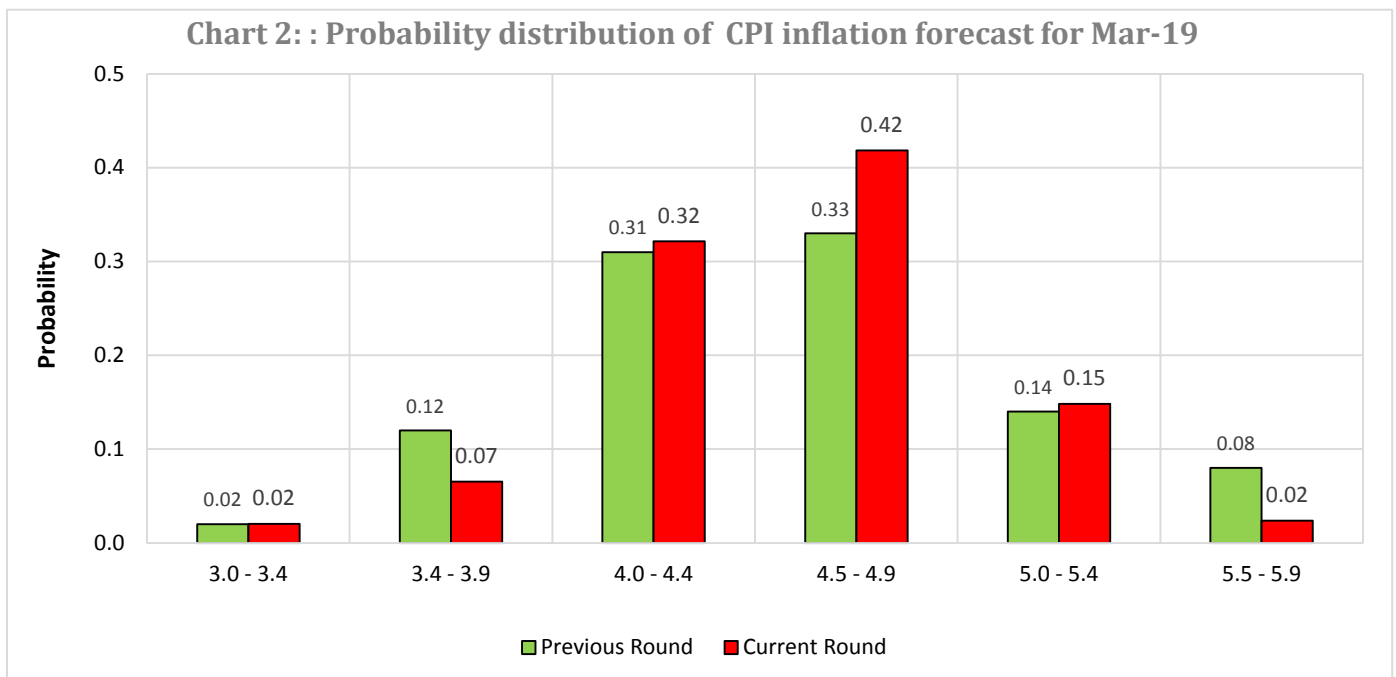


## 2. Inflation

- Headline consumer price index (CPI) inflation is expected to increase till Q1:2018-19 and thereafter remain below 5.0 per cent till Q4:2018-19. Median headline inflation forecasts have been revised down in the current round by 30-40 bps from the previous round (Table 2).
- Core inflation (*i.e.*, CPI excluding food and beverages, pan, tobacco and intoxicants, and fuel and light) is likely to remain above 5.0 per cent till Q2:2018-19.

	Q4:17-18	Q1:18-19	Q2:18-19	Q3:18-19	Q4:18-19
CPI Headline	4.7 (-0.3)	5.1 (-0.4)	4.7 (-0.3)	4.0 (-0.4)	4.3
CPI excluding <i>food &amp; beverages, pan, tobacco &amp; intoxicants and fuel &amp; light</i>	5.0 (+0.1)	5.5 (+0.2)	5.3 (0.0)	4.9 (0.0)	4.7
WPI All Commodities	2.6 (-0.6)	3.8 (-0.2)	4.0 (-0.2)	3.2 (-0.1)	3.0
WPI Non-food Manufactured Products	3.6 (+0.9)	3.6 (+0.8)	3.9 (+1.0)	3.5 (+1.1)	2.6

- Forecasters have assigned the highest probability to CPI inflation being in the range 4.5-4.9 per cent in March 2019 (Chart 2).



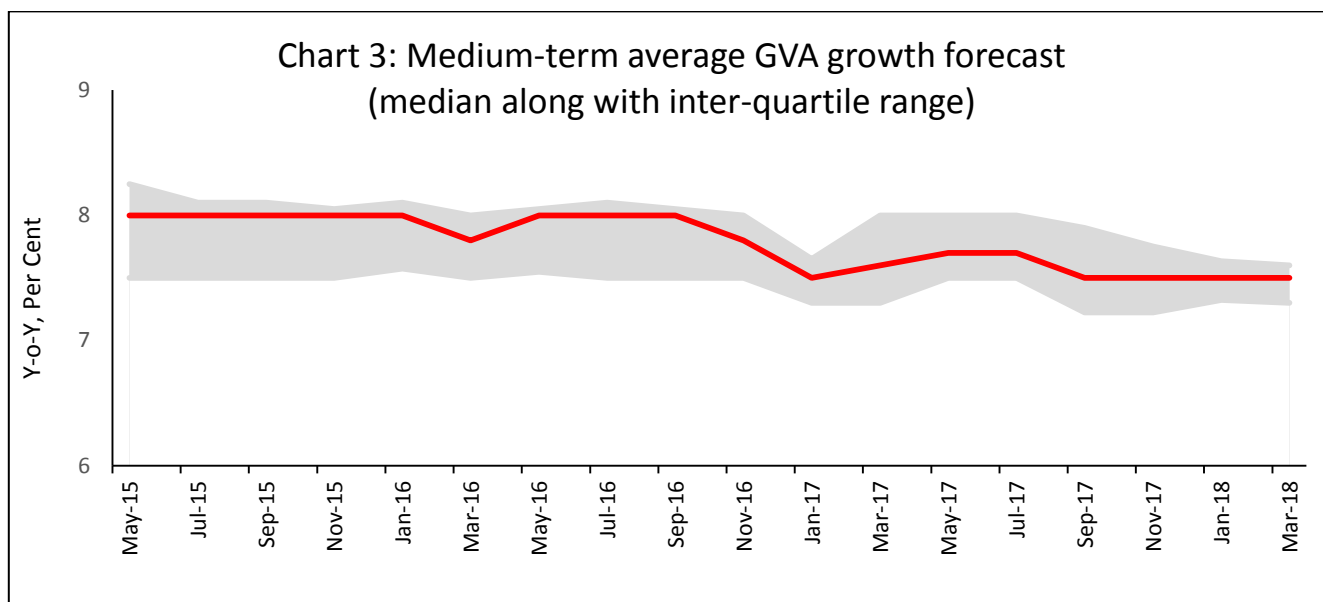
### 3. External Sector

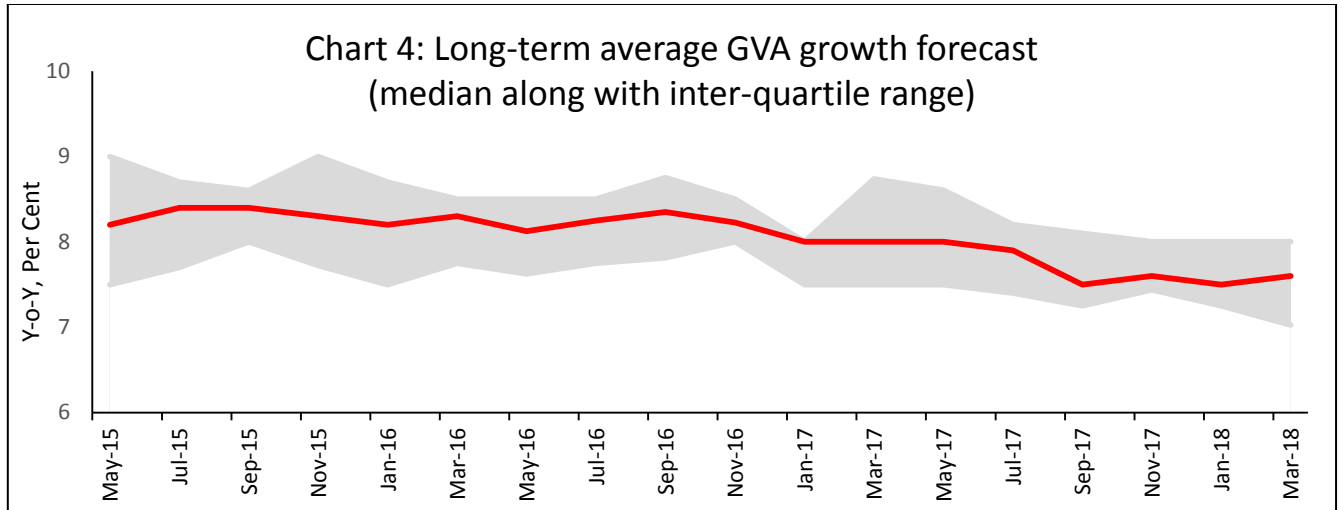
- Forecasts of growth in merchandise exports and imports during 2018-19 have been revised upwards from the previous round (Table 3).
- The current account deficit (CAD) is expected at 1.9 per cent of GDP in 2017-18 and is likely to increase by 20 bps to 2.1 per cent of GDP in 2018-19.
- The Indian rupee is likely to remain range-bound against the US dollar till Q4:2018-19 (Annex 3).

Table 3: Median Forecast of Select External Sector Variables		
	2017-18	2018-19
Merchandise Exports – in US \$ terms <i>(annual growth in per cent)</i>	9.0 <i>(-0.5)</i>	9.4 <i>(+1.1)</i>
Merchandise Imports– in US \$ terms <i>(annual growth in per cent)</i>	18.0 <i>(+1.6)</i>	10.9 <i>(+1.7)</i>
Current Account Deficit <i>(Ratio to GDP at current market price, in per cent)</i>	1.9 <i>(+0.2)</i>	2.1 <i>(+0.2)</i>

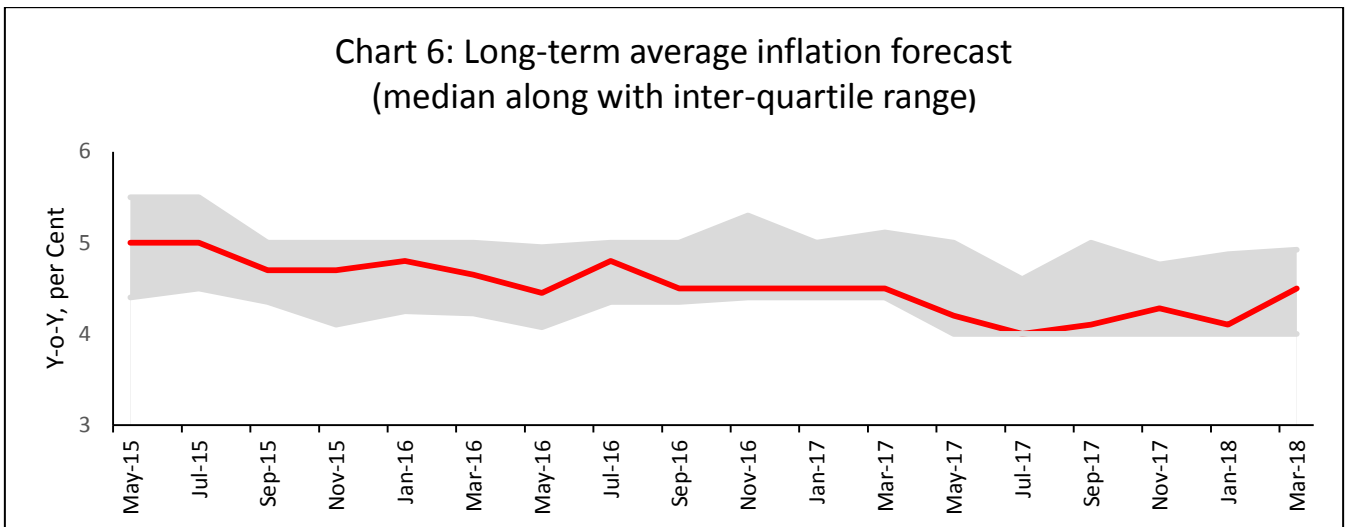
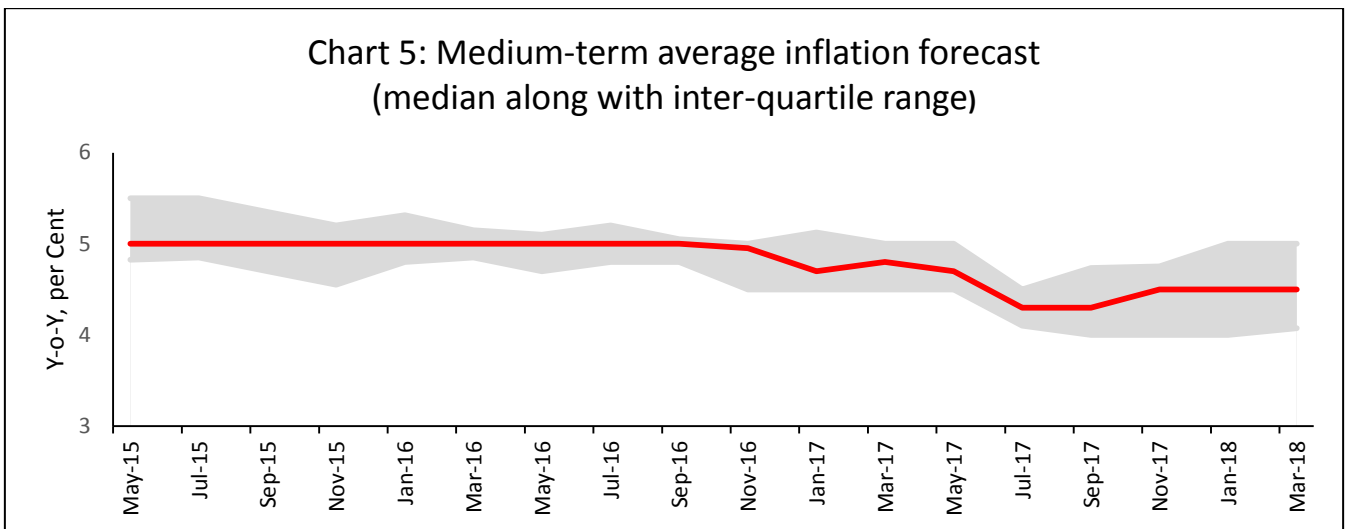
### 4. Medium-term and Long-term Forecasts

- The medium-term (five-year average) real GVA growth forecast has remained unchanged from the previous survey round at 7.5 per cent whereas the long-term (ten year average) real GVA growth forecast has been revised up by 10 basis points (Chart 3 and Chart 4).





- Average CPI headline inflation in the medium-term and long-term are both expected to be around 4.5 per cent, with the latter having been revised upward by 40 bps from the previous round of the survey (Charts 5 and 6).



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

*Aditi Nayar, ICRA Limited; Anubhuti Sahay, Standard Chartered Bank; Arun Singh, Dun & Bradstreet; NCAER; Debopam Chaudhuri, Piramal Enterprises Limited; Gaurav Kapur, IndusInd Bank Ltd.; Madan Sabnavis, Care Ratings; Nikhil Gupta, Motilal Oswal Securities Ltd.; PHD Research Bureau; Sameer Narang, Bank of Baroda; Shailesh Kejariwal, B&K Securities India Pvt Ltd; Siddharth V Kothari, Sunidhi Securities & Finance Ltd; Subhada Rao, Yes Bank; Tanvee Jain Gupta, UBS Securities India Pvt. Ltd.; and Upasna Bhardwaj, Kotak Mahindra Bank.*

*The Bank also acknowledges the contribution of 10 others SPF panellists, 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)	6.7	6.6	7.2	6.5	6.6	6.7
2	GVA at basic prices at constant (2011-12) prices: Annual Growth rate (per cent)	6.4	6.4	6.6	6.2	6.4	6.4
a	Agriculture & Allied Activities (growth rate in per cent)	2.9	3.0	3.5	1.0	3.0	3.1
b	Industry (growth rate in per cent)	5.1	5.0	7.0	4.7	4.8	5.2
c	Services (growth rate in per cent)	8.1	8.0	9.0	7.6	7.8	8.3
3	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	9.4	9.5	11.2	6.1	9.5	10.3
4	Gross Saving Rate (per cent of Gross National Disposable Income) - at current prices	30.6	30.2	35.2	29.0	29.9	30.9
5	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	28.5	28.5	32.8	26.4	28.0	28.5
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	3.5	3.5	3.6	3.4	3.5	3.5
7	Combined Gross Fiscal Deficit (per cent to GDP)	6.6	6.5	7.5	6.0	6.5	6.7
8	Bank Credit - Scheduled commercial banks: Annual Growth (per cent)	10.0	10.0	12.0	8.4	9.2	11.0
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	7.6	7.6	7.7	7.2	7.5	7.7
10	Yield on 91-day T-Bill of Central Govt. (end-period)	6.2	6.2	6.4	5.8	6.1	6.3
11	Merchandise Exports - BoP basis - In US \$ bn.	305.4	305.6	314.2	298.7	301.1	308.7
12	Merchandise Exports - BoP basis - Annual Growth (per cent)	8.9	9.0	12.8	5.9	7.1	10.0
13	Merchandise Imports - BoP basis - In US \$ bn.	463.4	463.8	483.5	453.6	456.9	467.1
14	Merchandise Imports - BoP basis - Annual Growth (per cent)	17.7	18.0	24.8	10.0	15.9	19.0
15	Current Account Balance - In US \$ bn.	-46.7	-48.0	-20.9	-57.0	-49.9	-45.0
16	Current Account Balance - Ratio to GDP at current market price (per cent)	-1.9	-1.9	-1.1	-2.5	-2.0	-1.8
17	Overall BoP - In US \$ bn.	26.3	27.1	41.6	-8.0	20.1	35.0
18	Inflation based on CPI-Combined - Headline	3.7	3.6	4.5	3.5	3.6	3.6
19	Inflation based on CPI-Combined - excluding 'Food & Beverages', 'Pan, Tobacco & Intoxicants' and 'Fuel & Light'	4.6	4.5	5.0	4.4	4.5	4.7
20	Inflation based on WPI - All Commodities	3.1	2.9	6.4	2.7	2.8	3.0
21	Inflation based on WPI -Non-food Manufactured Products	2.8	2.9	3.0	2.4	2.7	2.9

## 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)	7.3	7.3	7.8	6.9	7.2	7.5
2	GVA at basic prices at constant (2011-12) prices: Annual Growth rate (per cent)	7.1	7.1	7.7	6.7	7.0	7.2
a	Agriculture & Allied Activities (growth rate in per cent)	3.3	3.1	4.6	2.0	3.0	3.8
b	Industry (growth rate in per cent)	6.8	6.8	8.0	5.5	6.3	7.3
c	Services (growth rate in per cent)	8.4	8.4	9.0	7.3	8.1	8.6
3	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	10.9	11.2	15.2	7.4	10.3	11.7
4	Gross Saving Rate (per cent of Gross National Disposable Income) - at current prices	30.7	30.5	33.4	29.1	30.0	31.5
5	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	29.8	29.0	34.0	28.1	28.6	30.8
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	3.3	3.3	3.5	3.0	3.2	3.3
7	Combined Gross Fiscal Deficit (per cent to GDP)	6.3	6.3	7.0	5.6	6.2	6.6
8	Bank Credit - Scheduled commercial banks: Annual Growth (per cent)	10.9	11.3	12.5	8.2	10.3	12.0
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	7.5	7.5	8.0	6.8	7.3	7.8
10	Yield on 91-day T-Bill of Central Govt. (end-period)	6.2	6.3	6.5	5.6	6.1	6.4
11	Merchandise Exports - BoP basis - In US \$ bn.	332.7	332.7	360.5	317.0	325.1	340.0
12	Merchandise Exports - BoP basis - Annual Growth (per cent)	9.1	9.4	14.8	5.0	6.2	11.8
13	Merchandise Imports - BoP basis - In US \$ bn.	515.3	508.0	564.9	489.9	499.1	531.0
14	Merchandise Imports - BoP basis - Annual Growth (per cent)	11.3	10.9	23.1	5.2	8.2	14.0
15	Current Account Balance - In US \$ bn.	-60.5	-60.2	-21.6	-75.0	-66.4	-58.1
16	Current Account Balance - Ratio to GDP at current market price (per cent)	-2.2	-2.1	-1.0	-2.6	-2.4	-2.1
17	Overall BoP - In US \$ bn.	13.4	11.3	50.0	-20.0	7.6	20.4
18	Inflation based on CPI-Combined - Headline	4.5	4.6	5.0	4.0	4.4	4.7
19	Inflation based on CPI-Combined - excluding 'Food & Beverages', 'Pan, Tobacco & Intoxicants' and 'Fuel & Light'	5.1	5.1	6.1	4.2	4.8	5.3
20	Inflation based on WPI - All Commodities	3.7	3.5	4.8	3.0	3.2	4.1
21	Inflation based on WPI -Non-food Manufactured Products	3.4	3.3	4.5	2.6	3.0	3.8



**Annex 3: Quarterly Forecasts from Q4:2017-18 to Q4:2018-19**

	Key Macroeconomic Indicators	Quarterly Forecasts											
		Q4: 2017-18				Q1: 2018-19				Q2: 2018-19			
		Mean	Median	Max	Min	Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.1	7.1	7.7	6.1	7.3	7.3	7.8	6.9	7.3	7.2	7.9	6.9
2	GVA at constant (2011-12) prices: Annual Growth (per cent)	7.0	6.9	7.7	6.4	7.2	7.2	7.7	6.7	7.2	7.2	8.0	6.6
a	Agriculture & Allied Activities (growth rate in per cent)	2.5	2.0	4.4	1.9	3.0	3.0	4.0	2.1	3.2	3.0	4.8	1.1
b	Industry (growth rate in per cent)	6.7	6.8	7.4	5.7	7.6	7.2	10.3	6.0	6.6	6.5	7.5	5.9
c	Services (growth rate in per cent)	8.3	8.3	9.6	7.4	8.0	8.2	8.8	6.4	8.2	8.2	9.2	7.4
3	PFCE at current prices: Y-on-Y Growth (per cent)	9.7	10.0	12.6	5.6	10.8	11.0	12.3	9.7	10.9	11.0	11.7	9.3
4	GFCF Rate (per cent of GDP at current market prices)	28.4	28.5	30.2	25.6	29.5	29.3	30.8	28.7	29.1	28.9	31.0	28.0
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	6.7	6.7	8.0	4.5	6.7	6.2	10.0	4.0	6.8	6.6	10.5	4.3
6	Merchandise Exports - BoP basis (in US\$ bn.)	79.1	78.8	84.0	74.5	79.3	80.0	81.5	75.1	82.0	81.7	85.6	79.8
7	Merchandise Imports - BoP basis (in US\$ bn.)	120.1	119.9	126.0	116.6	124.3	122.0	138.2	118.0	122.9	123.0	133.2	114.6
8	Rupee - US_Dollar Exchange rate (RBI reference rate) (end-period)	-	-	-	-	65.1	65.5	66.2	62.0	65.2	65.5	67.3	61.5
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	-	-	-	-	63.4	63.0	67.5	60.0	61.9	61.9	68.0	54.0
10	Repo Rate (end-period)	-	-	-	-	5.99	6.00	6.00	5.75	6.03	6.00	6.25	5.75

	Key Macroeconomic Indicators	Quarterly Forecasts							
		Q3: 2018-19				Q4: 2018-19			
		Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.2	7.2	7.8	6.6	7.2	7.2	7.9	6.5
2	GVA at constant (2011-12) prices: Annual Growth (per cent)	7.0	7.0	7.7	6.5	7.1	7.1	7.8	6.3
a	Agriculture & Allied Activities (growth rate in per cent)	3.1	3.1	5.0	1.5	3.1	3.0	4.5	1.9
b	Industry (growth rate in per cent)	6.8	6.8	8.7	5.6	6.5	6.5	7.9	4.7
c	Services (growth rate in per cent)	8.4	8.5	9.1	7.6	8.5	8.3	9.3	7.5
3	PFCE at current prices: Y-on-Y Growth (per cent)	10.8	10.9	12.2	8.3	11.1	11.3	12.7	8.5
4	GFCF Rate (per cent of GDP at current market prices)	28.7	28.7	29.8	27.0	28.9	28.5	30.2	27.5
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	6.1	5.6	10.6	4.0	5.8	5.1	10.3	3.5
6	Merchandise Exports - BoP basis (in US\$ bn.)	83.1	82.4	86.0	80.0	87.7	86.8	98.5	80.3
7	Merchandise Imports - BoP basis (in US\$ bn.)	133.5	131.5	145.8	126.5	137.8	139.6	153.4	124.3
8	Rupee - US_Dollar Exchange rate (RBI reference rate) (end-period)	65.3	66.0	66.8	61.5	65.2	65.5	67.5	61.3
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	62.9	63.6	69.0	55.0	64.0	64.0	69.0	57.8
10	Repo Rate (end-period)	5.98	6.00	6.25	5.50	5.98	6.00	6.25	5.50

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

	CPI Combined Headline				Core CPI Combined (excluding 'Food & Beverages', 'Pan, Tobacco & Intoxicants' and 'Fuel & Light')			
	Mean	Median	Max	Min	Mean	Median	Max	Min
Q4:2017-18	4.7	4.7	4.8	4.5	5.1	5.0	5.9	4.5
Q1:2018-19	5.0	5.1	5.3	3.9	5.5	5.5	6.0	4.9
Q2:2018-19	4.6	4.7	5.4	3.6	5.4	5.3	6.2	4.7
Q3:2018-19	4.0	4.0	4.4	3.5	5.0	4.9	6.6	3.4
Q4:2018-19	4.3	4.3	5.0	3.5	4.8	4.7	6.2	3.0

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

	WPI Headline				WPI Non-food Manufactured Products			
	Mean	Median	Max	Min	Mean	Median	Max	Min
Q4:2017-18	2.7	2.6	3.2	2.6	3.5	3.6	4.2	2.3
Q1:2018-19	3.8	3.8	4.9	3.1	3.7	3.6	5.5	2.3
Q2:2018-19	3.9	4.0	5.1	3.1	3.8	3.9	5.1	2.2
Q3:2018-19	3.2	3.2	4.5	2.4	3.4	3.5	4.8	2.4
Q4:2018-19	3.3	3.0	5.0	2.0	2.9	2.6	5.3	1.8

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

Growth Range	Forecasts for 2017-18	Forecasts for 2018-19
10.0 per cent or more	0	0
9.5 to 9.9 per cent	0	0
9.0 to 9.4 per cent	0	0
8.5 to 8.9 per cent	0	0.00
8.0 to 8.4 per cent	0	0.02
7.5 to 7.9 per cent	0.01	0.17
7.0 to 7.4 per cent	0.04	0.51
6.5 to 6.9 per cent	0.39	0.19
6.0 to 6.4 per cent	0.55	0.11
5.5 to 5.9 per cent	0.02	0
5.0 to 5.4 per cent	0	0
4.5 to 4.9 per cent	0	0
4.0 to 4.4 per cent	0	0
3.5 to 3.9 per cent	0	0
3.0 to 3.4 per cent	0	0
2.5 to 2.9 per cent	0	0
2.0 to 2.4 per cent	0	0
Below 2.0 per cent	0	0

**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	0
7.5 to 7.9 per cent	0	0
7.0 to 7.4 per cent	0	0
6.5 to 6.9 per cent	0	0
6.0 to 6.4 per cent	0	0
5.5 to 5.9 per cent	0.01	0.02
5.0 to 5.4 per cent	0.03	0.15
4.5 to 4.9 per cent	0.33	0.42
4.0 to 4.4 per cent	0.41	0.32
3.5 to 3.9 per cent	0.19	0.07
3.0 to 3.4 per cent	0.03	0.02
2.5 to 2.9 per cent	0	0
2.0 to 2.4 per cent	0	0
1.5 to 1.9 per cent	0	0
1.0 to 1.4 per cent	0	0
0.5 to 0.9 per cent	0	0
0 to 0.4 per cent	0	0
Below 0 per cent	0	0

**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	7.5	7.5	8.7	7.0	7.7	7.6	10.0	7.0
CPI Combined	4.5	4.5	5.5	3.5	4.5	4.5	6.0	4.0

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