

## **Survey of Professional Forecasters on Macroeconomic Indicators– Results of the 57<sup>th</sup> Round<sup>1</sup>**

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Growth is expected to moderate in 2018-19 but firm up in 2019-20. Consumer price inflation is expected to remain below 4.0 per cent till Q2:2019-20, but firm up to 4.2 per cent in Q4:2019-20.

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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 57<sup>th</sup> round of the survey conducted during March 2019<sup>2</sup>. The survey results are summarised in terms of their median forecasts and consolidated in Annexes 1-7, along with quarterly paths for key variables.

### **Highlights:**

#### **1. Output**

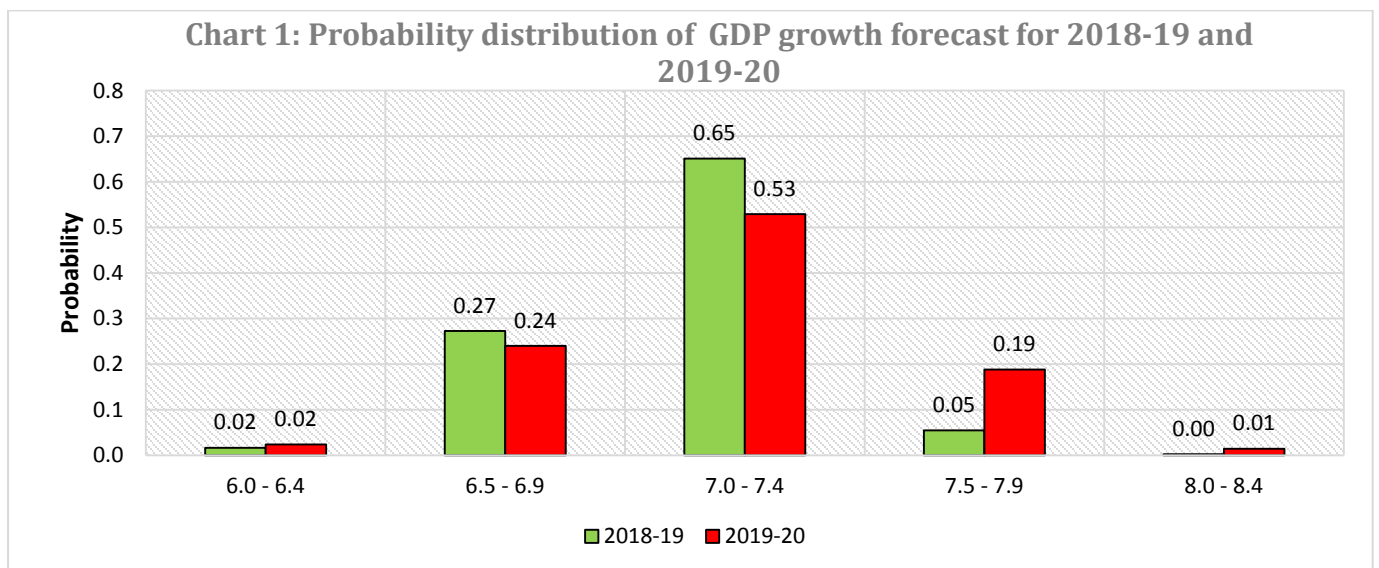
- Real gross domestic product (GDP) is likely to grow at 7.0 per cent in 2018-19 and is expected to improve by 30 basis points (bps) in 2019-20 (Table 1).
- Real private final consumption expenditure (PFCE) growth is expected at 8.3 per cent and 8.1 per cent during 2018-19 and 2019-20, respectively.
- Real investment growth, proxied by the growth of real gross fixed capital formation (GFCF), is likely to improve to 10.0 per cent in 2018-19 but moderate to 9.4 per cent in 2019-20.
- Forecasters have assigned the maximum probability to GDP growth being in the range of 7.0-7.4 per cent in both 2018-19 and 2019-20 (Chart 1).
- Real gross value added (GVA) is expected to grow by 6.8 per cent in 2018-19 and by 7.1 per cent in 2019-20, supported by activity in the industrial and services sectors.

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<sup>1</sup> The results of the last survey round were released on [February 7, 2019](#) on the Reserve Bank'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 GDP, GVA and Components</b> (in per cent)		
	<b>2018-19</b>	<b>2019-20</b>
Real GDP growth rate	7.0 (-0.2)	7.3 (0.0)
Real PFCE growth rate	8.3	8.1
Real GFCF growth rate	10.0	9.4
Private Final Consumption Expenditure (nominal) (growth rate in per cent)	12.2 (+0.8)	11.8 (-0.1)
Gross Fixed Capital Formation Rate (per cent of GDP)	29.0 (-0.1)	29.4 (0.0)
Real GVA Growth	6.8 (-0.2)	7.1 (-0.1)
a. Agriculture and Allied Activities	3.0 (-0.8)	3.5 (-0.1)
b. Industry	7.3 (-0.2)	7.3 (0.0)
c. Services	7.4 (-0.1)	7.8 (-0.2)
Gross Saving Rate [per cent of gross national deposable income] (GNDI)]	29.9 (+0.4)	30.2 (+0.5)
<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.		



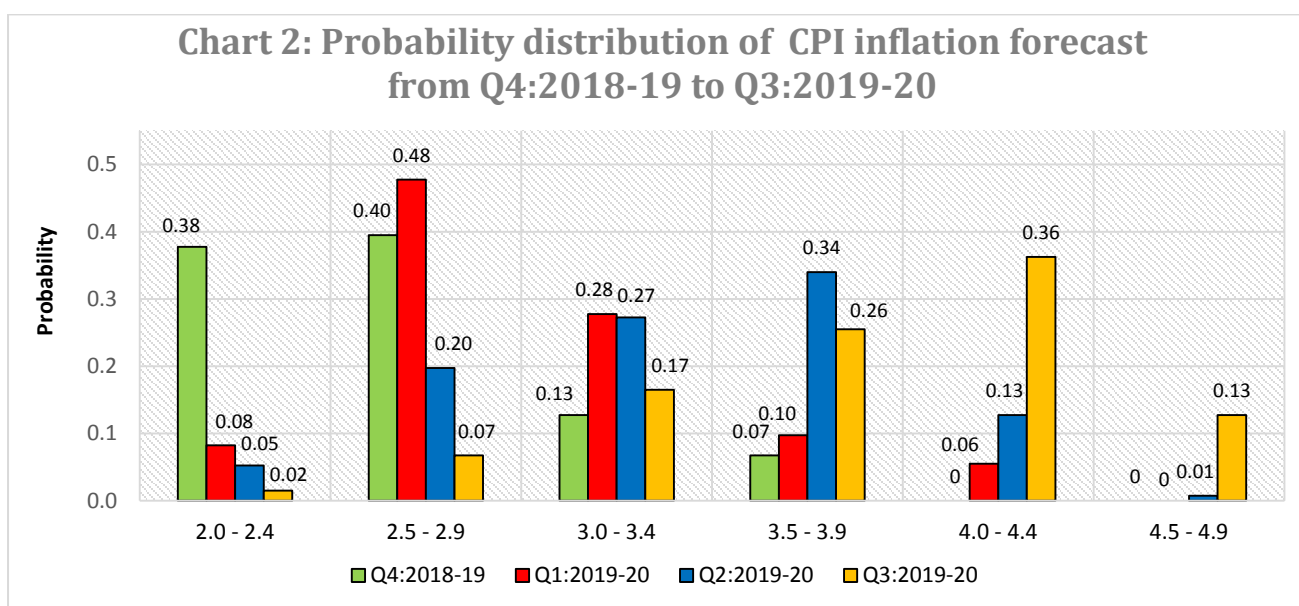
Note: Tails of the distribution are not presented in the chart. Detailed probability distributions are given in Annex 6.

## 2. Inflation

- Headline consumer price index (CPI) inflation is expected to moderate to 2.4 per cent in Q4:2018-19 and increase gradually to reach 4.2 per cent by Q4:2019-20.
- CPI inflation excluding food and beverages, pan, tobacco and intoxicants and fuel and light is expected at 5.3 per cent in Q4:2018-19 but likely to remain below 5.0 per cent till Q4:2019-20.

<b>Table 2: Median Forecast of Quarterly Inflation</b> (in per cent)					
	<b>Q4:18-19</b>	<b>Q1:19-20</b>	<b>Q2:19-20</b>	<b>Q3:19-20</b>	<b>Q4:19-20</b>
CPI Headline	2.4 (-0.7)	2.9 (-0.6)	3.3 (-0.7)	4.0 (-0.4)	4.2
CPI excluding <i>food and beverages, pan, tobacco and intoxicants and fuel and light</i>	5.3 (-0.3)	4.8 (-0.4)	4.8 (-0.4)	4.8 (-0.2)	4.9
WPI All Commodities	2.9 (-0.8)	2.7 (-0.5)	2.1 (-0.6)	2.3 (-0.7)	3.6
WPI Non-food Manufactured Products	2.7 (-0.9)	2.4 (-1.1)	2.0 (-1.5)	2.0 (-2.1)	3.0

- Forecasters have assigned the highest probability to CPI inflation being in the ranges of 2.5-2.9 per cent in Q4:2018-19 and Q1:2019-20, 3.5-3.9 per cent in Q2:2019-20 and 4.0-4.4 per cent in Q3:2019-20 (Chart 2).



Note: Tails of the distribution are not presented in the chart. Detailed probability distributions are given in Annex 7.

### 3. External Sector

- Forecasts of growth in merchandise exports and merchandise imports during 2018-19 are expected at 8.0 per cent and 10.5 per cent, respectively, and deceleration is expected in 2019-20 (Table 3).
- The current account deficit (CAD) is expected at 2.4 per cent of GDP in 2018-19 and 2.3 per cent of GDP in 2019-20.
- The Indian rupee is likely to remain around ₹70 per US Dollar till Q4:2019-20 (Annex 3).

<b>Table 3: Median Forecast of Select External Sector Variables</b>		
	<b>2018-19</b>	<b>2019-20</b>
Merchandise Exports – in US \$ terms <i>(annual growth in per cent)</i>	8.0 <i>(-1.7)</i>	5.6 <i>(-2.0)</i>
Merchandise Imports– in US \$ terms <i>(annual growth in per cent)</i>	10.5 <i>(-1.7)</i>	6.0 <i>(-1.5)</i>
Current Account Deficit <i>(Ratio to GDP at current market price, in per cent)</i>	2.4 <i>(-0.1)</i>	2.3 <i>(0.0)</i>

*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); Devendra Kumar Pant (India Ratings & Research Private Limited); Dr S P Sharma, Ms Megha Kaul, Ms Kritika Bhasin (PHD Research Bureau); Dr Arun Singh (Dun & Bradstreet India); Gaurav Kapur (IndusInd Bank Limited); ICICI Securities Primary Dealership; Indranil Pan (IDFC FIRST Bank); Nikhil Gupta (Motilal Oswal Securities Ltd.); Sameer Narang (Bank of Baroda); Shailesh Kejariwal (B&K Securities India PVT LTD); Siddharth Kothari (Sunidhi Securities & Finance Ltd); and Upasna Bhardwaj (Kotak Mahindra Bank).*

*The Bank also acknowledges the contribution of thirteen others SPF panellists, who prefer to remain anonymous.*

### Annex 1: 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)	7.0	7.0	7.3	6.9	7.0	7.1
a	Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)	8.1	8.3	8.3	7.2	7.9	8.3
b	Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)	10.0	10.0	12.0	8.9	9.9	10.2
2	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	12.0	12.2	13.5	10.3	12.0	12.4
3	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	29.1	29.0	29.5	28.7	28.9	29.2
4	GVA at constant (2011-12) prices: Annual Growth (per cent)	6.8	6.8	7.1	6.6	6.8	6.9
a	Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)	3.2	3.0	5.5	2.7	2.7	3.7
b	Industry at constant (2011-12) prices: Annual Growth (per cent)	7.3	7.3	8.0	6.0	7.0	7.7
c	Services at constant (2011-12) prices: Annual Growth (per cent)	7.5	7.4	7.7	7.0	7.4	7.5
5	Gross Saving Rate (per cent of Gross National Disposable Income) - at current prices	29.8	29.9	30.8	28.8	29.2	30.2
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	3.4	3.4	3.6	3.4	3.4	3.5
7	Combined Gross Fiscal Deficit (per cent to GDP at current market prices)	6.4	6.4	6.7	6.0	6.2	6.5
8	Bank Credit of Scheduled commercial banks: Annual Growth (per cent)	13.4	13.8	14.8	11.8	12.4	14.4
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	7.4	7.4	7.7	7.2	7.3	7.5
10	Yield on 91-day T-Bill of Central Govt. (end-period)	6.2	6.3	6.7	5.1	6.3	6.4
11	Merchandise Exports (BoP basis in US\$ terms): Annual Growth (per cent)	8.0	8.0	11.1	5.0	6.8	9.6
12	Merchandise Imports (BoP basis in US\$ terms): Annual Growth (per cent)	10.6	10.5	14.1	6.4	9.0	12.0
13	Current Account Balance in US\$ bn.	-63.9	-64.0	-56.0	-71.0	-67.0	-60.9
14	Current Account Balance (per cent to GDP at current market prices)	-2.4	-2.4	-2.1	-2.6	-2.5	-2.3
15	Overall BoP in US\$ bn.	-12.7	-13.6	4.1	-25.0	-18.0	-8.9
16	Inflation based on CPI Combined: Headline	3.5	3.4	4.0	3.4	3.4	3.5
17	Inflation based on CPI Combined: excluding Food and Beverages, Pan, Tobacco and Intoxicants and Fuel and Light	5.7	5.8	6.0	4.8	5.8	5.8
18	Inflation based on WPI: All Commodities	4.3	4.3	4.6	4.1	4.2	4.3
19	Inflation based on WPI: Non-food Manufactured Products	4.2	4.2	4.6	3.7	4.1	4.2

## Annex 2: Annual Forecasts for 2019-20

	Key Macroeconomic Indicators	Annual Forecasts for 2019-20					
		Mean	Median	Max	Min	1st quartile	3rd quartile
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.2	7.3	7.7	6.7	7.2	7.4
a	Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)	8.0	8.1	10.3	6.7	7.5	8.4
b	Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)	9.3	9.4	10.4	7.9	8.4	10.2
2	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	11.8	11.8	13.4	10.8	11.3	12.0
3	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	29.4	29.4	30.5	28.9	29.1	29.6
4	GVA at constant (2011-12) prices: Annual Growth (per cent)	7.1	7.1	7.4	6.4	6.9	7.3
a	Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)	3.4	3.5	4.9	1.6	3.0	3.9
b	Industry at constant (2011-12) prices: Annual Growth (per cent)	7.3	7.3	9.1	6.1	7.0	7.6
c	Services at constant (2011-12) prices: Annual Growth (per cent)	7.9	7.8	9.0	6.9	7.5	8.1
5	Gross Saving Rate (per cent of Gross National Disposable Income) - at current prices	30.1	30.2	31.0	28.3	29.7	30.8
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	3.4	3.4	3.6	3.2	3.4	3.4
7	Combined Gross Fiscal Deficit (per cent to GDP at current market prices)	6.3	6.3	6.6	5.9	6.2	6.5
8	Bank Credit of Scheduled commercial banks: Annual Growth (per cent)	13.4	13.3	16.8	10.0	12.0	15.0
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	7.3	7.3	7.8	6.9	7.1	7.5
10	Yield on 91-day T-Bill of Central Govt. (end-period)	6.0	6.1	6.6	5.0	6.0	6.2
11	Merchandise Exports (BoP basis in US\$ terms): Annual Growth (per cent)	6.0	5.6	12.5	1.4	4.1	8.2
12	Merchandise Imports (BoP basis in US\$ terms): Annual Growth (per cent)	6.3	6.0	14.0	0.7	3.2	8.7
13	Current Account Balance in US\$ bn.	-66.0	-66.7	-38.0	-83.8	-73.3	-61.5
14	Current Account Balance (per cent to GDP at current market prices)	-2.2	-2.3	-1.3	-2.9	-2.4	-2.1
15	Overall BoP in US\$ bn.	11.0	11.4	30.0	-6.8	6.7	13.6
16	Inflation based on CPI Combined: Headline	3.6	3.7	4.5	2.8	3.4	3.9
17	Inflation based on CPI Combined: excluding Food and Beverages, Pan, Tobacco and Intoxicants and Fuel and Light	4.8	4.9	5.5	4.2	4.6	5.0
18	Inflation based on WPI: All Commodities	2.9	2.5	4.4	1.8	2.2	3.4
19	Inflation based on WPI: Non-food Manufactured Products	2.8	2.5	4.5	1.1	1.8	4.1

**Annex 3: Quarterly Forecasts from Q4:2018-19 to Q4:2019-20**

	Key Macroeconomic Indicators	Quarterly Forecasts											
		Q4: 2018-19				Q1: 2019-20				Q2: 2019-20			
		Mean	Median	Max	Min	Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	6.6	6.5	7.3	6.0	6.8	6.8	7.4	6.2	7.3	7.3	8.0	6.7
a	Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)	7.8	8.0	9.3	6.4	8.2	8.3	11.3	6.0	8.1	8.2	10.1	6.5
b	Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)	8.5	7.9	11.6	6.0	8.4	8.9	10.9	4.5	9.2	9.6	11.5	7.3
2	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	10.9	10.9	11.8	9.5	11.8	11.4	14.5	10.2	11.5	11.6	13.1	9.0
3	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	28.5	29.0	31.0	23.0	29.1	29.2	29.9	27.0	29.0	29.0	29.8	28.5
4	GVA at constant (2011-12) prices: Annual Growth (per cent)	6.3	6.3	7.0	5.7	6.7	6.7	7.2	6.2	7.1	7.2	7.7	6.4
a	Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)	1.7	1.5	4.0	-0.1	3.0	3.2	4.0	-0.1	3.4	3.5	4.3	2.3
b	Industry at constant (2011-12) prices: Annual Growth (per cent)	6.3	6.5	7.2	5.0	6.6	6.7	7.9	5.5	7.2	7.1	8.9	6.0
c	Services at constant (2011-12) prices: Annual Growth (per cent)	7.6	7.7	8.2	7.0	7.5	7.6	8.2	6.6	7.8	7.8	9.7	6.8
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	2.9	2.6	4.7	1.9	4.7	4.5	8.0	3.5	4.7	4.4	9.9	3.2
6	Merchandise Exports - BoP basis (in US\$ bn.)	83.0	82.5	90.4	79.3	85.5	84.5	93.0	81.5	87.1	87.5	93.0	80.5
7	Merchandise Imports - BoP basis (in US\$ bn.)	124.6	125.5	138.0	113.9	130.1	132.0	146.0	112.0	134.1	135.3	151.0	115.5
8	Rupee – US Dollar Exchange rate (RBI reference rate) (end-period)	-	-	-	-	70.3	70.0	74.0	67.6	70.5	70.5	74.5	68.3
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	-	-	-	-	66.8	65.5	73.4	63.2	67.0	66.5	76.0	58.3
10	Repo Rate (end-period)	-	-	-	-	5.97	6.00	6.25	5.75	5.89	6.00	6.00	5.50

	Key Macroeconomic Indicators	Quarterly Forecasts							
		Q3: 2019-20				Q4: 2019-20			
		Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.4	7.5	7.8	6.4	7.5	7.5	8.3	6.9
a	Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)	8.0	7.9	10.3	6.9	8.1	7.7	10.4	7.1
b	Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)	9.2	9.3	13.7	5.4	9.7	9.6	12.9	8.0
2	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	11.9	11.9	13.5	9.7	12.4	12.5	14.2	10.3
3	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	29.6	29.7	30.1	28.8	29.7	29.6	32.0	28.6
4	GVA at constant (2011-12) prices: Annual Growth (per cent)	7.1	7.3	7.6	6.1	7.3	7.4	8.0	6.3
a	Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)	3.5	3.6	5.5	1.6	3.9	4.0	6.1	2.0
b	Industry at constant (2011-12) prices: Annual Growth (per cent)	7.5	7.4	10.3	6.2	7.5	7.3	10.2	6.2
c	Services at constant (2011-12) prices: Annual Growth (per cent)	8.1	8.1	9.6	6.7	8.2	8.1	9.8	7.0
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	5.2	4.8	9.5	3.2	5.3	5.6	8.0	3.2
6	Merchandise Exports - BoP basis (in US\$ bn.)	88.0	87.5	96.0	80.5	89.9	89.5	102.0	82.5
7	Merchandise Imports - BoP basis (in US\$ bn.)	136.1	133.6	155.0	118.9	135.4	135.8	158.0	112.5
8	Rupee – US Dollar Exchange rate (RBI reference rate) (end-period)	70.4	70.0	75.0	65.6	70.3	70.5	75.3	65.9
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	68.0	67.0	77.4	62.2	68.5	67.0	81.0	64.5
10	Repo Rate (end-period)	5.89	6.00	6.00	5.50	5.89	6.00	6.00	5.50



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

	CPI Combined Headline				Core CPI Combined (excluding Food and Beverages, Pan, Tobacco and Intoxicants and Fuel and Light)			
	Mean	Median	Max	Min	Mean	Median	Max	Min
Q4:2018-19	2.5	2.4	3.0	2.3	5.4	5.3	5.9	5.2
Q1:2019-20	3.0	2.9	4.1	2.3	4.9	4.8	6.0	4.4
Q2:2019-20	3.3	3.3	4.1	1.9	4.9	4.8	6.2	4.5
Q3:2019-20	3.9	4.0	4.7	2.7	4.7	4.8	6.5	4.1
Q4:2019-20	4.2	4.2	4.9	3.4	4.9	4.9	6.3	4.2

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

	WPI Headline				WPI Non-food Manufactured Products			
	Mean	Median	Max	Min	Mean	Median	Max	Min
Q4:2018-19	3.1	2.9	5.0	2.1	3.1	2.7	4.9	2.4
Q1:2019-20	2.6	2.7	3.5	0.9	2.7	2.4	5.1	1.8
Q2:2019-20	2.3	2.1	3.9	1.1	2.4	2.0	5.3	0.9
Q3:2019-20	2.5	2.3	4.2	1.3	2.5	2.0	5.3	0.5
Q4:2019-20	3.7	3.6	5.5	1.8	3.3	3.0	5.4	1.3

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

Growth Range	Forecasts for 2018-19	Forecasts for 2019-20
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	0.00
8.0 to 8.4 per cent	0.00	0.01
7.5 to 7.9 per cent	0.05	0.19
7.0 to 7.4 per cent	0.65	0.53
6.5 to 6.9 per cent	0.27	0.24
6.0 to 6.4 per cent	0.02	0.02
5.5 to 5.9 per cent	0.00	0.00
5.0 to 5.4 per cent	0.00	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 Q4:2018-19	Forecasts for Q1:2019-20	Forecasts for Q2:2019-20	Forecasts for Q3:2019-20
8.0 per cent or above	0.00	0.00	0.00	0.00
7.5 to 7.9 per cent	0.00	0.00	0.00	0.00
7.0 to 7.4 per cent	0.00	0.00	0.00	0.00
6.5 to 6.9 per cent	0.00	0.00	0.00	0.00
6.0 to 6.4 per cent	0.00	0.00	0.00	0.00
5.5 to 5.9 per cent	0.00	0.00	0.00	0.00
5.0 to 5.4 per cent	0.00	0.00	0.00	0.01
4.5 to 4.9 per cent	0.00	0.00	0.01	0.13
4.0 to 4.4 per cent	0.00	0.06	0.13	0.36
3.5 to 3.9 per cent	0.07	0.10	0.34	0.26
3.0 to 3.4 per cent	0.13	0.28	0.27	0.17
2.5 to 2.9 per cent	0.40	0.48	0.20	0.07
2.0 to 2.4 per cent	0.38	0.08	0.05	0.02
1.5 to 1.9 per cent	0.03	0.01	0.00	0.00
1.0 to 1.4 per cent	0.01	0.00	0.00	0.00
0.5 to 0.9 per cent	0.00	0.00	0.00	0.00
0 to 0.4 per cent	0.00	0.00	0.00	0.00
Below 0 per cent	0.00	0.00	0.00	0.00

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.