

Survey of Professional Forecasters on Macroeconomic Indicators– Results of the 76th Round¹

The Reserve Bank has been conducting the survey of professional forecasters (SPF) since September 2007. The responses for 76th round of the survey were received during May 13 - June 3, 2022, wherein thirty-four panellists participated. The survey results are summarised in terms of their median forecasts (Annexes 1-7), along with quarterly paths for key variables.

Highlights:

1. Output

- Real gross domestic product (GDP) growth projection for 2022-23 has been revised down by 30 basis points (bps) from the last survey round to 7.2 per cent; it is expected to grow by 6.5 per cent in 2023-24 (Table 1).
- SPF panellists have placed GDP growth forecasts in the wide range of 5.4 - 9.2 per cent for 2022-23 and in the range 5.4- 8.0 per cent for 2023-24 (Annexes 1 and 2).
- Forecasters have assigned highest probability to real GDP growth lying between 7.0-7.4 per cent in 2022-23 (Chart 1). For 2023-24, highest probability has been assigned to the range 6.5-6.9 per cent (Chart 2).

¹ The survey results reflect the respondents' views, which are not necessarily shared by the Reserve Bank. Results of the previous survey round were released on the Bank's website on [April 8, 2022](#).

Chart 1: Probability distribution of GDP growth forecast for 2022-23

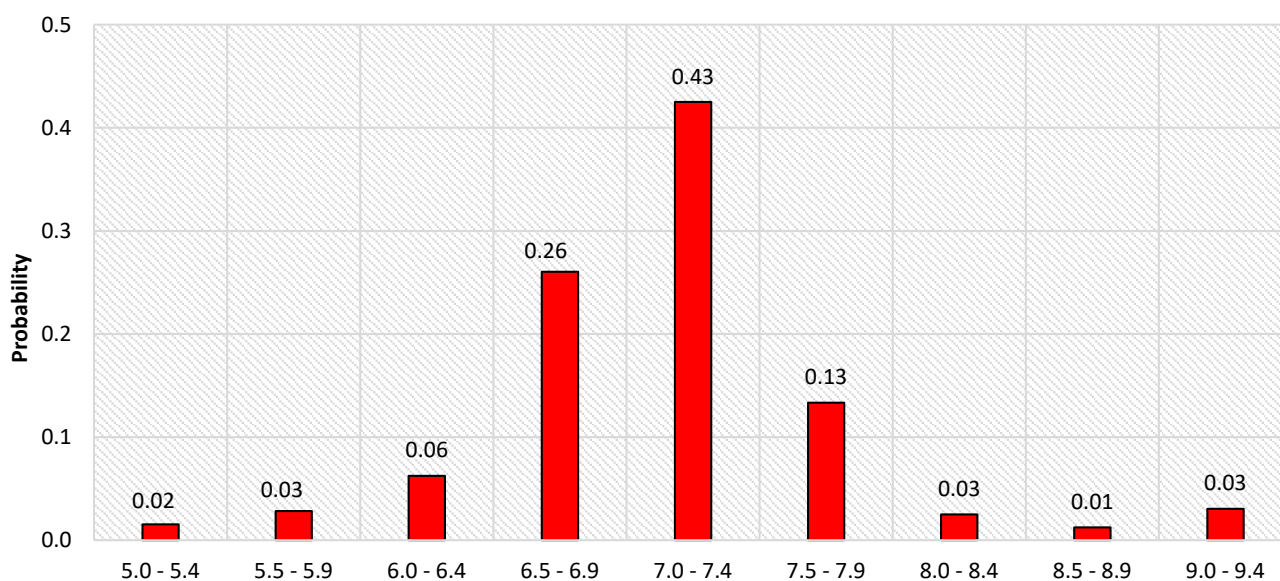
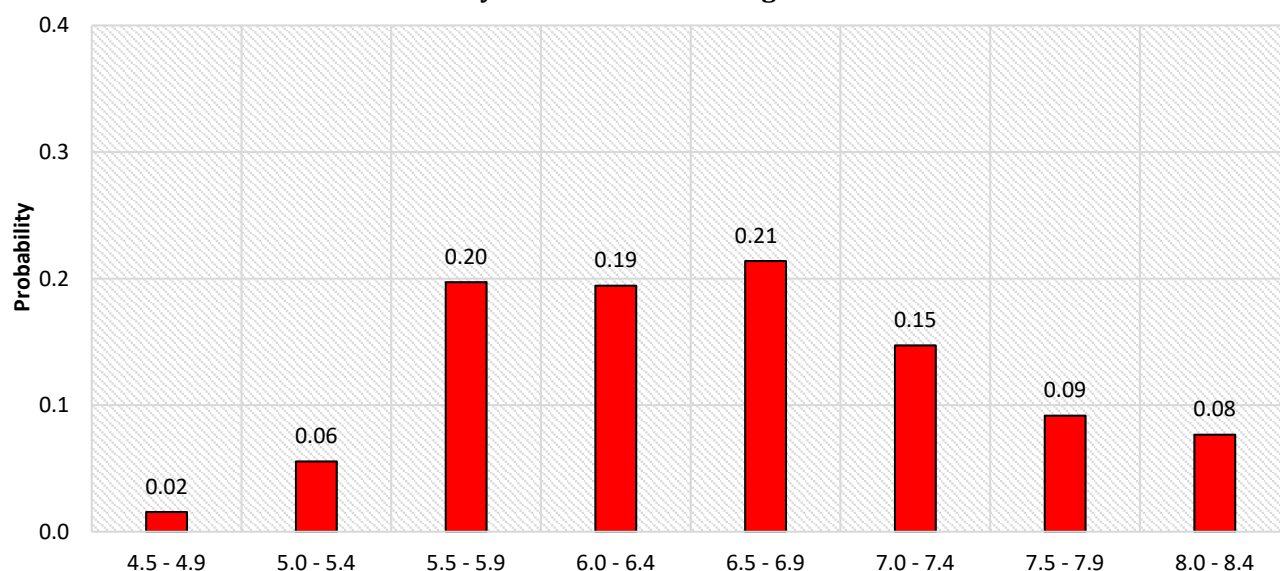


Chart 2: Probability distribution of GDP growth forecast for 2023-24



Note: Tails of the distributions are not presented in Charts 1 and 2. Detailed probability distributions are given in Annex 6.

- Projection of annual growth in real private final consumption expenditure (PFCE) and real gross fixed capital formation (GFCF) for 2022-23 are expected at 7.4 per cent and 8.7 per cent, respectively.
- Real gross value added (GVA) growth projection for 2022-23 has been revised down by 20 bps to 6.8 per cent mainly due to downward revision of GVA growth from industry by 70 bps.

Table 1: Median Forecast of Growth in GDP, GVA and components (in per cent)		
	2022-23	2023-24
Real GDP	7.2 (-0.3)	6.5
a. Real PFCE	7.4 (-0.1)	6.1
b. Real GFCF	8.7 (-0.1)	7.9
Nominal PFCE	15.0 (+2.1)	12.1
Real GVA	6.8 (-0.2)	6.2
a. Agriculture and Allied Activities	3.2 (0.0)	3.3
b. Industry	5.5 (-0.7)	5.6
c. Services	8.3 (-0.1)	7.3
Gross Saving Rate <i>[per cent of gross national disposable income]</i>	28.2 (-0.5)	28.6
Gross Capital Formation Rate <i>[per cent of GDP at current market prices]</i>	31.2 (+0.6)	31.4
Note: The figures in parentheses indicate the extent of revision in median forecasts (percentage points) relative to the previous SPF round (applicable for all Tables).		

- Real GDP is expected to grow (Y-o-Y) by 14.0 per cent in Q1:2022-23 and moderate successively thereafter to 4.5 per cent in Q4:2022-23 (Table 2).

Table 2: Median Growth Forecast of Quarterly GDP, GVA and components for 2022-23 (in per cent)				
	Q1:2022-23	Q2:2022-23	Q3:2022-23	Q4:2022-23
Real GDP	14.0 (0.0)	6.3 (-0.1)	5.3 (+0.2)	4.5 (-0.4)
a. Real PFCE	14.0 (-1.2)	7.1 (0.0)	5.5 (0.0)	5.7 (0.0)
b. Real GFCF	13.2 (-1.1)	6.0 (-1.4)	7.8 (+0.8)	6.5 (+0.2)
Real GVA	12.5 (-1.0)	6.1 (0.0)	4.9 (-0.1)	4.7 (-0.1)

2. Inflation

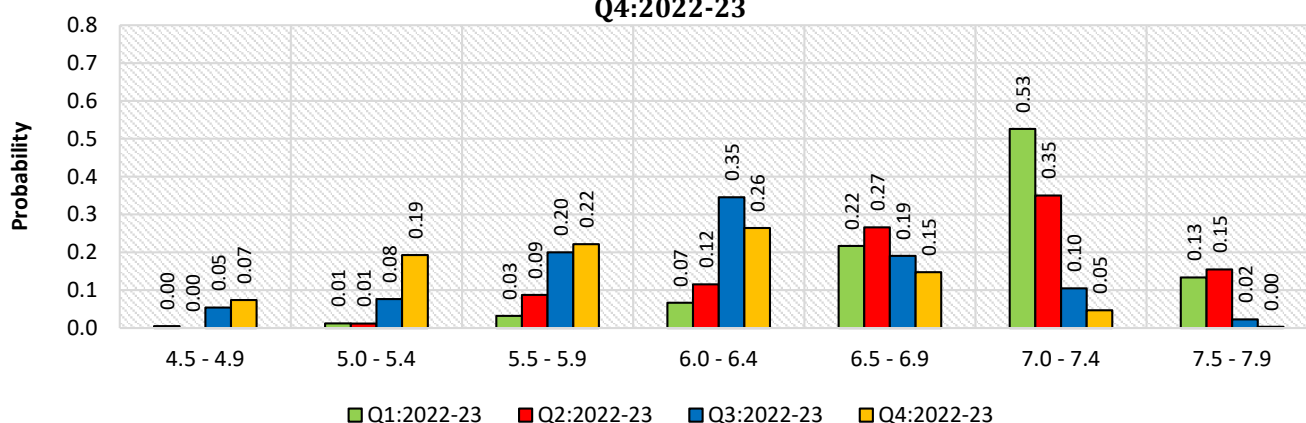
- Headline consumer price index (CPI) inflation is expected to remain at above 7.0 per cent during H1:2022-23 and moderate thereafter to 5.9 per cent by Q4:2022-23 (Table 3). Headline inflation forecast has been revised up significantly in the current round from the previous round.
- CPI inflation, excluding food and beverages, pan, tobacco and intoxicants, and fuel and light, is expected at 6.6 per cent in Q1:2022-23 and gradually soften subsequently to 5.7 per cent in Q4:2022-23.

Table 3: Median Forecast of Quarterly Inflation (in per cent)

	Q1:2022-23	Q2:2022-23	Q3:2022-23	Q4:2022-23
CPI Combined (General)	7.2 (+1.4)	7.1 (+1.2)	6.2 (+0.8)	5.9 (+0.7)
CPI Combined excluding <i>food and beverages, pan, tobacco and intoxicants and fuel and light</i>	6.6 (+0.6)	6.0 (+0.2)	6.0 (+0.2)	5.7 (+0.1)
WPI All Commodities	14.8 (+4.3)	13.5 (+4.2)	10.2 (+4.5)	8.5 (+3.4)
WPI Non-food Manufactured Products	10.9 (+3.4)	9.5 (+3.3)	7.6 (+3.1)	6.9 (+2.5)

- Forecasters have assigned the highest probability to CPI inflation lying in the range of 7.0-7.4 per cent in Q1:2022-23 and Q2:2022-23; and in the range of 6.0-6.4 per cent in the subsequent two quarters (Chart 3).

Chart 3: Probability distribution of CPI inflation forecast from Q1:2022-23 to Q4:2022-23



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

3. External Sector

- Merchandise exports and imports are projected to grow by 9.3 per cent and 16.0 per cent, respectively, during 2022-23 and further by 7.7 per cent and 8.0 per cent, respectively, during 2023-24 (Table 4).
- Current account deficit is expected at 3.0 per cent (of GDP at current market prices) in 2022-23 and at 2.5 per cent in 2023-24.
- The Indian rupee is likely to remain stable within the narrow range of ₹77.5–₹78.0 per US dollar till Q4:2022-23 (Annex 3).

Table 4: Median Forecast of Select External Sector Variables		
	2022-23	2023-24
Merchandise Exports in US \$ terms (<i>annual growth in per cent</i>)	9.3 (+0.4)	7.7
Merchandise Imports in US \$ terms (<i>annual growth in per cent</i>)	16.0 (+3.1)	8.0
Current Account Balance (<i>per cent of GDP at current market prices</i>)	-3.0 (-0.4)	-2.5

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

Abhishek Gupta (Bloomberg Economics), Aditi Nayar (ICRA Limited), Centre for Monitoring Indian Economy Pvt Ltd, Dharmakriti Joshi (CRISIL Ltd), Debopam Chaudhuri (Truboard Partners), Devendra Kumar Pant (India Ratings & Research), Gaura Sen Gupta (IDFC FIRST Bank), Gaurav Kapur (IndusInd Bank Limited), Indranil Pan (Yes Bank), Madhavi Arora (Emkay Global Financial Services Ltd), Rahul Bajoria (Barclays Bank PLC), Rupa Rege Nitsure (L&T Finance Holdings Limited), Shailesh Kejariwal (B&K Securities India Pvt Ltd), QuantEco Research, TAC Economics, and Upasna Bhardwaj (Kotak Mahindra Bank).

The Bank also acknowledges the contribution of eighteen other SPF panellists, who prefer to remain anonymous.

Annex 1: Annual Forecasts for 2022-23

	Key Macroeconomic Indicators	Annual Forecasts for 2022-23					
		Mean	Median	Max	Min	1st quartile	3rd quartile
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.1	7.2	9.2	5.4	6.9	7.4
a	Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)	7.4	7.4	9.8	6.2	6.6	7.8
b	Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)	9.0	8.7	14.5	4.3	7.4	10.6
2	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	14.9	15.0	17.0	11.6	14.1	16.2
3	Gross Capital Formation Rate (per cent of GDP at current market prices)	30.7	31.2	33.7	26.2	30.3	31.7
4	GVA at constant (2011-12) prices: Annual Growth (per cent)	6.8	6.8	8.7	5.1	6.5	7.0
a	Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)	3.3	3.2	4.4	2.5	3.0	3.6
b	Industry at constant (2011-12) prices: Annual Growth (per cent)	5.6	5.5	10.9	1.2	4.8	6.5
c	Services at constant (2011-12) prices: Annual Growth (per cent)	8.4	8.3	11.7	6.0	7.7	9.0
5	Gross Saving Rate (per cent of Gross National Disposable Income) -at current prices	28.2	28.2	30.4	25.0	28.0	28.7
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	6.6	6.5	6.9	6.3	6.4	6.7
7	Combined Gross Fiscal Deficit (per cent to GDP at current market prices)	9.9	9.8	10.8	8.9	9.6	10.2
8	Bank Credit of Scheduled commercial banks: Annual Growth (per cent)	10.5	10.7	12.5	7.0	9.8	11.4
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	7.7	7.8	8.0	6.8	7.5	7.9
10	Yield on 91-day T-Bill of Central Govt. (end-period)	5.4	5.6	6.3	4.5	4.8	5.8
11	Merchandise Exports (BoP basis in US\$ terms): Annual Growth (per cent)	11.4	9.3	38.0	2.5	5.3	12.6
12	Merchandise Imports (BoP basis in US\$ terms): Annual Growth (per cent)	17.8	16.0	55.0	8.0	13.4	19.3
13	Current Account Balance in US\$ bn.	-96.6	-100.0	-50.0	-130.5	-105.2	-91.0
a	Current Account Balance (per cent to GDP at current market prices)	-2.8	-3.0	-1.5	-3.5	-3.0	-2.7
14	Overall BoP in US\$ bn.	-19.0	-24.5	108.4	-64.3	-31.5	-13.8
15	Inflation based on CPI Combined: Headline	6.5	6.5	7.2	5.5	6.3	6.8
16	Inflation based on CPI Combined: excluding Food and Beverages, Pan, Tobacco and Intoxicants and Fuel and Light	6.1	6.2	6.9	5.4	5.8	6.3
17	Inflation based on WPI: All Commodities	11.1	11.4	15.4	6.8	9.6	12.1
18	Inflation based on WPI: Non-food Manufactured Products	9.1	8.5	13.4	6.3	8.0	10.0

Annex 2: Annual Forecasts for 2023-24

	Key Macroeconomic Indicators	Annual Forecasts for 2023-24					
		Mean	Median	Max	Min	1st quartile	3rd quartile
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	6.4	6.5	8.0	5.4	5.9	6.8
a	Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)	6.2	6.1	7.4	4.1	5.7	7.0
b	Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)	7.8	7.9	12.3	3.6	7.2	8.4
2	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	12.3	12.1	14.0	10.6	11.0	13.5
3	Gross Capital Formation Rate (per cent of GDP at current market prices)	31.5	31.4	33.0	30.0	31.3	32.0
4	GVA at constant (2011-12) prices: Annual Growth (per cent)	6.3	6.2	7.6	5.2	6.0	6.5
a	Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)	3.4	3.3	5.0	2.5	3.0	3.6
b	Industry at constant (2011-12) prices: Annual Growth (per cent)	5.7	5.6	9.2	2.8	4.7	6.4
c	Services at constant (2011-12) prices: Annual Growth (per cent)	7.5	7.3	9.0	5.9	7.0	7.9
5	Gross Saving Rate (per cent of Gross National Disposable Income) -at current prices	28.8	28.6	30.1	27.0	28.3	29.9
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	6.0	6.0	6.4	5.2	5.8	6.1
7	Combined Gross Fiscal Deficit (per cent to GDP at current market prices)	9.0	9.0	10.0	8.1	8.7	9.2
8	Bank Credit of Scheduled commercial banks: Annual Growth (per cent)	10.8	11.0	13.0	8.0	10.1	12.0
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	7.6	7.5	8.3	6.9	7.4	8.0
10	Yield on 91-day T-Bill of Central Govt. (end-period)	5.4	5.0	6.8	4.2	4.8	6.3
11	Merchandise Exports (BoP basis in US\$ terms): Annual Growth (per cent)	8.9	7.7	28.0	-4.7	4.8	11.8
12	Merchandise Imports (BoP basis in US\$ terms): Annual Growth (per cent)	9.6	8.0	50.0	-9.1	5.0	11.4
13	Current Account Balance in US\$ bn.	-88.2	-95.0	-46.4	-120.0	-101.5	-75.0
a	Current Account Balance (per cent to GDP at current market prices)	-2.4	-2.5	-1.2	-3.5	-2.6	-2.0
14	Overall BoP in US\$ bn.	12.9	8.1	102.7	-40.0	-15.0	30.0
15	Inflation based on CPI Combined: Headline	5.2	5.3	5.8	4.5	5.0	5.5
16	Inflation based on CPI Combined: excluding Food and Beverages, Pan, Tobacco and Intoxicants and Fuel and Light	5.3	5.4	5.9	4.7	5.2	5.5
17	Inflation based on WPI: All Commodities	5.4	5.4	10.5	2.0	4.6	6.0
18	Inflation based on WPI: Non-food Manufactured Products	4.8	5.2	8.6	1.0	4.3	5.7

Annex 3: Quarterly Forecasts from Q4:2021-22 to Q4:2022-23

	Key Macroeconomic Indicators	Quarterly Forecasts											
		Q4: 2021-22				Q1: 2022-23				Q2: 2022-23			
		Mean	Median	Max	Min	Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	3.9	3.9	6.5	1.0	12.9	14.0	18.7	5.0	6.4	6.3	9.0	3.9
a	Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)	3.9	4.2	6.7	1.5	13.3	14.0	22.5	6.2	6.9	7.1	9.3	3.8
b	Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)	1.9	1.5	7.8	-5.6	12.4	13.2	22.0	2.0	7.4	6.0	14.6	4.0
2	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	12.7	12.4	16.5	9.8	20.0	21.7	27.3	12.5	14.2	14.1	19.0	10.2
3	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	28.9	29.8	32.8	22.0	28.4	28.8	31.2	25.5	29.4	28.9	32.3	27.5
4	GVA at constant (2011-12) prices: Annual Growth (per cent)	3.4	3.5	5.9	0.5	11.6	12.5	17.2	4.8	6.1	6.1	7.2	4.1
a	Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)	2.7	3.0	4.1	0.0	3.3	3.2	5.0	2.0	3.3	3.4	4.5	2.2
b	Industry at constant (2011-12) prices: Annual Growth (per cent)	1.3	1.3	5.2	-4.0	7.3	7.4	15.2	1.5	4.4	4.5	9.0	0.0
c	Services at constant (2011-12) prices: Annual Growth (per cent)	4.6	4.7	6.9	2.6	15.3	16.9	24.9	5.5	7.5	7.6	10.4	4.1
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	1.1	1.6	1.9	-5.6	6.2	5.0	11.4	1.1	3.3	3.2	5.4	0.1
6	Merchandise Exports -BoP basis (in US\$ bn.)	111.5	111.3	121.8	102.0	121.3	115.4	183.1	109.0	121.3	113.3	184.0	109.2
7	Merchandise Imports -BoP basis (in US\$ bn.)	169.9	169.1	178.8	165.6	182.6	176.5	219.9	170.0	184.8	176.9	225.0	171.5
8	Rupee per US \$ Exchange rate (end-period)	-	-	-	-	77.7	78.0	79.3	75.8	77.7	78.0	79.8	74.5
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	-	-	-	-	105.3	106.5	120.0	87.4	102.6	100.5	125.0	74.4
10	Policy Repo Rate (end-period)	-	-	-	-	4.77	4.80	4.90	4.25	5.17	5.20	5.50	4.00

	Key Macroeconomic Indicators	Quarterly Forecasts							
		Q3: 2022-23				Q4: 2022-23			
		Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	5.0	5.3	8.0	3.2	4.8	4.5	8.5	1.3
a	Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)	5.4	5.5	7.9	1.4	5.8	5.7	8.7	3.0
b	Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)	7.9	7.8	13.5	3.9	7.6	6.5	14.1	2.5
2	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	12.9	13.3	16.1	9.8	11.6	10.3	16.6	8.4
3	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	28.7	28.7	32.5	25.7	30.0	30.4	32.9	26.2
4	GVA at constant (2011-12) prices: Annual Growth (per cent)	4.9	4.9	7.5	2.8	4.7	4.7	7.9	-0.5
a	Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)	3.4	3.2	5.1	2.1	3.4	3.2	4.5	2.1
b	Industry at constant (2011-12) prices: Annual Growth (per cent)	4.3	3.9	9.0	1.7	4.3	4.0	8.8	-2.2
c	Services at constant (2011-12) prices: Annual Growth (per cent)	5.8	5.5	8.9	2.4	5.5	5.8	9.2	-0.9
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	4.2	4.6	5.5	2.5	3.4	3.1	5.7	2.1
6	Merchandise Exports -BoP basis (in US\$ bn.)	123.6	115.5	183.4	106.4	126.9	119.5	187.0	109.2
7	Merchandise Imports -BoP basis (in US\$ bn.)	189.4	184.0	235.0	170.0	191.2	179.6	270.0	171.8
8	Rupee per US \$ Exchange rate (end-period)	77.3	77.8	80.3	73.5	77.1	77.5	80.5	72.0
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	98.9	100.0	132.0	73.0	96.5	97.5	140.0	62.0
10	Policy Repo Rate (end-period)	5.39	5.50	5.75	3.85	5.52	5.50	6.00	3.85

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

	CPI Combined (General)				CPI Combined excluding Food and Beverages, Pan, Tobacco and Intoxicants and Fuel and Light			
	Mean	Median	Max	Min	Mean	Median	Max	Min
Q1:2022-23	7.1	7.2	8.0	6.0	6.6	6.6	7.0	6.1
Q2:2022-23	6.9	7.1	7.8	5.5	6.1	6.0	7.2	5.5
Q3:2022-23	6.3	6.2	7.3	4.9	6.0	6.0	7.0	5.2
Q4:2022-23	5.9	5.9	6.9	4.4	5.6	5.7	7.3	4.8

Annex 5: Forecasts of WPI Inflation (per cent)

	WPI All Commodities				WPI Non-food Manufactured Products			
	Mean	Median	Max	Min	Mean	Median	Max	Min
Q1:2022-23	14.3	14.8	15.3	10.5	11.4	10.9	17.2	9.5
Q2:2022-23	13.1	13.5	16.1	6.5	10.2	9.5	14.2	6.0
Q3:2022-23	9.8	10.2	15.8	4.0	8.2	7.6	13.6	3.5
Q4:2022-23	7.9	8.5	14.2	2.2	6.8	6.9	12.1	2.0

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

Growth Range	Forecasts for 2022-23	Forecasts for 2023-24
12.0 per cent or more	0.00	0.00
11.5 to 11.9 per cent	0.00	0.00
11.0 to 11.4 per cent	0.00	0.00
10.5 to 10.9 per cent	0.00	0.00
10.0 to 10.4 per cent	0.00	0.00
9.5 to 9.9 per cent	0.00	0.00
9.0 to 9.4 per cent	0.03	0.00
8.5 to 8.9 per cent	0.01	0.01
8.0 to 8.4 per cent	0.03	0.08
7.5 to 7.9 per cent	0.13	0.09
7.0 to 7.4 per cent	0.43	0.15
6.5 to 6.9 per cent	0.26	0.21
6.0 to 6.4 per cent	0.06	0.19
5.5 to 5.9 per cent	0.03	0.20
5.0 to 5.4 per cent	0.02	0.06
4.5 to 4.9 per cent	0.01	0.02
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
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
0.0 to 0.4 per cent	0.00	0.00
below 0.0 per cent	0.00	0.00

Note: The sum of the probabilities may not add up to one due to rounding off.

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

Inflation Range	Forecasts for Q1:2022-23	Forecasts for Q2:2022-23	Forecasts for Q3:2022-23	Forecasts for Q4:2022-23
9.0 per cent or above	0.00	0.00	0.00	0.00
8.5 to 9.0 per cent	0.00	0.00	0.00	0.00
8.0 to 8.4 per cent	0.01	0.01	0.00	0.00
7.5 to 7.9 per cent	0.13	0.15	0.02	0.00
7.0 to 7.4 per cent	0.53	0.35	0.10	0.05
6.5 to 6.9 per cent	0.22	0.27	0.19	0.15
6.0 to 6.4 per cent	0.07	0.12	0.35	0.26
5.5 to 5.9 per cent	0.03	0.09	0.20	0.22
5.0 to 5.4 per cent	0.01	0.01	0.08	0.19
4.5 to 4.9 per cent	0.00	0.00	0.05	0.07
4.0 to 4.4 per cent	0.00	0.00	0.01	0.04
3.5 to 3.9 per cent	0.00	0.00	0.00	0.01
3.0 to 3.4 per cent	0.00	0.00	0.00	0.00
2.5 to 2.9 per cent	0.00	0.00	0.00	0.00
2.0 to 2.4 per cent	0.00	0.00	0.00	0.00
1.5 to 1.9 per cent	0.00	0.00	0.00	0.00
1.0 to 1.4 per cent	0.00	0.00	0.00	0.00
0.5 to 0.9 per cent	0.00	0.00	0.00	0.00
0.0 to 0.4 per cent	0.00	0.00	0.00	0.00
-0.5 to -0.1 per cent	0.00	0.00	0.00	0.00
-1.0 to -0.6 per cent	0.00	0.00	0.00	0.00
Below -1.0 per cent	0.00	0.00	0.00	0.00

Note: The sum of the probabilities may not add up to one due to rounding off.

Note: CPI: Consumer Price Index; GDP: Gross Domestic Products; GFCF: Gross Fixed Capital Formation; GVA: Gross Value Added; IIP: Index of Industrial Production; PFCE: Private Final Consumption Expenditure; WPI: Wholesale Price Index.