# Survey of Professional Forecasters on Macroeconomic Indicators– Results of the 77<sup>th</sup> Round<sup>1</sup>

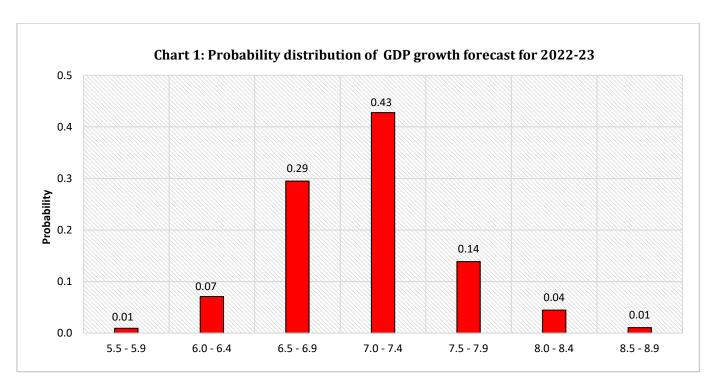
The Reserve Bank has been conducting the survey of professional forecasters (SPF) since September 2007. The responses for 77<sup>th</sup> round of the survey were received during July 13 – July 29, 2022, wherein forty-two panellists participated. The survey results are summarised in terms of their median forecasts (Annexes 1-7), along with quarterly paths for key variables.

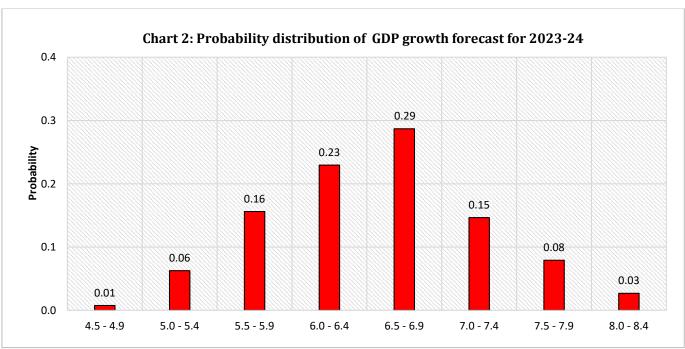
## Highlights:

### 1. Output

- Real gross domestic product (GDP) is expected to grow by 7.1 per cent in 2022-23 [projections revised down by 10 basis points (bps) from the last survey round]; it is expected to grow by 6.3 per cent in 2023-24 (Table 1).
- SPF panellists have placed GDP growth forecasts in the range of 6.3 8.3 per cent for 2022-23 and in the range 5.0-7.8 per cent for 2023-24; the range for 2022-23 have considerably narrowed from the last SPF round, indicating more certainty around the median forecast (Annexes 1 and 2).
- Forecasters have assigned highest probability to real GDP growth in the range 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).

<sup>&</sup>lt;sup>1</sup> 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 June 8, 2022.





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

- Annual growth in real private final consumption expenditure (PFCE) and real gross fixed capital formation (GFCF) for 2022-23 are expected at 7.5 per cent and 8.8 per cent, respectively.
- Real gross value added (GVA) growth projection for 2022-23 has been revised down by 10 bps to 6.7 per cent mainly due to downward revision by 20 bps in GVA growth from agriculture and allied activities.

|   | (              | (in per cent)  |
|---|----------------|----------------|
|   | 2022-23        | 2023-24        |
| Real GDP  | 7.1<br>(-0.1)  | 6.3<br>(-0.2)  |
| a. Real PFCE  | 7.5<br>(+0.1)  | 6.2<br>(+0.1)  |
| b. Real GFCF  | 8.8<br>(+0.1)  | 7.0 (-0.9)     |
| Nominal PFCE  | 15.4<br>(+0.4) | 12.0<br>(-0.1) |
| Real GVA  | 6.7<br>(-0.1)  | 6.1<br>(-0.1)  |
| a. Agriculture and Allied Activities                                    | 3.0 (-0.2)     | 3.1 (-0.2)     |
| b. Industry   | 5.8<br>(+0.3)  | 5.3<br>(-0.3)  |
| c. Services   | 8.3<br>(0.0)   | 7.3<br>(0.0)   |
| Gross Saving Rate [per cent of gross national disposable income]        | 28.1<br>(-0.1) | 28.6<br>(0.0)  |
| Gross Capital Formation Rate [per cent of GDP at current market prices] | 31.5<br>(+0.3) | 31.6<br>(+0.2) |

Note: The figures in parentheses indicate the extent of revision in median forecasts (in percentage points) relative to the previous SPF round (applicable for all Tables).

 Real GDP is expected to grow (Y-o-Y) by 14.5 per cent in Q1:2022-23 and moderate successively thereafter to 4.3 per cent in Q4:2022-23 (Table 2).

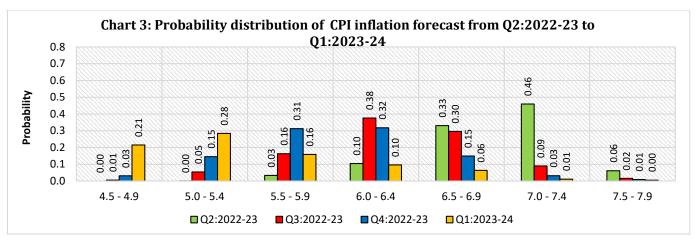
| Table 2: Median Growth Forecast of Quarterly GDP, GVA and components (in per cent |                |               |               |               |            |  |  |  |  |  |
|---|----------------|---------------|---------------|---------------|------------|--|--|--|--|--|
|   | Q1:2022-23     | Q2:2022-23    | Q3:2022-23    | Q4:2022-23    | Q1:2023-24 |  |  |  |  |  |
| Real GDP  | 14.5<br>(+0.5) | 6.3<br>(0.0)  | 5.0<br>(-0.3) | 4.3<br>(-0.2) | 5.8        |  |  |  |  |  |
| a. Real PFCE  | 16.0<br>(+2.0) | 7.1<br>(0.0)  | 4.7<br>(-0.8) | 5.3<br>(-0.4) | 6.0        |  |  |  |  |  |
| b. Real GFCF  | 13.1<br>(-0.1) | 6.0<br>(0.0)  | 7.8<br>(0.0)  | 6.9<br>(+0.4) | 6.5        |  |  |  |  |  |
| Real GVA  | 14.0<br>(+1.5) | 6.0<br>(-0.1) | 4.6<br>(-0.3) | 4.1<br>(-0.6) | 6.3        |  |  |  |  |  |

#### 2. Inflation

- Headline consumer price index (CPI) inflation is expected to remain at above 7.0 per cent during Q2:2022-23 and moderate thereafter to 6.0 per cent by Q4:2022-23 (Table 3). Headline inflation forecast has been revised upwards for H2:2022-23 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 6.1 per cent in Q2:2022-23 and would subsequently soften to 5.6 per cent in Q4:2022-23.

| Table 3: Median  | Forecast of C | Quarterly Inflat | ion (in per cen | t)         |
|--|---------------|------------------|-----------------|------------|
|  | Q2:2022-23    | Q3:2022-23       | Q4:2022-23      | Q1:2023-24 |
| CPI Combined (General)   | 7.1<br>(0.0)  | 6.5<br>(+0.3)    | 6.0<br>(+0.1)   | 5.0        |
| CPI Combined excluding food and beverages, pan, tobacco and intoxicants and fuel and light | 6.1<br>(+0.1) | 5.9<br>(-0.1)    | 5.6<br>(-0.1)   | 5.0        |
| WPI All Commodities  | 13.5<br>(0.0) | 10.0<br>(-0.2)   | 7.4<br>(-1.1)   | 5.8        |
| WPI Non-food Manufactured Products   | 8.4<br>(-1.1) | 6.6<br>(-1.0)    | 5.4<br>(-1.5)   | 3.6        |

• Forecasters have assigned the highest probability to CPI inflation lying in the range of 7.0-7.4 per cent in Q2:2022-23; in the range of 6.0-6.4 per cent in Q3:2022-23; in the wider range of 5.5-6.4 per cent in Q4:2022-23 and in the range of 5.0-5.4 per cent in Q1:2023-24 (Chart 3).



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 11.7 per cent and 19.0 per cent, respectively, during 2022-23 and further by 7.0 per cent and 6.0 per cent, respectively, during 2023-24 (Table 4).
- SPF panellists expect current account deficit at 3.0 per cent (of GDP at current market prices) in 2022-23 and at 2.4 per cent in 2023-24.
- The Indian rupee is likely to remain in the range of ₹79.0–₹80.0 per US dollar till Q1:2023-24 (Annex 3).

| Table 4: Median Forecast of Select External Sector Variables       |                |                |  |  |  |  |  |  |
|--|----------------|----------------|--|--|--|--|--|--|
|  | 2022-23        | 2023-24        |  |  |  |  |  |  |
| Merchandise Exports in US \$ terms (annual growth in per cent)     | 11.7<br>(+2.4) | 7.0<br>(-0.7)  |  |  |  |  |  |  |
| Merchandise Imports in US \$ terms (annual growth in per cent)     | 19.0<br>(+3.0) | 6.0<br>(-2.0)  |  |  |  |  |  |  |
| Current Account Balance (per cent of GDP at current market prices) | -3.0<br>(0.0)  | -2.4<br>(+0.1) |  |  |  |  |  |  |

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), Ashish Kumar (Adani Group), Debopam Chaudhuri (TruBoard Partners), Devendra Kumar Pant (India Ratings & Research), Dhiraj Nim (ANZ), Dipti Deshpande (CRISIL Ltd.), Dr. Tirthankar Patnaik (National Stock Exchange), Gaura Sen Gupta (IDFC FIRST Bank), Gaurav Kapur (IndusInd Bank Limited), Indranil Pan (Yes Bank), ICICI Securities PD, Madhavi Arora (Emkay Global Financial Services Ltd), Manasi Swamy (Centre for Monitoring Indian Economy Pvt. Ltd.), Rahul Bajoria (Barclays Bank PLC), Nikhil Gupta (Motilal Oswal), Pinaki M. Mukherjee (Maruti Suzuki), Shailesh Kejariwal (B&K Securities India Pvt Itd), Shubhada Rao (QuantEco Research), Siddharth V Kothari (Sunidhi Securities & Finance Limited), TAC Economics, and Upasna Bhardwaj (Kotak Mahindra Bank).

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

Annex 1: Annual Forecasts for 2022-23

|    |  |        | Annua  | l Fore | casts fo | or 2022-23      |                 |
|----|--|--------|--------|--------|----------|-----------------|-----------------|
|    | Key Macroeconomic Indicators   | Mean   | Median | Max    | Min      | 1st<br>quartile | 3rd<br>quartile |
| 1  | GDP at constant (2011-12) prices: Annual Growth (per cent)   | 7.1    | 7.1    | 8.3    | 6.3      | 7.0             | 7.3             |
| а  | Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)            | 7.6    | 7.5    | 10.5   | 5.0      | 6.8             | 8.3             |
| b  | Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)                    | 9.3    | 8.8    | 19.7   | 5.6      | 7.9             | 10.6            |
| 2  | Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)                       | 15.4   | 15.4   | 19.6   | 12.0     | 13.9            | 16.6            |
| 3  | Gross Capital Formation Rate (per cent of GDP at current market prices)  | 31.0   | 31.5   | 34.0   | 25.0     | 31.0            | 32.0            |
| 4  | GVA at constant (2011-12) prices: Annual Growth (per cent)   | 6.9    | 6.7    | 8.0    | 6.2      | 6.6             | 7.1             |
| а  | Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)                         | 3.3    | 3.0    | 5.9    | 1.5      | 3.0             | 3.6             |
| b  | Industry at constant (2011-12) prices: Annual Growth (per cent)  | 6.0    | 5.8    | 9.3    | 1.8      | 5.0             | 7.1             |
| С  | Services at constant (2011-12) prices: Annual Growth (per cent)  | 8.4    | 8.3    | 10.5   | 6.4      | 7.9             | 9.1             |
| 5  | Gross Saving Rate (per cent of Gross National Disposable Income) -at current prices                            | 28.5   | 28.1   | 33.1   | 26.5     | 28.0            | 28.8            |
| 6  | Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)                                     | 6.5    | 6.5    | 7.5    | 6.2      | 6.4             | 6.6             |
| 7  | Combined Gross Fiscal Deficit (per cent to GDP at current market prices)                                       | 9.8    | 9.7    | 11.5   | 9.0      | 9.6             | 10.0            |
| 8  | Bank Credit of Scheduled commercial banks: Annual Growth (per cent)  | 11.4   | 11.4   | 15.0   | 7.0      | 10.5            | 12.3            |
| 9  | Yield on 10-Year G-Sec of Central Govt. (end-period)   | 7.6    | 7.6    | 8.3    | 6.8      | 7.5             | 7.8             |
| 10 | Yield on 91-day T-Bill of Central Govt. (end-period)   | 5.9    | 6.0    | 6.8    | 4.5      | 5.7             | 6.3             |
| 11 | Merchandise Exports (BoP basis in US\$ terms): Annual Growth (per cent)  | 12.7   | 11.7   | 42.6   | 0.0      | 9.1             | 14.8            |
| 12 | Merchandise Imports (BoP basis in US\$ terms): Annual Growth (per cent)  | 21.2   | 19.0   | 60.0   | 9.7      | 17.3            | 21.8            |
| 13 | Current Account Balance in US\$ bn.  | -102.6 | -105.8 | -49.1  | -122.0   | -110.5          | -98.6           |
| а  | Current Account Balance (per cent to GDP at current market prices)   | -2.9   | -3.0   | -1.6   | -3.5     | -3.2            | -2.9            |
| 14 | Overall BoP in US\$ bn.  | -41.0  | -39.9  | -11.4  | -79.3    | -51.0           | -29.8           |
| 15 | Inflation based on CPI Combined: Headline  | 6.7    | 6.7    | 7.3    | 6.2      | 6.5             | 6.9             |
| 16 | Inflation based on CPI Combined: excluding Food and Beverages, Pan, Tobacco and Intoxicants and Fuel and Light | 6.0    | 6.0    | 6.6    | 5.4      | 5.8             | 6.2             |
| 17 | Inflation based on WPI: All Commodities  | 11.4   | 11.3   | 16.0   | 9.5      | 10.5            | 12.0            |
| 18 | Inflation based on WPI: Non-food Manufactured Products   | 8.0    | 7.9    | 12.3   | 5.3      | 7.1             | 8.8             |

#### Annex 2: Annual Forecasts for 2023-24

|    | Annex 2: Annual Forecasts for 2023-24  |       |        |          |          |                 |                 |  |  |  |
|----|--|-------|--------|----------|----------|-----------------|-----------------|--|--|--|
|    |  |       | Annua  | l Foreca | asts for | 2023-24         |                 |  |  |  |
|    | Key Macroeconomic Indicators   | Mean  | Median | Max      | Min      | 1st<br>quartile | 3rd<br>quartile |  |  |  |
| 1  | GDP at constant (2011-12) prices: Annual Growth (per cent)   | 6.3   | 6.3    | 7.8      | 5.0      | 5.9             | 6.6             |  |  |  |
| а  | Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent)            | 6.1   | 6.2    | 7.5      | 3.0      | 5.9             | 6.7             |  |  |  |
| b  | Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)                    | 7.0   | 7.0    | 12.3     | 3.6      | 6.0             | 7.5             |  |  |  |
| 2  | Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)                       | 11.9  | 12.0   | 15.9     | 7.2      | 11.0            | 12.4            |  |  |  |
| 3  | Gross Capital Formation Rate (per cent of GDP at current market prices)  | 31.4  | 31.6   | 34.0     | 26.7     | 31.4            | 32.0            |  |  |  |
| 4  | GVA at constant (2011-12) prices: Annual Growth (per cent)   | 6.2   | 6.1    | 8.0      | 4.8      | 5.7             | 6.5             |  |  |  |
| а  | Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)                         | 3.2   | 3.1    | 5.0      | 1.8      | 3.0             | 3.5             |  |  |  |
| b  | Industry at constant (2011-12) prices: Annual Growth (per cent)  | 5.5   | 5.3    | 9.0      | 2.3      | 4.9             | 6.3             |  |  |  |
| С  | Services at constant (2011-12) prices: Annual Growth (per cent)  | 7.5   | 7.3    | 10.2     | 5.9      | 6.9             | 8.0             |  |  |  |
| 5  | Gross Saving Rate (per cent of Gross National Disposable Income) -at current prices                            | 28.8  | 28.6   | 33.4     | 26.8     | 28.0            | 29.3            |  |  |  |
| 6  | Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)                                     | 6.0   | 6.0    | 6.5      | 5.2      | 6.0             | 6.2             |  |  |  |
| 7  | Combined Gross Fiscal Deficit (per cent to GDP at current market prices)                                       | 9.0   | 9.0    | 10.5     | 8.1      | 8.8             | 9.2             |  |  |  |
| 8  | Bank Credit of Scheduled commercial banks: Annual Growth (per cent)  | 10.5  | 10.4   | 13.0     | 7.5      | 10.0            | 11.5            |  |  |  |
| 9  | Yield on 10-Year G-Sec of Central Govt. (end-period)   | 7.5   | 7.5    | 8.3      | 6.8      | 7.1             | 7.9             |  |  |  |
| 10 | Yield on 91-day T-Bill of Central Govt. (end-period)   | 5.7   | 6.0    | 6.8      | 4.1      | 5.2             | 6.1             |  |  |  |
| 11 | Merchandise Exports (BoP basis in US\$ terms): Annual Growth (per cent)  | 6.9   | 7.0    | 46.1     | -5.0     | 3.8             | 8.0             |  |  |  |
| 12 | Merchandise Imports (BoP basis in US\$ terms): Annual Growth (per cent)  | 7.2   | 6.0    | 55.5     | -10.0    | 1.8             | 8.9             |  |  |  |
| 13 | Current Account Balance in US\$ bn.  | -88.4 | -91.0  | -39.6    | -116.1   | -102.7          | -75.2           |  |  |  |
| а  | Current Account Balance (per cent to GDP at current market prices)   | -2.3  | -2.4   | -1.0     | -3.0     | -2.8            | -2.0            |  |  |  |
| 14 | Overall BoP in US\$ bn.  | -0.8  | 2.3    | 40.0     | -48.1    | -21.5           | 25.0            |  |  |  |
| 15 | Inflation based on CPI Combined: Headline  | 5.2   | 5.2    | 6.0      | 3.5      | 4.9             | 5.5             |  |  |  |
| 16 | Inflation based on CPI Combined: excluding Food and Beverages, Pan, Tobacco and Intoxicants and Fuel and Light | 5.2   | 5.2    | 6.0      | 4.5      | 4.9             | 5.5             |  |  |  |
| 17 | Inflation based on WPI: All Commodities  | 5.4   | 5.5    | 10.3     | 2.0      | 3.5             | 6.5             |  |  |  |
| 18 | Inflation based on WPI: Non-food Manufactured Products   | 4.4   | 5.0    | 13.0     | 0.2      | 2.4             | 5.2             |  |  |  |

Annex 3: Quarterly Forecasts from Q1:2022-23 to Q1:2023-24

|    |   |       |        |        |       |             | Quarterly | Forecasts | ;     |       |        |       |       |
|----|---|-------|--------|--------|-------|-------------|-----------|-----------|-------|-------|--------|-------|-------|
|    | Key Macroeconomic Indicators  |       | Q1: 20 | )22-23 |       | Q2: 2022-23 |           |           |       |       | Q3: 20 | 22-23 |       |
|    |   | Mean  | Median | Max    | Min   | Mean        | Median    | Max       | Min   | Mean  | Median | Max   | Min   |
| 1  | GDP at constant (2011-12) prices: Annual Growth (per cent)  | 14.5  | 14.5   | 20.1   | 5.0   | 6.3         | 6.3       | 8.4       | 2.5   | 4.8   | 5.0    | 8.3   | 2.9   |
| а  | Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent) | 15.4  | 16.0   | 25.2   | 5.6   | 6.9         | 7.1       | 10.0      | 1.0   | 4.6   | 4.7    | 10.0  | -0.6  |
| b  | Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices: Annual Growth (per cent)         | 15.3  | 13.1   | 30.3   | 5.2   | 7.0         | 6.0       | 15.0      | 1.4   | 9.7   | 7.8    | 19.7  | 3.9   |
| 2  | Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)            | 23.4  | 24.4   | 35.2   | 12.5  | 15.9        | 15.9      | 24.0      | 10.2  | 12.7  | 12.4   | 18.0  | 5.4   |
| 3  | Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)                | 28.8  | 29.0   | 31.5   | 25.5  | 28.9        | 29.2      | 32.2      | 21.2  | 28.3  | 28.0   | 31.5  | 26.5  |
| 4  | GVA at constant (2011-12) prices: Annual Growth (per cent)  | 13.2  | 14.0   | 18.3   | 4.8   | 6.1         | 6.0       | 8.3       | 3.0   | 4.8   | 4.6    | 8.1   | 3.1   |
| а  | Agriculture & Allied Activities at constant (2011-12) prices:<br>Annual Growth (per cent)           | 3.4   | 3.2    | 7.9    | 1.0   | 3.3         | 3.2       | 5.6       | 1.9   | 3.3   | 3.1    | 6.7   | 1.1   |
| b  | Industry at constant (2011-12) prices: Annual Growth (per cent)                                     | 11.2  | 8.9    | 46.6   | 5.0   | 5.0         | 4.8       | 9.5       | 0.7   | 4.7   | 4.2    | 9.4   | 0.3   |
| С  | Services at constant (2011-12) prices: Annual Growth (per cent)                                     | 16.3  | 17.2   | 25.2   | 6.4   | 7.4         | 7.8       | 10.5      | 3.6   | 5.9   | 5.9    | 10.7  | 2.0   |
| 5  | IIP (2011-12=100): Quarterly Average Growth (per cent)  | 10.4  | 11.8   | 16.0   | 2.5   | 4.4         | 4.3       | 13.6      | -1.1  | 4.7   | 4.5    | 15.2  | 0.1   |
| 6  | Merchandise Exports -BoP basis (in US\$ bn.)  | 117.5 | 118.9  | 121.2  | 109.0 | 117.5       | 117.0     | 126.2     | 113.2 | 117.9 | 118.7  | 131.2 | 103.0 |
| 7  | Merchandise Imports -BoP basis (in US\$ bn.)  | 186.1 | 189.3  | 191.0  | 170.0 | 181.4       | 181.7     | 201.5     | 166.9 | 184.6 | 186.0  | 197.8 | 172.4 |
| 8  | Rupee per US \$ Exchange rate (end-period)  | -     | -      | -      | -     | 80.2        | 80.0      | 82.0      | 77.6  | 79.6  | 80.0   | 82.5  | 74.9  |
| 9  | Crude Oil (Indian basket) price (US \$ per barrel) (end-<br>period)                                 | -     | -      | -      | -     | 107.5       | 105.6     | 130.0     | 95.0  | 102.1 | 100.0  | 125.3 | 85.0  |
| 10 | Policy Repo Rate (end-period)   | -     | -      | -      | -     | 5.45        | 5.50      | 5.75      | 4.90  | 5.71  | 5.75   | 6.00  | 4.75  |

|    |   | Quarterly Forecasts |        |       |       |             |        |       |       |  |
|----|---|---------------------|--------|-------|-------|-------------|--------|-------|-------|--|
|    | Key Macroeconomic Indicators  |                     | Q4: 20 | 22-23 |       | Q1: 2023-24 |        |       |       |  |
|    |   | Mean                | Median | Max   | Min   | Mean        | Median | Max   | Min   |  |
| 1  | GDP at constant (2011-12) prices: Annual Growth (per cent)  | 4.4                 | 4.3    | 8.7   | 1.2   | 6.2         | 5.8    | 11.0  | 4.3   |  |
| а  | Private Final Consumption Expenditure (PFCE) at constant (2011-12) prices: Annual Growth (per cent) | 5.3                 | 5.3    | 8.1   | 2.5   | 6.6         | 6.0    | 10.8  | 4.8   |  |
| b  | Gross Fixed Capital Formation (GFCF) at constant (2011-12) prices:<br>Annual Growth (per cent)      | 6.9                 | 6.9    | 16.4  | 1.0   | 6.3         | 6.5    | 9.1   | -1.7  |  |
| 2  | Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)            | 12.0                | 11.8   | 16.7  | 7.7   | 12.4        | 11.9   | 17.2  | 11.0  |  |
| 3  | Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)                | 29.6                | 30.1   | 32.2  | 21.9  | 27.6        | 29.6   | 31.5  | 12.6  |  |
| 4  | GVA at constant (2011-12) prices: Annual Growth (per cent)  | 4.6                 | 4.1    | 9.8   | -0.2  | 6.3         | 6.3    | 10.2  | 4.5   |  |
| а  | Agriculture & Allied Activities at constant (2011-12) prices: Annual Growth (per cent)              | 3.1                 | 3.1    | 4.1   | 1.3   | 3.3         | 3.1    | 4.7   | 2.0   |  |
| b  | Industry at constant (2011-12) prices: Annual Growth (per cent)                                     | 4.4                 | 4.1    | 10.5  | -1.8  | 4.8         | 5.0    | 9.4   | -2.1  |  |
| С  | Services at constant (2011-12) prices: Annual Growth (per cent)                                     | 5.7                 | 5.5    | 12.2  | -0.5  | 7.6         | 7.4    | 13.6  | 5.1   |  |
| 5  | IIP (2011-12=100): Quarterly Average Growth (per cent)  | 4.6                 | 3.4    | 18.9  | 1.7   | 3.4         | 3.7    | 6.0   | 0.5   |  |
| 6  | Merchandise Exports -BoP basis (in US\$ bn.)  | 121.7               | 122.1  | 137.2 | 100.0 | 122.1       | 120.3  | 142.2 | 100.0 |  |
| 7  | Merchandise Imports -BoP basis (in US\$ bn.)  | 181.3               | 180.3  | 198.7 | 169.3 | 181.8       | 187.7  | 204.6 | 106.2 |  |
| 8  | Rupee per US \$ Exchange rate (end-period)  | 79.0                | 79.2   | 82.3  | 73.2  | 78.6        | 79.0   | 82.0  | 73.4  |  |
| 9  | Crude Oil (Indian basket) price (US \$ per barrel) (end-period)                                     | 97.6                | 97.5   | 117.0 | 78.0  | 92.7        | 92.5   | 113.0 | 70.0  |  |
| 10 | Policy Repo Rate (end-period)   | 5.80                | 5.90   | 6.25  | 4.75  | 5.85        | 6.00   | 6.50  | 4.50  |  |

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

|            | CF   | PI Combine | ed (Genera | al) | Bever | bined excl<br>ages, Pan,<br>cants and F | Tobacco a | nd  |
|------------|------|------------|------------|-----|-------|---|-----------|-----|
|            | Mean | Median     | Max        | Min | Mean  | Median                                  | Max       | Min |
| Q2:2022-23 | 7.1  | 7.1        | 8.0        | 6.0 | 6.0   | 6.1                                     | 6.5       | 5.5 |
| Q3:2022-23 | 6.4  | 6.5        | 7.3        | 5.7 | 5.9   | 5.9                                     | 6.4       | 5.3 |
| Q4:2022-23 | 6.0  | 6.0        | 6.8        | 4.8 | 5.6   | 5.6                                     | 6.7       | 4.8 |
| Q1:2023-24 | 4.9  | 5.0        | 5.9        | 3.9 | 5.1   | 5.0                                     | 6.2       | 4.3 |

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

|            | V    | VPI All Cor | nmodities | ;    | WPI Non-food Manufactured Prod |        |      |      |  |
|------------|------|-------------|-----------|------|--------------------------------|--------|------|------|--|
|            | Mean | Median      | Max       | Min  | Mean                           | Median | Max  | Min  |  |
| Q2:2022-23 | 13.6 | 13.5        | 17.3      | 10.5 | 8.6                            | 8.4    | 17.2 | 6.0  |  |
| Q3:2022-23 | 10.1 | 10.0        | 15.5      | 7.0  | 6.7                            | 6.6    | 14.2 | 3.2  |  |
| Q4:2022-23 | 7.9  | 7.4         | 15.5      | 3.8  | 5.2                            | 5.4    | 12.2 | 1.3  |  |
| Q1:2023-24 | 5.0  | 5.8         | 12.3      | -1.0 | 3.3                            | 3.6    | 8.5  | -0.6 |  |

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   | 0.00                  | 0.00                  |
| 8.5 to 8.9 per cent   | 0.01                  | 0.00                  |
| 8.0 to 8.4 per cent   | 0.04                  | 0.03                  |
| 7.5 to 7.9 per cent   | 0.14                  | 0.08                  |
| 7.0 to 7.4 per cent   | 0.43                  | 0.15                  |
| 6.5 to 6.9 per cent   | 0.29                  | 0.29                  |
| 6.0 to 6.4 per cent   | 0.07                  | 0.23                  |
| 5.5 to 5.9 per cent   | 0.01                  | 0.16                  |
| 5.0 to 5.4 per cent   | 0.00                  | 0.06                  |
| 4.5 to 4.9 per cent   | 0.00                  | 0.01                  |
| 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 Q2:2022-23 | Forecasts for Q3:2022-23 | Forecasts for Q4:2022-23 | Forecasts for Q1:2023-24 |
|-----------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 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                     | 0.00                     | 0.00                     | 0.00                     |
| 7.5 to 7.9 per cent   | 0.06                     | 0.02                     | 0.01                     | 0.00                     |
| 7.0 to 7.4 per cent   | 0.46                     | 0.09                     | 0.03                     | 0.01                     |
| 6.5 to 6.9 per cent   | 0.33                     | 0.30                     | 0.15                     | 0.06                     |
| 6.0 to 6.4 per cent   | 0.10                     | 0.38                     | 0.32                     | 0.10                     |
| 5.5 to 5.9 per cent   | 0.03                     | 0.16                     | 0.31                     | 0.16                     |
| 5.0 to 5.4 per cent   | 0.00                     | 0.05                     | 0.15                     |                          |
| 4.5 to 4.9 per cent   | 0.00                     |                          |                          |                          |
| 4.0 to 4.4 per cent   | 0.00                     |                          |                          |                          |
| 3.5 to 3.9 per cent   | 0.00                     |                          |                          |                          |
| 3.0 to 3.4 per cent   | 0.00                     | 0.00                     | 0.00                     | 0.01                     |
| 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.

<u>Note</u>: 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.