Survey of Professional Forecasters on Macroeconomic Indicators– Results of the 47th Round¹

The Indian economy is expected to witness gradual strengthening of growth in 2017-18 and 2018-19, according to the 25 forecasters who responded to the Reserve Bank's survey. A gradual rise in headline consumer price inflation from current levels to 4.6 per cent by Q1:2018-19 is also projected by them.

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The Reserve Bank has been conducting the Survey of Professional Forecasters (SPF) since September 2007. The 47th round of the survey was conducted during July 2017² in which 25 forecasters participated. The survey results are summarised in terms of their median forecasts and consolidated in the Annex along with quarterly paths.

Highlights:

1. Output

- Real Gross Domestic Product (GDP) and Real Gross Value Added (GVA) are expected to grow by 7.4 per cent and 7.2 per cent, respectively, in 2017-18, and by 40 basis points (bps) higher in 2018-19 (Table 1).
- Consumption and investment are both expected to improve, with the latter supported by a higher saving rate.

¹ The results of the last survey round were released on <u>June 7, 2017</u> on the RBI's website.

² The results presented in this article represent the views of the respondent forecasters and in no way reflect the views or forecasts of the Reserve Bank.

Table 1: Median Forecast of Growth in F	Real GDP, GVA and Co	omponents
		(in per cent)
	2017-18	2018-19
Real GDP Growth	7.4 (0.0)	7.8 (0.0)
Real GVA Growth	7.2 (0.0)	7.6 (-0.1)
a. Agriculture and Allied Activities	3.5 (0.0)	3.0 (0.0)
b. Industry	7.2 (0.0)	7.6 (0.0)
c. Services	8.3 (0.0)	8.8 (0.0)
Private Final Consumption Expenditure (growth rate in per cent)	12.5 (+0.4)	12.6 (0.0)
Gross Saving Rate (per cent of GNDI)	32.0 (+0.2)	32.3 (0.0)
Gross Fixed Capital Formation Rate (per cent of GDP)	28.0 (0.0)	29.0 (-0.5)

Note: In all the tables, the figures in parentheses indicate the extent of revision in median forecasts (percentage points) relative to the previous SPF round.

• Forecasters expressed greater confidence that real GVA growth would range between 7.0–7.4 per cent in 2017-18 and would move to a higher range of 7.5-7.9 per cent in 2018-19 (Chart 1).

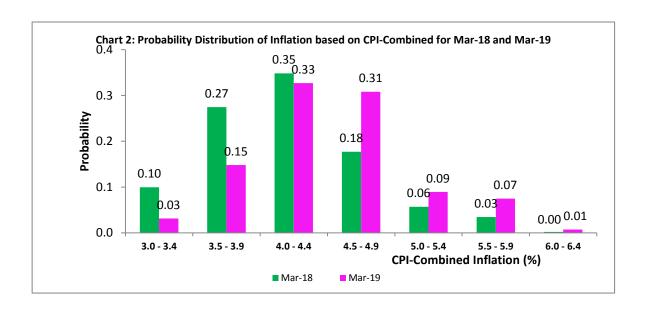


2. Inflation

- Headline Consumer Price Index (CPI) inflation is expected to rise from current levels and gradually increase to 4.6 per cent in Q1:2018-19. 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 around 4.6 per cent in Q1:2018-19 (Table 2).
- WPI headline inflation is expected to range between 2.1-2.5 per cent up to Q1:2018-19.
- Forecasters have lowered their inflation projections for all quarters of 2017-18, as compared with the previous survey round.

Table 2: Median Fore	Table 2: Median Forecast of Quarterly Inflation									
				(in per cent)						
	Q2:17-18	Q3:17-18	Q4:17-18	Q1:18-19						
CPI Headline	2.5 (-1.1)	3.7 (-0.8)	4.3 (-0.7)	4.6						
CPI excluding food & beverages, pan, tobacco & intoxicants and fuel & light	4.1 (-0.7)	4.5 (-0.3)	4.8 (0.0)	4.6						
WPI Headline	2.1 (-1.4)	2.2 (-1.5)	2.2 (-0.8)	2.5						
WPI Non-food Manufactured Products	2.5 (+0.1)	2.4 (+0.3)	2.1 (-0.1)	2.2						

• The projected density estimates for end-March 2018 and end-March 2019 indicate that headline CPI inflation is highly likely to fall in the range 4.0–4.4 per cent in both the years.



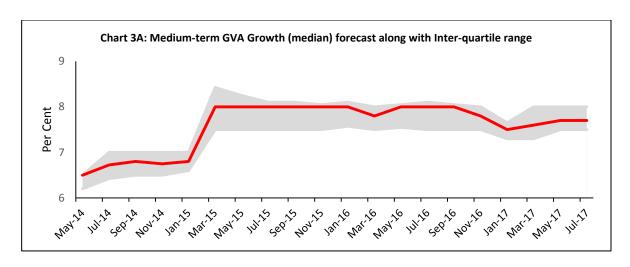
3. External Sector

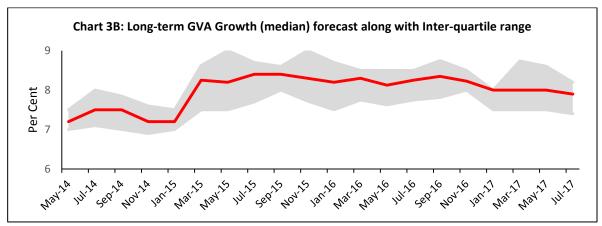
- Exports and imports (in US dollar terms) are expected to grow in the range of 7.5-9.0 per cent over the next two years (Table 3).
- The current account deficit (CAD) is forecast to rise gradually to 1.2 per cent of GDP in 2017-18 and further to 1.4 per cent in the next year.

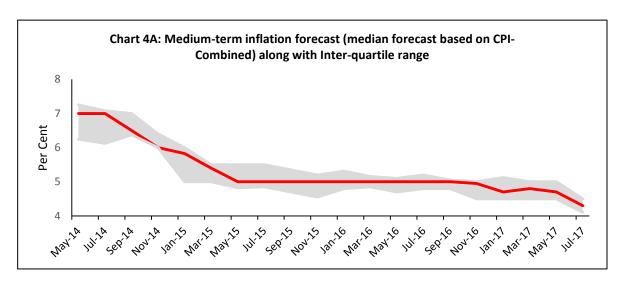
Table 3: Median Forecast of Select External	Table 3: Median Forecast of Select External Sector Variables							
	2017-18	2018-19						
Merchandise Exports – in US \$ terms (annual growth in per cent)	7.5 (+0.1)	7.6 (0.0)						
Merchandise Imports– in US \$ terms (annual growth in per cent)	9.0 (-0.6)	8.0 (+0.5)						
Current Account Deficit (Ratio to GDP at current market price in per cent)	1.2 (-0.1)	1.4 (-0.1)						

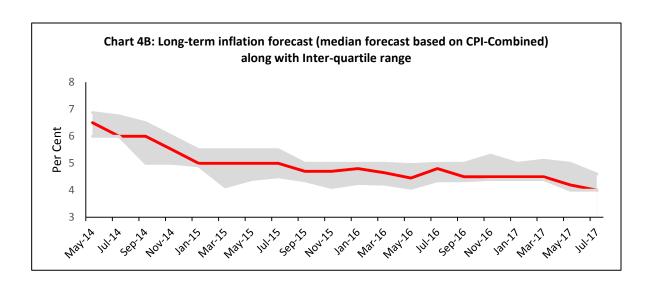
4. Medium-term and Long-term Forecasts

• Real GVA growth is expected to be around 7.7 per cent in the medium-term (five-year average) and 7.9 per cent in the long-term (ten-year average) (Charts 3A and 3B), a moderation from the previous round of the survey (Charts 4A and 4B).









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

Arun Singh, Dun & Bradstreet India; Gaurav Kapur, IndusInd Bank; PHD Research Bureau; Sameer Narang, IDFC Bank; Shailesh Kejariwal, B&K Securities India Pvt Ltd; Siddharth Kothari, Sunidhi Securities & Finance Ltd; and Vikram Murarka, Kshitij Consultancy Services.

The Bank also acknowledges the contribution of 18 others SPF panelists to the survey, who preferred to remain anonymous.

Annex

Table A.1: Annual Forecasts for 2017-18

		Annual Forecasts for 2017-18							
	Key Macroeconomic Indicators	Mean	Median	Max	Min	1st quartile	3rd quartile		
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.4	7.4	8.0	6.8	7.2	7.5		
2	GVA at basic prices at constant (2011-12) prices: Annual Growth rate (per cent)	7.2	7.2	7.5	6.7	7.0	7.3		
а	Agriculture & Allied Activities (growth rate in per cent)	3.5	3.5	5.4	2.1	3.1	3.7		
b	Industry (growth rate in per cent)	7.0	7.2	8.7	5.7	6.3	7.4		
С	Services (growth rate in per cent)	8.2	8.3	9.4	6.7	8.0	8.5		
3	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	12.1	12.5	13.8	7.6	11.6	13.2		
4	Gross Saving Rate (per cent of Gross National Disposable Income) - at current prices	31.9	32.0	35.2	29.7	30.8	32.5		
5	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	28.6	28.0	33.8	26.0	26.9	29.7		
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	3.2	3.2	3.6	3.2	3.2	3.2		
7	Combined Gross Fiscal Deficit (per cent to GDP)	6.4	6.4	6.8	6.0	6.2	6.5		
8	Bank Credit - Scheduled commercial banks: Annual Growth (per cent)	9.3	9.0	12.0	7.5	8.4	10.0		
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	6.6	6.7	6.9	6.2	6.4	6.8		
10	Yield on 91-day T-Bill of Central Govt. (end-period)	6.0	6.1	6.5	5.6	5.9	6.2		
11	BSE Sensex (end-December)	31500	32000	33500	28000	30000	32750		
12	Merchandise Exports - BoP basis - In US \$ bn.	301.0	300.1	322.0	289.9	296.5	302.7		
13	Merchandise Exports - BoP basis - Annual Growth (per cent)	7.9	7.5	17.2	3.5	6.5	8.1		
14	Merchandise Imports - BoP basis - In US \$ bn.	427.3	427.3	448.2	394.0	420.8	435.5		
15	Merchandise Imports - BoP basis - Annual Growth (per cent)	9.6	9.0	14.2	3.5	7.7	12.2		
16	Current Account Balance - In US \$ bn.	-26.0	-29.7	20.9	-40.2	-34.9	-23.6		
17	Current Account Balance - Ratio to GDP at current market price (per cent)	-0.9	-1.2	1.5	-1.5	-1.4	-1.0		
18	Overall BoP - In US \$ bn.	30.0	27.1	53.7	12.0	23.4	40.4		
19	Inflation based on CPI-Combined - Headline	3.4	3.5	4.2	2.0	3.1	3.9		
20	Inflation based on CPI-Combined - excluding 'Food & Beverages', 'Pan, Tobacco & Intoxicants' and 'Fuel & Light'	4.2	4.3	5.4	1.6	4.0	4.8		
21	Inflation based on WPI - All Commodities	2.4	2.2	4.0	1.2	1.9	3.0		
22	Inflation based on WPI -Non-food Manufactured Products	1.9	2.0	3.6	-1.6	1.5	2.6		

Table A.2: Annual Forecasts for 2018-19

			Ar	nual Fo	recasts	for 2018-19	9
	Key Macroeconomic Indicators	Mean	Median	Max	Min	1st quartile	3rd quartile
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.8	7.8	8.2	7.5	7.6	8.0
2	GVA at basic prices at constant (2011-12) prices: Annual Growth rate (per cent)	7.6	7.6	8.0	7.2	7.5	7.8
а	Agriculture & Allied Activities (growth rate in per cent)	3.2	3.0	4.2	2.4	3.0	3.5
b	Industry (growth rate in per cent)	7.5	7.6	8.5	6.3	6.8	8.0
С	Services (growth rate in per cent)	8.8	8.8	9.3	8.2	8.6	9.0
3	Private Final Consumption Expenditure (PFCE) at current prices: Annual Growth (per cent)	12.0	12.6	14.0	7.9	11.5	13.4
4	Gross Saving Rate (per cent of Gross National Disposable Income) - at current prices	31.9	32.3	34.5	30.0	30.7	32.6
5	Gross Fixed Capital Formation (GFCF) Rate (per cent of GDP at current market prices)	29.1	29.0	34.0	26.6	27.5	30.1
6	Fiscal Deficit of Central Govt. (per cent of GDP at current market prices)	3.0	3.0	3.2	3.0	3.0	3.0
7	Combined Gross Fiscal Deficit (per cent to GDP)	6.1	6.0	6.5	5.8	6.0	6.3
8	Bank Credit - Scheduled commercial banks: Annual Growth (per cent)	11.3	11.0	15.0	9.0	10.4	12.1
9	Yield on 10-Year G-Sec of Central Govt. (end-period)	6.5	6.6	6.8	6.0	6.2	6.7
10	Yield on 91-day T-Bill of Central Govt. (end-period)	5.9	6.0	6.2	5.5	5.6	6.1
11	BSE Sensex (end-December)	34333	35000	35000	33000	33000	35000
12	Merchandise Exports - BoP basis - In US \$ bn.	325.4	323.7	349.3	303.9	317.3	336.6
13	Merchandise Exports - BoP basis - Annual Growth (per cent)	8.0	7.6	12.2	4.8	5.9	9.8
14	Merchandise Imports - BoP basis - In US \$ bn.	467.4	464.5	515.4	441.4	450.7	483.0
15	Merchandise Imports - BoP basis - Annual Growth (per cent)	8.4	8.0	15.0	4.2	6.5	10.0
16	Current Account Balance - In US \$ bn.	-36.4	-41.0	11.0	-55.8	-44.4	-33.3
17	Current Account Balance - Ratio to GDP at current market price (per cent)	-1.2	-1.4	1.5	-2.0	-1.5	-1.3
18	Overall BoP - In US \$ bn.	25.6	21.4	47.5	14.9	17.6	31.9
19	Inflation based on CPI-Combined - Headline	4.5	4.3	6.2	4.0	4.1	4.6
20	Inflation based on CPI-Combined - excluding 'Food & Beverages', 'Pan, Tobacco & Intoxicants' and 'Fuel & Light'	4.6	4.6	6.3	3.7	4.1	5.1
21	Inflation based on WPI - All Commodities	3.3	3.3	5.0	2.5	2.8	3.7
22	Inflation based on WPI -Non-food Manufactured Products	2.6	2.6	3.6	1.9	2.0	2.9

Table A.3: Quarterly Forecasts from Q1:2017-18 to Q1:2018-19

						C	Quarterly F	orecasts	3				
	Key Macroeconomic Indicators	Q1: 2017-18				Q2: 20°	17-18			Q3: 20 ⁻	17-18		
		Mean	Median	Max	Min	Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.0	6.9	8.1	6.0	7.3	7.2	7.8	6.7	7.5	7.5	7.8	7.1
2	GVA at constant (2011-12) prices: Annual Growth (per cent)	6.8	6.8	7.6	6.0	7.2	7.2	8.3	6.3	7.3	7.3	7.9	6.9
а	Agriculture & Allied Activities (growth rate in per cent)	4.0	3.8	5.8	2.6	3.8	3.5	6.9	2.0	3.5	3.5	5.9	1.6
b	Industry (growth rate in per cent)	6.2	6.1	8.3	5.0	7.3	7.0	9.0	6.0	7.5	7.6	9.2	5.7
С	Services (growth rate in per cent)	7.8	8.0	8.9	6.1	7.9	8.2	9.8	6.1	8.5	8.5	10.1	7.1
3	PFCE at current prices: Y-on-Y Growth (per cent)	11.9	11.8	13.5	10.6	11.9	11.7	13.6	10.7	12.4	12.0	15.3	11.0
4	GFCF Rate (per cent of GDP at current market prices)	28.5	28.3	33.9	26.5	28.2	28.0	32.5	25.8	27.7	27.0	30.5	25.8
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	2.5	2.4	3.6	1.7	3.2	3.3	4.7	1.0	3.9	3.5	6.0	1.6
6	Merchandise Exports - BoP basis (in US\$ bn.)	73.2	73.7	77.7	68.5	73.1	73.1	78.1	66.0	74.0	73.2	79.1	66.9
7	Merchandise Imports - BoP basis (in US\$ bn.)	110.2	112.0	121.0	100.7	103.9	104.4	115.0	89.4	107.2	108.1	117.3	90.0
8	Rupee - US_Dollar Exchange rate (RBI reference rate) (end-period)	64.73	64.74	64.84	64.50	64.98	64.82	67.80	63.15	65.40	65.25	68.60	63.14
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	46.72	46.72	46.72	46.72	50.22	49.18	57.00	46.00	50.71	50.00	60.00	43.58
10	Repo Rate (end-period)	6.25	6.25	6.25	6.25	6.08	6.00	6.25	6.00	6.03	6.00	6.25	5.75
11	Cash Reserve Ratio (end-period)	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

					Quarterly F	orecasts			
	Key Macroeconomic Indicators		Q4: 20	17-18		Q1: 2018-19			
		Mean	Median	Max	Min	Mean	Median	Max	Min
1	GDP at constant (2011-12) prices: Annual Growth (per cent)	7.7	7.7	8.7	6.9	7.7	7.6	8.4	7.2
2	GVA at constant (2011-12) prices: Annual Growth (per cent)	7.4	7.5	7.9	6.3	7.5	7.5	7.8	7.1
а	Agriculture & Allied Activities (growth rate in per cent)	3.5	3.5	6.0	1.9	3.0	3.0	3.5	2.4
b	Industry (growth rate in per cent)	7.7	7.7	9.9	4.1	7.2	7.5	8.8	4.9
С	Services (growth rate in per cent)	8.4	8.5	9.4	7.3	8.6	8.6	9.1	7.9
3	PFCE at current prices: Y-on-Y Growth (per cent)	12.8	12.5	16.2	11.0	12.5	12.5	14.5	10.1
4	GFCF Rate (per cent of GDP at current market prices)	28.1	28.5	31.9	24.9	28.6	28.0	31.0	26.9
5	IIP (2011-12=100): Quarterly Average Growth (per cent)	4.5	4.1	6.8	1.8	4.6	4.8	6.5	2.5
6	Merchandise Exports - BoP basis (in US\$ bn.)	78.6	79.3	84.8	67.5	77.6	77.3	83.2	73.6
7	Merchandise Imports - BoP basis (in US\$ bn.)	108.7	107.9	119.8	91.5	114.0	111.1	128.9	105.5
8	Rupee - US_Dollar Exchange rate (RBI reference rate) (end-period)	65.53	65.45	68.00	64.00	65.54	65.50	67.00	63.93
9	Crude Oil (Indian basket) price (US \$ per barrel) (end-period)	50.71	50.00	60.00	41.80	51.68	51.79	60.00	43.00
10	Repo Rate (end-period)	5.99	6.00	6.50	5.75	5.98	6.00	6.50	5.75
11	Cash Reserve Ratio (end-period)	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Table A.4: Forecasts of CPI-Combined Inflation

(per cent)

		CPI Com	bined Hea	dline	Core CPI Combined (excluding 'Food & Beverages', 'Pan, Tobacco & Intoxicants' and 'Fuel & Light')				
	Mean	Median	Max	Min	Mean	Median	Max	Min	
Q2:2017-18	2.6	2.5	4.0	1.6	4.1	4.1	4.7	3.5	
Q3:2017-18	3.7	3.7	4.9	2.2	4.5	4.5	7.0	2.9	
Q4:2017-18	4.2	4.3	5.5	2.4	4.5	4.8	6.5	2.9	
Q1:2018-19	4.6	4.6	5.4	2.5	4.7	4.6	6.7	3.3	

Table A.5: Forecasts of WPI Inflation

(per cent)

		WPI He	adline		WPI-Manufactured Products				
	Mean	Median	Max	Min	Mean	Median	Max	Min	
Q2:2017-18	2.2	2.1	3.0	1.5	2.2	2.5	3.2	-1.6	
Q3:2017-18	2.5	2.2	4.0	1.3	2.2	2.4	3.4	-1.2	
Q4:2017-18	2.0	2.2	4.0	-0.3	1.9	2.1	3.5	-1.0	
Q1:2018-19	2.6	2.5	4.5	0.8	2.4	2.2	4.0	1.1	

Table A.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	0.00	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	0.02
8.0 to 8.4 per cent	0.03	0.15
7.5 to 7.9 per cent	0.18	0.46
7.0 to 7.4 per cent	0.51	0.25
6.5 to 6.9 per cent	0.20	0.05
6.0 to 6.4 per cent	0.03	0.01
5.5 to 5.9 per cent	0.01	0.03
5.0 to 5.4 per cent	0.00	0.00
4.5 to 4.9 per cent	0.01	0.01
4.0 to 4.4 per cent	0.03	0.02
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

Table A.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	0.01
5.5 to 5.9 per cent	0.03	0.07
5.0 to 5.4 per cent	0.06	0.09
4.5 to 4.9 per cent	0.18	0.31
4.0 to 4.4 per cent	0.35	0.33
3.5 to 3.9 per cent	0.27	0.15
3.0 to 3.4 per cent	0.10	0.03
2.5 to 2.9 per cent	0.01	0.01
2.0 to 2.4 per cent	0.00	0.01
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

Table A.8: Annual Average Percentage Change

	Annual ave	• .	age change o	over the next	Annual average percentage change over the next ten years			
	Mean	Median	Max	Min	Mean	Median	Max	Min
Real GVA	7.7	7.7	8.7	7.1	7.9	7.9	10.0	7.0
CPI Combined	4.3	4.3	5.0	3.8	4.2	4.0	5.3	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.