

## **Survey of Professional Forecasters - Results of Third Round relating to Fourth Quarter Ended March 2008**

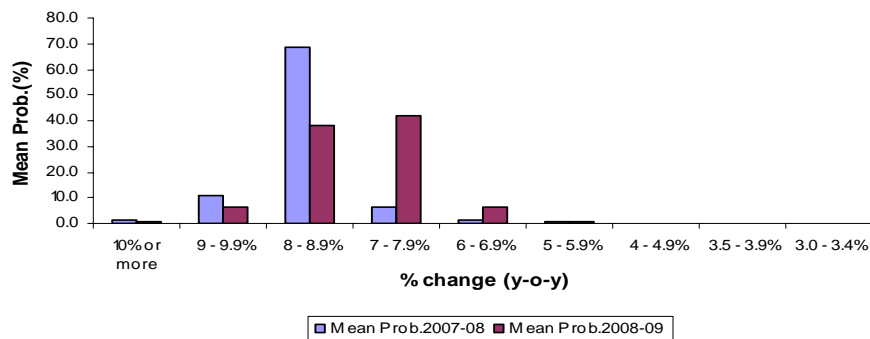
Several central banks conduct 'Survey of Professional Forecasters' on major macroeconomic indicators of short to medium term economic developments so as to gain from the professional expertise and experience of these forecasters. The Reserve Bank has also introduced such a survey from the second quarter ended September 2007 covering component-wise detailed forecasts of GDP growth, inflation, savings, capital formation, consumption expenditure, export, import, interest rates, forex reserve, money supply, credit growth, stock market movements, corporate profit, etc.

The results of the third round relating to the fourth quarter ended March 2008 are presented below. The questionnaire was sent to 29 selected forecasters, of which 21 forecasters participated in this round. *Note that the results of the survey represent views of the **respondent forecasters** and in no way reflect the views or forecasts of the Reserve Bank of India.*

### **Annual Forecasts:**

- Forecasters continue to expect real GDP to grow at a rate of 8.7 per cent in 2007-08. Annual forecast for real GDP in 2008-09 is projected to be around 8.1 per cent which is weaker than it was three months ago. The forecasters were asked to assign the probabilities to the possibility that year over year real GDP will fall into various growth ranges. Forecasters assign the highest 68 per cent probability to growth range of 8-8.9 per cent for the year 2006-07. For the year 2008-09, they assign 40 per cent probability to 7-7.9 per cent growth range of GDP. In their forecast three months ago, they had assigned highest probability to growth range of 8-8.9 per cent. The chart 1 below shows mean probability distribution of real GDP growth forecasts.

**Chart 1: Mean Probability Distribution of Real GDP Growth Forecasts**



- Real GDP originating in agriculture, industry and services sector for the year 2007-08 have been revised to 2.6, 8.8 and 10.6 per cent. The growth rates were forecast to be 3.4, 9.3 and 10.1 per cent in the earlier survey. For the year 2008-09, these sectors are expected to grow at a rate of 3.0, 8.1 and 9.7 per cent respectively which is lower than the earlier forecasts of 3.1, 9.1 and 9.9 per cent respectively.
- The Indian economy is expected to be driven by domestic demand in 2008-09. Forecasters expect gross domestic capital formation to contribute 36 per cent to real GDP in 2008-09, while contribution of gross fixed capital formation is expected to be 33.8 per cent. The proportion of domestic saving to GDP is indicated to be at 35 per cent in 2008-09 which is same as the forecast of last survey. The forecasters continue to expect growth rate of 6 per cent in private final consumption expenditure.
- The forecasters have revised profit growth of corporate sector downwards in 2008-09. Profit after tax is forecast to grow at a rate of 24.7 per cent in 2008-09 as against 34 per cent expected in last survey.
- Broad money (M3) is expected to grow at a rate of 19 per cent in 2008-09 which is higher than its previous estimate of 18 per cent. The bank credit is expected to slow down to 20.3 per cent in 2008-09.
- One of the key deficit indicators of central government finances viz. fiscal deficit is expected to be 3.2 per cent of GDP in 2008-09, whereas the combined gross fiscal deficit is placed at 6 per cent of GDP.
- Indian rupee is expected to be around 39 vis-à-vis US dollar in 2008-09. Yield on treasury bills (91 days) are projected to be 6.8 per cent by the end of 2008-09 whereas 10-year government securities yield are forecast to be at 7.8 per cent which is slightly higher than the earlier forecast of 7.5 per cent.
- The forecasters expected Repo and Reverse Repo rates to be at 7.6 and 6 per cent respectively by the end of current financial year. The reverse repo rate is forecast to be same as during last survey whereas the repo has been revised upwards from 7.5 per cent during last survey.
- Merchandise trade deficit is expected to widen to US \$115.5 bn. in 2008-09 which is higher than the earlier estimate of US \$103.7 bn. Export growth is pegged at 15.8 per cent in 2008-09. Forecasters revised their imports growth forecasts upward at 20 per cent from 17.5 per cent in last survey. Forecasters put net surplus under invisibles during 2008-09 to be US \$ 86.4 bn. which is higher than US \$ 83.1 bn. expected three months ago.

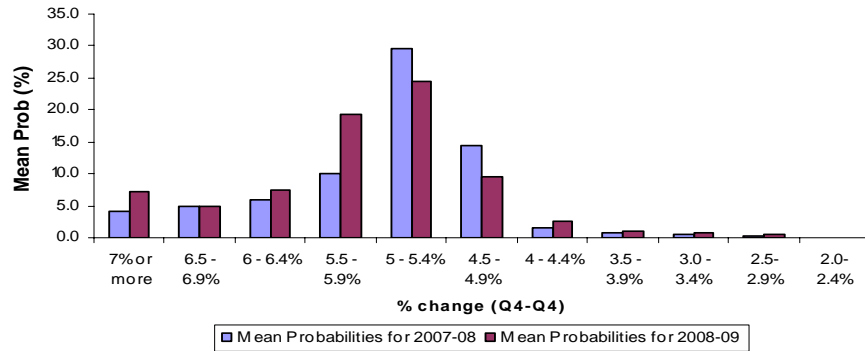
### **Quarterly Forecasts:**

- The forecasters have revised their estimates of real GDP downwards for the first two quarters of 2008-09 (Table A.3). The real GDP growth in first and second quarter is projected at 8.1 and 8.3 per cent. During the third quarter of current financial year, the GDP growth is placed at 8.1 per cent.
- Median forecasts for real GDP originating from agriculture, industry and services sectors in first quarter of 2008-09 are kept at 3, 8.4 and 10.0 per cent respectively. These projections are down from 3, 9 and 10.3 per cent respectively in the last survey. For the second quarter also, the sectoral growth forecasts have been revised downwards. For the third quarter of current financial year, the forecasters have kept the growth rates at 2.9, 8.6 and 9.8 respectively. Forecasters have revised downwards their Index of Industrial Production growth forecasts to 7.8, 8.3 respectively in the first two quarters of 2008-09. For the third quarter, the IIP is projected to grow at 8.3 per cent.
- Contribution of gross capital formation to GDP has been forecast at 36.2 per cent in first quarter of current financial year. It is higher than the earlier forecast of 35.3 per cent. In the second and third quarters, the same is expected to be 36 per cent. Growth rate of corporate profit have been revised downwards to 21.3 and 22.6 per cent in the first two quarters of 2008-09. During the third quarter, the growth rate is kept at 23.1 per cent. Forecasters project trade deficit to be higher than their earlier estimates during the first half of 2008-09.
- Most of the forecasters have placed repo and reverse repo to remain unchanged during first three quarters of current financial year at 7.75 per cent and 6 per cent respectively. However, the forecasters expect increase in CRR in first three quarters of 2008-09. They expect CRR to reach the level of 7.9 per cent by the end of first quarter of 2008-09 and further to 8 per cent by the end of the second quarter.

### **Forecasts on prices:**

- Forecasters' median estimates for WPI inflation on a year over year basis are 6.9, 7.0 and 6.8 per cent in the first three quarters of 2008-09. These projections are higher than their earlier forecasts. The inflation based on CPI-IW was placed at 6.1, 5.8 and 7.1 per cent respectively in the first three quarters.
- The forecasters were asked to assign the probabilities to the possibility that fourth quarter over fourth quarter WPI inflation will fall into various growth ranges. The probabilities for 2008-09 are little changed from those the forecasters assigned in the survey of three months ago. They see lower chance (25 per cent) that WPI inflation will fall in the range 5-5.4 per cent against their earlier forecast of 38 per cent. The probability assigned to the range 5.5-5.9 per cent has been revised upwards from 15 per cent in the earlier survey to 19.3 per cent in the current survey. The chart 2 below shows mean probability distribution of WPI forecasts.

**Chart 2: Mean Probability Distribution of WPI Growth Forecasts**



**Long Term Forecasts:**

- Long term forecasts for real GDP for the next five years is projected at 8.5 per cent and 8.9 per cent for the next ten years (tables A.7 and A.8).
- Over the next five years, the forecasters expect WPI inflation to be 5 per cent, which is revised upwards from the last survey. CPI-IW inflation will average to 5.5 per cent, same as expected in last survey. Over the next ten years, the WPI and CPI-IW based inflation are expected to be 4.5 and 5 per cent respectively.

<b>Table A.1</b>		<b>Annual Forecasts for 2007-08</b>				<b>Actuals for 2006-07</b>
<b>Key Macroeconomic Indicators</b>		<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>	
1	Real GDP growth rate at factor cost (in per cent)	8.6	8.7	8.8	8.4	9.6
a	Agriculture & Allied Activities	2.8	2.6	4.0	1.5	3.8
b	Industry	8.8	8.8	9.5	8.0	11.0
c	Services	10.5	10.6	10.8	10.0	11.1
2	Private Final Consumption Expenditure (growth rate in per cent)	6.6	6.8	8.3	5.2	7.1
3	Gross Domestic Saving (per cent of GDP at current market price)	35.2	35.1	37.3	34.0	34.3*
	of which Private Corporate Sector	10.2	8.6	21.0	7.6	7.5*
4	Gross Domestic Capital Formation (per cent of GDP at current market price)	36.2	36.2	38.3	33.0	35.5*
5	Gross Fixed Capital Formation (per cent of GDP at current market price)	31.6	34.0	34.6	15.5	32.5
6	Money Supply (M3) (growth rate in per cent)	21.1	21.0	22.0	20.0	21.3
7	Bank Credit (growth rate in per cent)	21.9	22.0	23.5	20.0	28.0
8	Combined Gross Fiscal Deficit (per cent of GDP)	5.69	5.4	6.5	5.4	6.4
9	Central Govt. Fiscal Deficit (per cent of GDP)	3.19	3.1	3.5	3.1	3.7
10	Corporate profit after tax (growth rate in per cent)	29.2	27.5	42.0	20.0	45.2**
11	Repo (end period)	7.75	7.75	8.0	7.5	7.8
12	Reverse Repo (end period)	6.01	6.0	6.3	6.0	6.0
13	CRR (end period)	7.5	7.5	7.5	7.0	6.0
14	USD/INR (RBI reference rate-end period)	39.9	40.0	42.0	38.0	43.6
15	T-Bill 91 days Yield (per cent-end period)	7.09	7.1	7.3	6.8	6.6
16	10 year Govt. Securities Yield (per cent-end period)	7.95	7.9	8.0	7.8	7.8
17	Overall Balance (in US \$ bn.)	79.6	80.1	106.9	60.0	36.6
18	Export (in US \$ bn.)	152.9	152.5	158.3	146.0	128.1
	Export(growth rate in percent)	20.5	20.1	24.0	16.0	21.8
19	Import (in US \$ bn.)	242.3	241.5	253.9	230.0	191.3
	Import(Growth rate in percent)	27.5	28.5	32.2	20.7	21.8
20	Trade Balance (US \$ bn)	-89.8	-89.5	-77.0	107.0	-63.2
21	Invisible Balance (US \$ bn)	72.2	71.5	79.2	64.0	53.4
	* Figures pertain to 2005-06 ** For all listed companies in BSE					

<b>Table A.2</b>					
<b>Key Macroeconomic Indicators</b>		<b>Annual Forecasts for 2008-09</b>			
		<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>
1	Real GDP growth rate at factor cost (in per cent)	8.0	8.1	8.6	7.0
a	Agriculture & Allied Activities	3.0	3.0	4.5	2.0
b	Industry	8.1	8.1	9.2	7.5
c	Services	9.4	9.7	10.3	8.0
2	Private Final Consumption Expenditure (growth rate in per cent)	6.2	6.0	8.8	4.8
3	Gross Domestic Saving (per cent of GDP at current market price)	35.3	35.0	37.4	33.0
	of which Private Corporate Sector	10.3	8.5	20.0	6.9
4	Gross Domestic Capital Formation (per cent of GDP at current market price)	36.0	36.0	39.6	31.3
5	Gross Fixed Capital Formation (per cent of GDP at current market price)	33.4	33.8	35.4	30.4
6	Money Supply (M3) (growth rate in per cent)	19.4	19.0	23.0	17.0
7	Bank Credit (growth rate in per cent)	20.9	20.3	24.9	19.0
8	Combined Gross Fiscal Deficit (per cent of GDP)	5.9	6.0	7.0	4.8
9	Central Govt. Fiscal Deficit (per cent of GDP)	3.2	3.2	3.6	2.7
10	Corporate profit after tax (growth rate in per cent)**	26.9	24.7	46.0	18.0
11	Repo (end period)	7.6	7.6	8.3	6.5
12	Reverse Repo (end period)	6.0	6.0	6.5	5.5
13	CRR (end period)	7.8	8.0	8.5	7.0
14	USD/INR (RBI reference rate-end period)	38.8	39.0	41.5	36.7
15	T-Bill 91 days Yield (per cent-end period)	6.8	6.8	7.6	5.9
16	10 year Govt. Securities Yield (per cent-end period)	7.8	7.8	8.2	7.0
17	Overall Balance (in US \$ bn.)	48.6	42.7	95.0	28.7
18	Export (in US \$ bn.)	178.1	176.9	200.	162.
	Export(growth rate in percent)	16.7	15.8	30.0	11.0
19	Import (in US \$ bn.)	292.7	297.6	313.	269.
	Import(Growth rate in percent)	21.4	20.0	30.0	17.0
20	Trade Balance (US \$ bn)	-113.1	-115.5	-94.5	128.
21	Invisible Balance (US \$ bn)	84.5	86.4	106.	60.0

Table A.3		Quarterly Forecasts							
Key Macroeconomic Indicators	07-08: Q2	07-08Q3				07-08:Q4			
	Actuals	Mean	Median	Max	Min	Mean	Median	Max	Min
Real GDP growth rate at factor cost (per cent)	8.9	8.4	8.4	8.4	8.4	7.9	8.1	8.5	7.3
Agriculture & Allied Activities	3.7	3.2	3.2	3.2	3.2	1.7	1.8	2.5	0.5
Industry	9.1	8.4	8.4	8.4	8.4	7.4	7.4	8.5	6.1
Services	10.3	10.5	10.5	10.5	10.5	10.2	10.0	11.3	9.4
IIP growth rate (per cent)	8.7	8.2	8.2	8.2	8.2	7.4	7.2	10.0	5.8
Private Final Consumption Expenditure (growth rate in per cent)	5.7	7.2	7.2	7.2	7.2	6.0	5.9	6.7	5.2
Gross Domestic Capital Formation (per cent of GDP at current market price)	38.3	35.9	35.9	36.1	35.6	36.1	36.1	36.3	35.8
Gross Fixed Capital Formation (per cent of GDP at current market price)	35.9	33.5	33.5	33.5	33.5	33.9	33.8	35.0	33.0
Corporate profit after tax (growth rate in per cent)**	22.7	28.1	29.2	30.0	25.0	22.6	24.3	25.0	17.0
USD/INR (RBI reference rate- end period)	39.7	39.4	39.4	39.4	39.4	39.9	40.0	41.0	39.0
Repo Rate (end period)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	8.0	7.8
Reverse Repo Rate (end period)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.3	6.0
CRR (end period)	7.0	7.5	7.5	7.5	7.5	7.6	7.5	8.0	7.5
BSE INDEX (end period)	16046	19827	19827	19827	19827	16044	15935	16664	15644
Export (US \$ bn.)	36.8	39.4	39.1	41.7	38.0	42.0	42.7	44.2	38.0
Import (US \$ bn.)	54.8	60.9	59.4	67.1	58.3	64.5	64.1	69.6	58.7
Trade Balance (US \$ bn.)	-16.3	-21.5	-20.3	-18.5	-25.4	-22.4	-20.9	-20.1	-28.9

Figures in green denote the actuals for the respective quarters

**Table A.3 (Contd.)**

Key Macroeconomic Indicators	Quarterly Forecasts											
	08-09:Q1				08-09:Q2				08-09:Q3			
	Mean	Median	Max	Min	Mean	Median	Max	Min	Mean	Median	Max	Min
Real GDP growth rate at factor cost (per cent)	7.9	8.1	8.5	6.8	8.1	8.3	8.7	6.7	8.0	8.1	8.9	7.4
Agriculture & Allied Activities	2.8	3.0	3.1	2.0	2.9	3.0	4.0	2.0	2.9	2.9	4.5	2.1
Industry	8.1	8.4	9.0	6.5	8.4	8.5	9.1	7.2	8.6	8.6	10.0	7.7
Services	10.0	10.0	10.8	9.3	9.8	9.6	10.5	9.3	9.9	9.8	11.0	9.5
IIP growth rate (per cent)	7.9	7.8	8.8	6.9	8.1	8.3	9.4	7.0	8.1	8.3	9.2	6.4
Private Final Consumption Expenditure (%growth)	5.9	6.0	6.5	5.0	5.9	5.9	7.0	4.8	5.9	6.1	6.9	4.8
Gross Domestic Capital Formation (% of GDP at current market price)	36.2	36.2	36.3	36.0	36.0	36.0	36.5	35.6	35.3	36.0	36.5	33.4
Gross Fixed Capital Formation (% of GDP at current market price)	33.7	33.7	35.0	32.5	33.9	33.2	36.7	32.5	33.2	33.5	34.3	31.3
Corporate profit after tax (growth rate in per cent)**	21.4	21.3	25.0	18.0	23.1	22.6	30.0	17.0	24.3	23.1	30.0	21.0
USD/INR (RBI reference rate-end period)	39.9	40.0	41.0	38.0	39.6	39.5	41.5	37.5	39.2	39.0	42.0	37.3
Repo Rate (end period)	7.8	7.8	8.0	7.8	7.7	7.8	8.3	7.0	7.7	7.8	8.3	7.0
Reverse Repo Rate (end period)	6.0	6.0	6.5	6.0	6.1	6.0	6.8	6.0	6.1	6.0	6.8	5.8
CRR (end period)	7.8	7.9	8.0	7.5	7.8	8.0	8.3	7.5	7.8	8.0	8.3	7.0
BSE INDEX (end period)	17135	16907	18000	16500	17911	18235	18500	17000	19477	19431	20000	19000
Export (US \$ bn.)	41.1	41.0	41.9	40.4	44.5	44.4	45.6	43.4	46.0	46.2	46.2	45.6
Import (US \$ bn.)	68.8	69.6	71.4	64.5	72.5	71.9	77.6	68.4	75.4	74.0	81.9	71.9
Trade Balance (US \$ bn.)	-27.7	-28.4	-24.1	-30.2	-27.8	-27.5	-25.0	-31.3	-29.2	-28.1	-25.7	-35.0



<b>Table A.4: Forecasts for WPI and CPI-IW</b>												
	<b>WPI</b>				<b>WPI-MP</b>				<b>CPI-IW</b>			
	<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>	<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>	<b>Mean</b>	<b>Median</b>	<b>Max</b>	<b>Min</b>
Q1-08-09	6.7	6.9	7.5	5.4	6.3	6.4	7.1	5.3	6.3	6.1	7.3	5.5
Q2-08-09	6.8	7.0	7.8	5.6	6.4	6.5	7.5	5.3	6.2	5.8	8	4.4
Q3-08-09	6.9	6.8	8.2	5.1	6.4	6.4	7.5	5	6.5	7.1	7.7	4.6

<b>Table A.5</b>			
<b>Mean probabilities attached to possible outcomes of GDP</b>			
<b>Forecasts for 2007-08</b>		<b>Forecasts for 2008-09</b>	
<b>Growth Range</b>	<b>Mean Probabilities</b>	<b>Growth Range</b>	<b>Mean Probabilities</b>
10% or more	1.1	10% or more	0.4
9 - 9.9%	11.0	9 - 9.9%	6.1
8 - 8.9%	68.4	8 - 8.9%	35.7
7 - 7.9%	6.7	7 - 7.9%	39.7
6 - 6.9%	1.1	6 - 6.9%	6.2
5 - 5.9%	0.3	5 - 5.9%	0.6
4 - 4.9%	0.3	4 - 4.9%	0.3
3.5 - 3.9%	0.1	3.5 - 3.9%	0.2
3.0 - 3.4%	0.1	3.0 - 3.4%	0.2

<b>Table A.6</b>			
<b>Mean probabilities attached to possible outcomes of WPI</b>			
<b>Forecasts for 2007-08</b>		<b>Forecasts for 2008-09</b>	
<b>Growth Range</b>	<b>Mean Probabilities</b>	<b>Growth Range</b>	<b>Mean Probabilities</b>
7% or more	4.1	7% or more	7.3
6.5 - 6.9%	5.0	6.5 - 6.9%	4.8
6 - 6.4%	5.8	6 - 6.4%	7.6
5.5 - 5.9%	10.0	5.5 - 5.9%	19.3
5 - 5.4%	29.6	5 - 5.4%	24.6
4.5 - 4.9%	14.3	4.5 - 4.9%	9.5
4 - 4.4%	1.7	4 - 4.4%	2.6
3.5 - 3.9%	0.9	3.5 - 3.9%	0.9
3.0 - 3.4%	0.6	3.0 - 3.4%	0.8
2.5-2.9%	0.2	2.5-2.9%	0.4
2.0-2.4%	0.1	2.0-2.4%	0.1

<b>Table A.7</b>			
<b>Annual average percentage change over the next five years</b>			
	Real GDP	WPI Inflation	CPI-IW Inflation
Minimum	8	4.2	5.3
Lower Quartile	8	4.5	5.5
Median	8.5	5	5.5
Upper Quartile	8.9	5	5.8
Maximum	9.5	6	6
S.D	0.46	0.47	0.22

<b>Table A.8</b>			
<b>Annual average percentage change over the next ten years</b>			
	Real GDP	WPI Inflation	CPI-IW Inflation
Minimum	7	4	4
Lower Quartile	8.2	4	5
Median	8.9	4.5	5
Upper Quartile	9	5	5.5
Maximum	10	6	6.5
S.D	0.78	0.62	0.64