

Inflation Expectations Survey of Households: December 2010 (Round 22)*

This article presents the findings of Inflation Expectations Survey of Households conducted in the October–December 2010 quarter; the 22nd round in the series. The survey captures the inflation expectations of 4000 urban households across 12 cities for the next quarter (January–March 2011) and for the next year (January–December 2011).

The inflation rates from this survey represent the inflation expectations of 4000 urban households based on their individual consumption baskets and hence these rates are not to be considered as predictors of any official measure of inflation. The households' inflation expectations provide useful directional information on near-term inflationary pressures and also supplement other economic indicators, to get a better indication of future inflation.

The survey findings indicate that households expect inflation to rise further by 60 and 130 basis points during next quarter (12.4 per cent) and next year (13.1 per cent), respectively/from the perceived current rate of 11.8 per cent. Households' expectations of general price rise were mainly influenced by movements in food prices. The percentage of respondents expecting price rise have gone up for all the product groups (viz., General prices, food and non-food product, households durables and housing), except cost of services. On category-wise inflation expectations, Daily-wage workers and Housewives expected higher inflation rates compared to other categories. Across the cities, Bangalore registered the highest inflation expectations and Patna registered the lowest expectations.

I. Introduction

Reserve Bank of India has been conducting Inflation Expectations Survey of Households (IESH) on

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a quarterly basis, since September 2005. The survey elicits qualitative responses on expected price changes (general prices as well as prices of specific product groups) in the next three months as well as in the next one year and quantitative responses on current, three-month ahead and one-year ahead inflation rates. While inflation affects purchasing power, inflation expectations affect people's behaviour in ways that have a long-term economic impact. Inflation expectations of households are subjective assessments and are based on their individual consumption baskets and, therefore, may be different from the official inflation numbers released periodically by the government.

II. Data Coverage & Methodology

The single-page survey schedule designed for the IESH has been organised into six blocks (Annex). The first block seeks respondents' particulars including name, contact details, gender, age and category (occupation). The second and third blocks seek product-wise price expectations for three-month ahead and one-year ahead, respectively. The fourth block assesses the respondents' feedback on the Reserve Bank's action to control inflation. The fifth block collects the rate of inflation of the respondent for three time points – current, three-month ahead and one-year ahead. The sixth block captures the information on the amount paid by the respondents for the purchase of major food items viz. Milk, Wheat, Wheat-Atta, Rice and Dal (per kg) during the last one month.

II. 1 Coverage

The Reserve Bank conducts this survey in 12 cities on a quarterly basis. The major metropolitan cities, viz., Delhi, Kolkata, Mumbai and Chennai are represented by 500 households each, while another eight cities, viz., Jaipur, Lucknow, Bhopal, Ahmedabad, Patna, Guwahati, Bangalore and Hyderabad are represented by 250

households each. The respondents are well-spread across the cities to provide a good geographical coverage. The male and female respondents in the group are usually in the ratio of 3:2. The category-wise representation of the respondents is presented in Table 1. The sample coverage is nearly as per the target in all rounds.

II. 2 Information Collected

The price expectations are sought for general prices and for five product groups (food products, non-food products, consumer durables, housing and services). The general price comprises prices of all the product groups taken together. The options for responses are (i) price increase more than current rate, (ii) price increase similar to current rate, (iii) price increase lower than current rate, (iv) no change in prices and (v) decline in prices. The first three of the five options pertains to the respondents' expectations on the rate of future price increase compared to the current rate. These expectations are sought from the respondents for three-month ahead as well as one-year ahead period. The inflation expectations of the respondents that represent the year-on-year changes in prices are collected through Block 5. The inflation rates are collected in intervals – the lowest being 'less than 1 per cent' and the highest being '16 per cent and above' with 100 basis point size for all intermediate classes. The information on the respondents' awareness of Reserve Bank's action to control inflation as well as the impact of Reserve Bank's action on inflation is also obtained from the last survey round (September 2010). In the current round (December

2010), a new question was added in Block 6 to capture the information on the amount paid by the respondents for the purchase of major food items, *viz.*, Milk, Wheat, Wheat-Atta, Rice and Dal (per kg) during the last one month.

III. Survey Results

III.1 General Price Expectations:

The survey results depict that the percentages of respondents expecting increase in general prices for both three-month ahead and one-year ahead have been rising since March 2008. For three-month ahead, the percentage of respondents who expect this price increase to be 'higher than current rate' was rising steadily from March 2010 to December 2010 except for the marginal dip in September 2010 (Table 2).

III. 2 Product Group-wise Price Expectations:

The product group-wise price expectations based on Block 3 of the survey schedule are given in Statement I. The percentage of respondents who expects the prices in general to go up for next three months and next one year has increased further. For three-month ahead price expectations, the percentage of respondents expecting price rise have gone up for all product groups, *viz.*, food and non-food products and housing, except cost of services. In case of food products, the percentage of households expecting the *price increase more than the current rate* has moderated marginally where as the per cent of those expecting *price increase similar to the current rate* has increased as compared to the previous survey round (September 2010). In case of one-year ahead price expectations, the percentage of respondents expecting food price increase as well as those expecting price increase at more than current rate has increased. A similar trend is observed for non-food products as well. For household durables and housing, more respondents are expecting price to increase as compared to the previous round. There is marginal moderation in the proportion of respondents expecting price increase in cost of services for three-month ahead; however, the same is expected to increase for the next one year.

**Table 1: Respondents' Profile (Category):
Share in Total Sample**

Respondents' Category	Sample	Target
Financial Sector Employees	8.9	10.0
Other Employees	16.0	15.0
Self-employed	21.2	20.0
Housewives	30.6	30.0
Retired Persons	8.4	10.0
Daily Workers	9.5	10.0
Other Category	5.5	5.0

Note: Sample proportion above is for the December 2010 survey

Table 2: General Price Expectations

Round No./survey period →	3-month ahead (percentage of respondents)							
	15	16	17	18	19	20	21	22
Options	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10
Prices will increase	92.0	93.1	95.8	97.4	95.7	95.3	96.5	98.6
<i>Price increase more than current rate</i>	54.9	63.5	72.2	74.6	66.9	72.7	72.2	74.3
<i>Price increase similar to current rate</i>	22.4	20.7	18.4	16.6	20.0	20.0	21.0	22.0
<i>Price increase less than current rate</i>	14.8	8.9	5.1	6.2	8.8	2.6	3.3	2.3
No change in prices	6.9	6.1	3.7	2.4	3.4	4.2	2.9	1.1
Decline in price	1.1	0.9	0.6	0.3	0.9	0.5	0.6	0.4
Options	1-year ahead (percentage of respondents)							
Prices will increase	90.6	95.6	93.7	96.3	96.3	96.5	95.2	98.9
<i>Price increase more than current rate</i>	59.7	64.7	62.8	69.5	68.2	62.8	70.8	77.4
<i>Price increase similar to current rate</i>	18.0	15.9	18.5	17.3	15.2	19.8	18.7	17.9
<i>Price increase less than current rate</i>	12.9	15.0	12.4	9.5	12.9	13.9	5.7	3.6
No change in prices	3.1	3.3	5.3	3.1	3.1	2.6	3.8	0.9
Decline in price	6.3	1.1	0.9	0.7	0.6	0.9	1.1	0.3

III. 3 Coherence between General Prices and Product Groups' Prices:

General Price expectations are determined by the price expectations in totality of various product groups. It can be observed that price expectations of certain product groups greatly influence the General Price expectations than other products. Therefore, a measure of coherence between General Prices and prices of various product groups was derived based on the total percentages of respondents who expect similar movements in General Price and those of various product groups. This degree of coherence between General Prices and prices of various product groups for three-month ahead and one-year ahead is depicted in Table 3 and Table 4.

The General Price expectations are more in tune with food price expectations, as compared to other product groups. This association was lowest for household durables. This indicates that respondents assign relatively higher priority to food prices when they think about the price movements in general. In the current round of the survey, about 92 per cent of the respondents are seen to have been influenced by food prices for arriving at three-month ahead and one-year ahead general inflation expectations. It is observed that there has been an increase in the share of respondents who felt that housing has been an influencing factor for setting their general price expectations for three-month and one-year ahead.

Table 3: Percentage of Respondents Expecting General Price Movements in Coherence with Movements in Price Expectations of Various Product groups – 3-month Ahead

Round No.	Survey Quarter	Food	Non-Food	House-holds durables	Housing	Cost of services
14	Dec-08	88.9	85.1	60.9	69.0	70.3
15	Mar-09	85.4	85.3	62.8	73.0	73.9
16	Jun-09	87	79.3	59.4	72.0	76.7
17	Sep-09	89.1	81.3	56.5	78.1	82.2
18	Dec-09	88.3	83.6	62.3	82.7	79.3
19	Mar-10	87.4	81.4	66.5	78.1	76.6
20	Jun-10	89.9	82.4	63.6	80.2	80.8
21	Sep-10	91.4	86.1	64.8	79.2	76.7
22	Dec-10	92.3	77.3	58.9	82.5	76.6

Table 4: Percentage of Respondents Expecting General Price Movements in Coherence with Movements in Price Expectations of Various Product Groups – 1-year Ahead

Round No.	Survey Quarter	Food	Non-Food	House-holds durables	Housing	Cost of services
14	Dec-08	91.8	88.3	63.4	70.9	74.4
15	Mar-09	89.1	88.1	65.3	79.4	74.8
16	Jun-09	89.2	82.2	61.4	76.8	78.5
17	Sep-09	91.9	85.8	65.0	78.9	82.3
18	Dec-09	91.1	88.4	69.0	82.8	79.3
19	Mar-10	89.9	83.6	67.3	79.7	76.2
20	Jun-10	91.7	83.2	67.2	79.4	81.1
21	Sep-10	93.4	88.0	66.8	81.0	76.3
22	Dec-10	91.7	83.5	62.4	83.0	78.8

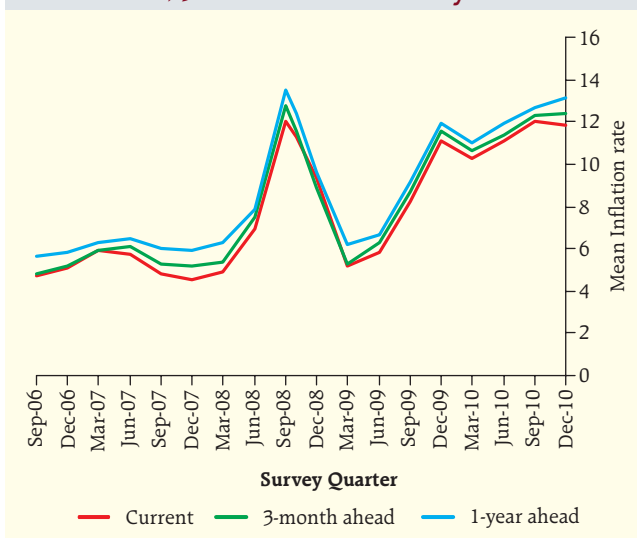
III. 4 Inflation Expectations

The inflation expectations are collected through quantitative Block 5 of the survey schedule. The perception of current inflation rate and expectations of three-month ahead and one-year ahead inflation since Round 5 (September 2006) are shown in Table 5 and Chart 1. It represents the average inflation rate of 4000 respondents. The movement of inflation expectations shows that the future inflation expectations are usually higher than the perception of current inflation. In the current round of the survey, the average rates of inflation for current, three-month ahead and one-year ahead are 11.8 per cent, 12.4 per cent and 13.1 per cent, respectively. While the perception of current inflation moderated marginally, the three-month ahead and one-year ahead inflation expectations have increased by 10 and 40 basis points, respectively/as compared to the inflation expectations in the previous round (September 2010). The inflation expectations in the current survey round have been marginally lower than the peak rates observed in September 2008. These inflation expectations provide useful inputs on

Table 5: Household Inflation Expectations – Current, 3-months Ahead and 1-year Ahead

Survey Quarter	Expectation period	Current	3-Months Ahead	1-Year Ahead
Sep-06	Oct-Dec-06	4.7	4.8	5.6
Dec-06	Jan-Mar-07	5.1	5.2	5.8
Mar-07	Apr-Jun-07	5.9	5.9	6.3
Jun-07	Jul-Sep-07	5.7	6.1	6.5
Sep-07	Oct-Dec-07	4.8	5.3	6.0
Dec-07	Jan-Mar-08	4.5	5.2	5.9
Mar-08	Apr-Jun-08	4.9	5.4	6.3
Jun-08	Jul-Sep-08	6.9	7.5	7.9
Sep-08	Oct-Dec-08	12.0	12.8	13.5
Oct-08	Oct-Dec-08	11.3	11.6	12.4
Dec-08	Jan-Mar-09	9.3	8.9	9.6
Mar-09	Apr-Jun-09	5.2	5.3	6.2
Jun-09	July-Sep-09	5.8	6.3	6.7
Sep-09	Oct-Dec-09	8.2	8.7	9.2
Dec-09	Jan-Mar-10	11.1	11.6	11.9
Mar-10	Apr-Jun-10	10.3	10.6	11.0
Jun-10	July-Sep-10	11.1	11.4	11.9
Sep-10	Oct-Dec-10	12.1	12.3	12.7
Dec-10	Jan-Mar-11	11.8	12.4	13.1

Chart 1: Household Inflation Expectations – Current, 3-months Ahead and 1-year Ahead



directional movements of future inflation. However, these are not to be treated as forecast of any official measure of inflation.

It may be seen from Chart 1 that the short-term (three-month ahead) expectations of inflation lie between current and long-term (one-year ahead) inflation.

Chart 2 depicts the household inflation expectations along with the official inflation measures based on Wholesale Price Index (WPI) – All commodities and Consumer Price Index for Industrial

Chart 2: Households Inflation Expectations – vis-à-vis Official Inflation Numbers

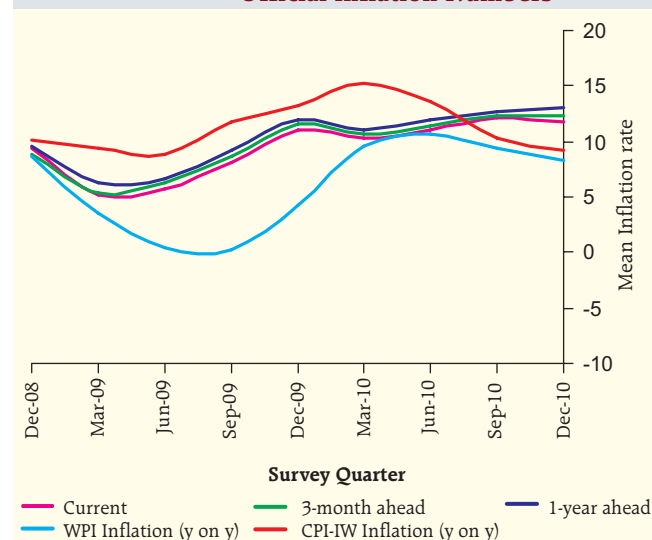


Table 6: Volatility in Responses in Various Rounds

Round No.	Survey Quarter	Current Inflation rate		Inflation rate: 3-month Ahead		Inflation rate: 1-year Ahead	
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
		12	Jun-08	6.9	1.4	7.5	1.4
13	Sep-08	11.3	2.0	11.6	3.2	12.4	3.6
14	Dec-08	9.3	1.9	8.9	3.5	9.6	3.9
15	Mar-09	5.2	1.9	5.3	2.6	6.2	2.7
16	Jun-09	5.8	4.4	6.3	4.6	6.7	4.7
17	Sep-09	8.2	6.0	8.7	6.0	9.2	5.9
18	Dec-09	11.1	4.9	11.6	4.9	11.9	5.1
19	Mar-10	10.3	4.4	10.6	4.7	11.0	4.8
20	Jun-10	11.1	3.6	11.4	4.1	11.9	4.2
21	Sep-10	12.1	3.2	12.3	3.6	12.7	3.8
22	Dec-10	11.8	3.5	12.4	3.7	13.1	3.6

Workers (CPI-IW). It shows that for a large part of the survey history, the households' inflation expectations remained between the WPI and CPI-IW inflations. However, in the current survey round, household inflation expectations are higher than the official inflation rates. It can be seen that even though the official indicators are moving in the downward direction, expectations are showing an upward swing.

III. 5 Volatility in Responses

The volatility in responses is measured through standard deviation. Over different rounds, the standard deviation has been lower for current inflation rate as compared to three-month ahead and one-year ahead (Table 6).

Table 8: Gender-wise Inflation Expectations for December 2010 Survey Round

Gender	Current		3-month ahead		1-year ahead	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Male	11.7	3.5	12.3	3.7	13.0	3.7
Female	12.0	3.4	12.6	3.5	13.3	3.5

The total variability in responses for inflation expectations was elucidated by different classificatory factors, (*viz.*, Gender, Age-group, City and Category) of respondents over different rounds. An Analysis of Variance (ANOVA) carried out over different rounds revealed that 'City' has been a significant source of variation in all rounds (Table 7). This may be due to variation in consumption baskets across the cities.

III.6 Gender-wise Inflation

In the current round of survey, female respondents expected higher inflation rates as compared to their male counterparts (Table 8). However, there is no significant difference between male and female respondents in terms of the consistency in responses over various survey rounds and for current, three-month ahead and one-year ahead periods.

III.7 Category-wise Inflation

The category of respondents indicates their occupation status. For the latest survey round, Daily Workers and Housewives reported higher inflation expectations, whereas Financial Sector Employees reported the lowest inflation rates (Table 9).

Table 7: Factors that Explain the Total Variability

Round No.	Survey Quarter	Current	3-month ahead	1-year ahead
12	Jun-08	City, Category, Age	City, Category, Age	City, Age
13	Sep-08	City	City, Category, Age	City, Age
14	Dec-08	City, Gender, Age	City, Gender, Category	City, Category
15	Mar-09	City, Category	City, Gender, Category	City, Category
16	Jun-09	City, Gender, Category, Age	City, Gender, Category	City, Category, Age
17	Sep-09	City, Age	City, Age	City, Age
18	Dec-09	City, Category, Age	City, Age	City
19	Mar-10	City, Category, Age	City, Category	City, Category
20	Jun-10	City, Category, Age	City, Category, Age	City, Category, Age
21	Sep-10	City, Gender, Category, Age	City, Gender, Category	City, Category
22	Dec-10	City, Category	City, Category	City, Category

Table 9: Category-wise Inflation Expectations for December 2010 Survey Round

Category of Respondent	Current		3-month ahead		1-year ahead	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Financial Sector Employees	11.3	3.5	11.7	3.9	12.4	3.8
Other Employees	11.6	3.4	12.2	3.6	13.0	3.5
Self-Employed	11.7	3.7	12.3	3.8	13.0	3.8
Housewife	12.0	3.5	12.7	3.5	13.2	3.6
Retired persons	11.7	3.4	12.2	3.8	12.9	3.6
Daily wage Workers	12.4	3.4	12.8	3.6	13.5	3.3
Other Category	11.9	3.2	12.5	3.2	13.4	3.1

III.8 Age Group-wise Inflation

The survey covers only the adult respondents of 18 years or more. During the current survey round, the respondents in the age group '60 years and above' have reported the highest inflation rates for current and three-month ahead periods (Table 10). The one-year ahead inflation expectations were higher for the age-groups '35-40 years' and '40-45 years'. However, over the survey rounds, no age-specific consistency is observed in inflation expectations.

III.9 City-wise Inflation

Significant variations were observed in the inflation expectations across different cities, which may be attributed to the divergence in consumption pattern between cities. In the latest round of survey, inflation expectations were found highest in Bangalore and lowest in Patna (Table 11). The variability in responses was highest in Hyderabad and lowest in Bhopal.

Table 10: Age group-wise Inflation Expectations for December 2010 Survey Round

Category of Respondent	Current		3-month Ahead		1-year Ahead	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Up to 25 years	11.9	3.6	12.5	3.7	13.2	3.6
25 to 30 years	11.8	3.5	12.3	3.7	13.1	3.6
30 to 35 years	11.6	3.5	12.1	3.8	12.8	3.8
35 to 40 years	11.8	3.7	12.4	3.7	12.9	3.7
40 to 45 years	11.6	3.4	12.3	3.6	13.1	3.6
45 to 50 years	12.2	3.3	12.7	3.5	13.3	3.5
50 to 55 years	12.1	3.3	12.8	3.3	13.5	3.3
55 to 60 years	12.1	3.2	12.5	3.6	13.5	3.1
60 years & above	11.7	3.5	12.2	3.8	12.9	3.7

III.10 Cross-Tabulation of Current and Future Inflation

It may be observed that 74.3 per cent respondents perceived double digit current inflation. Similarly, 80.9 per cent and 81.5 per cent of the respondents expected the three-month ahead inflation and one-year ahead inflation in double digit figures, respectively. A cross-tabulation of the current inflation perception with the future inflation expectations points out that among the respondents who perceived the current inflation in double digit, 97.0 and 95.6 per cent respondents expected that it would remain in the same band for three-month ahead and one-year ahead, respectively (Table 12 & Table 13).

III.11 Awareness of Reserve Bank of India's Action to Control Inflation

An additional block (Block 4) was added to the survey schedule from the previous survey round

Table 11: City-wise Inflation Expectations for December 2010 Survey Round

City	Current		3-month Ahead		1-year Ahead	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Guwahati	10.2	0.9	11.0	1.2	11.1	1.5
Patna	7.3	3.1	7.8	3.4	8.8	3.4
Kolkata	10.3	1.0	11.0	1.9	12.4	2.0
Lucknow	10.4	3.7	11.0	3.4	11.9	3.7
Delhi	10.9	3.1	11.4	3.9	13.2	3.6
Jaipur	14.9	3.1	15.1	2.8	15.2	2.7
Ahmedabad	14.2	2.9	15.0	2.4	15.7	1.9
Mumbai	14.7	2.3	14.7	3.4	15.5	2.7
Bhopal	10.4	0.6	11.1	2.2	11.3	3.6
Hyderabad	12.1	5.3	12.7	5.1	13.1	4.8
Bangalore	15.4	2.3	15.6	2.0	15.8	1.7
Chennai	11.2	2.2	12.2	2.2	12.0	3.1

Table 12: Cross-Tabulation of Current and 3-month Ahead Inflation

		3-month Ahead Inflation Rate																	No Idea	Total		
		< 1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	>=16				
Current Inflation Rate	< 1	3	3																		6	
	1-2	3	3	10																		16
	2-3		1	4	7	2	1		1										1			17
	3-4	1			10	24	7	1								1						44
	4-5	3		1		26	26	6	1		1											64
	5-6	4				1	87	27	12	5	2	3		1								142
	6-7					1		50	28	10	6	1										96
	7-8	3						1	20	35	12	6	1			1						79
	8-9	10						1	6	27	51	13	7						4	7		126
	9-10	6						1	4	9	82	221	67	16	4	2	1	1	23			437
	10-11	9				1	1			1	23	249	404	112	30	40	3	2	15			890
	11-12	5									1		73	213	54	7	4		3			360
	12-13	3										1	2	67	161	37	4	1	3			279
	13-14	2												4	65	120	31	1	1			224
	14-15	2												1	2	41	179	24	1			250
	15-16	6															24	75				105
	>=16	10									1			1	1		1	851				865
	Total	70	7	15	17	54	122	88	72	87	179	494	554	415	317	249	247	960	53			4000

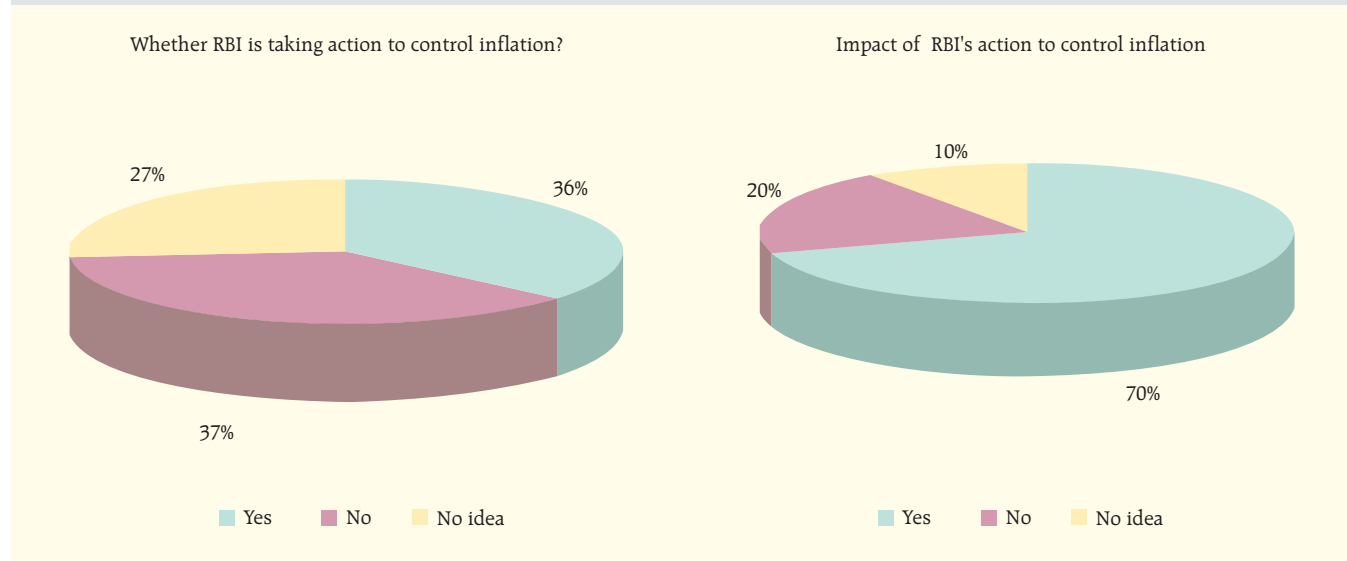
(September 2010) to determine the awareness of public of the Reserve Bank's action on inflation control. Out of the two questions in this block, the first one elicits the respondent's awareness whether the Reserve Bank

is taking necessary actions on controlling inflation whereas the second one determines whether the respondent thinks that the Reserve Bank's action has got any impact on inflation. The responses for the latest

Table 13: Cross-Tabulation of Current and 1-year Ahead Inflation

		1-year Ahead Inflation Rate																	No Idea	Total		
		< 1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	>=16				
Current Inflation Rate	< 1	3	1	2																	6	
	1-2	1	2	4	7	1											1					16
	2-3		1	4	2	4	1												4	1		17
	3-4	1	1	1	6	15	11	4	1		1		1						1	1		44
	4-5	2				17	18	19	5		2	1										64
	5-6					1	57	13	35	14	5	3	7	4	1				1	1		142
	6-7	1					1	23	10	35	9	10	3	2	2							96
	7-8	3						4	23	3	27	3	7	3	1	3			2			79
	8-9	5							7	28	12	41	10	4	3	2	1	5	8			126
	9-10	5						1	2	7	99	38	126	50	46	17	2	15	29			437
	10-11	19				1			2	4	38	160	69	226	143	161	30	18	19			890
	11-12	7							1		2	13	64	42	130	51	29	16	5			360
	12-13	3										1	4	47	33	120	42	25	4			279
	13-14	3												4	57	37	87	35	1			224
	14-15	3												1	3	38	27	176	2			250
	15-16	2															24	78	1			105
	>= 16	8									1						1	846	6			865
	Total	66	5	11	15	38	89	64	86	91	196	270	291	383	421	430	244	1222	78			4000

Chart 3: Awareness of RBI's Action on Inflation Control



survey round are presented in Chart 3. It can be seen that 36 per cent of the respondents felt that the Reserve Bank is taking necessary action to control inflation. Out of these 36 per cent respondents, 70 per cent are aware that the Reserve Bank's action has got an impact on inflation.

The category-wise distribution of the responses based on 'Block 4' points out that the awareness of both the Reserve Bank's action on inflation control as well as its impact was the highest among Financial Sector Employees and it was least in case of Daily Workers and Housewives (Chart 4).

The category-wise distribution of the responses of 'the impact of the Reserve Bank's action on inflation control' for the 36 per cent respondents who felt that the Reserve Bank is taking necessary action to control inflation is depicted in Table 14.

IV. A Bootstrap Confidence Interval for Inflation Expectations

In the previous sections, the average rates of inflation expectations are presented. Using the Bootstrap-resampling method, interval estimates of the average inflation expectations of households are

Chart 4: Category-wise Awareness on RBI's Action on Inflation Control

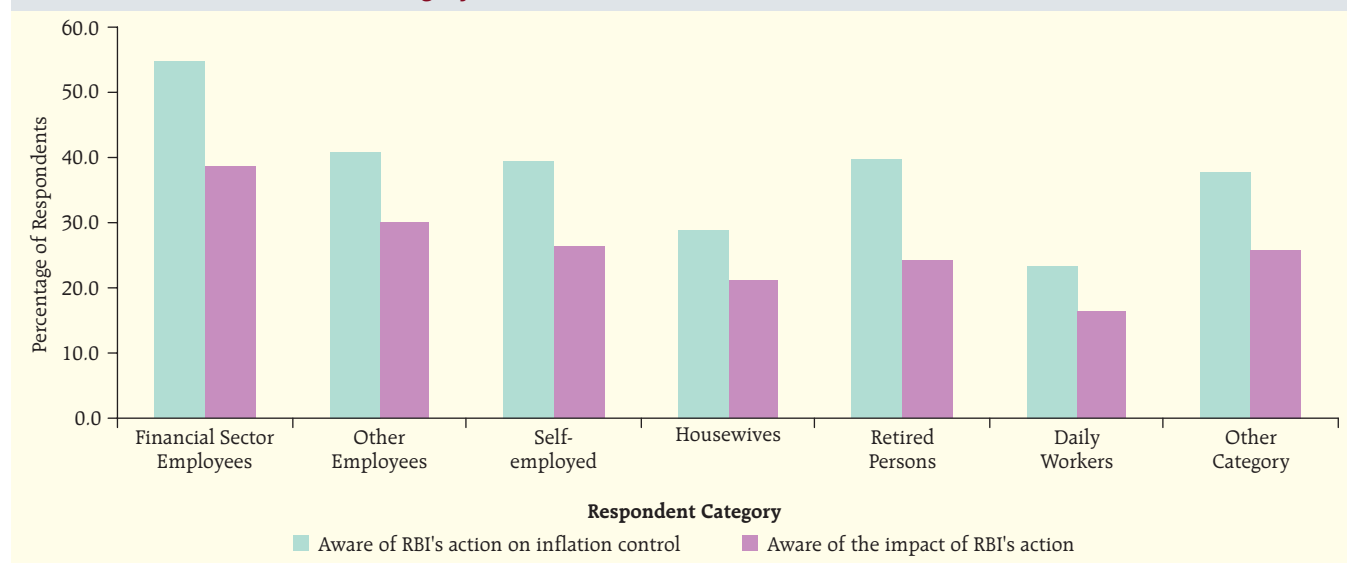


Table 14: Category-wise Responses on the Impact of the Reserve Bank's Action on Inflation Control

Category	Impact of RBI's action on inflation control (per cent of respondents)		
	Yes	No	No Idea
Financial Sector Employees	70.8	20.5	8.7
Other Employees	73.5	18.5	8.1
Self-employed	67.0	21.6	11.4
Housewives	73.4	18.1	8.5
Retired Persons	60.9	29.3	9.8
Daily Workers	69.7	18.0	12.4
Other Category	68.7	13.3	18.1

presented, so as to give a clearer picture of the error associated with the estimates of households' inflation expectations.

The Bootstrap is a re-sampling method for statistical inference, wherein the sampling distribution of a statistic can be obtained without specific knowledge of the exact distribution of the population variable under study. It is commonly used to estimate

Table 15: 99% Bootstrap Confidence Intervals (BCI) based on 10,000 Resamples

Current		3-month ahead		1-year ahead	
99% BCI for Mean	Interval width	99% BCI for Mean	Interval width	99% BCI for Mean	Interval width
(11.67,11.96)	0.29	(12.24,12.54)	0.30	(12.93,13.23)	0.30

confidence intervals. Through Bootstrapping, a confidence interval of not only population mean but also the population median and other parameters can be obtained.

Drawing 10,000 resamples using Simple Random Sampling With Replacement (SRSWR) from the sample of the survey, 99 per cent Bootstrap Confidence Intervals (BCI) for mean were obtained. The results are presented in Table 15. It is observed that the exercise leads to a confidence interval with a small width indicating that the point estimates are quite precise for estimating the population means of households' expectations of inflation.

**Statement 1: Percentage of Respondents Product-wise Expectations of
Prices for 3-months and 1-year Ahead**

1 General Prices									
Round No./survey period →	14	15	16	17	18	19	20	21	22
Options	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10
Prices will increase	89.8	92.0	93.1	95.8	97.4	95.7	95.3	96.5	98.6
Price increase more than current rate	52.9	54.9	63.5	72.2	74.6	66.9	72.7	72.2	74.3
Price increase similar to current rate	20.1	22.4	20.7	18.4	16.6	20.0	20.0	21.0	22.0
Price increase less than current rate	16.8	14.8	8.9	5.1	6.2	8.8	2.6	3.3	2.3
No change in prices	5.7	6.9	6.1	3.7	2.4	3.4	4.2	2.9	1.1
Decline in price	4.5	1.1	0.9	0.6	0.3	0.9	0.5	0.6	0.4
Options									
Prices will increase	90.6	95.6	93.7	96.3	96.3	96.5	95.2	95.6	98.9
Price increase more than current rate	59.7	64.7	62.8	69.5	68.2	62.8	70.8	70.4	77.4
Price increase similar to current rate	18.0	15.9	18.5	17.3	15.2	19.8	18.7	19.7	17.9
Price increase less than current rate	12.9	15.0	12.4	9.5	12.9	13.9	5.7	5.6	3.6
No change in prices	3.1	3.3	5.3	3.1	3.1	2.6	3.8	3.5	0.9
Decline in price	6.3	1.1	0.9	0.7	0.6	0.9	1.1	0.9	0.3
2 Food Prices									
Round No./survey period →	14	15	16	17	18	19	20	21	22
Options	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10
Prices will increase	90.9	93.6	94.6	96.3	98.0	95.9	95.8	96.7	98.1
Price increase more than current rate	53.5	58.6	64.5	76.1	81.1	70.4	74.9	74.7	73.1
Price increase similar to current rate	19.7	23.3	21.5	15.0	11.7	15.5	17.7	18.0	21.3
Price increase less than current rate	17.8	11.8	8.6	5.2	5.3	10.0	3.2	4.0	3.7
No change in prices	5.3	5.6	4.6	3.0	1.4	3.1	3.5	2.3	1.4
Decline in price	3.8	0.8	0.9	0.8	0.6	1.0	0.7	1.0	0.6
Options									
Prices will increase	91.4	96.6	94.7	96.2	96.5	96.8	95.6	95.7	98.6
Price increase more than current rate	60.3	66.2	63.6	71.0	72.1	65.9	72.8	71.7	76.4
Price increase similar to current rate	17.4	18.1	18.9	15.2	11.9	16.5	16.9	17.8	17.8
Price increase less than current rate	13.7	12.4	12.2	10.0	12.5	14.5	5.9	6.2	4.4
No change in prices	2.9	2.7	4.5	2.9	2.7	2.3	3.3	3.2	1.1
Decline in price	5.8	0.7	0.8	0.9	0.9	0.9	1.1	1.1	0.4
3 Non Food Prices									
Round No./survey period →	14	15	16	17	18	19	20	21	22
Options	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10
Prices will increase	88.6	91.0	91.4	94.7	95.8	94.0	92.9	95.4	95.9
Price increase more than current rate	47.5	48.6	51.2	59.3	63.1	57.4	60.1	64.4	58.8
Price increase similar to current rate	23.3	25.5	28.4	27.1	24.8	28.0	29.4	27.3	33.2
Price increase less than current rate	17.8	17.0	11.8	8.3	7.9	8.7	3.4	3.7	3.9
No change in prices	6.6	7.8	7.7	4.7	3.7	4.8	6.3	3.9	0.5
Decline in price	4.9	1.2	1.0	0.7	0.5	1.2	0.9	0.7	0.7
Options									
Prices will increase	89.3	94.6	91.9	95.2	94.6	94.7	92.8	94.6	97.5
Price increase more than current rate	54.0	57.5	53.1	59.6	60.7	53.0	59.7	64.0	65.2
Price increase similar to current rate	21.8	20.4	25.0	23.6	20.7	27.6	26.4	24.9	28.1
Price increase less than current rate	13.5	16.7	13.8	12.1	13.2	14.1	6.7	5.7	4.2
No change in prices	4.1	4.1	7.3	4.0	4.6	4.2	5.9	4.4	2.2
Decline in price	6.6	1.4	0.8	0.8	0.8	1.1	1.3	1.0	0.4

**Statement 1: Percentage of Respondents Product-wise Expectations of
Prices for 3-months and 1-year Ahead (contd.)**

4 Prices of Household durables									
Round No./survey period →	14	15	16	17	18	19	20	21	22
Options	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10
Prices will increase	78.2	82.5	80.0	86.8	87.7	86.4	87.1	89.7	91.9
Price increase more than current rate	32.6	33.2	37.2	38.4	45.5	44.1	45.1	45.8	45.5
Price increase similar to current rate	24.6	24.2	26.3	30.5	23.4	27.2	30.5	32.9	28.9
Price increase less than current rate	21.0	25.2	16.5	18.0	18.9	15.1	11.6	11.0	17.5
No change in prices	12.9	14.6	15.7	11.0	9.5	8.8	9.1	6.3	5.9
Decline in price	9.0	2.9	4.4	2.2	2.9	4.8	3.8	4.1	2.4
Options									
Prices will increase	79.1	84.6	80.4	88.7	87.8	85.2	87.2	89.0	94.4
Price increase more than current rate	38.6	40.1	38.4	43.3	45.5	43.2	46.6	46.3	48.6
Price increase similar to current rate	21.5	22.4	24.3	28.2	22.1	25.4	30.1	31.8	32.5
Price increase less than current rate	19.0	22.1	17.7	17.3	20.3	16.6	10.6	11.0	13.3
No change in prices	12.1	11.2	16.2	9.1	8.5	9.6	8.0	6.7	3.8
Decline in price	8.8	4.2	3.5	2.2	3.7	5.3	4.8	4.3	1.9
5 Housing Prices									
Round No./survey period →	14	15	16	17	18	19	20	21	22
Options	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10
Prices will increase	88.4	89.8	92.4	93.8	96.1	95.2	96.1	96.0	97.0
Price increase more than current rate	49.7	46.2	55.9	64.4	70.8	60.4	70.8	64.6	73.1
Price increase similar to current rate	20.8	26.4	25.4	22.0	19.8	25.4	21.0	24.8	21.3
Price increase less than current rate	17.9	17.2	11.1	7.4	5.6	9.5	4.3	6.7	2.6
No change in prices	6.8	8.3	6.4	5.0	3.4	3.5	3.1	2.8	2.1
Decline in price	4.8	1.9	1.3	1.2	0.5	1.3	0.9	1.2	0.9
Options									
Prices will increase	87.0	93.0	93.0	94.9	96.4	94.1	96.1	95.3	97.9
Price increase more than current rate	56.3	57.4	57.6	66.0	73.4	61.0	72.0	65.9	75.5
Price increase similar to current rate	20.2	20.0	22.1	21.4	15.1	21.7	19.1	21.6	19.4
Price increase less than current rate	10.5	15.6	13.3	7.6	7.9	11.4	5.0	7.9	3.0
No change in prices	5.5	5.4	5.8	3.8	2.9	4.6	2.7	3.2	1.4
Decline in price	7.6	1.6	1.2	1.3	0.7	1.3	1.2	1.5	0.8
6 Cost of Services									
Round No./survey period →	14	15	16	17	18	19	20	21	22
Options	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10
Prices will increase	86.1	87.8	87.3	92.4	91.7	89.9	94.1	94.2	94.1
Price increase more than current rate	43.9	42.2	53.1	63.7	62.7	58.6	63.2	59.2	61.4
Price increase similar to current rate	26.9	29.2	22.2	22.9	21.2	23.9	26.2	28.6	28.9
Price increase less than current rate	15.3	16.4	12.0	5.8	7.8	7.5	4.8	6.4	3.8
No change in prices	10.3	10.4	11.3	6.3	7.0	6.7	4.8	5.2	4.5
Decline in price	3.7	1.8	1.5	1.3	1.4	3.4	1.1	0.6	1.4
Options									
Prices will increase	88.4	90.7	88.1	95.0	92.3	89.9	94.2	94.3	95.2
Price increase more than current rate	52.1	49.2	54.4	65.6	62.9	57.2	63.2	58.0	64.6
Price increase similar to current rate	23.5	23.9	20.2	21.5	18.5	23.0	24.9	29.5	25.7
Price increase less than current rate	12.9	17.6	13.5	7.9	10.9	9.8	6.1	6.8	4.9
No change in prices	6.7	7.3	10.3	4.1	6.0	6.9	4.6	4.9	4.1
Decline in price	4.9	2.1	1.6	1.0	1.8	3.2	1.2	0.9	0.7

Annex



RESERVE BANK OF INDIA
DEPARTMENT OF STATISTICS AND INFORMATION MANAGEMENT
INFLATION EXPECTATIONS SURVEY OF HOUSEHOLDS,
December 2010

Respondent's Code

Round No.	Zone	City	Gender	Age group	Category	Sr. No.
22						

Block 1: Identification of the Respondent

1. Name of the Respondent: _____
2. Address of the Respondent: _____

City	State	PIN

3. Telephone/Mobile No.: _____
4. Gender of the respondent (Please tick (✓) appropriate one) [1] Male [2] Female
5. Age of the respondent (in completed years, above 18 years): _____
6. Category of the respondent (Please tick (✓) appropriate one)

Financial Sector Employees	Other Employees	Self-Employed	House Wife	Retired Persons	Daily workers	Others

Block 2: Expectations of respondent on prices in next 3 months: (Please tick (✓) the relevant cell for each Col.)

OPTIONS	General	Food Products	Non-Food Products	Household durables	Housing	Services
i Price increase more than current rate						
ii Price increase similar to current rate						
iii Price increase less than current rate						
iv No change in prices						
v Decline in prices						

Block 3: Expectations of respondent on prices in next one year: (Please tick (✓) the relevant cell for each Col.)

OPTIONS	General	Food Products	Non-Food Products	Household durables	Housing	Services
i Price increase more than current rate						
ii Price increase similar to current rate						
iii Price increase less than current rate						
iv No change in prices						
v Decline in prices						

Block 4: Respondent's feedback on Reserve Bank's Action on Price stability

Do you feel Reserve Bank of India is taking necessary action on controlling Inflation? Options-Yes/No/No idea
If Yes, do you think it has any impact on Inflation? Options- Yes / No / No idea

Block 5: Respondent's views on the following inflation rates: (Please tick (✓) the relevant cell)

Parameters	Options								
	Less than 1%	1 - 2 %	2 - 3 %	3 - 4 %	4 - 5 %	5 - 6 %	6 - 7%	7 - 8%	8 - 9%
Current inflation rate	9 - 10%	10 - 11%	11 - 12%	12 - 13%	13 - 14%	14 - 15%	15 - 16 %	16 % and above	No idea
	Less than 1%	1 - 2 %	2 - 3 %	3 - 4 %	4 - 5 %	5 - 6 %	6 - 7%	7 - 8%	8 - 9%
Inflation rate after 3 months	9 - 10%	10 - 11%	11 - 12%	12 - 13%	13 - 14%	14 - 15%	15 - 16 %	16 % and above	No idea
	Less than 1%	1 - 2 %	2 - 3 %	3 - 4 %	4 - 5 %	5 - 6 %	6 - 7%	7 - 8%	8 - 9%
Inflation rate after one year	9 - 10%	10 - 11%	11 - 12%	12 - 13%	13 - 14%	14 - 15%	15 - 16 %	16 % and above	No idea
	Less than 1%	1 - 2 %	2 - 3 %	3 - 4 %	4 - 5 %	5 - 6 %	6 - 7%	7 - 8%	8 - 9%

Block 6: Please specify the amount you have paid for the purchases of the following major food items during the last one month

Milk (₹ per litre)	Wheat (₹ per Kg.)	Wheat-atta (₹ per Kg.)	Rice (₹ per Kg.)

Annex (Contd.)

Description of Parameters

Food Products	<ul style="list-style-type: none"> (i) Cereals (Wheat, Rice, Pulses <i>etc.</i>), Fruits, Vegetables, Sugar, Edible oils, Dairy products and bakery products, Tea, coffee (ii) Meat, fish and sea products (iii) Soft drinks, carbonated and mineral water, Beverages (iv) <i>Bidi</i>, cigarette and other tobacco products like <i>zarda</i>, pan masala and related products, <i>etc.</i>
Non-Food Products	<ul style="list-style-type: none"> (i) Clothes and wearing apparels (ii) Pharmaceutical and Medicines, Cleaning and polishing products, Soaps and detergents (iii) Rubber and rubber products, Tyres and tubes (iv) Plastic and plastic products (v) Leather and leather products (footwear, <i>etc.</i>) (vi) Paper and paper products (stationery, <i>etc.</i>) (vii) Petroleum and coal products (viii) Basic chemical and chemical products, Dyes and dye-stuff (ix) Basic metal non-metallic mineral products, <i>etc.</i>
Household Durables	<ul style="list-style-type: none"> (i) Audio-visual equipment (Radio, television, video camera, telephone, microphone, mobile, <i>etc.</i>) (ii) Furniture, Wood and wood products (iii) Washing machines, Air cooler and Air conditioner (iv) Personal computer (v) Watches and clocks, <i>etc.</i>
Housing	<ul style="list-style-type: none"> (i) Construction and maintenance of residential/office premises (ii) Site preparation
Services	<ul style="list-style-type: none"> (i) Computer-related activities like computer hardware/software consultancy, data processing, computer-related education institute (ii) Health and social work (iii) Banking/postal services (iv) Activities of membership organisations (v) Other business activities like washing, cleaning, hairdressing, courier activities, <i>etc.</i>

Annex (Concl.)

Code Lists for filling in Respondents' Codes:

A. Zone Codes

Sr.No.	Zone	Zone Code
1	Mumbai	1
2	Kolkata	2
3	Chennai	3
4	Delhi	4

B. City Codes

Zone	Sr.No	City Name	City Code
Mumbai	1	Mumbai	600
	2	Ahmedabad	540
	3	Bhopal	700
Kolkata	4	Kolkata	100
	5	Guwahati	010
	6	Patna	060
Chennai	7	Chennai	900
	8	Hyderabad	800
	9	Bangalore	840
Delhi	10	Delhi	290
	11	Jaipur	500
	12	Lucknow	200

C. Gender Codes

Sr.No.	Gender	Gender Code
1	Male	1
2	Female	2

D. Category Codes

Sr. No.	Category of Respondent	Category Code
1	Financial sector employees	1
2	Other employees	2
3	Self-employed	3
4	Housewife	4
5	Retired persons	5
6	Daily workers	6
7	Other category	7

E. Age Group Codes

Sr.No.	Age Group	Age group code
1	Up to 25 years	1
2	25 to 30 years	2
3	30 to 35 years	3
4	35 to 40 years	4
5	40 to 45 years	5
6	45 to 50 years	6
7	50 to 55 years	7
8	55 to 60 years	8
9	60 years and above	9