NCAER

NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

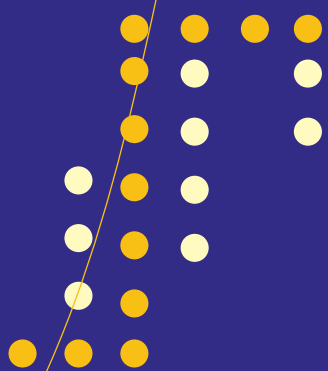
How Households Save and Invest: Evidence from NCAER Household Survey

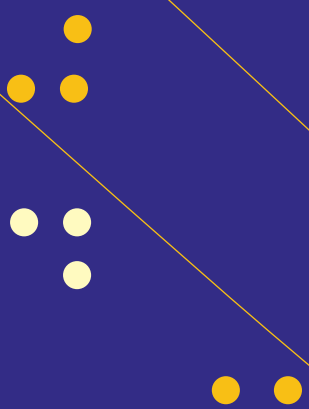
Main Report

July 2011

Sponsored by

Securities and Exchange Board of India (SEBI)





National Council of Applied Economic Research

How Households Save and Invest: Evidence from NCAER Household Survey

MAIN REPORT

Sponsored by

Securities and Exchange Board of India (SEBI)

July 2011

Study Team

Report Prepared by

Hari K. Nagarajan (Project Advisor)

D.V. Sethi (Consultant)

Kailash C. Pradhan

Shrabani Mukherjee

Sudhir K. Singh

Survey

D.V. Sethi

J.P. Singh

Assistance[1]

Angelica Bharthi

Upasana Sharma

K.S. Urs

1. Mr Anuj Sharma and Mr Rajender Singh provided assistance in certain stages of the survey.

July 2011

Published by
Jatinder S. Bedi
Secretary

National Council of Applied Economic Research
Parisila Bhawan
11, Indraprastha Estate
New Delhi 110 002
T +91 11 23379861-3
F +91 11 23370164
E infor@ncaer.org
W www.ncaer.org

Designed and printed at
Cirrus Graphics Pvt. Ltd.
B-62/14, Phase II, Naraina Industrial Area, New Delhi 110 028
T +91 9811026274

Contents

List of Figures vi

List of Tables viii

Preface xi

Executive Summary xiii

1. Introduction and Sampling Strategy 1

2. Developments in the Indian Capital Markets 4

3. Estimation of Number of Investors/Non-Investors and their Profile at the National Level 14

4. Distribution of Savers and Investors in Urban India 18

5. Profiling Savings Behaviour in Urban India 32

6. Factors that Affect Household Level Allocation Across Investment Options 42

7. Measuring Attitudes Towards Risk 52

8. Factors Affecting Investment: Role of SEBI and Sources of Information 77

9. A Case Study of Rural Households 88

10. Conclusions 99

Variable Description 102

Glossary 103

List of Figures

2.1: Capital raised from the primary market 5
2.2: Resource mobilization by Mutual Funds 6
2.3: Trends in FII investments since 1993 6
2.4: Trends in Indian Indices 7
4.1: Distribution of savers, investors and others 18
4.2: Proportion of investors, savers and others by town class 19
4.3: Distribution of investors and savers and others within town class 19
5.1: Distribution of savers in various saving options 38
5.2: Choice of savings portfolio by years of schooling of a saver 38
5.3: Choice of savings portfolio by marital status of saver 38
5.4: Choice of savings portfolio by occupation 38
5.5: Choice of savings portfolio by income categories 38
5.6: Choice of savings portfolio by asset ownership categories 39
5.7: Savings time horizon by income categories 39
5.8: Savings horizon by asset ownership categories 39
5.9: Choice of savings portfolio by age group 39
5.10: Choice of savings portfolio by gender 40
5.11: Savings time horizon by years of schooling 40
5.12: Savings time horizon by marital status 40
5.13: Savings time horizon by age of saver 40
5.14: Savings time horizon by sex of savers 41
6.1: Distribution of investment across various instruments 42
6.2: Choice of investment by years of schooling 44
6.3: Choice of investment by marital status 44
6.4: Choice of investment by occupation 44
6.5: Choice of investment by asset ownership categories 45
6.6: Choice of investment by gender of investor 45
6.7: Investment time horizon by years of schooling 45
6.8: Investment time horizon by marital status 45

6.9: Investment time horizon by occupation 46
6.10: Investment time horizon by income category 46
6.11: Investment time horizon by asset ownership categories 46
6.12: Investment time horizon by age 47
6.13: Investment time horizon by gender of investor 47
6.14: Investment behaviour of households by asset ownership class (when windfall gain is ₹ 50,000) 47
6.15: Investment behaviour of households by asset ownership class (when windfall gain is ₹ 5,00,000) 48
6.16: Investment behaviour of households by asset ownership class (when windfall gain is ₹ 10,00,000) 48
7.1: Risk scale across education 55
7.2: Perceptions across education 55
7.3: Risk scale across occupations 55
7.4: Perceptions across occupations 56
7.5: Risk scale across incomes 56
7.6: Perceptions across incomes 56
7.7: Risk scale across asset class 57
7.8: Perceptions across asset class 57

List of Tables

2.1: Capital raised through Public and Rights Issues 5
2.2: Saving and investment rates 2000—01 to 2009—10 12
2.3: Savings of the household sector in financial assets 13
3.1: Estimated investor and non-investor households by rural and urban 14
3.2: Estimated investor and non-investor households by rural and urban 14
3.3: Distribution of investors across investment portfolio 14
3.4: Distribution of investors across investment portfolio 15
3.5: Choice of saving instruments (All India) 15
3.6: Reason for not investing in secondary market (All India) 16
4.1: Estimates of investors, savers, and others by region 19
4.2: Percentage share of investors, savers, and others by region 19
4.3: Estimates of investor households by type of investment and town class 19
4.4: Percentage of distribution of investor households by type of investment and town class 20
4.5: Estimates of total investor households by type of investment and region 20
4.6: Distribution of households by type of investment and region 20
4.7: Estimates of only investor households by type of investment and region 20
4.8: Distribution of investor households by type of investment and region 21
4.9: Estimates of savers by town class 21
4.10: Percentage of savers by town class 21
4.11: Estimates of savers by region 21
4.12: Percentage of savers by region 22
4.13: Estimates of other households by town class 22
4.14: Percentage of other households by town class 22
4.15: Estimates of other households by region 22
4.16: Percentage of other households by region 22
4.17: Proportion of investors, savers and others by city 23
4.18: Distribution of investors, savers and others within city 24
4.19: Percentage share of investors by city within region 25
4.20: Estimates of investor households by education level 26
4.21: Percentage of investor households by education level 26
4.22: Estimates of investor households by income class 26
4.23: Percentage of investor households by income class 26
4.24: Estimates of investor households by occupation category 26
4.25: Estimates of investor households by occupation category 27
4.26: Estimates of investor households by gender 27
4.27: Percentage of investor households by gender 27
4.28: Estimates of investor households by age 27

4.29: Percentage of investor households by age 27
4.30: Estimates of savers by education 28
4.31: Percentage of savers by education 28
4.32: Estimates of savers by income 28
4.33: Percentage of savers by Income 28
4.34: Estimates of savers by occupation 28
4.35: Percentage of savers by occupation 29
4.36: Estimates of savers by gender 29
4.37: Percentage of savers by gender 29
4.38: Estimates of savers by age 29
4.39: Percentage of savers by age 29
4.40: Estimates of other households by education 30
4.41: Percentage of other households by education 30
4.42: Estimates of other households by income 30
4.43: Percentage of other households by income 30
4.44: Estimates of other households by occupation 30
4.45: Percentage of other households by occupation 31
4.46: Estimates of other households by gender 31
4.47: Percentage of other households by gender 31
4.48: Estimates of other households by age 31
4.49: Percentage of other households by age 31
5.1.a: Saving behaviour of households with budget constraints (when windfall gain is ₹ 50,000) 33
5.1.b: Saving behaviour of households with budget constraints (when windfall gain is ₹ 5,00,000) 34
5.1.c: Saving behaviour of households with budget constraints (when windfall gain is ₹ 10,00,000) 35
5.2.a: Household demographic profile by level of savings 36
5.2.b: Distribution of households by income category and education level 36
5.2.c: Distribution of households by income category and asset level 37
5.3: Choice of savings instruments by household characteristics (per cent) 37
6.1: Households' demographic profile by level of investment (per cent) 43
6.2: Investment behaviour of households (when windfall gain is ₹ 50,000) 49
6.3: Investment behaviour of households (when windfall gain is ₹ 5,00,000) 50
6.4: Investment behaviour of households (when windfall gain is ₹ 10,00,000) 51
7.1: Relative risk aversion of investing households 53
7.2: Profile of households and their behaviour towards risk tolerance 54
7.3.1a: Measuring households' perceptions of risk (investing HHs) using vignettes 58
7.3.1b: Measuring households' perceptions of risk (non-investing HHs) using vignettes 59
7.3.2a: Measuring households' perceptions of risk (investing HHs) using vignettes 60
7.3.2b: Measuring households' perceptions of risk (non-investing HHs) using vignettes 61
7.3.3a: Measuring households' perceptions of risk (investing HHs) using vignettes 62
7.3.3b: Measuring households' perceptions of risk (non-investing HHs) using vignettes 63

7.3.4a: Measuring households' perceptions of risk (investing HHs) using vignettes 64
7.3.4b: Measuring households' perceptions of risk (non-investing HHs using vignettes 65
7.3.5a: Measuring households' perceptions of risk (investing HHs) using vignettes 66
7.3.5b: Measuring households' perceptions of risk (non-investing HHs) using vignettes 67
7.3.6a: Measuring households' perceptions of risk (investing HHs) using vignettes 68
7.3.6b: Measuring households' perceptions of risk (non-investing HHs) using vignettes 69
7.3.7a: Measuring households' perceptions of risk (investing HHs) using vignettes 70
7.3.7b: Measuring households' perceptions of risk (non-investing HHs) using vignettes 71
7.3.8a: Measuring households' perceptions of risk (investing HHs) using vignettes 72
7.3.8b: Measuring households' perceptions of risk (non-investing HHs) using vignettes 73
7.3.9a: Measuring households' perceptions of risk (investing HHs) using vignettes 74
7.3.9b: Measuring households' perceptions of risk (non-investing HHs) using vignettes 75
8.1: Perceptions of investors about the perceived role of SEBI in the IPO market 78
8.2: Perceptions of investors about the perceived role of SEBI in the Mutual Fund market 78
8.3: Perceived role of SEBI in the secondary market 78
8.4: Perceptions about role of SEBI and problems faced while investing in secondary market 79
8.5: Primary sources of information when applying for an IPO 80
8.6: Sources of information and satisfaction with the IPO process 80
8.7: Sources of information for Mutual Fund investments by household characteristics 81
8.8: Primary factors that affect the decision by secondary market investors to invest by household characteristics 82
8.9: Reasons for not investing in secondary markets by household characteristics 83
8.10: Factors influencing investment decisions and problems while investing in the secondary markets 84
8.11: Most preferred source of information for current investments in all markets 85
8.12: Most preferred source of information for current investments in all markets 86
9.1: Development indicators of sample villages 88
9.2: Distribution of investment portfolios for villages far from a town 89
9.3: Distribution of investment portfolios for villages near a town 90
9.4: Distribution of investment portfolios 91
9.5: Percentage distribution of households by investment levels and households' characteristics 92
9.6: Reasons for not investing in secondary markets according to households' characteristics 93
9.7: Percentage distribution of households by investment levels and households' characteristics 94
9.8: Relative risk aversion profile of households 95
9.9: Time horizon for savings and investment 96
9.10: Percentage distribution of households by saving levels and households' characteristics 97
9.11: Households' portfolio choice by household characteristics 98

Preface

The global economy is on a recovery path after the shocks of the severe financial and economic crises of 2008 and 2009. The Indian financial sector was able to withstand the global shocks during this period and emerge stronger. The foreign capital inflows have resumed and the capital markets have regained the dynamism. The experience has shown that the need for greater understanding and careful monitoring of the financial sector is essential for designing policies for sustaining high rate of economic growth with stability.

This study, third in this area supported by Securities and Exchange Board of India (SEBI), has focused on understanding the behaviour of households as investors in various financial instruments which are traded in markets regulated by SEBI. As investors, the households evaluate a variety of options available to them including those traded in formal markets under regulation. To this extent, the study has looked at a range of financial saving instruments.

In this study, we have used a sample of about 38,000 households in 44 cities and 40 villages across the states. It is estimated that there are 24.5 million investors in India. The study points to the relatively low rates of participation by the households in the securities market, though there has been growth in the investor population over the past 10 years since the last survey carried out by NCAER. Fifty four per cent of all households treat commercial banks and insurance schemes as their primary choice for savings at all India level. The degree of risk aversion is extremely high in Indian households. Households engaging in more risky instruments are only at the margin. Education plays a significant role in influencing risk preferences. The degree of risk was the highest among investors with more than 15 years of schooling. Villages that are close to urban centres significantly participate in financial markets particularly in the mutual funds. Other characteristics of rural households, like marital status and gender, do not significantly alter the distribution of investment.

I would like to place on record my deep appreciation for the confidence placed in NCAER by Shri C.B. Bhave, former Chairman, SEBI and Shri U.K. Sinha, present Chairman, SEBI for entrusting us with this study. Shri Nagender Parakh, Chief General Manager and Dr Sarat Malik, Joint Director, SEBI participated in all stages of this study as partners. Their knowledge of the securities market has been invaluable in putting together this final report. A special word of thanks is also due to Shri Prashant Saran, Whole Time Member of SEBI, for his valuable advice and guidance. Dr Hari K. Nagarajan, Senior Fellow, directed the project at NCAER and Shri D.V. Sethi provided constant support as a Consultant throughout the study.

Thousands of households participated in the sample survey and I am deeply indebted to their voluntary engagement in the data collection process. Without their cooperation, the survey would not have been possible.

I hope that the study will be found use-

ful in making the capital markets within the reach of millions of households who will look for good and safe returns from the financial markets.

Shekhar Shah
Director-General
NCAER

Executive Summary

The third NCAER survey of households in urban and rural India to examine in detail the various aspects of income, expenditure, savings, and investments was recently completed. In many respects this survey differed from its predecessors at NCAER in both its depth and diversity of information that was collected from households. Three points are worth noting: a) a comprehensive profile of risk taking ability of households as well as individual earners, savers, and investors was constructed, b) the expected and the extant role of the regulator, viz. SEBI was articulated from the point of view of the various constituents of the households, and c) an attempt was made to link the income profile with market participation, role of the regulator, information, and risk profile.

The broad objectives of this survey were: (1) to prepare a comprehensive profile of savings and investment behaviour in the context of income and consumption patterns,(2) to create a profile of investors' preferences for various market instruments like IPOs, securities and mutual funds and its significance in the growth in primary and secondary security markets. The study examines attitudes towards different types of savings and investment alternatives, (3) to obtain the risk profile of the households and relate this to savings and investment behaviour and (4) to understand the impact of rules and regulations framed by the Securities and Exchange Board of India (SEBI) on households' choice of investment patterns.

The survey comprised of two parts. First a comprehensive listing of households in various cities and villages was undertaken. The listing was done to select sample of pure savers, investors, non-investors, and non-savers. This exercise included identifying the distribution of financial market and non-financial instruments preferred by households to "park" part of their disposable income. The urban sample was selected through a three stage process where the cities and towns excepting Mumbai, New Delhi, Kolkata, Hyderabad, Chennai, and Bangalore were selected randomly. From within the cities and towns the urban blocks were next identified and selected. Villages were selected using the following criteria: Twenty villages within a close proximity (less than 20 kilometres from urban centres) were selected for the sample. A second group of twenty villages that were considered remote (more than 20 kilometres) from urban centres were selected next. 70, 159 households each were listed in the various urban blocks and villages respectively.

The total sample was made up of 38,412 households selected from 44 cities and 40 villages. A detailed questionnaire was then administered to the selected households. The process of listing was also done in villages. However, after repeated listing in more than 50 villages across the country, it was found that the extent of participation in financial markets was extremely low. Hence it was decided to present the findings of investments and savings separately for rural households based on a carefully selected sample of 40 villages.

The broad findings are as follows:

National Level

- The percentage of investors is nearly 20 in urban areas while it is much lower (6 per cent) in rural India.
- The estimated number of investor households in India is 24.5 million who constitute about 11 per cent of total households.
- The strong preference of investors is towards mutual funds (43 per cent) and secondary markets (22 per cent). In urban areas, 41 per cent of investors invest in mutual funds and 21 per cent secondary markets, whereas, 46 per cent rural population chooses mutual funds and 22 per cent secondary markets.
- There is a significant magnitude of small savers among all households. Eleven to 25 per cent of all households save in post office savings schemes.
- More that 16 per cent of the highly educated non-participants, as well as 16 per cent of the middle and upper income groups feel that non-participation is due to the perceived non-safety of returns.
- The survey reveals that a large proportion of non-participants is satisfied with the role of the regulator SEBI, in regulating markets. Only between 2 to 10 per cent of the non-participants across selected household groups indicate dis-satisfaction with the role of the market regulator.

Urban India

- In the present study the estimated number of urban investor households is 15.23 million which constitute 21 per cent of all urban households. The estimated saver households and other households are 34 million (46 per cent) and 25 million (33 per cent), respectively.
- A majority of households do not participate in financial markets. The distribution of participation is not spatially even. For instance, 55 per cent of all investors are found in the western region.
- Relaxation of budget constraints does not lead to households taking higher levels of risks. The allocations are still in avenues such as commercial bank deposits and real estate.
- The primary destination of savings across household categories is insurance schemes and banks.
- Post office savings schemes are, for obvious reasons, less preferred compared to commercial bank deposits and accounts as such schemes have cumbersome procedures and offer inadequate returns. Nearly 72 per cent of all households treat commercial banks and insurance schemes as their primary choice for savings. Households that have very high levels of liquidity preference choose savings deposits over fixed deposits. Pension plans are preferred by households with higher levels of education. Preference for insurance schemes and savings in regional banks decline with increasing levels of education. Preference for saving in commercial banks for married households is marginally greater than for unmarried households (38.9 per cent to 33.7 per cent). Households whose occupation is business or agriculture and allied activities choose commercial banks as the preferred destination for their savings. Only 6 per cent of all households, whose primary occupation is agriculture, allocate a part of their savings to pension plans. Preference for insurance schemes (in particular, for LIC) increases at extremely low levels of asset ownership. The majority of households across income categories prefer to have a saving horizon exceeding 5 years. Females prefer pension plan marginally more than males (7.4 per cent compared to 4.1) and 49.7 per cent of older persons prefer savings in commercial banks. This reflects their need for liquidity. If time horizon is conditioned on the demographic characteristics of households, we observe the following: a) 36.3 per cent of all married persons have a time horizon of 3 to 5 years. b) This number drops to 33.5 per cent for unmarried persons. c) 55.4 per cent of all unmarried persons save for periods exceeding 5 years. d) Older persons have a shorter time horizon on their savings. e) Females in general choose longer time horizons for their savings options compared to their male counterparts.
- Household income is a relatively minor determinant of participation in financial market. Instead, factors such as education, information, as well as quality information influence the magnitude and extent of participation to a greater extent.
- Only 21.25 per cent households prefer to invest in secondary markets. Households with a higher level of education invest more in this option. It was found that 26 per cent households with more than 15 years of education prefer to invest in secondary markets. Twenty eight per cent of businessmen and 21 per cent of white-collar workers prefer to invest in this option. Households that own higher levels of fixed assets generally prefer to invest in secondary markets. More than 18 per cent of unmarried households chose to invest in the complex derivative market, which reflects their greater tendency for taking risks compared to their married counterparts. During periods of high inflation, bonds are the preferred option for households with lower levels of assets as high interest rates are bound to lower bond prices. Male investors invest more through IPOs than their female counterparts. Households with a higher level of education prefer a longer time horizon for the investment. Households with higher incomes opt for investments of longer duration.
- In case of windfall gains, households with low level of assets engaged in risky behaviour (participated in the derivative market) compared to households that own progressively higher level of assets. If windfall gains are increased in magnitude, there continues to be a positive relationship between levels of education and participation in the secondary markets.
- The degree of risk aversion is extremely high in Indian households. It is only at the margin that households engage in risky ventures. We note that risk taking increases only at very high income levels or if there is a significantly large windfall gain.
- The majority (53 per cent) of surveyed investing households fall in the least risk taker category. The degree of risk-taking is, on average, high among earning households located in cities such as Bangalore, Hyderabad and Ahmedabad (Town Class 2, where the population is between 50 lakh — 1 crore). Education plays a significant role in risk-taking activity. The degree of risk was the highest among investors with more than 15 years of schooling at the all-India level. With the increase in educational attainment, risk tolerance increases. Married investors take less risk averse than their unmarried counterparts. On average females take less risk than their male counterparts. Business and white-collar workers hold more risky assets than their blue-collar counterparts. The degree of risk-taking is inversely proportional to age; risk-taking declines with the age of the persons. And we find that nearly 60 per cent of

older persons fall in the lowest risk scale.

- Quality and source of information significantly influence the extent of participation in financial markets. Our survey indicated that there is much to be done to provide the current and potential participants with optimal levels of information.
- About 40 per cent investors are of the opinion that in the book building process, the prices of the IPO entering the market may not be transparent and the retail investors do not have sufficient knowledge about SEBI's role. Around 32 per cent of participants feel that the regulator SEBI and MCA may like to take additional steps related to conflict between shareholders and firms. Around 21 per cent of all investors are not clear about the role of the regulator in preventing unexplained volatility, though it is the perceived role of SEBI to investigate sources of large fluctuations in price. It is the role of the regulator to de-list the non-performing firms; yet, 24 per cent of all investors are not aware of the role of the stock exchange or the regulator or the MCA in this process. Thirty nine per cent of all investors expect SEBI to undertake actions against inadequate information about investment choices. Nearly 50 per cent of all market participants feel that exchanges/SEBI is required to take adequate measures to ensure smooth functioning of the market. The source of retardation in the rate of participation by Indian households in the market is due to information asymmetry and the poor quality of information. While applying for an IPO, investors across all income/education categories list newspapers as the single source of information. A significant number of investors find the advice of brokers more useful. The survey reveals that while participation in mutual funds as well as in the secondary market, a significant majority depends on the advise given by intermediaries and friends.
- A significant source of retardation in the rate of participation by Indian households in markets is due to information asymmetry and poor quality of information. While applying for an IPO, investors across all income / education categories list newspapers as the single source of information. A significant number of investors find the advice of brokers more useful. The survey reveals that while participating in mutual funds as well as in the secondary market, a significant majority depends on the advice given by intermediaries and friends.

Rural India

- The rural survey reveals the following facets of households. The survey reveals that human capital endowments in the form of literacy rate and household size are superior for households located closer to urban centers. A large proportion of these households have access to telephony and communication networks.
- Households in villages that are close to urban centers significantly participate in markets, particularly in the mutual fund market. Participation in mutual funds, in particular, is significantly influenced by the level of education. Demographic characteristics of rural households, like marital status and gender, do not significantly alter the distribution of investment. There is a significant degree of non-investment by rural households because of: a) inadequate information, and b) lack of adequate skills. A significantly larger percentage of rural households across income and asset classes as well as demographics are risk-averse compared to their urban counterparts. Since rural households are relatively more risk-averse, the time horizon for savers and investor is medium term (3–5 years). The level of savings increases with educational attainment and asset holdings. The magnitude increase in savings conditioned on asset holdings is significantly lower when compared to investments.

General Observations

Further examination of data lead to following observation on the savings and investment profile of households, the structure of savings and investment, the destination of investment, the profile of investors and savers and their perceptions and motivations.

Households and individual investors supply a pool of capital that creates liquidity in the market and make it dynamic. Thus, household income, its consumption and its distribution are fundamental to any economic analysis. These determine the nature and rate of saving in an economy which, in turn, implies the rate of economic growth. Sustained research in this field thus becomes imperative in order to understand the patterns of savings and capital formation in our country. The observations below are drawn from the responses of the urban households as bulk of the investor households is in the urban areas.

1. The majority of investors are urban in central and eastern India. This reflects the fact that the degree of urbanization is weaker in these regions. India still has a significant percentage of households who neither use formal savings options nor participate in financial markets. The options available to them include commodity futures, investment in real estate, direct capital investment in business, private funds, and investment in precious metals like gold and art.
2. Of these items, the commodities and futures markets are the most risky options. The more educated and white collar persons prefer these options. The effect of income is not pronounced within any of these options. It is also important to understand the relationship between demographic characteristics and time horizon of investment, particularly for the regulator. If households in general have short-term investment horizons, then the regulator can expect to see a significant degree of speculative activities in the markets.
3. It is important for regulators to understand households' ability to take risk as well as the general appetite for risk. The consequences of risk-taking activity on the part of households are often observed in the market place. For example, markets for stocks, derivatives and commodity futures are inherently more risky avenues for household. On the other hand, the market for mutual funds and bonds are markedly less risky options available to households. A significant movement in the stock market and allied risky market can be an indication that households and institutional investors are increasingly going to take risks.
4. Typically we would want to attribute the ability on the part of households to engage in risky behaviour (as it relates to participation in market) to: a) a degree of information asymmetry in the market place, b) the extent of regulation of markets (perceived water-tight measures against big bulls, etc.) and c) household budget constraints. The market regulator can affect the first two factors but can feel the consequences of the third in the market place. That is, due to macroeconomic forces the budget constraints of the household can get

relaxed and this can lead previously non-participating households to participate and current participants to increase their allocation; risk-taking behaviour could increase faced with the increase in liquidity in the household.

5. Risk in finance and business is the variability of returns from an investment. This reflects the degree of uncertainty of returns on an asset. The greater the variability in return from investments, the greater is the perceived risk. Risk tolerance is the degree of uncertainty that an investor is willing to absorb with respect to a negative change or variability in the value of his/her portfolio.
6. Though SEBI has put in place mechanisms for the smooth functioning of the IPO market, it is worrying to note for example that about 40 per cent of investors believe that in the book building process prices for the IPO entering the market are either not transparent or are not aware of SEBI's role. The magnitude of lack of awareness of SEBI's role in various stages of an IPO is small but quite significant. Thirty two per cent of participants in the IPO process feel that the procedure for refund for non-allocation are either inadequate or the role of SEBI in this is perceived to be non-transparent.
7. This survey clearly suggests that investors expect SEBI to put in place a set of mechanisms that would enable investors to effectively access the mutual fund market. SEBI has put in place a large number of disclosure and corporate governance norms that are related to transparency, conflict of interest, etc. Even then, nearly 80 per cent of all participants think that the regulator must take additional steps related to conflict between shareholders and firms. Since such conflict can affect share prices, they will have a cascading effect on the value of the unit of mutual fund held by the investors. We therefore find from the survey that households interpret movement of the value of the unit of a mutual fund in which they are participating to be affected by conflict between shareholders and firms. The survey participants expect the regulator to correctly articulate the source of fluctuations of unit prices. It is puzzling to find a persistently high degree of lack of knowledge about the role of the regulator in the mutual fund markets.
8. SEBI could play a significant role in removing or minimizing the extent of information asymmetry with investors. We find that 21 per cent of all investors are not clear about the role of the regulators in preventing unexplained volatility. Even though SEBI is expected to de-list non-performing firms, 24 per cent of all investors are not sure about the role of the regulators in this process.
9. Interestingly even with online trading a significant percentage of current, past and potential participants expect a degree of price rigging. To correct these ills, the survey suggests that a significant number of investors expect SEBI to take action, such as monitoring post public issues (39 per cent), de-listing (29 per cent) and investigating undue price fluctuations (32 per cent). However given the continued prevalence of the bullish market nearly 50 per cent of all market participants say that SEBI has not put in adequate mechanisms to prevent the recurrence of the big bulls (who drive up the market without fundamental reasons) in the market.
10. Based on the findings of the survey, it is our opinion that the source of retardation in the rate of participation by Indian households in the market is due to both information asymmetry as well as the poor quality of information. For example, we find that a single important source of information for investors across all income/education categories while applying for an IPO is newspapers. This ought to be of serious significant concern for the regulator since both current and potential market participants are basing their judgment on inadequate source of information. SEBI must undertake to fine-tune the investor camps so that households avoid their unreliable sources of information. Given the existing scenario related to the provision of information, there is nothing surprising with the findings that most market participants are only moderately satisfied with the information provided by regulators and, in fact, find information from intermediaries such as brokers more useful.
11. When we examine the reasons for not participating in markets we find that (in descending order) they are inadequate information, lack of skills and uncertainty about safety of returns. Households have also identified inadequate financial resources as constraint on participation. However this is not within the control of SEBI and we therefore chose not to elaborate on this aspect of non-participation at this point. It is evident that SEBI could take additional steps to impart skills, reduce the information asymmetry at the time of participation and put in place more water-tight measures to guarantee the safety of returns.
12. The constraints faced by participating in the secondary market seem to vary depending on the source of information. Interestingly, we find that the source of information is based on the print media, a stock market website or advice from brokers, but a significant constraint seems to be inadequate information about choices available in the market. This implies that a participant who is likely to base his/her investment decision on informal sources of information is likely to make sub-optimal choices in the market place. Given that most investors use such informal sources, it is imperative that SEBI should participate in the market for information. This will help prevent market participants from making sub-optimal choices as well as reduce existing institutional bottlenecks. At present the preferred source of information are indeed the print media, friends and brokers. Both the SEBI and BSE/NSE websites are performing only a marginal role in providing information.

1 Introduction and Sampling Strategy

Background

The allocation of resources within households has always been of interest to researchers and policy makers. It is widely accepted that the development of a nation's productive capacity requires capital formation which can be done either by utilising domestic resources or through external assistance. Within domestic resources, a nation's savings and investment propensities play a key role in reaching targeted economic growth as well as dynamic stability in the capital market, but an understanding of aggregate propensity alone is not sufficient. What is required is a reasonably sound idea of the savings and investment profile of households, the structure of savings and investment, the destination of investment, the profile of investors and savers and their perceptions and motivations.

Households and individual investors supply a pool of capital that creates liquidity in the market and make it dynamic. Thus, household income, its consumption and its distribution are fundamental to any economic analysis. These determine the nature and rate of saving in an economy which, in turn, implies the rate of economic growth. Sustained research in this field thus becomes imperative in order to understand the patterns of savings and capital formation in our country.

Except for a few household surveys in the late 90s, very few studies estimate the profile of households' saving and investment for both rural and urban areas in India. The Micro Impact of Macro and Adjustment Policies in India (MIMAP) survey in 1996 and the detailed report on "Household Savings and Investment Behaviour in India in 2003" by EPW Research Foundation and NCAER was an attempt in this direction. Although these studies describe India's saving performance in detail, they do not sufficiently describe the analytical framework of households' decision-making determinants and the factors that determine the propensity to save and invest, which are important from a policy perspective.

To understand and assist in policy-making, the Securities and Exchange Board of India (SEBI) has been promoting research in the Indian securities market. The NCAER–SEBI Survey (1999) provided disaggregated data on household income, expenditure, asset holdings, savings and investment in the share market. Another study by NCAER on Compliance cost of SEBI regulations in 2002 presented findings on the Indian capital markets. While these surveys have been useful in reporting distribution and investors' profiles, not much can be inferred about actual household behaviour in terms of attitudes towards risk, the relationship of such attitudes with savings and investment patterns, liquidity preferences, etc.

In order to fill this research gap, this study attempts to capture the details of earning members of households, their perceptions about various investment and savings options, the time horizon for saving and investment, and financial risk tolerance assessment along with total income and its distribution separately for the main cities, states and villages of India for the

year 2008-09. This survey examines incomes, expenditures, savings, and investments in detail by providing a suitable structure (for example, vignettes on the risk profile of households). The survey also examines the risk worthiness of households in investment in different types of security markets and their perceptions about the role of SEBI in this context.

Focus of the Study

The objectives of the study are as follows:

1. To prepare a comprehensive profile of savings and investment behaviour in the context of income and consumption patterns.
2. To create a profile of investors' preferences for various market instruments like IPOs, securities and mutual funds and its significance in the growth in primary and secondary security markets. The study examines attitudes towards different types of savings and investment alternatives.
3. To obtain the risk profile of the households and relate this to savings and investment behaviour. The study assesses the risk tolerance of investor and non-investor households with an instrument called a vignette.
4. To understand the impact of rules and regulations framed by the Securities Exchange Board of India (SEBI) on a Households' choice of investment patterns.

This study presents a systematic and stylised analysis of investing households' perceptions about financial market segments regulated by SEBI and other savings and investment options. Keeping this in mind, we created a listing and household schedule to obtain detailed information about household earnings, savings and investment profile, income-expenditure, financial and non-financial asset holdings, and aspirations and decisions in investment depending on their perceptions of various saving and investment options and the role of the regulator, and their market awareness.

Study Design, Concepts and Definitions

The objective of this study is to prepare a comprehensive profile of the savings and investment behaviour of households. Using this profile we propose to understand their respective risk profiles and the barriers to participation in primary and secondary markets as well as in instruments controlled by the regulations issued by SEBI. The study is also interested in determining the steps that SEBI could take to enhance participation in the markets, the sources and uses of information by households and the role of information in mediating household behaviour in markets.

The study also sheds light on the distribution in markets of participants as well as non-participants to understand the rate of growth of market participants. The sample selected thus provides insights into the behaviour of households and also describes the distribution of households across the economic space. For example, it will be pertinent to see if market participation is a purely urban phenomenon. Such a finding is important to the regulator so that it can fine-tune its outreach activities.

Based on the NCAER's previous experience of conducting household-level studies and a comprehensive review of similar studies of international repute, a suitable procedure was adopted to identify the approach, concepts and definitions, create a sample design, select the sample size, identify the content of the questionnaire, etc.. This survey intends to generate a reliable explanation of household behaviour besides arriving at a robust estimate of the number of savers, investors, and other types of households.

Survey Description

The household is the basic unit of analysis in the study. A household survey was conducted in 25 major states/ Union Territories of India. The territories of Jammu & Kashmir, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Andaman & Nicobar Islands, Daman and Diu, Dadra and Nagar Haveli and Lakshadweep were excluded due to operational difficulties.

The sample size is 38,412. The sample size was proposed based on the degree of precision required to arrive at reliable population estimates. However, a preliminary round of listing showed that such a sample would overestimate categories such as non-investors or savers. We listed 70,159 households in 44 cities and 40 villages across the states. The original listing had 17 categories of investment and savings. We found that the occurrence of households in the categories related to investors was less than 2 per cent.

Hence, it was decided not to have a fixed sample size; instead, we focussed on selected blocks from each city/ town. 100 households were listed from each block (representing roughly 60 per cent of the block population). This listing exercise provided a context for the study within the research site and, by breaking down the households into saving/investment strata, it elucidated the need to make inferences derived from comparing groups of demographically homogenous cities. These estimates will illuminate household characteristics and benefit our attempt to understand household behaviour and risk perception.

The selected households were surveyed for their household income status and preference for saving and investment under the 17 categories listed below.

Stratum I. Investors: Households that invested in any of the following options in the current/ previous year

- Government bonds
- Bonds issued by government undertakings, such as IDBI, SBI, GAIL and SAIL.
- Debentures in private companies
- Equities in private companies
- Mutual Funds
- Derivatives

Stratum II. Savers: Households not invested in the above but in the options given below

- Post Office and other similar savings schemes
- Pension schemes
- Public insurance schemes: LIC; private insurance such as Max and Bajaj.
- Commercial/private/public sector banks
- Co-operative/ regional rural banks

Stratum III. Other Savers: Households invested in the options below

- Commodities futures
- Real estate
- Businesses
- Private funds
- Precious metals & jewellery
- Art

Owing to non-responses in a number of sub-categories, the original list of 17 categories was reduced to reflect three categories, viz., investors, savers, and others. A household was listed as an investor if it had undertaken any of the investment options above irrespective of its savings decisions; a household was listed as a saver if it did not participate in any of the investment options but chose to save in non-risky sources; and a household was classified as Other Saver if it did not undertake any of the listed savings and investment options but chose to save through other means. A household that

did not qualify under any of these three categories was classified as 'None', and since their proportion was very small, they were merged with Stratum III. Although during listing households were also categorised by income group, this was amalgamated at the time of sample selection in order to capture all income groups for unbiased estimation. Within each category a minimum admissible distribution was arrived at. A total of 38,412 households were selected from 652 urban blocks in 44 cities, and 40 villages.

Selection of Urban Sample

Following the purposive sampling design, all the state capitals were included in the survey along with major urban agglomerations present in the states/UT. These were classified into town sizes proportional to the population. Following this procedure, a total of 44 cities were sampled for this study, with populations ranging from over one crore to less than five lakh. In each of the selected cities, final households to be sampled were selected randomly across the three strata.

Selection of Rural Sample

During the listing for village-level households, it was found that there was inadequate representation of households in the three strata, with almost all the households falling into either Stratum III or the 'none' category. Since the purpose of our study is to understand rural household savings and investment behaviour and not the magnitude of savings and investment households, it was decided to undertake a case study of the savings and investment behaviour of rural households.

With the objective of understanding household behaviour and the role of access to information in a Households' saving and investment decisions, the case study surveys 40 villages following equal probability sampling from 10 states where an adequate representative sample was available. Four villages from every state were selected randomly, with two villages proximal to the urban city which was selected for the urban sample and two villages remote from the selected urban centre. The assumption underlying this selection technique was that proximity to an urban centre is a proxy for access to information. Therefore, our rural case study attempts to elaborate how access to an urban centre and infrastructure affects the saving/investment decisions of rural households.

Organisation of the Report

This report consists of ten chapters. The Chapter 1 introduces the background, objectives and sampling design of the study, while Chapter 2 describes the developments in the Indian capital markets. Subsequently, Chapter 3 focuses on the estimation of numbers of investors/non-investors and their profile at the national level. Chapter 4 focuses on the estimated numbers of investors and savers by location and household characteristics in urban India. The savings and investment patterns of the respondents are described in detail in Chapters 5 and 6. Chapter 7 profiles the risk behaviour and relative risk tolerance of the households and Chapter 8 discusses the two main factors affecting investment decisions, namely, the perceived role of SEBI and sources of information related to investment. Chapter 9 presents the case study for rural India. Conclusions of the report is assembled in Chapter 10.

2 Developments in the Indian Capital Markets

The Indian securities market has a history of nearly 150 years. The Bombay Stock Exchange, the Ahmedabad Stock Exchange and the Calcutta Stock Exchange are among Asia's oldest stock exchanges. However, the modern era in the Indian securities market and its transformation began with the economic reforms in the early 1990s when the government initiated a systemic shift to a more open economy with greater reliance on market forces in which the private sector plays an important role. The Indian securities market gained greater importance and the SEBI Act, 1992 established the Securities and Exchange Board of India (SEBI) as a statutory authority to oversee the securities market in India.

SEBI is mandated with three principal objectives:

(i) To protect the interests of investors in securities;
(ii) To promote the development of the securities market; and
(iii) To regulate the securities market.

Before the establishment of SEBI, activities in securities markets lacked a comprehensive regulatory framework and were opaque. Since the establishment of SEBI, the securities market in India has developed significantly. It led to a successful transition from a highly controlled merit-based regulatory regime to market-oriented disclosure-based regulatory regime. SEBI's focus has been on developing a well-regulated modern securities market in India by adopting global standards and international best practices. With the implementation of various rules and regulations prescribed by SEBI, access to information has increased, the risk of defaults has gone down and overall governance and ambience have become conducive for protection of investors' interests and the development of the securities market in India.

The Quantitative Aspects of Market Transformation

Development of Primary Securities Market: An efficient primary market is critical for resource mobilisation by corporate to meet their growth and expansion plans. The development of primary markets in India has followed a unique pattern. While the number of issues in the early nineties was very high (more than 1,000), the aggregate resources mobilised was not significant. However, in the first decade of the 21st century the trend gradually reversed; the number of issues remained low (less than 200) but the amount mobilised increased significantly. The only exception to this trend was during 2008–09 when the US was hit by the sub-prime crisis leading to a global financial crisis and the cascading effect was felt in emerging markets. Where in 2007–08 an amount of ₹ 870.29 billion was mobilised through 124 public and rights issues, the amount mobilised fell to a mere ₹ 162.20 billion through 47 issues in 2008–09. With the gradual waning of the sub-prime crisis in 2009–10, the market regained confidence and an amount of ₹ 575.55 billion was mobilised through 76 issues (Figure 2.1).

FIGURE 2.1: CAPITAL RAISED FROM THE PRIMARY MARKET

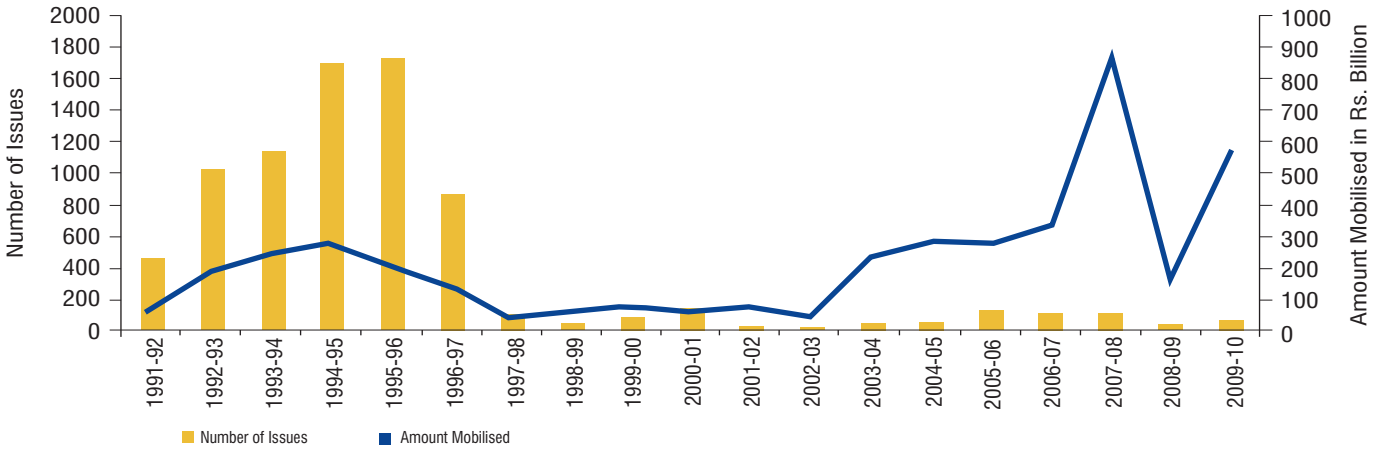


TABLE 2.1: CAPITAL RAISED THROUGH PUBLIC AND RIGHTS ISSUES (₹ billion)

Year	Public		Rights		Total	
	Number	Amount	Number	Amount	Number	Amount
1	2	3	4	5	6	7
1991–92	206	23.58	257	38.57	463	62.15
1992–93	546	75.6	488	108.95	1034	184.55
1993–94	773	154.49	370	89.23	1143	243.72
1994–95	1342	210.45	350	65.88	1692	276.33
1995–96	1426	142.40	299	65.64	1725	208.04
1996–97	751	115.57	131	27.19	882	142.76
1997–98	62	28.62	49	17.08	111	45.70
1998–99	32	50.19	26	5.68	58	55.86
1999–00	65	62.57	28	15.60	93	78.17
2000–01	124	53.78	27	7.29	151	61.08
2001–02	20	65.02	15	10.41	35	75.43
2002–03	14	36.39	12	4.31	26	40.70
2003–04	35	222.65	22	10.07	57	232.72
2004–05	34	246.40	26	36.16	60	282.56
2005–06	103	232.94	36	40.88	139	273.82
2006–07	85	297.96	39	37.10	124	335.06
2007–08	92	545.11	32	325.18	124	870.29
2008–09	22	35.82	25	126.37	47	162.20
2009–10	47	492.36	29	83.19	76	575.55
Total	**5,779**	**3,091.88**	**2,261**	**1,114.78**	**8,040**	**4,206.66**

Source: SEBI

Growth of the Mutual Funds Industry: The popularity of mutual funds as an investment vehicle has increased over time and, as a result, new funds with various types of schemes mushroomed in a very short period. The Unit Trust of India was the first mutual fund set up in India in the year 1963. In the early 1990s, the government allowed public sector banks and institutions to set up mutual funds. To protect the interests of the investors, SEBI first notified regulations for mutual funds in 1996. At a later stage mutual funds sponsored by private sector entities were allowed to enter the market. Over time, the number of mutual funds has increased to 48. Product innovation undertaken by a highly competitive mutual fund industry has offered more than 3,000 schemes to meet the diverse investment needs of investors. Resource mobilisation by mutual funds has grown at a steady pace over the years. However, during 2008–09, as a result of the financial crisis, there was a net outflow of funds from the mutual funds industry (Figure 2.2).

Role of Foreign Institutional Investors (FIIs) in Indian Securities Markets: Foreign Institutional Investors (FIIs) have gradually developed into a dominant player in the Indian securities market since 1992 when they were first allowed to invest in the market. FIIs have been permitted to invest in all types of securities, including government securities, and can freely repatriate the proceeds from the sale of their investments. Taken together they can invest in a company under the portfolio investment route up to 24 per cent of the paid-up capital of the company. This can be increased up to the sectoral cap/statutory ceiling, as applicable, provided this has the approval of the Indian company's Board of Directors and also its general body. All FIIs are required to register with SEBI. As on March 2010, the total number of registered FIIs in India was 1,713 with a net cumulative investment of US$ 89.34 billion.

Investment by FIIs: FIIs have played a significant role in providing liquidity to the Indian securities markets. The FII investment quota in corporate and government debt was increased over time. As of November 30, 2010, FIIs can invest US$10 billion in government debt and US$20 billion in corporate debt. Since 2000–01, FII investments have been continuously flowing in, except during 2008–09 which witnessed substantial outflow due to the global financial crisis (Figure 2.3).

Movement in Stock Market Indices: The stock market witnessed several corrections during 2000–01, leading to a sharp decline in total market capitalisation, turnover and trading activities. From 2003–04 onwards bullish sentiments pre-

FIGURE 2.2: RESOURCE MOBILIZATION BY MUTUAL FUNDS (₹ crore)

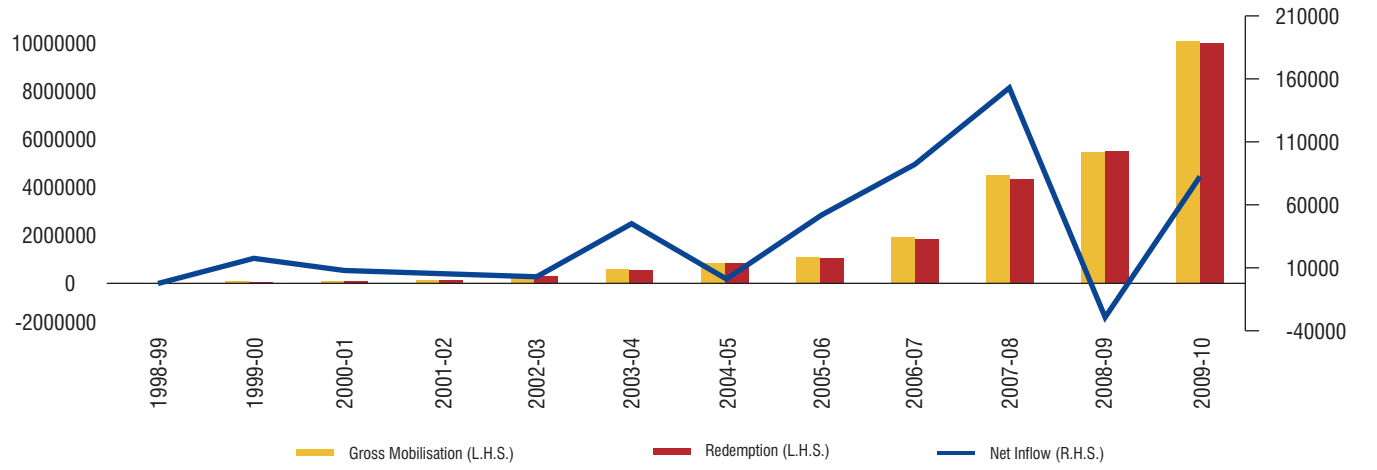
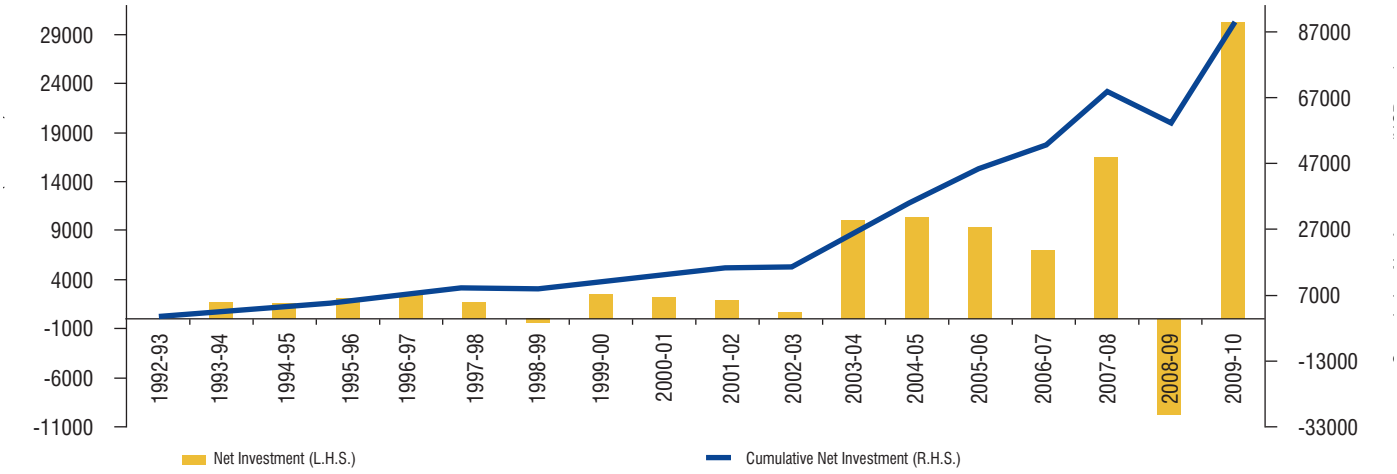


FIGURE 2.3: TRENDS IN FII INVESTMENTS SINCE 1993 (US$ million)



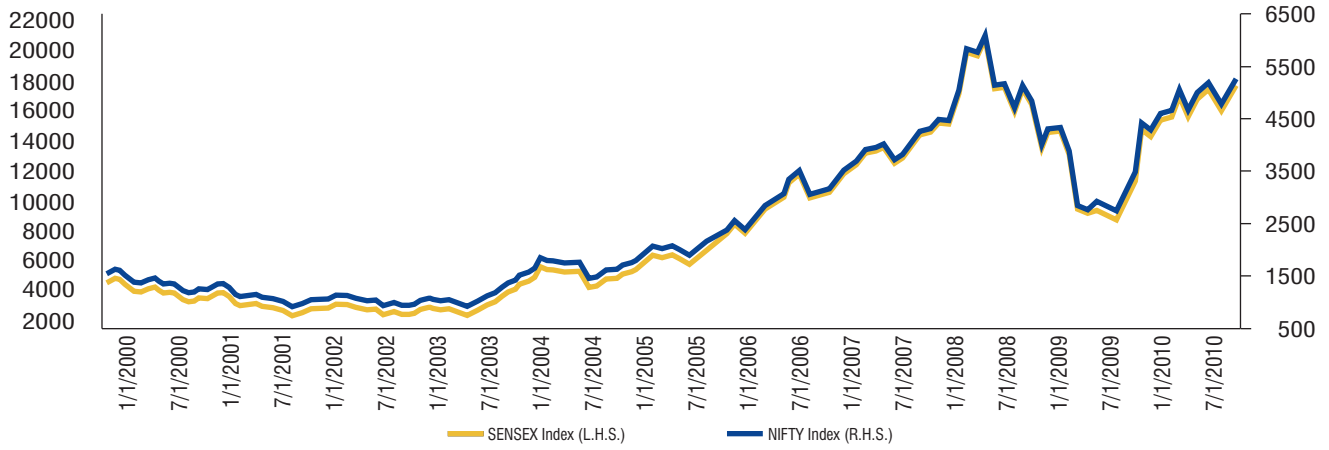
vailed and the market witnessed upward momentum. In the next three to four years, the markets recorded a significant uptrend and the BSE SENSEX and CNX NIFTY rose from 3048.72 to 13072.10 and from 978.20 to 3821.55, respectively, during March 2003 to March 2007. The BSE Sensex and S&P CNX NIFTY culminated in their pick of 20873.33 and 6287.85, respectively, in January 2008. However, this bull run soon ended and the markets went through significant corrections following the crisis.

The Fall of Stock Market Indices during 2008–09: The sub-prime mortgage crisis that appeared as a rolling snowball in 2007 turned into an avalanche in 2008, taking its toll on large investment banks like Bear Stearns and Lehman Brothers. Due to enhanced international linkages, the cascading effect of the crisis was felt in India as well. Mammoth FII outflow pulled down the indices in October 2008 and again in February 2009. The authorities had to declare stimulus packages to boost growth and rejuvenate business activities. As a result, the market started to grow at a faster pace after 2009. At the end of 2009–10, the BSE Sensex stood at 17527.77 and the S&P CNX Nifty stood at 5249.10 (Figure 2.4). As on March 31, 2010, the number of companies listed on the BSE were 4,975 and on the NSE 1,470.

Growth of Market Capitalisation and Turnover: There has been a substantial increase in the market capitalisation of the major two exchanges of the country. However, market capitalisation has gone through ups and downs. In the earlier years of this decade, there was a sharp fall in the market capitalisation of both exchanges. From 2003–04, the downtrend was reversed and the market value of listed stocks again started soaring. The market capitalisation of the BSE increased exponentially by 575 per cent, from ₹ 9,128 billion at the end of March 2000 to ₹ 61,656 billion at the end of March 2010. During the same period, the market capitalisation of the NSE also increased by 489 per cent, from ₹ 10,204 billion to ₹ 60,092 billion. The annual turnover in the cash segments of BSE and NSE reflected the same trend. After 2000–01, there was a sharp fall in the turnover and this trend continued for some years. Later, the situation gradually improved. By the end of March 2010, the annual turnover of the cash segment of the BSE was ₹ 13,788 billion and that of the NSE was ₹ 41,380 billion.

Growth of Intermediation Industry: The quantitative transformation of the Indian securities market has happened with the help of a growing intermediation industry. While the number of brokers increased from 9,192 in 2000 to 9,816 in

FIGURE 2.4: TRENDS IN INDIAN INDICES



2010, that of sub-brokers increased by more than fourteen-fold from 5,675 to 75,744 during the same period signifying the reach and expansion of the Indian securities market. Supplementing this expansion during the past decade, the number of depository participants increased from 205 to 758, the number of portfolio managers increased from 23 to 243, the number of venture capital funds increased from 22 to 160 and foreign venture capital funds emerged as a new class of participants in the market with their number increasing to 143 by 2010. On the other hand, dematerialisation led to a reduction in the number of registrars and transfer agents from 242 to 74 during the past decade.

Qualitative Aspects of Market Transformation

Modernisation of Securities Market Infrastructure: There has been a remarkable expansion and modernisation of infrastructure to support the rapid growth of the securities market in India. The market has transited from scream-based trading to screen-based trading since the early nineties, providing an electronic, screen-based, anonymous, order-driven trading system for dealing in securities. The market can be accessed from anywhere in the country through the Internet. In order to further expand the reach of the market, exchanges have started enabling trading though mobile telephones. Securities are no longer dealt with in physical form - they are dematerialised and electronically recorded to facilitate smooth trading and transfer of ownership. All trades on exchanges undergo the regulated trading, clearing and settlement processes. The clearing house of the exchange or its subsidiary clearing corporation undertake post-trading activities like clearing and settlement of trades on exchanges. These clearing houses/ corporations act as the counterparty to trades on exchanges and guarantee finality of settlement on the strength of the Settlement Guarantee Fund (SGF)/ Trade Guarantee Fund (TGF). The settlement system has transited from accounting period trading settlement to rolling settlement in a phased manner beginning on January 10, 2000 in selected scrips to rolling settlement in all listed scrips with effect from December 31, 2001. The settlement cycle was reduced from the initial T+5 to T+2 rolling settlement by April 1, 2003. Apart from the introduction of book building mechanisms for public issues in the late nineties, several processes have been streamlined to enhance efficiency and reduce the cost of the issue process in the primary market. One such measure introduced in recent years is the process of subscription to initial public offering through the Applications Supported by Blocked Amount (ASBA) facility. The investor grievance redressal mechanism has been overhauled by enabling online access to the redressal system to encourage retail investors to participate in the market.

Use of Technology: The Indian securities markets have been at the forefront in embracing modern technology and global best practices. The adoption of V-SAT technology extended the reach of the stock exchanges from their trading halls to every nook and corner of the country while screen-based trading brought in transparency and fairness. India has no open outcry system, unlike some developed countries where this system is still followed. The National Stock Exchange of India Limited (NSEIL) was the first to use satellite-based communication technology for establishing connectivity. The NSE and BSE now offer access from 201 and 359 cities and towns in India, respectively.

Dematerialisation: Gone are the days when investors had to maintain a plethora of documents. With the introduction of dematerialisation, which is automation of share ownership records in a central database, the problems of delays, bad deliveries and theft/forgery of share certificates vanished. The depositories have set up a nation-wide network with proper infrastructure to handle the securities deposited or settled in dematerialised mode in the Indian stock markets. By the end of March 2010, in NSDL and CDSL the number of investor accounts were ₹ 105.85 lakh and ₹ 65.86 lakh, respectively; the number of companies available for dematerialisation were 8,124 and 6,805, respectively; and the value of dematerialised shares stood at ₹ 56,17,842 crore and ₹ 8,38,928 crore, respectively. This progress happened through the expansion in reach of the increasing number of Depository Participants (DPs) which stood at 269 DPs of NSDL and 489 DPs of CDSL by end-March 2010.

Expansion and Globalisation of Indian Securities Markets: India is home to more than 4,900 domestically-listed companies in the BSE, making India second only to the US in terms of number of domestically-listed companies. With the changed dynamics of global financial flows, emerging markets are attracting an increased amount of foreign funds. In India, the securities market has developed at a rapid pace. The domestic mutual fund industry has been expanding by introducing new products and has been receiving increased allocation of the financial sav-

ings of domestic households. The regulatory framework is in place for collective investment schemes, domestic venture capital funds and foreign venture capital investors. The transformation has manifested itself in the higher ranking of the Indian securities markets in the global arena.

Market Regulations: The SEBI Act empowers SEBI to frame regulations to regulate intermediaries and to ensure disclosures and investor protection by listed companies. SEBI has framed a number of regulations for different intermediaries. Under these regulations, SEBI prescribes eligibility norms, viz., physical infrastructure, professional competencies and minimum capital requirements for registering intermediaries. SEBI also prescribes a code of conduct and disclosure and compliance requirements. SEBI monitors the activities of registered entities and takes penal action if the regulations are violated. To ensure that the perimeter of SEBI's regulations are in tune with the dynamic nature of the securities market, SEBI reviews its regulations from time to time and prescribes new regulations to regulate new activities in the market. The regulatory framework for intermediaries, which has been evolving since 1992, has stood the test of time and has been able to ensure, by and large, quality intermediation services in the market.

Economic Reforms

Economic liberalisation in India can be traced to the late 1970s; however, full-fledged economic reforms began in July 1991 when the government decided to open the way for an International Monetary Fund (IMF) programme that led to the adoption of a major reform package to cope with a balance of payments crisis. As a result, the foreign exchange reserves recovered quickly, enabling India to manage its balance of payments (BoP) problem. The process of economic liberalisation has continued till date. In this process, emphasis was given to opening up the economy to access the international market and to make way for private enterprises to take part in market competition more freely.

The principal objective behind this reform was to bring about a gradual shift towards a capitalistic system so as to achieve high economic growth and industrialise the nation. The internal liberalisation measures were based on deregulation, initiation of privatisation, tax reforms, and financial sector reforms. These measures, inter alia, included the repeal of the Controller of Capital Issues (CCI) Act 1947, the introduction of the SEBI Act of 1992 and the Security Laws Amendment which gave SEBI the legal authority to register and regulate all security market intermediaries. The inception of the National Stock Exchange (NSE) is also considered to be an important development in the internal reform process that helped enormous expansion of the stock market.

External liberalisation, on the other hand, allowed foreign institutional investors to invest in the stock markets and Indian companies to raise capital abroad. In this regard several measures were taken such as allowing foreign direct investment (FDI) by increasing the ceiling on share of foreign capital in joint ventures, streamlining procedures for FDI approvals, opening up India's equity markets to investment by foreign institutional investors (FIIs) and permitting Indian firms to raise capital in international markets by issuing Global Depository Receipts (GDRs) and American Depository Receipts (ADRs), abolishing quantitative restrictions and reducing tariffs on imported goods and, last but not least, a gradual transformation to fuller Capital Account Convertibility (FCAC).

The reforms in the financial sector and the securities market have encouraged the corporate sector by bringing about market competition and providing easy access to public money to finance new projects. The securities market has gained enormous importance and has become an investment avenue for investors.

SEBI and the Regulation of Securities Markets

From its inception, SEBI has endeavoured to develop the securities markets and simultaneously set up a benchmark in market regulation. While much of the initial agenda in the early nineties is complete, the task of development and regulation of securities markets is an ongoing process. The work of investor protection and education and development of markets needs to be set in a new context periodically. Following is a brief review of SEBI's achievements in the field of market regulation in the past decade.

Streamlining Capital Raising: SEBI over time has introduced a number measures aimed at enhancing efficiency and optimising the cost of raising capital from the securities market. The transformation of the primary securities market has been on account of the introduction of the book building route for public issues, margining and proportional allotment for all categories of investors in book-built issues, mandatory IPO grading, qualified institutions placements (QIPs), fast-track issues, Applications Supported by Blocked Accounts (ASBA) and significant reduction in the timeline for rights issues and bonus issues.

Reduction in Transaction Costs: The growth in the categories of investors in the market has kept pace with the types of products. Transaction costs have come down on account of the reduction in /rationalisation of fees, commissions and market impact cost. The transaction cost charged by depositories is the lowest in the world. Broking fees have plummeted in the past decade-and-a-half. The maximum brokerage chargeable by trading member in respect of trades in the equity cash segment can be up to 2.5 per cent of the contract price, inclusive of statutory levies like securities transaction tax, SEBI turnover fee, service tax and stamp duty. However, the actual brokerage charged is as low as 0.10 per cent, suggesting a competitive brokerage industry. Entry load has been abolished for investment in mutual funds.

Transparency: SEBI's regulatory regime is primarily based on disclosures and transparency. To make the process of price discovery in the primary markets more transparent, SEBI introduced the book building process and mandated necessary disclosures in the offer documents. In the secondary markets, transparency is ensured by introduction of screen-based order matching system which makes the price and volume data instantly available to an investor in the remotest corner of the country. To increase the accessibility of information, SEBI's own activities are immediately put on the website, including the consent orders, quasi-judicial orders and board notes.

Disclosure-based Regulations: The establishment of SEBI ushered disclosure-based regulation in the Indian securities market. Companies desiring to raise capital from the securities market through public issues are required to disclose all material information so as to facilitate informed investment decision-making. This mandate applies to companies that propose to list their securities, listed companies and all regulated entities. The legal framework has often been fine-tuned to improve disclosure norms and transparency standards. The report of the Committee on Financial Sector Assessment (CFSA) has noted that all applicable transparency practices are observed in India.

Promotion of Market Integrity: The surveillance, investigation and enforcement capability of SEBI has been strengthened to deter violation of securities laws. To enhance the efficacy of the surveillance function, SEBI has put in place a compre-

hensive Integrated Market Surveillance System (IMSS) which generates alerts arising out of unusual market movements. IMSS is also being used to monitor the activities of market participants as well as to issue suitable instructions to stock exchanges and market participants. The supervision and enforcement thus not only complemented the fine-tuned legal framework but ensured better compliance. Processes have been introduced to expeditiously resolve cases of violations by passing quasi-judicial orders, instituting legal proceedings or through the consent process. SEBI keeps a continuous vigil on the activities of the stock exchanges to promote an effective surveillance mechanism and also carries out inspections of the surveillance department of major stock exchanges. Since 1992–93, SEBI has undertaken 1,359 investigation cases and 1,264 cases investigations have been completed. During 2009–10, 71 new cases were taken up for investigation and 74 cases were completed.

Investor Assistance and Education: SEBI has in place a comprehensive mechanism to facilitate redressal of grievances against intermediaries registered by it and against companies whose securities are listed or proposed to be listed on stock exchanges. Since its inception, SEBI has resolved 25, 46,302 investor grievances amounting to 94 per cent of the total of 27,06,895 investor grievances received. As on March 31, 2010, there were 1,60,593 pending investor grievances and actions had already been initiated in 1,22,713 grievances. SEBI has taken several steps to address structural weaknesses in the system to eliminate the root cause of complaints. SEBI has evolved a procedure where class action suits filed by investor associations in respect of violations will be reimbursed the cost of legal action. Investor education has received much attention in the recent past.

Adoption of International Standards: The legal and regulatory framework governing the Indian securities market complies substantially with the International Organization of Securities Commission's (IOSCO) Principles of Securities Regulation. The assessment of IOSCO Principles as regards regulation of the equity/corporate bond market by the Committee on Financial Sector Assessment (CFSA) has revealed an overall significant level of compliance; out of 30 principles, India is fully compliant on 20, broadly compliant on 8 and partially compliant on the remaining 2. SEBI has implemented a suitable KYC regime in accordance with the recommendations of the Financial Action Task Force (FATF) on money laundering. In addition to its association with IOSCO, SEBI has been actively co-operated with foreign regulators, self-regulatory organisations, international financial institutions, international standards-setting bodies and other international agencies of repute and relevance for the development and regulation of securities markets.

Risk Management: Various measures have been taken to ensure a prudential market structure. The establishment of central counterparties, introduction of cross-margining for all categories of investors, straight-through processing, derivatives trading (including currency futures), short selling, securities lending and borrowing, margining for institutional investors in the equity cash segment, corporate governance norms for listed companies, know your customer (KYC) norms and minimum public float, etc., have brought the Indian securities market at par with the matured markets. Introduction of robust risk management systems have ensured that there should be no defaults in the system even when there are unprecedented movements in the markets caused largely by global factors. After the implementation of these norms, activities in the securities market continued smoothly. The settlement of trades also continued at an uninterrupted pace.

Professional Intermediation: Intermediaries bridge the gap between investors and issuers in securities markets. Therefore, the way intermediaries deal with their clients influences their trust and willingness to carry out business in the market. In order to enhance the quality of intermediation, SEBI, apart from regulating their activities, has taken several steps to ensure that intermediaries are adequately equipped, both in terms of physical infrastructure as well as professionally qualified staff, to discharge their responsibilities in a professional and cost-effective manner. Some of the steps by SEBI in this regard are SEBI's encouragement for corporatisation of the brokerage industry, review of eligibility norms of intermediaries from time to time, certification of persons associated with securities markets, etc.

The key measures initiated by SEBI between 2000–01 and 2009–10 are given below:

- **Trading in Equity Derivatives:** To provide liquidity to the market and to enable the market to absorb larger shocks, derivatives trading were introduced. To begin with, trading was allowed in June 2000 in index futures contracts based on the S&P CNX Nifty and BSE-30 (Sensex) index at the NSE and the BSE, respectively. Trading in index options, stock options and futures on individual stocks commenced during June, July and November 2001, respectively.
- **Internet Trading:** To provide added advantage of convenience, transparency and real time access to investors, Internet-based order entry was allowed for execution of trades on stock exchanges.
- **Compulsory T+2 Rolling Settlement:** Rolling settlement was introduced on a voluntary T+5 basis in the demat segment of the stock exchanges on January 15, 1998 to expedite the trading and settlement process and improve the efficiency of the securities market. In 2001–02, compulsory T+5 rolling settlement was introduced for all scrips listed and traded in any stock exchange in India. The rolling settlement cycle was shortened from T+5 to T+3 with effect from April 1, 2002. The clearing and settlement cycle time was further contracted to T+2 with effect from April 1, 2003 for quick settlement and lower settlement risk in the Indian capital market.
- **Exchange Traded Derivatives Contracts on Currency and Interest Rate:** To make the Indian capital market more efficient, transparent and world class, new products, namely, interest rate futures contracts (June 2003) and futures and options contracts on sectoral indices (August 2003) were introduced. FIIs and Non-Resident Indians (NRIs) were also permitted to invest in all exchange traded derivative contracts. Exchange-traded derivatives contracts on a notional 10-year government bond were allowed for trading. Stock brokers were allowed to trade in commodity derivatives. Based on the recommendation of the RBI–SEBI Standing Technical Committee on exchange-traded currency futures, SEBI laid down the framework for the launch of exchange-traded currency futures. This included eligibility norms for existing and new exchanges and their clearing corporations/houses, eligibility criteria for members of such exchanges/clearing corporations/ houses, product design, risk management measures, surveillance mechanisms and other issues pertaining to exchange-traded currency futures. The NSE commenced trading in currency futures on August 29, 2008, the BSE

commenced trading on October 1, 2008 and the MCX-SX commenced trading on October 6, 2008.

- **Implementation of STP:** Mandatory processing of all institutional trades executed on the stock exchanges through Straight-Through Processing (STP) was introduced with effect from July 1, 2004. This was in continuation of the efforts made by SEBI to ensure interoperability between STP service providers through the setting up of a centralised STP hub.
- **Corporatisation and Demutualisation:** SEBI envisaged Corporatisation and Demutualisation (C&D) of exchanges to do away with conflicts of interest existing in mutual stock exchanges where ownership, management and trading rested with the same set of people. In order to expedite this, SEBI approved and notified the C&D schemes of 19 stock exchanges during 2005–06. The NSE and OTCEI were already notified as corporatised and demutualised stock exchanges vide the notifications dated March 23, 2005 and September 15, 2005, respectively.
- **Gold Exchange Traded Funds (GETF):** Pursuant to the announcement made by the Finance Minister in his Budget Speech for 2005–06, SEBI (Mutual Funds) Regulations, 1996 was amended to permit mutual funds to introduce GETFs in India subject to certain investment restrictions.
- **Dissemination of Filings:** At the instance of SEBI, the BSE and the NSE jointly launched a common portal (www.corpfiling.co.in) on January 1, 2007 to disseminate the filings made by companies listed on these exchanges, in terms of the listing agreement.
- **Permanent Account Number (PAN):** PAN was made mandatory for all demat accounts pertaining to all categories including minors, trusts, foreign corporate bodies, banks, corporates, FIIs, and NRIs. SEBI stipulated that PAN would be the sole identification number for all participants in the securities market, irrespective of the amount of transaction with effect from July 2, 2007. The objective was to strengthen the Know Your Client (KYC) norms through a single identification.
- **Grading of IPOs:** It has been made mandatory for IPOs to obtain grading from at least one credit rating agency registered with SEBI. The grading is required to be disclosed in the prospectus, abridged prospectus and in every advertisement for IPOs.
- **Short Selling and Securities Lending and Borrowing (SLB):** SEBI specified the broad regulatory framework for short selling by institutional investors and a full-fledged securities lending and borrowing scheme. Accordingly, relevant amendments were made to SEBI (FII) Regulations, 1995 and SEBI (Mutual Funds) Regulations, 1996, enabling FIIs and mutual funds to participate in short selling and SLB.
- **Introduction of Direct Market Access:** With a view to increase liquidity, bring about greater transparency, lower the impact cost for large orders and reduce the risk of error associated with manual execution of client orders; the facility of Direct Market Access (DMA) was introduced. This facility allows brokers to offer its clients direct access to the exchange trading system through the broker's infrastructure without manual intervention by the broker.
- **Cross Margining across Exchange-Traded Equity (Cash) and Exchange-Traded Equity Derivatives (Derivatives) Segments:** In order to improve the use of capital by market participants, SEBI extended the facility of cross-margining across the cash and derivatives segments to all categories of market participants. To begin with, a spread margin of 25 per cent of the total applicable margin on the eligible offsetting positions is levied in the respective cash and derivatives segments.
- **Transition from DIP Guidelines to ICDR Regulations:** SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009 replaced SEBI (Disclosure and Investor Protection) Guidelines.
- **Extension of Trading Hour:** Exchanges were allowed to set any trading hours between 9 a.m. and 5 p.m., provided they have in place a risk management system and infrastructure commensurate to the trading hours.
- **Combating Financing of Terrorism:** During 2009–10, directions were issued to stock exchanges, depositories and all registered intermediaries to comply with Combating Financing of Terrorism (CFT) under the Unlawful Activities (Prevention) Act, 1967.
- **Corporate Debt Market:** SEBI directed the BSE and the NSE to introduce a trade-reporting platform for corporate bonds in 2006–07. Continuing with the rationalisation of disclosure norms for listing debt issuances, the listing agreement for debt securities was further simplified. All trades in corporate bonds between specified entities, viz., mutual funds, foreign institutional investors/sub-accounts, venture capital funds, foreign venture capital investors, portfolio managers, and RBI-regulated entities as specified by the RBI had to be necessarily cleared and settled through the National Securities Clearing Corporation Limited (NSCCL) or the Indian Clearing Corporation Limited (ICCL). The provisions of this circular apply to all corporate bonds traded Over-the-Counter (OTC) or on the debt segment of stock exchanges on or after December 1, 2009.
- **Flexibility to Set Expiry Date/Day for Equity Derivatives:** Flexibility to set the expiry date/ day for equity derivative contracts was allowed to the stock exchanges.
- **Reforms in Mutual Funds Industry:** In order to empower mutual funds investors through transparency in payment of commission and load structure, entry load was abolished for all mutual fund schemes and investors were allowed to pay commission separately to agents commensurate with the services provided to them by the agent. In order to have parity among all classes of unit holders, it was decided that no distinction among unit holders should be made based on the amount of subscription while charging exit loads. Considering the importance of systems audit in the technology-driven asset management activity, it was decided that mutual funds should have a systems audit conducted by an independent CISA/ CISM-qualified or equivalent auditor. In order to expand the reach of investments in mutual funds, units of mutual fund schemes were permitted to be transacted through registered stock brokers of recognised stock exchanges.
- **Investor Protection and Education Fund:** For administration of the Investor Protection and Education Fund established by SEBI in 2007, SEBI (Investor Protection and Education Fund) Regulations, 2009 was notified.
- **Reduction of Fees Charged by SEBI:** In order to revise and reduce the fees payable by some intermediaries and market participants viz., custodian of securities, FIIs, FVCI, mutual funds and stock brokers and sub-brokers, SEBI (Payment of Fees) (Amendment) Regulations, 2009 was notified.

As a result of these actions by SEBI, there has been a qualitative as well as

quantitative transformation of the Indian securities market. New classes of investors, intermediaries and products have emerged and have been growing over the years. Mutual funds, FIIs and venture capital funds, both domestic as well as foreign, have become active investors in the Indian stock markets. The role of traditional intermediaries like registrar and transfer agents has been rationalised with dematerialisation and the emergence of depositories and depository participants. Regulatory and structural reforms in primary market have resulted in the consolidation of intermediation services in the primary market. A comparison of Indian stock exchanges with major stock exchanges in the world shows that the NSE and the BSE have recorded the highest average annual growth in market capitalisation during the past two decades.

Macroeconomic Performance and Impact on Income Distribution

The result of the economic reforms was reflected in the GDP growth in the decade of the nineties. In the first three financial years of the current decade, the growth rate slowed to an average 5 per cent level. The quarter-on-quarter annual GDP growth rate first crossed the 9 per cent mark in the second quarter of 2003–04. During the first quarter of the financial year 2000–01 and the second quarter of 2003–04, India moved from a rate of growth averaging 4.8 per cent to a rate of growth of 8.8 per cent. India's real GDP grew at an impressive 8.4 per cent during 2003–04. In sum, the country experienced a sudden boost in the middle of 2003.

A number of factors are responsible for the transformation of the Indian economy. The service sector has played the most important role in India's growth story. First, the growth of the service sector as a part of GDP has been faster than aggregate GDP growth for most of the period since 2000. Second, the manufacturing sector appears to have contributed significantly to the growth transition; it registered a significant and consistent increase in its contribution to the annual increment in GDP. Third, India has benefited from the regulatory reforms which resulted in a surge in foreign investment into the country. Apart from this, relatively good economic performance and the abolition of the long-term capital gains tax in the Union Budget for 2003–04 helped to boost economic growth. Fourth, India benefited from international trade. While export revenues contributed to the expansion of the services sector, which include software and IT-related services, manufactured exports also played a significant role. It may be noted that while export growth contributed to the acceleration in manufacturing growth rates, the small share of manufacturing production in export gives domestic demand an important role in explaining the growth trajectory.

Other factors played an equally important role in the growth of the economy. India has a favourable demography where a large portion of the population belongs to the young generation who form the labour force. Second, there has been a rapid increase in productivity in recent years. Moreover, the initiation of economic reforms with outward-looking policies by the government and good regulatory measures has played an important role in achieving the higher growth trajectory. In aggregation, all these factors explain the transition of the Indian economy that has achieved the reputation of a fast-growing economy since 2003–04.

From 2003–04 until 2007–08, the Indian economy moved decisively to a higher growth phase. In three consecutive financial years starting from 2005–06, India witnessed growth above 9 per cent (Table 2.2).

The service sector has been the principal driver of growth. Services contributed as much as 68.6 per cent of the overall average growth in GDP in the five years between 2002–03 and 2006–07. The growth in the services sector continued to be broad-based. Among the subsectors of services, transport and communication, construction and telecommunications and higher growth in rail, road and port traffic played an important role in the growth of this sector. At the same time, banking and other financial services also witnessed significant growth during this phase. The growth of financial services comprising banking, insurance and business services, after declining to 5.6 per cent in 2003–04, bounced back to 8.7 per cent in 2004–05, 11.4 per cent in 2005–06 and 13.9 per cent in 2006–07.

The industrial sector follows services in the contribution to GDP growth. The lower contribution of industry to GDP growth relative to services in recent years may be partly because of its lower share in GDP. Industrial sector growth increased from a low of 2.7 per cent in 2001–02 to 7.1 per cent and 7.4 per cent in 2002–03 and 2003–04, respectively. It went up to over 9.5 per cent in the next two years and touched 10.0 per cent in 2006–07. The Index of Industrial Production (IIP), on the other hand, increased from 8.4 per cent in 2004–05 to 11.6 per cent in 2006–07, though it declined to 2.6 per cent in 2008–09. Besides this, two other sectors whose contributions to growth have increased over the past two five year plans are construction and communications. The contribution of the construction sector increased to 10.8 per cent during the Tenth Five-Year Plan from 7.5 per cent during the Ninth Five-Year Plan, while that of telecommunications increased to 11.4 per cent from 6 per cent over the two five-year plans.

In India, agricultural growth is largely dependent on the monsoon and hence it continued to fluctuate though the five-year plans. The deficiency in rainfall in some fertile regions of the country hampered agricultural growth in recent years. The agricultural sector recorded a robust growth of 10 per cent in 2003–04, though in later years the growth rate declined gradually. In 2009–10, due to the poor monsoon, the agricultural sector contracted by 0.2 per cent.

In 2007, the sub-prime mortgage crisis broke into the US and turned into a severe financial crisis. India being partially open to foreign flows had to bear the heat of the crisis. As a consequence of the crisis, foreign investors started to sell out assets acquired in India and repatriate the receipts so as to cover losses and meet commitments in the US and elsewhere. Indices started going down from January 2008. The Sensex hit a nadir on March 9, 2009 at 8,160.40 and the S&P CNX Nifty on October 27, 2008 at 2,524.20. As a result of the crisis, aggregate demand dwindled, leading to a fall in employment generation. The GDP growth rate fell to 5.12 per cent in 2008–09. Property prices also started to decline. Foreign investors have been important players in real estate in recent times whose exit temporarily slowed the expansion of the sector.

The authorities devised three stimulus packages to combat the adverse effects of the global crisis. The situation started to improve from April 2009 and the Indian economy witnessed a growth of 7.40 per cent in 2009–10. The quarterly GDP growth in the first two quarters of 2010-11 shows sign of recovery which was recorded at more than 8 per cent. As per the estimates released by the CSO, real GDP growth was 8.9 per cent in the first quarters of 2010–11, which is the highest quarterly growth recorded so far since the third quarter of 2007–08. GDP growth continued to be 8.9 per cent during the second quarter of 2010–11. A strong recovery in the industrial sector combined with a resilient

services sector contributed to the growth of overall output. The index of industrial production (IIP) also showed signs of recovery. During April to September 2010–11, IIP growth was 10.2 per cent compared to 8.2 per cent in April–September 2009–10. As per the CSO estimates, the Index of Industrial Production (IIP) for the month of October 2010 over the same period of the previous year was 10.8 per cent.

Throughout the present decade, FDI inflows were broad-based and spread across a range of economic activities like financial services, manufacturing, banking services, information, technology services and construction. Net FDI inflows increased to US$ 19.7 billion during 2009–10 compared to US$ 17.5 billion during 2008–09.At the same time, there was an FII inflow of US$ 30.3 billion in 2009–10, compared to an outflow of 9.8 billion in the previous year. The foreign exchange reserves of India have been increasing in the present decade. During 2009–10, the foreign exchange reserves increased by US$ 27.1 billion from the previous year. As on March 31, 2010 India's foreign exchange reserves were US$ 279 billion. On a balance of payments basis (i.e. excluding valuation effects), the foreign exchange reserves increased by US$ 13.4 billion during 2009–10.

Analysing the components of aggregate demand, it is found that private consumption has been increasing and in 2007–08 it touched 9.6 per cent. In the next two years it recorded a growth of 6.8 per cent and 4.1 per cent. Notably, government consumption in 2008–09 went up to 16.7 per cent, which reflects the government's efforts to combat the recession.

India's foreign trade has increased in volume throughout the present decade; nevertheless, the trade balance has been negative. During 2000–01, the trade deficit was nearly US$ 6 billion which continued to expand in the following years and, as per the revised estimates, increased to US$ 118 billion in 2008–09. In 2009–10, following the global financial crisis, both merchandise imports and exports contracted. However, owing to the gradual recovery, India's merchandise exports witnessed a turnaround in October 2009. During November 2009 to June 2010, the monthly average growth of exports was 32.9 per cent. Indian imports improved due to the recovery in domestic economic activity and resurgence in oil prices after November 2009. As a result, the monthly average of import growth has been a robust 47.9 per cent during December 2009 to June 2010. According to the provisional figures, India's trade deficit was US$ 108 billion during 2009–10.

Throughout the present decade, both the central and state governments have increased their expenditures on development as well as non-development activities. The direct and indirect tax revenues of the central and state governments have also been increasing, though in most years it fell short of the total expenditures. Gradual reduction of the fiscal deficit has been one of the major policy objectives in the present decade. While the average fiscal deficit (FD) of the central government during 1990–91 to 1999–2000 had been 5.9 per cent, it was reduced to an average 4.9 per cent in the next ten years, i.e., 2000–01 to 2009–10. At the beginning of the reforms, in 1990–91 the gross fiscal deficit was as high as 9.4 per cent of GDP, which was gradually brought down to a mere 2.6 per cent in 2007–08. However, due to the global financial turmoil, the FD increased to 6.7 per cent of GDP during 2009–10.

Impact of Saving and Interest Rate on Investment Behaviour of Households: With the improvement in market infrastructure and greater retail participation, the rate of investment has increased at a steady pace. The gross domestic investment or gross domestic capital formation (GDCF) as a percentage of GDP increased from 24.30 per cent in 2000–01 to 37.70 per cent in 2007–08. However, following the financial crisis, it decreased to 34.90 per cent in 2008–09. Gross domestic savings (GDS) as a percentage of GDP has also increased, commensurate with the investment growth. The GDS had increased from 23.74 per cent in 2000–01 to 36.41 per cent in 2007–08 which eventually decreased to 32.50 per cent in 2008–09. Thus, in the current decade both savings and investment as a percentage of GDP rose above the 30 per cent mark, which is a positive sign for any developing economy. The gap between investment and savings is often bridged by foreign investment.

Economic theory states that in times of recession people prefer to hold physical assets rather than financial savings. Table 2.2 reinforces this theory. Juxtaposing the financial and physical assets, it is noticed that when financial savings as a percentage of GDP declined to 10.43 per cent in 2008–09 from 11.17 per cent a year earlier, the physical savings improved from 11.47 per cent to 12.20 per cent during this period, indicating that substitution takes place between the two kinds of savings.

Since 2000–01 there has been a steady growth in gross domestic savings (except for the year 2008–09). Almost all segments

TABLE 2.2: SAVING AND INVESTMENT RATES 2000–01 TO 2009–10 (per cent)

Sl. No.	Particulars	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10
1	Gross Domestic Saving	23.74	23.47	26.34	29.79	32.24	33.08	34.43	36.41	32.50	-
2	Public	-1.75	-2.03	-0.65	1.07	2.35	2.42	3.56	5.05	1.44	-
3	Private	3.86	3.37	4.04	4.61	6.57	7.49	7.99	8.72	8.44	-
4	Total Household Saving	21.64	22.12	22.95	24.11	23.32	23.17	22.88	22.64	22.63	-
5	Financial	10.24	10.86	10.32	11.37	9.81	11.36	10.95	11.17	10.43	-
6	Physical	11.40	11.26	12.63	12.74	13.51	11.80	11.93	11.47	12.20	-
7	Gross Domestic Investment	24.30	22.80	25.20	27.60	32.70	34.30	35.50	37.70	34.90	-
8	GDP Growth Rate (at constant market prices)	4.03	5.22	3.77	8.37	8.30	9.30	9.44	9.63	5.12	7.66
9	Per Capita Income Growth	5.10	6.60	6.20	10.50	11.10	12.80	14.30	14.00	13.30	10.50

Note: Figures in Sl. No. 1 to 7 are as a percentage of GDP at current market prices.
The base year for the data up to 2003–04 is 1999–2000. The base year for the data from 2004–05 to 2009–10 is 2004–05.
Source: Reserve Bank of India.

TABLE 2.3: SAVINGS OF THE HOUSEHOLD SECTOR IN FINANCIAL ASSETS (in ₹ billion)

Particulars	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07^	2007–08^	2008–09$
Gross Financial Savings of the Household at current prices	2152.19	2474.76	2532.55	3132.60	3179.01	4212.19	4690.51	5527.25	5814.28
Currency	156.32	281.56	286.32	426.75	369.77	530.71	662.74	812.78	930.56
	(7.26)	(11.38)	(11.31)	(13.62)	(11.63)	(12.60)	(14.13)	(14.70)	(16.00)
Bank deposits#	947.03	1129.36	1234.62	1419.67	1582.59	2748.64	3113.47	3609.93	4098.11
	(44.00)	(45.64)	(48.75)	(45.32)	(49.78)	(65.25)	(66.38)	(65.31)	(70.48)
Non-banking deposits	69.11	79.12	87.88	38.03	33.70	61.30	15.16	37.51	134.53
	(3.21)	(3.20)	(3.47)	(1.21)	(1.06)	(1.46)	(0.32)	(0.68)	(2.31)
Life Insurance Fund*	338.61	412.37	520.09	522.40	679.86	835.40	1148.51	1289.30	1503.37
	(15.73)	(16.66)	(20.54)	(16.68)	(21.39)	(19.83)	(24.49)	(23.33)	(25.86)
Provident and Pension Fund	478.82	466.09	484.41	489.52	565.52	625.81	721.06	708.78	708.91
	(22.25)	(18.83)	(19.13)	(15.63)	(17.79)	(14.86)	(15.37)	(12.82)	(12.19)
Claims on Government+	390.07	519.38	560.87	873.72	1064.20	871.68	191.98	-283.15	-234.79
	(18.12)	(20.99)	(22.15)	(27.89)	(33.48)	(20.69)	(4.09)	(-5.12)	(-4.04)
Shares & debentures@	111.48	98.34	71.22	90.78	81.13	311.79	589.07	894.58	220.86
	(5.18)	(3.97)	(2.81)	(2.90)	(2.55)	(7.40)	(12.56)	(16.18)	(3.80)
Units of Unit Trust of India†	-9.34	-18.57	-16.18	-85.86	-31.46	-4.44	-3.10	-3.24	-27.37
	(-0.43)	(-0.75)	(-0.64)	(-2.74)	(-0.99)	(-0.11)	(-0.07)	(-0.06)	(-0.47)

Note: Figures in Parentheses indicate percentage to Financial Assets of households.
 # includes deposits with Co-operative non-credit societies.
*** includes State/Central Government and postal insurance funds.**
+ includes compulsory deposit.
@ include investment in shares and debentures of credit / non-credit societies, public sector bonds and investment in mutual funds (other than UTI).
† Since 2005–06, the data shown under 'Units of UTI' pertain to Administrator of the Specified Undertaking of the UTI, The UTI Mutual Fund is included in 'Shares and Debentures'.
^ 2006–07 and 2007–08 data are provisional.
$ 2008–09 data are based on Preliminary Estimate.
Source: Reserve Bank of India.

of saving have increased, though private domestic saving has shown a steep increase. The increase in financial intermediation, the widening and deepening of the financial system and the relative rates of return on assets of the household sector's portfolio also influence the distribution pattern of savings (Table 2.3).

Table 2.3 shows that there were large structural changes in the pattern of financial savings. The absolute amount of household sector savings in shares and debentures increased from about ₹ 111.48 billion in 2000–01 to ₹ 894.58 billion in 2007–08. However, due to the financial crisis, savings in this segment fell to ₹ 220.86 billion in 2008–09. As a percentage of the financial assets of the household sector, the share of savings in shares and debentures declined to a mere 3.80 per cent in 2008–09 from a robust 16.18 per cent a year earlier. This trend is consistent with the trend in resource mobilisation by the primary market (Table 2.1), which shows that the capital raised by the primary market declined from ₹ 870.29 billion in 2007–08 to ₹ 162.19 billion in 2008–09. On the other hand, during the crisis, bank deposits, non-banking deposits, life insurance funds, provident and pension funds, etc. increased substantially, indicating that they are relatively safer means of saving. The shift in financial savings in favour of bank deposits might have been due to lack of confidence in the securities markets during the crisis.

3 Estimation of Number of Investors/Non-Investors and Their Profile at the National Level

Introduction

This chapter provides estimates of number of investor households and the distribution of households based on their choice of savings/investment instruments. A class of distributions taken together can provide insights for policy. Comparing distributions of different characteristics (such as savings, portfolio choice etc) for the same sample or population of households can help in articulating the role of various agents in estimating change. In the following paragraphs we will explain the implications of a group of distribution of investors and non-investors pertaining first according to location and later on according to choice of savings preferences, and the reasons for non- investing.

Distribution of savings and portfolio preference are one side of the story. That is, a strategy aimed at bringing into the market more of non-investors has to keep in mind the fact that there is large number of forces related to the macro economy, as well as household level dynamics that might inhibit or retard the effects of such a

TABLE 3.1: ESTIMATED INVESTOR AND NON-INVESTOR HOUSEHOLDS BY RURAL AND URBAN (per cent)

	Total Investor HH	Non-Investor HH	Total HH
All India	10.74	89.26	100
Urban	20.75	79.25	100
Rural	5.99	94.01	100

TABLE 3.2: ESTIMATED INVESTOR AND NON-INVESTOR HOUSEHOLDS BY RURAL AND URBAN (millions)

	Total Investor HH	Non-Investor HH	Total HH
All India	24.48	203.36	227.84
Urban	15.23	58.15	73.38
Rural	9.25	145.21	154.46

TABLE 3.3: DISTRIBUTION OF INVESTORS ACROSS INVESTMENT PORTFOLIO (per cent)

	Bond	Debenture	IPO	Secondary Market	Mutual Fund	Derivative	Total
All India	14.89	6.94	10.05	21.59	42.89	3.64	100
Urban	15.07	8.57	8.47	21.25	40.80	5.85	100
Rural	14.60	4.26	12.66	22.04	46.44	0.00	100

strategy. An example is the degree to which land markets might compete with the stock markets for liquidity. A strategy to bring non-investors into the markets might not succeed if the dynamics and the correlations between various asset markets are not favorable. Hence efforts to raise investor base in the economy would have to take in to account factors over and above the information on distribution of households across investment categories.

Distribution and Location of Investors and Non-Investors

The picture that emerges from examining tables 3.1 and 3.2 indicates that the percentage of investors is nearly 20 per cent in urban areas while it is lower (6 per cent) in rural India. The degree of penetration of financial products regulated by the capital markets regulator is relatively low in both urban and rural areas. In terms of absolute number of households participating in the acquisition of these financial products is significant. The study estimates the number of participating households in India to be about 25 million.

Distribution and Location of Investors by Preferences

The distribution of households based on their choice of instruments is given in tables 3.3 and 3.4. Such distributions provide a basic insight into the risk preference of households. The strong preference is towards secondary markets and mutual funds. Investments in mutual funds suggest that households on an average have a longer time horizon for their disposable income allocated to instruments of investments. The rural population in particular chooses mutual funds over secondary markets. This in itself is not a negative outcome since mutual funds are significant means for firms to mobilize funds and to spread the risk for households. An interesting statistics is the degree of interest shown in IPO's in rural areas. In India not much is known about the structure of investors that enter the market via subscription to IPO (i.e., what is the length of holding, why do they enter, what are the reasons for choosing one IPO over the other etc are not very well articulated). In rural India given the markedly lesser extent of investment through secondary markets compared to mutual funds, one may expect that IPO's may be used for ensuring a quick return. If the investment horizon is shorter than the savings horizon then IPO can be converted into a tool for short-term returns. However, not withstanding the relatively shorter time horizons for investment on the part of rural households, it is important to invigorate the nascent IPO market in rural areas.

TABLE 3.5: CHOICE OF SAVING INSTRUMENTS (ALL INDIA) (per cent)

Households' Profile	Post Office Savings	Pension	Life Insurance	Commercial Banks	Regional Banks	Total
Years of Schooling						
up to 5	14.92	1.66	33.72	45.36	4.33	100
6 to 10	15.61	2.98	37.95	40.99	2.48	100
11 to 15	20.93	4.15	33.26	38.66	3.01	100
above 15	22.87	5.81	31.75	36.91	2.65	100
Marital Status						
Married	20.37	4.21	33.74	38.86	2.82	100
Unmarried	20.13	5.02	37.54	33.82	3.49	100
Others	19.19	5.88	28.41	42.12	4.40	100
Occupation						
Agricultural & Allied	10.54	5.20	39.26	42.04	2.96	100
White collar	21.08	4.31	33.66	38.13	2.82	100
Blue collar	19.25	4.88	39.53	33.17	3.17	100
Business, Transfer and Others	18.73	3.31	27.96	47.01	2.99	100
Income						
Lower	11.90	3.74	41.81	39.08	3.47	100
Middle Lower	17.34	4.00	37.94	37.27	3.45	100
Middle	22.18	4.11	33.52	37.81	2.38	100
Middle Upper	21.98	4.14	32.76	38.65	2.48	100
Upper	21.29	4.67	30.83	40.19	3.02	100
Age						
Young	15.83	5.79	39.49	35.16	3.72	100
Middle	23.44	3.54	31.32	39.35	2.36	100
Old	18.21	3.07	26.11	49.70	2.92	100
Sex						
Male	20.54	4.09	33.63	38.99	2.75	100
Female	16.78	7.42	34.20	36.42	5.18	100
Dependency Ratio						
Low	21.77	4.07	32.05	39.67	2.44	100
Medium	20.23	4.77	34.16	38.12	2.72	100
High	16.17	3.35	37.16	38.57	4.75	100
Assets Class						
Lower	15.71	3.32	44.13	34.42	2.42	100
Middle Lower	19.39	5.42	34.62	38.43	2.14	100
Middle	17.63	5.91	33.88	41.07	1.51	100
Middle Upper	21.57	3.54	31.37	40.41	3.11	100
Upper	22.89	3.66	31.08	38.43	3.94	100
Total	**20.33**	**4.28**	**33.67**	**38.84**	**2.88**	**100**

TABLE 3.4: DISTRIBUTION OF INVESTORS ACROSS INVESTMENT PORTFOLIO (million)

	Bond	Debenture	IPO	Secondary Market	Mutual Fund	Derivative	Total
All India	3.64	1.70	2.46	5.28	10.50	0.89	24.48
Urban	2.29	1.30	1.29	3.24	6.21	0.89	15.23
Rural	1.35	0.39	1.17	2.04	4.29	0.00	9.25

Profile of the Choice of Savings Instruments

Profiling the savings behavior sheds light on the following: impact of monetary policy, and risk aversion by households due to lack of safety nets. The Indian econ-

omy has had episodes of high inflation (and much of this is caused by uncertainty related agriculture production). This prompts governments acting through the RBI to control liquidity using instruments of monetary policy. High interest rate regimes are recipes for thin financial markets, and excessive volatility leads market participants to migrate towards more "certain" options such as fixed deposits with the commercial banks. Another concern for the promoters of financial markets is the reality that financial and social safety nets are not yet well formed. This will prompt households to park their disposable incomes in more liquid assets. Additionally, given the fact that the disposable income distributions for specific household categories as well as at the aggregate level are skewed with a vast majority having small or insignificant magnitudes of disposable incomes, the households can be expected to choose insurance or small savings schemes (like the post office savings rather than more risky assets).

Examination of table 3.5 reveals a structure supporting the points made in the preceding paragraph. It is found that most households are choosing to save in commercial bank deposits. This preference is stable across all household types. There is a significant magnitude of small savers. 11 to 25 per cent of all households save in post office savings schemes. The propensity to save in insurance schemes will always contribute to a drain in the investor base. As stated earlier a preference for this mode of savings is due to lack of well formed safety nets in an increasingly mobile economy. An impediment to participate in secondary markets is inadequate understanding of the markets by the investors. Through a proper outreach this can be solved in a meaningful manner by the SEBI.

Profile of Non-Investors

It is observed that there is a significant degree of non participation in secondary markets. The listing exercise (which preceded the actual survey) revealed that non participation in rural areas is significant and is not entirely related to budget constraint of households. Even in the Mofussil (i.e., urbanized villages near a larger town or city, or smaller towns near a city) this phenomenon was observed. Even though the survey indicates that the budget constraints play a significant role, the perceived role of disposable income on non participation is magnified by persistent information asymmetries regarding rules, returns, and liquidity.

Of the reasons listed for non participation, budget constraints, and perceived inadequacy of returns are exogenous to the policies of regulator. It is not part of the SEBI's mandate to influence credit markets or for that matter guarantee adequate returns. The latter is a function of how the various firms whose stocks are being traded perform. One therefore should examine those reasons that can be influenced by SEBI.

In table 3.6 one can find a few reasons for non participation which SEBI can redress. Among them is the fear of the safety of investments. More than 16 per cent of the highly educated non participants, as well as 16 per cent of the middle and upper income groups feel that non participation is due to the perceived non safety of returns. It is quite possible that such a perception is driven by inadequate informa-

TABLE 3.6: REASON FOR NOT INVESTING IN SECONDARY MARKET (ALL INDIA)
(per cent)

Reasons/ Household Characteristics	Inadequate returns	Not sure about safety of investments	Investment not very liquid	Inadequate information	No skills	Dissatisfied with the role of regulator	Inadequate Financial Resources
Years of Schooling							
up to 5	4.26	9.53	6.20	28.87	15.82	2.00	33.33
6 to 10	5.26	11.93	8.19	28.11	15.78	5.44	25.31
11 to 15	5.12	13.81	8.82	26.02	13.07	7.16	26.01
above 15	4.08	16.50	6.98	24.75	16.92	6.24	24.56
Marital Status							
Married	4.93	13.52	8.32	26.65	14.28	6.26	26.07
Unmarried	8.79	13.49	7.25	15.04	13.35	10.31	31.81
Others	2.13	13.79	6.47	32.20	18.98	4.43	22.03
Occupation							
Agricultural & Allied	2.04	10.33	7.50	26.75	22.17	9.21	22.01
White collar	5.12	14.92	8.13	26.29	14.00	6.57	24.99
Blue collar	4.61	10.40	6.71	23.65	16.53	6.08	32.04
Business, Transfer and Others	4.81	10.81	10.44	31.86	12.98	4.73	24.39
Income							
Lower	4.78	9.59	9.06	24.80	15.45	5.35	31.00
Middle Lower	4.09	12.32	7.89	27.56	12.65	7.36	28.15
Middle	5.28	15.60	7.94	26.30	12.09	6.72	26.09
Middle Upper	6.33	15.96	7.75	24.87	13.75	7.56	23.79
Upper	4.91	15.15	8.23	29.27	20.37	3.65	18.43
Age							
Young	5.71	13.60	8.31	22.75	13.88	8.33	27.44
Middle	4.25	13.73	7.92	28.65	14.87	4.89	25.70
Old	4.92	11.59	9.81	36.08	14.37	3.14	20.11
Sex							
Male	5.07	13.60	8.23	26.85	14.27	6.19	25.81
Female	3.22	12.22	8.08	22.24	16.38	7.73	30.15
Assets Class							
Lower	5.79	9.83	7.99	24.04	18.41	7.37	26.59
Middle Lower	4.84	10.38	9.21	30.81	12.11	5.76	26.91
Middle	4.87	13.21	8.03	27.45	10.98	6.78	28.70
Middle Upper	4.71	17.71	8.28	25.59	11.68	8.11	23.94
Upper	4.68	20.33	7.11	25.84	17.58	2.04	22.43
Dependency Ratio							
Low	5.61	13.44	7.48	25.59	16.34	6.09	25.47
Medium	4.21	14.24	8.73	28.38	12.31	6.11	26.04
High	5.15	12.04	8.77	24.32	14.94	7.18	27.61
Total	**4.95**	**13.51**	**8.23**	**26.53**	**14.41**	**6.29**	**26.10**

tion on the various aspects of the functioning of the stock market. If participants enter the market expecting to always offset the losses due to inflation then they may be surprised as markets have their own natural cycles. Such finer points related to the functioning of the markets are often missing from the commonly watched discussions in the investor's meets on television channels (and often accessed by households).

The other two reasons for non participation viz., inadequate information related to procedures, and lack of skills can be addressed by SEBI. Education in the vernacular languages might help. Talk shows and investor camps in English are going to retain the investor base in urban areas only. It is noted that between 2 to 10 per cent of all non participants do not seem to be satisfied with the role of SEBI in regulating markets. Such a response could be attributed to the prevalent perceived inadequate information related to investment procedures.

Principal Findings

- The percentage of investors is nearly 20 per cent in urban areas while it is much lower (6 per cent) in rural India.
- The estimated number of Investor households in India is 24.5 million who constitute about 11 per cent of total households.
- The strong preference of investors is towards mutual funds (43 per cent) and secondary markets (22 per cent). In urban areas, 41 per cent of investors invest in mutual funds and 21 per cent in secondary markets, whereas. 46 per cent rural population chooses mutual funds and 22 per cent secondary markets.
- There is a significant magnitude of small savers among all households. Eleven to 25 per cent of all households save in post office savings schemes.
- More that 16 per cent of the highly educated non- participants, as well as 16 per cent of the middle and upper income groups feel that non- participation is due to the perceived non- safety of returns.
- The survey reveals that a large proportion of the non-participants is satisfied with the role of the regulator SEBI, in regulating markets. Only between 2 to 10 per cent of the non- participants across selected household groups indicate dis-satisfaction with the role of market regulator.

4 Distribution of Savers and Investors in Urban India

In this chapter we profile the location and disparities of savers and investors as obtained in the survey for urban India. Economic development has been and continues to be spatially varied. This suggests that the structure of the economy is different across the economic space. If so, this implies variation in information, preferences and factors that contribute to these differences.

Distribution of Savers, Investors and Others

The majority of Indian households do not participate in the markets. Though the growth in the investor population has been nearly 6 per cent over the past 10 years , the overall number of investors is still insignificant. The reason for non-participation will be documented later in the report. Figure 4.1 illustrates that the distribution of all households in urban areas as estimated in this study. The insignificant number of market participants explains the thinness of markets.

In the present study the estimated number of urban investor households is 15.23 million which constitute 21 per cent of all urban households. The estimated saver households and other households are 34 million (46 per cent) and 25 million (33 per cent), respectively.

Regional distribution of household categories in urban areas is summarized in table 4.1 and 4.2.

FIGURE 4.1: DISTRIBUTION OF SAVERS, INVESTORS AND OTHERS

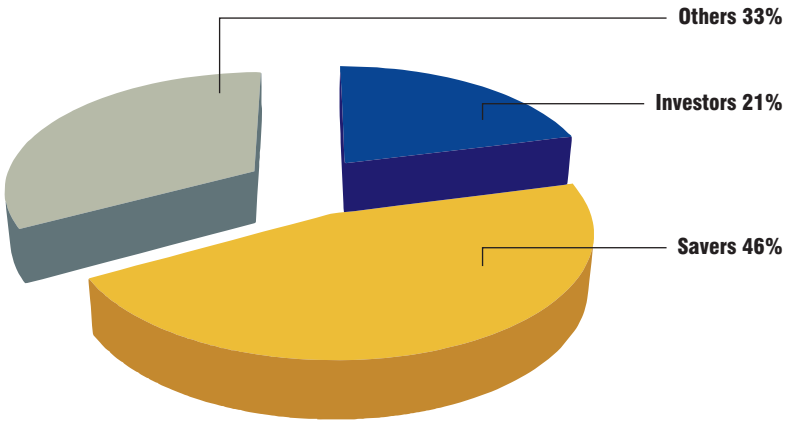


TABLE 4.1: ESTIMATES OF INVESTORS, SAVERS, AND OTHERS BY REGION (million)

	Investor Households	Saver Households	Other Households	Total Households
Central Region	0.14	2.70	1.14	3.98
Eastern Region	2.62	5.28	1.63	9.53
Northern Region	1.42	10.20	5.80	17.42
North-Eastern Region	0.32	0.66	0.16	1.15
Southern Region	4.84	5.75	11.20	21.79
Western Region	5.88	8.93	4.71	19.51
Total	**15.23**	**33.52**	**24.63**	**73.38**

TABLE 4.2: PERCENTAGE SHARE OF INVESTORS, SAVERS, AND OTHERS BY REGION

	Investor Households	Saver Households	Other Households	Total Households
Central Region	3.58	67.89	28.53	100
Eastern Region	27.54	55.41	17.05	100
Northern Region	8.19	58.44	33.37	100
North-Eastern Region	28.16	57.61	14.24	100
Southern Region	22.25	26.41	51.34	100
Western Region	30.13	45.74	24.13	100
Total	**20.78**	**45.66**	**33.56**	**100**

Online trading was introduced in 1990s to increase the spread of investors and to ensure transparency. Prior to this India had regional stock exchanges. Neither the regional stock exchanges nor the popularity of the NSE has done much to bring about a more uniform spread of investors. 55 per cent (Table 4.19) of all investors are still found in the western region. This really may not have much to do with income or occupational differences. The western region has been historically more exposed to financial sector than the other regions, the majority of investors are found here. The majority of investors are urban in central and eastern India. This reflects the fact that the degree of urbanisation is weaker in these regions.

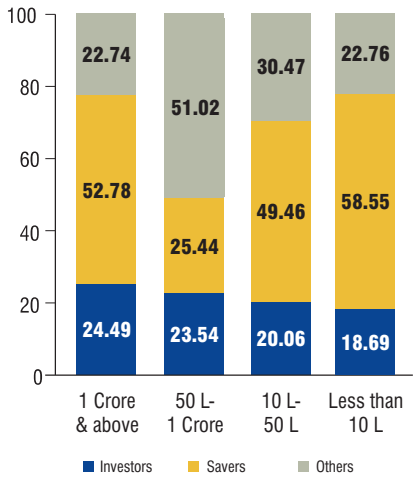
Distribution of Investors, Savers and Others by Town Class

In this section, we find that in larger towns we are more likely to find investors. This reflects slightly different occupational characteristics. Due to connectivity and access to information, the distribution of investors is skewed toward larger towns, while the distribution of savings represents a normal distribution. Figure 4.2 shows the proportion of savers, investors and others across town classes. Among town classes, the highest proportion of investors were found in the Town Class 1, while the second highest contributor in terms of investors as a percentage of total investors is Town Class 3.

Distribution of Investors, Savers and Others by Type of Instrument

Financial markets are in direct competition with other investment destinations.

FIGURE 4.3: DISTRIBUTION OF INVESTORS AND SAVERS AND OTHERS WITHIN TOWN CLASS



Since land markets have been increasingly deregulated, real estate is now a significant destination for investment (especially in towns and cities that are rapidly urbanising). Of all the regions, the south is the most conservative when it comes to participation in financial markets.

FIGURE 4.2: PROPORTION OF INVESTORS, SAVERS AND OTHERS BY TOWN CLASS

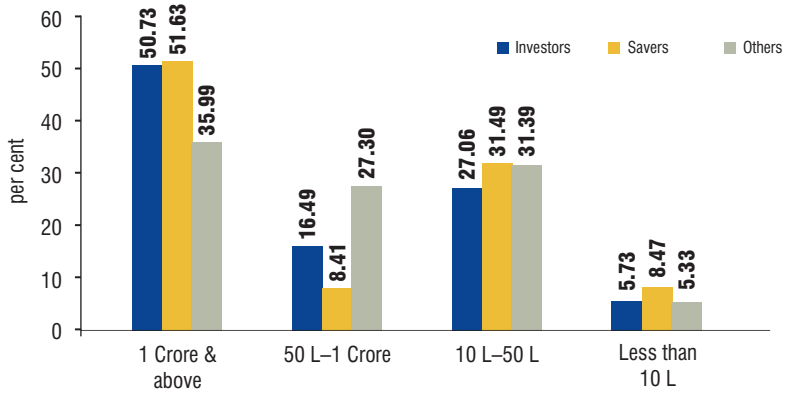


TABLE 4.3: ESTIMATES OF HOUSEHOLDS BY TYPE OF INVESTMENT AND TOWN CLASS (million)

Town Class/ Investment Category	Mutual Fund Total	Bond Total	Debenture Total	IPO Total	Secondary Market Total	Derivative Total
Town Class 1	1.70	0.45	0.33	0.24	0.83	0.21
Town Class 2	0.31	0.22	0.13	0.13	0.20	0.06
Town Class 3	0.81	0.30	0.13	0.25	0.34	0.02
Town Class 4	0.22	0.05	0.02	0.02	0.05	0.01
Total	**3.03**	**1.02**	**0.60**	**0.63**	**1.42**	**0.30**

Note: Table with Total such as "Mutual Fund Total" indicates the total investors in these instruments.

TABLE 4.4: DISTRIBUTION OF HOUSEHOLDS BY TYPE OF INVESTMENT AND TOWN CLASS (per cent)

Town Class/Investment Category	Mutual Fund Total	Bond Total	Debenture Total	IPO Total	Secondary Market Total	Derivative Total
Town Class 1	13.75	3.65	2.66	1.93	6.73	1.68
Town Class 2	7.33	5.31	3.06	3.03	4.87	1.43
Town Class 3	10.14	3.69	1.56	3.12	4.17	0.23
Town Class 4	11.81	2.63	1.22	0.92	2.82	0.67
Total	**11.50**	**3.86**	**2.29**	**2.39**	**5.39**	**1.13**

Note: These percentages are calculated based on the total population of the town classes.

TABLE 4.5: ESTIMATES OF TOTAL INVESTOR HOUSEHOLDS BY TYPE OF INVESTMENT AND REGION (million)

Regions/Investment Category	Mutual Fund Total	Bond Total	Debenture Total	IPO Total	Secondary Market Total	Derivative Total
Central Region	0.73	0.19	0.04	0.01	0.14	0.00
Eastern Region	0.64	0.08	0.01	0.03	0.43	0.00
Northern Region	0.60	0.21	0.03	0.26	0.25	0.01
North-Eastern Region	0.82	0.00	0.00	0.00	0.20	0.00
Southern Region	0.45	0.17	0.09	0.11	0.16	0.05
Western Region	0.46	0.18	0.14	0.10	0.24	0.06
Total	**0.51**	**0.16**	**0.08**	**0.10**	**0.25**	**0.04**

TABLE 4.6: DISTRIBUTION OF HOUSEHOLDS BY TYPE OF INVESTMENT AND REGION (per cent)

Regions/Investment Category	Mutual Fund Total	Bond Total	Debenture Total	IPO Total	Secondary Market Total	Derivative Total
Central Region	2.62	0.68	0.13	0.03	0.49	0.00
Eastern Region	17.73	2.1	0.29	0.83	11.82	0.00
Northern Region	4.92	1.7	0.22	2.15	2.02	0.10
North-Eastern Region	23.14	0.09	0.02	0.02	5.76	0.00
Southern Region	9.98	3.72	1.9	2.44	3.63	1.03
Western Region	13.89	5.4	4.07	2.95	7.21	1.85
Total	**10.64**	**3.26**	**1.74**	**2.13**	**5.13**	**0.82**

Note: These percentages are calculated based on the population within the region.

TABLE 4.7: ESTIMATES OF ONLY INVESTOR HOUSEHOLDS BY TYPE OF INVESTMENT AND REGION (million)

Regions/Investment Category	Mutual Fund Total	Bond Total	Debenture Total	IPO Total	Secondary Market Total	Derivative Total
Central Region	0.09	0.02	0.00	0.00	0.02	0.00
Eastern Region	1.25	0.11	0.02	0.04	0.72	0.00
Northern Region	0.49	0.16	0.00	0.20	0.19	0.00
North-Eastern Region	0.26	0.00	0.00	0.00	0.06	0.00
Southern Region	2.12	0.79	0.41	0.49	0.73	0.22
Western Region	1.99	0.77	0.67	0.38	0.84	0.30
Total	**6.21**	**1.85**	**1.10**	**1.11**	**2.56**	**0.52**

TABLE 4.8: DISTRIBUTION OF INVESTOR HOUSEHOLDS BY TYPE OF INVESTMENT AND REGION (per cent)

Regions/Investment Category	Mutual Fund Total	Bond Total	Debenture Total	IPO Total	Secondary Market Total	Derivative Total
Central Region	2.25	0.49	0.00	0.03	0.44	0.00
Eastern Region	13.16	1.14	0.20	0.47	7.56	0.00
Northern Region	2.83	0.94	0.00	1.13	1.10	0.01
North-Eastern Region	22.26	0.09	0.02	0.02	4.88	0.00
Southern Region	9.75	3.61	1.87	2.25	3.38	1.00
Western Region	10.22	3.97	3.44	1.94	4.33	1.54
Total	**8.47**	**2.53**	**1.50**	**1.52**	**3.50**	**0.71**

Note: These percentages are calculated based on the population within the region.

TABLE 4.9: ESTIMATES OF SAVERS BY TOWN CLASS (million)

Town Class/Investment Category	Post Office Savings	LIC	Pension Scheme	Commercial Bank	Regional Bank
Town Class 1	3.91	8.86	1.25	11.01	1.97
Town Class 2	0.76	2.87	0.41	3.21	0.06
Town Class 3	2.52	5.99	0.57	7.29	0.68
Town Class 4	0.49	1.4	0.11	1.69	0.07
Total	**7.68**	**19.12**	**2.34**	**23.2**	**2.78**

TABLE 4.10: PERCENTAGE OF SAVERS BY TOWN CLASS

Town Class/Investment Category	Post Office Savings	LIC	Pension Scheme	Commercial Bank	Regional Bank
Town Class 1	31.68	71.77	10.13	89.17	15.96
Town Class 2	18.11	68.75	9.75	76.87	1.51
Town Class 3	31.36	74.59	7.07	90.69	8.41
Town Class 4	27.09	76.45	6.08	92.76	3.96
Total	**29.12**	**72.47**	**8.85**	**87.93**	**10.53**

Note: These percentages are calculated based on the population within the town classes.

TABLE 4.11: ESTIMATES OF SAVERS BY REGION (million)

Town Class/Investment Category	Post Office Savings	LIC	Pension Scheme	Commercial Bank	Regional Bank
Central Region	0.92	3.12	0.06	3.96	0.02
Eastern Region	4.84	6.99	0.51	9.28	0.11
Northern Region	4.64	14.57	0.77	17.17	0.32
North-Eastern Region	0.36	0.68	0.00	1.13	0.01
Southern Region	5.03	15.17	2.64	13.54	0.99
Western Region	6.13	11.92	2.03	16.97	3.76
Total	**21.92**	**52.45**	**6.02**	**62.04**	**5.21**

TABLE 4.12: PERCENTAGE OF SAVERS BY REGION

Town Class/Investment Category	Post Office Savings	LIC	Pension Scheme	Commercial Bank	Regional Bank
Central Region	23.22	78.42	1.56	99.41	0.60
Eastern Region	50.77	73.32	5.35	97.35	1.11
Northern Region	26.72	83.86	4.45	98.83	1.85
North-Eastern Region	31.47	59.14	0.05	98.59	0.49
Southern Region	23.10	69.73	12.13	62.22	4.54
Western Region	31.41	61.06	10.42	86.95	19.28
Total	**29.91**	**71.54**	**8.21**	**84.64**	**7.10**

Note: These percentages are calculated based on the population within the region.

TABLE 4.13: ESTIMATES OF OTHER HOUSEHOLDS BY TOWN CLASS (million)

Town Class/Investment Category	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Town Class 1	0.21	1.34	2.62	0.55	1.95
Town Class 2	0.07	5.10	3.12	0.24	11.11
Town Class 3	0.04	2.05	6.77	0.29	2.94
Town Class 4	0.01	0.44	1.35	0.09	0.19
Total	**0.32**	**8.94**	**13.87**	**1.17**	**16.19**

TABLE 4.14: PERCENTAGE OF OTHER HOUSEHOLDS BY TOWN CLASS

Town Class/Investment Category	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Town Class 1	1.00	6.29	12.27	2.56	9.13
Town Class 2	0.38	29.50	18.04	1.39	64.22
Town Class 3	0.14	7.37	24.30	1.04	10.58
Town Class 4	0.08	6.55	19.98	1.36	2.75
Total	**0.44**	**12.20**	**18.92**	**1.60**	**22.09**

TABLE 4.15: ESTIMATES OF OTHER HOUSEHOLDS BY REGION (million)

Town Class/Investment Category	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Central Region	0.01	0.33	0.93	0.00	0.01
Eastern Region	0.00	0.10	1.00	0.05	1.48
Northern Region	0.01	1.86	5.16	0.01	0.05
North-Eastern Region	0.00	0.00	0.00	0.00	0.37
Southern Region	0.07	5.34	4.08	0.45	11.32
Western Region	0.24	1.31	2.70	0.66	2.96
Total	**0.32**	**8.94**	**13.87**	**1.17**	**16.19**

TABLE 4.16: PERCENTAGE OF OTHER HOUSEHOLDS BY REGION

Town Class/Investment Category	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Central Region	0.13	8.35	23.29	0.05	0.29
Eastern Region	0.00	1.09	10.54	0.49	15.56
Northern Region	0.07	10.72	29.68	0.06	0.30
North-Eastern Region	0.00	0.00	0.02	0.00	32.00
Southern Region	0.31	24.52	18.74	2.05	52.00
Western Region	1.22	6.72	13.84	3.40	15.16
Total	**0.44**	**12.20**	**18.92**	**1.60**	**22.09**

TABLE 4.17: PROPORTION OF INVESTORS, SAVERS AND OTHERS BY CITY (per cent)

City	% Share of Investors	% Share of Savers	% Share of Others
Kangra	0.01	0.01	0.01
Almora	0.01	0.05	0.01
Ponda	0.04	0.01	0.02
Gangtok	0.05	0.03	0.01
Kanpur	0.07	3.10	1.11
Bikaner	0.09	0.35	0.78
Shimla	0.09	0.27	0.15
Faridabad	0.11	1.80	1.34
Durg Bhilai	0.13	1.12	0.73
Raipur	0.13	1.00	0.63
Shillong	0.17	0.15	0.03
Dehradun	0.19	0.91	0.19
Indore	0.21	2.15	1.37
Patna	0.21	1.77	1.39
Bhopal	0.24	2.04	1.53
Amritsar	0.25	1.27	1.18
Gurgaon	0.27	0.30	0.26
Lucknow	0.35	3.35	1.20
Ranchi	0.35	0.57	1.39
Jamshedpur	0.38	0.62	0.58
Gulbarga	0.58	0.34	0.34
Ludhiana	0.58	1.16	2.30
Cuttak	0.64	0.57	0.31
Chandigarh	0.69	1.08	0.96
Rourkela	0.77	0.53	0.07
Mangalore	0.81	0.46	0.41
Kochi	0.83	0.90	0.27
Coimbatore	1.17	0.98	0.92
Guwahati	1.24	1.22	0.52
Puducherry	1.39	0.95	0.09
Chennai	1.48	0.09	12.94
Jaipur	1.50	0.91	5.19
Visakhapatnam	1.52	0.45	1.99
Vijayawada	1.55	0.16	1.79
Thiruvananthapuram	1.58	1.51	0.04
Nagpur	3.02	1.50	1.94
Hyderabad	3.24	1.57	5.53
Ahmedabad	4.48	1.66	5.59
Surat	5.38	3.56	2.97
Kolkata	5.69	4.51	1.23
Pune	6.18	2.81	2.71
Bangalore	7.29	5.09	3.23
Delhi	8.79	15.33	15.77
Mumbai	36.25	31.80	18.99
Total	**100.00**	**100.00**	**100.00**

TABLE 4.18: DISTRIBUTION OF INVESTORS, SAVERS AND OTHERS WITHIN CITY (per cent)

Cities	Investors	Savers	Others	Total
Ahmedabad	29.27	22.92	47.81	100
Almora	4.99	80.52	14.49	100
Amritsar	5.64	59.98	34.38	100
Bangalore	32.67	48.36	18.98	100
Bhopal	3.73	65.81	30.46	100
Bikaner	4.74	40.02	55.24	100
Chandigarh	16.25	54.05	29.70	100
Chennai	7.95	1.08	90.97	100
Cuttack	28.47	53.72	17.82	100
Dehradun	7.98	81.57	10.44	100
Delhi	14.20	52.45	33.35	100
Durg Bhilai	3.81	68.45	27.73	100
Faridabad	1.96	67.09	30.95	100
Gangtok	37.56	53.05	9.39	100
Gulbarga	33.28	41.32	25.40	100
Gurgaon	21.89	50.95	27.16	100
Guwahati	27.47	57.33	15.20	100
Hyderabad	23.46	24.09	52.45	100
Indore	3.15	69.54	27.31	100
Jaipur	14.65	18.85	66.49	100
Jamshedpur	15.32	53.47	31.20	100
Kangra	14.26	62.29	23.45	100
Kanpur	0.92	81.17	17.91	100
Kochi	26.95	61.61	11.44	100
Coimbatore	26.21	46.70	27.09	100
Kolkata	33.78	56.67	9.56	100
Lucknow	3.86	78.70	17.44	100
Ludhiana	9.63	40.67	49.70	100
Mangalore	34.95	41.90	23.15	100
Mumbai	28.22	52.43	19.35	100
Nagpur	34.57	36.39	29.05	100
Patna	3.59	64.97	31.44	100
Ponda	42.34	29.09	28.57	100
Puducherry	39.59	57.10	3.30	100
Pune	39.44	37.96	22.59	100
Raipur	4.30	68.77	26.93	100
Ranchi	10.35	35.69	53.96	100
Rourkela	38.71	56.65	4.64	100
Shillong	32.31	60.91	6.78	100
Shimla	10.65	66.19	23.16	100
Surat	32.02	44.87	23.11	100
Thiruvananthapuram	32.76	66.24	0.99	100
Vijayawada	36.60	8.07	55.33	100
Visakhapatnam	29.91	18.68	51.41	100
Total	**22.59**	**47.84**	**29.57**	**100**

TABLE 4.19: PERCENTAGE SHARE OF INVESTORS BY CITY WITHIN REGION

City	% share of investors
Bhopal	34.18
Bhilai	18.48
Indore	28.86
Raipur	18.48
Central Region	**0.71**
Cuttack	8.00
Jamshedpur	4.67
Kolkata	70.78
Patna	2.58
Ranchi	4.35
Rourkela	9.63
Eastern Region	**8.04**
Almora	0.05
Amritsar	1.95
Bikaner	0.67
Chandigarh	11.53
Dehradun	1.45
Delhi	67.64
Faridabad	0.86
Gurgaon	2.08
Jaipur	5.3
Kangra	0.04
Kanpur	0.57
Lucknow	2.68
Ludhiana	4.48
Shimla	0.7
Northern Region	**12.99**
Gangtok	3.35
Guwahati	84.96
Shillong	11.68
North Eastern Region	**1.46**
Bangalore	33.99
Chennai	6.91
Gulbarga	2.68
Hyderabad	15.11
Kochi	3.88
Coimbatore	5.46
Mangalore	3.8
Puducherry	6.51
Thiruvananthapuram	7.36
Vijayawada	7.22
Visakhapatnam	7.08
Southern Region	**21.43**
Ahmedabad	8.1
Mumbai	65.48
Nagpur	5.46
Ponda	0.07
Pune	11.17
Surat	9.72
Western Region	**55.36**
Total	**100**

Profile of Investor Households by Investment Options

Interestingly (and revealingly), the pattern and preference for savings explained by education and occupation is also observed while profiling investments. Income levels do not explain much of the difference within any investment category. This only suggests that risk-taking may not be adequately explained by variations in income levels. Instead, expected incomes can better explain variations in risk preference.

TABLE 4.20: ESTIMATES OF INVESTOR HOUSEHOLDS BY EDUCATION LEVEL (million)

Years of Schooling	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
up to 5	0.16	0.02	0.01	0.03	0.05	0.01
6 to 10	1.05	0.25	0.13	0.12	0.24	0.07
11 to 15	3.61	1.18	0.78	0.54	1.54	0.34
above 15	1.39	0.40	0.17	0.42	0.74	0.11
Total	**6.21**	**1.85**	**1.10**	**1.11**	**2.56**	**0.52**

TABLE 4.21: PERCENTAGE OF INVESTOR HOUSEHOLDS BY EDUCATION LEVEL

Years of Schooling	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
up to 5	2.53	1.00	0.92	2.42	2.11	1.76
6 to 10	16.97	13.43	12.08	10.75	9.18	12.67
11 to 15	58.15	63.94	71.47	48.88	59.93	65.37
above 15	22.35	21.63	15.53	37.95	28.78	20.20
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.22: ESTIMATES OF INVESTOR HOUSEHOLDS BY INCOME CLASS (million)

Income Class	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
Up to 10000	0.43	0.10	0.05	0.06	0.11	0.02
10001 to 15000	1.06	0.32	0.22	0.12	0.34	0.10
15001 to 20000	1.51	0.52	0.28	0.18	0.57	0.09
20001 to 25000	1.38	0.51	0.29	0.23	0.65	0.12
More than 25000	1.83	0.41	0.26	0.52	0.89	0.19
Total	**6.21**	**1.85**	**1.10**	**1.11**	**2.56**	**0.52**

TABLE 4.23: PERCENTAGE OF INVESTOR HOUSEHOLDS BY INCOME CLASS

Income Class	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
Up to 10000	6.90	5.27	4.51	5.51	4.37	3.58
10001 to 15000	17.09	17.12	19.71	10.69	13.12	19.09
15001 to 20000	24.32	28.06	25.57	16.12	22.22	18.21
20001 to 25000	22.15	27.50	26.69	20.95	25.44	22.95
More than 25000	29.54	22.06	23.53	46.74	34.85	36.17
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.24: ESTIMATES OF INVESTOR HOUSEHOLDS BY OCCUPATION CATEGORY (million)

Occupation Category	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
Agricultural & Allied	0.11	0.02	0.00	0.00	0.03	0.01
White collar	4.68	1.54	0.94	0.83	2.00	0.45
Blue collar	0.55	0.16	0.08	0.12	0.17	0.04
Business, Transfer and Others	0.81	0.11	0.06	0.15	0.35	0.03
Total	**6.15**	**1.83**	**1.09**	**1.10**	**2.54**	**0.52**

TABLE 4.25: ESTIMATES OF INVESTOR HOUSEHOLDS BY OCCUPATION CATEGORY (per cent)

Occupation Category	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
Agricultural & Allied	1.78	1.07	0.20	0.19	1.06	1.23
White collar	76.06	84.46	86.73	75.52	78.61	86.59
Blue collar	8.99	8.67	7.46	11.02	6.65	7.14
Business, Transfer and Others	13.16	5.80	5.60	13.27	13.68	5.04
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.26: ESTIMATES OF INVESTOR HOUSEHOLDS BY GENDER (million)

Gender	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
Male	5.81	1.71	1.04	1.07	2.43	0.47
Female	0.40	0.14	0.06	0.04	0.13	0.05
Total	**6.21**	**1.85**	**1.10**	**1.11**	**2.56**	**0.52**

TABLE 4.27: PERCENTAGE OF INVESTOR HOUSEHOLDS BY GENDER

Gender	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
Male	93.59	92.55	94.42	96.43	94.77	89.60
Female	6.41	7.45	5.58	3.57	5.23	10.40
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.28: ESTIMATES OF INVESTOR HOUSEHOLDS BY AGE (million)

Age	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
Young Age	2.41	1.09	0.69	0.47	1.05	0.30
Middle Age	3.29	0.70	0.39	0.55	1.29	0.22
Old Age	0.51	0.06	0.02	0.09	0.23	0.01
Total	**6.21**	**1.85**	**1.10**	**1.11**	**2.56**	**0.52**

TABLE 4.29: PERCENTAGE OF INVESTOR HOUSEHOLDS BY AGE

Age	Mutual Fund only	Bond only	Debenture only	IPO only	Secondary Market only	Derivative only
Young Age	38.76	59.07	62.88	42.51	40.89	57.05
Middle Age	53.07	37.71	35.11	49.57	50.15	41.77
Old Age	8.17	3.22	2.01	7.92	8.96	1.18
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Profile of Savers Households by Saving Options

Post office savings schemes are preferred to a larger extent by those whose education is 10-15 years. Similarly white collar workers (who typically have a higher level of education) prefer post office savings schemes. Variation in income levels does not seem to bring out any significant difference in preferences. Both education and occupation have more to do with expected incomes. This then explains why these two variables explain most of the difference in savings options.

TABLE 4.30: ESTIMATES OF SAVERS BY EDUCATION (million)

Years of Schooling	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
up to 5	0.66	2.54	0.13	3.76	0.23
6 to 10	4.09	12.24	1.20	14.24	1.07
11 to 15	12.89	28.95	3.26	34.74	3.08
above 15	4.28	8.72	1.43	9.30	0.83
Total	**21.92**	**52.45**	**6.02**	**62.04**	**5.21**

TABLE 4.31: PERCENTAGE OF SAVERS BY EDUCATION

Years of Schooling	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
up to 5	3.02	4.84	2.20	6.06	4.37
6 to 10	18.66	23.33	19.97	22.95	20.51
11 to 15	58.79	55.20	54.13	56.00	59.25
above 15	19.53	16.62	23.70	14.98	15.87
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.32: ESTIMATES OF SAVERS BY INCOME (million)

Monthly Income (₹)	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
Up to 10000	2.73	8.67	0.69	11.59	0.95
10001 to 15000	5.49	13.54	1.36	16.12	1.52
15001 to 20000	6.04	13.30	1.26	15.07	0.95
20001 to 25000	3.38	7.72	1.03	9.00	0.62
More than 25000	4.29	9.21	1.68	10.25	1.17
Total	**21.92**	**52.45**	**6.02**	**62.04**	**5.21**

TABLE 4.33: PERCENTAGE OF SAVERS BY INCOME

Monthly Income (₹)	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
Up to 10000	12.44	16.54	11.47	18.68	18.33
10001 to 15000	25.04	25.82	22.64	25.98	29.26
15001 to 20000	27.55	25.35	20.90	24.30	18.17
20001 to 25000	15.41	14.72	17.05	14.51	11.85
More than 25000	19.56	17.57	27.94	16.53	22.39
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.34: ESTIMATES OF SAVERS BY OCCUPATION (million)

Occupation	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
Agricultural and Allied activities	0.23	0.63	0.06	0.69	0.04
Non-agricultural white collar	15.43	36.73	4.28	43.36	3.74
Non-agricultural blue collar	2.39	7.42	0.66	8.54	0.80
Business, Transfer and others	3.71	7.32	0.95	9.02	0.57
Total	**21.75**	**52.09**	**5.96**	**61.62**	**5.15**

TABLE 4.35: PERCENTAGE OF SAVERS BY OCCUPATION

Occupation	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
Agricultural and Allied activities	1.08	1.20	1.02	1.12	0.78
Non-agricultural white collar	70.91	70.51	71.93	70.37	72.54
Non-agricultural blue collar	10.98	14.24	11.15	13.87	15.53
Business, Transfer and others	17.03	14.05	15.90	14.65	11.14
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.36: ESTIMATES OF SAVERS BY GENDER (million)

Gender	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
Male	19.92	48.32	5.28	57.69	4.75
Female	2.00	4.12	0.73	4.36	0.46
Total	**21.92**	**52.45**	**6.02**	**62.04**	**5.21**

TABLE 4.37: PERCENTAGE OF SAVERS BY GENDER

Gender	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
Male	90.87	92.14	87.81	92.98	91.23
Female	9.13	7.86	12.19	7.02	8.77
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.38: ESTIMATES OF SAVERS BY AGE (million)

Age Category	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
Young Age	8.07	21.79	2.86	25.72	2.66
Middle Age	11.72	26.56	2.70	30.84	2.21
Old Age	2.14	4.09	0.45	5.48	0.34
Total	**21.92**	**52.45**	**6.02**	**62.04**	**5.21**

TABLE 4.39: PERCENTAGE OF SAVERS BY AGE

Age Category	Post Office Saving	LIC	Pension Scheme	Commercial Bank	Regional Bank
Young Age	36.79	41.56	47.57	41.46	51.01
Middle Age	53.47	50.64	44.88	49.71	42.51
Old Age	9.74	7.81	7.55	8.84	6.46
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Profile of Non-Savers Households by Other Options

India still has a significant percentage of households who neither use formal savings options nor participate in financial markets. The options available to them include commodity futures, investment in real estate, direct capital investment in business, private funds, and investment in precious metals like gold and art.

Of these items, the commodities and futures markets are the most risky options. The more educated and white collar persons prefer these options. The effect of income is not pronounced within any of these options.

TABLE 4.40: ESTIMATES OF OTHER HOUSEHOLDS BY EDUCATION (million)

Years of Schooling	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
up to 5	0.01	0.32	0.88	0.07	0.49
6 to 10	0.06	1.73	3.69	0.29	3.20
11 to 15	0.19	5.03	7.43	0.65	9.09
above 15	0.07	1.88	1.86	0.16	3.41
Total	**0.32**	**8.94**	**13.87**	**1.17**	**16.19**

TABLE 4.41: PERCENTAGE OF OTHER HOUSEHOLDS BY EDUCATION

Years of Schooling	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
up to 5	1.64	3.54	6.34	5.78	3.03
6 to 10	19.68	19.29	26.62	24.93	19.74
11 to 15	57.70	56.18	53.61	55.60	56.17
above 15	20.98	20.98	13.43	13.69	21.05
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.42: ESTIMATES OF OTHER HOUSEHOLDS BY INCOME (million)

₹/month	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Up to 10000	0.02	1.89	1.45	0.21	4.51
10001 to 15000	0.07	2.23	3.36	0.43	4.32
15001 to 20000	0.12	1.87	3.45	0.26	3.08
20001 to 25000	0.06	1.16	2.49	0.12	1.83
More than 25000	0.05	1.79	3.11	0.15	2.45
Total	**0.32**	**8.94**	**13.87**	**1.17**	**16.19**

TABLE 4.43: PERCENTAGE OF OTHER HOUSEHOLDS BY INCOME

₹/month	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Up to 10000	4.72	21.09	10.43	18.22	27.87
10001 to 15000	22.61	24.97	24.27	36.82	26.65
15001 to 20000	37.39	20.96	24.91	21.93	19.04
20001 to 25000	18.43	13.00	17.95	10.02	11.29
More than 25000	16.86	19.98	22.45	13.01	15.15
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.44: ESTIMATES OF OTHER HOUSEHOLDS BY OCCUPATION (million)

Occupation	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Agricultural and Allied activities	0.00	0.11	0.10	0.02	0.23
Non-agricultural white collar	0.23	5.50	11.08	0.76	9.86
Non-agricultural blue collar	0.02	1.49	1.27	0.30	2.99
Business, Transfer and other	0.07	1.78	1.31	0.09	2.95
Total	**0.32**	**8.88**	**13.76**	**1.16**	**16.03**

TABLE 4.45: PERCENTAGE OF OTHER HOUSEHOLDS BY OCCUPATION

Occupation	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Agricultural and Allied activities	0.24	1.27	0.71	1.44	1.43
Non-agricultural white collar	71.63	61.90	80.54	65.51	61.51
Non-agricultural blue collar	6.99	16.75	9.21	25.67	18.63
Business, Transfer and other	21.14	20.08	9.53	7.39	18.44
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.46: ESTIMATES OF OTHER HOUSEHOLDS BY GENDER (million)

Gender	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Male	0.30	7.44	13.17	1.09	13.58
Female	0.02	1.51	0.70	0.08	2.61
Total	**0.32**	**8.94**	**13.87**	**1.17**	**16.19**

TABLE 4.47: PERCENTAGE OF OTHER HOUSEHOLDS BY GENDER

Gender	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Male	93.54	83.17	94.95	93.10	83.90
Female	6.46	16.83	5.05	6.90	16.10
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

TABLE 4.48: ESTIMATES OF OTHER HOUSEHOLDS BY AGE (million)

Age Category	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Young Age	0.17	4.65	6.03	0.60	9.07
Middle Age	0.14	3.74	6.82	0.54	6.24
Old Age	0.01	0.55	1.01	0.03	0.88
Total	**0.32**	**8.94**	**13.87**	**1.17**	**16.19**

TABLE 4.49: PERCENTAGE OF OTHER HOUSEHOLDS BY AGE

Age Category	Commodity Market	Real Estate	Business	Private Funds	Art & Jewellery
Young Age	53.85	51.98	43.51	50.94	56.00
Middle Age	44.12	41.86	49.21	46.12	38.55
Old Age	2.03	6.15	7.28	2.93	5.45
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Principal Findings

- The majority of Indian households do not participate in the financial markets.
- 55 per cent of all investors are found in the western region.
- Post office savings schemes are most preferred by white collar workers whose level of education is between 10-15 years.

5 Profiling Savings Behaviour in Urban India

Introduction

Households plan for the future and the present by making savings and investments decisions. Some differences associated with savings and investment choices include risk and liquidity. In general, we expect households that exhibit a relatively high level of liquidity preference as well as low level of tolerance towards risk to engage in a greater degree of savings activity. Before we present the savings profile of households, it is worth investigating whether a rupee of surplus income will be entirely saved or entirely invested or the combination of these two. In this context during the survey we conducted a thought experiment where we hypothetically relax the Households' budget constraint progressively. Tables 5.1.a, 5.1.b and 5.1.c capture the responses across household classes and the demographic characteristics of this relaxation. The findings in these tables are sobering to enthusiasts of financial markets. We find that even with higher levels of relaxation of the Households' budget constraint, the allocation for a household are in avenues such as commercial bank and real estate. This can only suggest the following. Since the macroeconomic conditions consistently suggest that inflationary tendencies will persist which, in turn, will raise the prices of gold and precious metals as well as land, households are progressively treating financial markets as, at best, a tertiary source of returns. We shall now provide the savings profiles of households given this environment and finding.

The terms 'savings' and 'investments' are often used interchangeably. However, savings are flow variables as they occur over time and they are a source of deferred consumption. Investment, on other hand, refers to a commitment to purchase capital or productive assets, such as financial instruments. Bank deposits, therefore, are not household investments; however, purchase of stocks and bonds constitute investment. Hence, one should observe wide variations in the pattern of savings and investments by households across the economic space. Both the magnitudes and the reasons for savings and investments are likely to be affected by life cycle factors, information asymmetry, need for a safety net, quality of regulation and, to some extent, location. In this chapter we shall provide a disaggregated profile of household savings behaviour.

TABLE 5.1.A: SAVING BEHAVIOUR OF HOUSEHOLDS WITH BUDGET CONSTRAINTS (WINDFALL GAIN IS ₹ 50,000) (per cent)

Households' Profile	Post Office Savings	Insurance & Pension	Banks Deposit	Investment			Non-Savings		Cons exp	Total
				Mutual Fund	Secondary Market	Other	Real Estate	Other		
Years of Schooling										
up to 5	8.78	14.31	27.60	3.44	0.82	1.92	3.49	23.88	15.76	100
6 to 10	10.62	15.79	26.49	4.59	1.27	5.90	2.56	20.97	11.80	100
11 to 15	12.32	17.91	27.89	6.38	3.10	7.21	1.53	14.87	8.80	100
above 15	10.30	17.68	30.12	6.47	3.05	6.39	1.69	13.54	10.75	100
Marital Status										
Married	11.40	17.21	27.92	5.74	2.48	6.21	1.88	16.75	10.41	100
Unmarried	10.85	18.07	21.44	7.90	3.92	16.20	2.32	14.88	4.42	100
Others	10.86	13.96	35.04	5.40	2.17	3.51	2.66	15.05	11.35	100
Occupation										
Agricultural & Allied	11.88	19.22	24.07	7.97	1.64	3.86	2.01	19.18	10.17	100
White collar	11.72	17.38	26.76	6.52	2.93	7.59	1.71	15.88	9.51	100
Blue collar	9.86	17.29	28.95	3.55	1.20	4.42	2.53	19.25	12.95	100
Business, Transfer and Others	11.29	15.70	32.85	4.58	2.02	3.12	2.29	17.17	10.98	100
Income										
Up to 10000	10.00	15.15	28.81	2.41	0.88	3.38	2.35	22.45	14.58	100
10001 to 15000	12.23	17.74	27.57	4.54	1.60	7.27	1.93	17.03	10.07	100
15001 to 20000	12.41	17.88	27.55	6.33	2.74	7.12	1.71	15.23	9.03	100
20001 to 25000	12.90	18.24	27.12	7.41	3.40	7.83	1.44	13.12	8.53	100
More than 25000	9.20	16.67	28.47	8.87	4.36	6.56	2.09	14.80	8.98	100
Age										
Young	9.99	18.46	26.80	5.23	2.55	8.58	1.82	16.74	9.84	100
Middle	12.68	16.23	28.40	6.27	2.51	5.05	1.94	16.38	10.54	100
Old	10.92	15.36	31.37	6.07	2.38	2.84	2.41	17.86	10.79	100
Sex										
Male	11.39	17.13	27.62	5.90	2.58	6.48	1.91	16.54	10.45	100
Female	11.08	17.38	31.60	4.45	1.66	6.09	2.06	17.92	7.76	100
Dependency Ratio										
Low	10.79	17.52	29.20	6.20	2.58	5.30	2.04	15.62	10.75	100
Medium	10.94	18.03	27.99	5.45	2.42	6.52	1.87	16.88	9.91	100
High	13.85	13.95	24.69	5.80	2.63	8.94	1.77	18.38	9.99	100
Assets Class										
Lower	8.62	19.86	25.04	3.81	1.70	8.26	2.95	17.99	11.77	100
Middle Lower	8.56	20.65	30.92	3.92	1.46	4.35	2.43	17.37	10.35	100
Middle	11.65	20.77	26.81	4.94	1.68	6.32	1.59	16.69	9.55	100
Middle Upper	15.68	12.98	29.49	7.58	2.64	7.00	1.47	14.37	8.78	100
Upper	12.32	11.49	27.28	8.71	5.10	6.33	1.16	16.80	10.81	100
Total	**11.37**	**17.15**	**27.91**	**5.80**	**2.52**	**6.45**	**1.92**	**16.64**	**10.25**	**100**

TABLE 5.1.B: SAVING BEHAVIOUR OF HOUSEHOLDS WITH BUDGET CONSTRAINTS (WINDFALL GAIN IS ₹ 5,00,000) (per cent)

Households' Profile	Post Office Savings	Insurance & Pension	Banks Deposit	Investment			Non-Savings		Cons exp	Total
				Mutual Fund	Secondary Market	Other	Real Estate	Other		
Years of Schooling										
up to 5	5.00	13.74	23.90	2.26	0.34	1.53	20.77	30.02	2.44	100
6 to 10	5.72	15.59	24.13	3.17	0.85	4.01	15.99	28.40	2.14	100
11 to 15	6.03	16.57	26.89	5.06	2.25	6.19	13.21	22.42	1.39	100
above 15	5.03	16.65	25.92	5.76	3.18	5.16	15.87	20.81	1.61	100
Marital Status										
Married	5.70	16.12	25.97	4.53	1.97	4.98	14.80	24.24	1.68	100
Unmarried	5.42	19.67	18.75	6.35	1.81	14.92	12.66	19.45	0.97	100
Others	6.82	14.26	31.55	3.47	1.64	2.28	15.85	21.94	2.20	100
Occupation										
Agricultural & Allied	9.47	16.59	23.58	5.96	2.31	3.13	15.38	22.59	1.00	100
White collar	5.69	16.31	25.44	5.35	2.28	6.14	13.87	23.42	1.49	100
Blue collar	5.01	15.73	24.93	2.43	0.98	3.99	18.08	26.61	2.23	100
Business, Transfer and Others	6.28	15.81	29.77	2.92	1.44	2.06	15.49	24.25	1.98	100
Income										
Up to 10000	5.64	15.71	25.25	1.38	0.40	2.74	17.79	28.40	2.69	100
10001 to 15000	6.15	17.34	25.60	3.79	1.23	5.78	14.96	23.70	1.46	100
15001 to 20000	6.07	16.57	26.80	5.11	2.11	6.13	13.70	22.12	1.39	100
20001 to 25000	6.00	16.42	26.22	5.82	2.87	6.61	12.02	22.73	1.30	100
More than 25000	4.64	14.51	25.59	7.04	3.54	4.79	14.94	23.39	1.56	100
Age										
Young	5.43	17.04	22.98	4.65	1.98	7.94	14.41	24.09	1.47	100
Middle	5.79	15.65	28.03	4.60	2.00	3.26	15.09	23.81	1.77	100
Old	7.12	14.47	29.33	3.70	1.50	1.73	14.77	25.14	2.25	100
Sex										
Male	5.78	16.13	25.75	4.65	1.99	5.24	14.84	23.93	1.68	100
Female	5.03	16.77	27.72	3.43	1.53	4.95	13.81	25.27	1.48	100
Dependency Ratio										
Low	6.10	15.35	28.08	4.70	2.10	4.27	14.68	23.04	1.69	100
Medium	5.53	16.74	25.04	4.29	1.91	5.55	14.52	24.78	1.65	100
High	5.38	16.62	23.08	4.97	1.77	6.56	15.64	24.33	1.67	100
Assets Class										
Lower	4.23	17.44	23.57	3.71	1.06	8.65	15.88	23.83	1.63	100
Middle Lower	4.76	19.31	26.87	2.88	1.21	3.55	15.98	23.83	1.60	100
Middle	5.73	16.75	26.49	3.97	1.51	4.65	15.92	23.07	1.91	100
Middle Upper	7.60	15.12	28.85	5.41	2.15	5.14	11.99	22.20	1.55	100
Upper	6.32	12.25	23.68	6.85	3.85	4.13	14.05	27.20	1.66	100
Total	**5.73**	**16.18**	**25.89**	**4.56**	**1.96**	**5.22**	**14.77**	**24.03**	**1.67**	**100**

TABLE 5.1.C: SAVING BEHAVIOUR OF HOUSEHOLDS WITH BUDGET CONSTRAINTS (WINDFALL GAIN IS ₹ 10,00,000) (per cent)

Households' Profile	Post Office Savings	Insurance & Pension	Banks Deposit	Investment			Non-Savings		Cons exp	Total
				Mutual Fund	Secondary Market	Other	Real Estate	Other		
Years of Schooling										
up to 5	3.77	8.78	20.09	1.15	0.48	0.90	30.76	31.28	2.79	100
6 to 10	3.96	8.98	18.57	1.86	0.69	2.43	30.06	31.22	2.24	100
11 to 15	4.58	9.54	18.39	3.24	1.92	3.96	29.70	27.29	1.38	100
above 15	4.74	11.16	19.26	4.65	2.95	4.22	30.07	21.69	1.26	100
Marital Status										
Married	4.36	9.55	18.62	2.97	1.74	3.30	30.22	27.57	1.66	100
Unmarried	3.95	11.66	14.95	5.41	1.65	9.86	21.34	30.38	0.80	100
Others	6.45	9.95	25.05	1.78	0.80	1.24	29.11	23.43	2.19	100
Occupation										
Agricultural & Allied	5.26	10.26	20.24	2.34	1.23	1.82	26.02	31.94	0.88	100
White collar	4.26	9.58	17.59	3.43	1.91	3.87	30.39	27.49	1.49	100
Blue collar	3.84	10.09	18.76	2.29	1.21	3.32	30.36	27.78	2.35	100
Business, Transfer and Others	5.72	9.13	24.05	1.78	1.25	1.46	27.79	27.11	1.72	100
Income										
Up to 10000	4.29	9.54	20.02	1.09	0.47	2.19	28.15	31.63	2.63	100
10001 to 15000	4.84	10.50	19.03	2.23	1.02	3.32	29.75	27.64	1.67	100
15001 to 20000	4.51	9.76	18.24	3.09	1.83	3.86	30.92	26.40	1.39	100
20001 to 25000	4.45	8.95	17.25	3.73	2.40	4.42	31.17	26.43	1.20	100
More than 25000	3.81	8.98	18.55	5.31	3.15	3.64	29.68	25.57	1.32	100
Age										
Young	4.18	11.15	16.28	3.54	2.10	5.38	27.57	28.34	1.44	100
Middle	4.25	8.37	20.00	2.65	1.43	2.02	32.64	26.85	1.78	100
Old	6.85	8.86	24.51	2.26	1.17	1.28	25.80	27.20	2.08	100
Sex										
Male	4.40	9.54	18.50	3.07	1.73	3.49	30.18	27.40	1.68	100
Female	4.52	10.80	21.00	2.38	1.38	3.03	26.50	29.10	1.29	100
Dependency Ratio										
Low	5.01	9.23	20.27	3.11	1.76	3.32	28.64	26.93	1.74	100
Medium	4.11	10.00	18.04	3.13	1.94	3.62	29.74	27.78	1.65	100
High	3.80	9.60	16.69	2.51	0.99	3.32	33.34	28.30	1.46	100
Assets Class										
Lower	3.39	11.18	18.62	3.23	1.47	7.32	24.24	28.82	1.73	100
Middle Lower	3.92	12.21	20.57	2.39	1.55	2.65	27.30	27.75	1.66	100
Middle	4.56	9.89	16.99	2.67	1.66	2.30	31.80	28.29	1.83	100
Middle Upper	5.37	7.87	17.84	2.82	1.66	2.41	34.76	25.65	1.63	100
Upper	4.82	6.93	19.39	4.01	2.20	2.53	31.58	27.14	1.40	100
Total	**4.41**	**9.63**	**18.68**	**3.02**	**1.71**	**3.45**	**29.91**	**27.54**	**1.65**	**100**

Household Demographic Profile by Level of Savings

There are a number of factors that potentially affect household savings behaviour. These include household-level characteristics such as age (life cycle), education, family size, asset ownership, and the presence of safety nets. Savings can also be influenced by macroeconomic factors, such as interest rates and expectations regarding inflation or recession. A profile of the structure of household-level savings is shown in Table 5.2.a. From this table the relationship between current income and level of savings is consistent with the predictions of economic theory. That is, the marginal propensity to save will increase (sometimes at a decreasing rate) with income. However, the relationship between the level of education, asset holdings and savings is mediated by income. This is clearly pointed out in Tables 5.2.b and 5.2.c. In Table 5.2.b, for example, lower income households have a low level of educational attainment.

TABLE 5.2.A: HOUSEHOLD DEMOGRAPHIC PROFILE BY LEVEL OF SAVINGS (per cent)

Households' Profile	Saving Category					
	Lowest	2nd quintile	3rd quintile	4th quintile	Highest	Total
Years of Schooling						
up to 5	32.67	24.37	18.70	13.39	10.87	100
6 to 10	28.33	23.00	19.24	17.00	12.43	100
11 to 15	18.10	20.21	21.34	21.01	19.34	100
above 15	10.19	12.96	17.33	23.40	36.12	100
Marital Status						
Married	19.80	19.68	19.98	20.19	20.34	100
Unmarried	24.15	25.41	19.28	18.50	12.66	100
Others	25.03	21.58	22.02	15.24	16.13	100
Occupation						
Agricultural & Allied	26.68	17.17	14.15	14.85	27.15	100
White collar	15.69	18.84	21.16	22.32	21.99	100
Blue collar	34.90	23.75	17.60	12.66	11.08	100
Business, Transfer and Others	24.01	20.91	17.74	17.77	19.56	100
Income						
Up to 10000	62.22	31.59	5.91	0.28	0.00	100
10001 to 15000	22.85	33.82	32.54	10.72	0.06	100
15001 to 20000	8.42	17.39	32.22	38.16	3.81	100
20001 to 25000	4.55	8.39	18.40	39.64	29.02	100
More than 25000	0.74	2.40	4.72	14.82	77.32	100
Age						
Young	23.07	21.93	19.54	17.57	17.89	100
Middle	17.26	18.45	20.77	22.33	21.18	100
Old	20.83	17.47	17.77	19.19	24.74	100
Sex						
Male	19.74	19.73	20.12	20.23	20.18	100
Female	24.42	22.28	18.67	17.12	17.50	100
Dependency Ratio						
Low	20.48	19.07	19.41	20.59	20.45	100
Medium	18.87	19.52	19.99	20.39	21.23	100
High	22.42	22.94	21.48	17.59	15.57	100
Assets Class						
Lower	29.59	24.66	19.45	16.16	10.14	100
Middle Lower	14.65	26.68	27.88	22.50	8.30	100
Middle	13.71	20.47	27.81	24.93	13.09	100
Middle Upper	16.99	19.99	23.87	23.04	16.11	100
Upper	9.75	15.24	19.61	26.44	28.96	100
Total	**20.00**	**20.00**	**20.00**	**20.00**	**20.00**	**100**

TABLE 5.2.B: DISTRIBUTION OF HOUSEHOLDS BY INCOME CATEGORY (₹/MONTH) AND EDUCATION LEVEL (YEARS OF EDUCATION) (per cent)

Education level	Income Category					
	Up to 10000	10001 to 15000	15001 to 20000	20001 to 25000	More than 25001	Total
up to 5	41.54	25.74	16.18	7.14	9.4	100
6 to 10	33.44	29.89	17.00	9.68	9.99	100
11 to 15	14.15	25.81	25.47	16.46	18.11	100
above 15	5.03	13.21	22.66	20.16	38.95	100

TABLE 5.2.C: DISTRIBUTION OF HOUSEHOLDS BY INCOME CATEGORY (₹/MONTH) AND ASSET LEVEL (₹) (per cent)

Income category	Assets class					
	Lower	Middle Lower	Middle	Middle Upper	Upper	Total
Up to 10000	39.44	27.31	16.12	11.51	5.62	100
10001 to 15000	24.49	24.01	22.15	18.92	10.42	100
15001 to 20000	16.40	19.08	23.49	23.05	17.97	100
20001 to 25000	11.37	14.63	20.61	24.35	29.04	100
More than 25000	6.01	12.90	16.56	22.70	41.83	100

Choice of Savings Instruments

The profile of households' saving behaviour is given and described in Table 5.3. We find that the primary destination of savings across household categories is insurance schemes and banks. This reflects the need to provide for intra-household financial security. Post office savings schemes are, for oblivious reasons, preferred less than commercial banks. The single most important reason is that such schemes have cumbersome procedures and offer inadequate returns. Roughly 72 per cent of all households[2] treat commercial banks and insurance schemes as their primary choice for savings.

Factors Determining Choice of Savings Instruments

There are two broad factors that drive the magnitude and the choice of instruments in which monies are saved. Liquidity preference is a primordial related to factors that allow households to choose between various savings options. For example, households that have a very high level of liquidity preference would choose savings deposits over fixed deposits.

When the distribution of savings across various options is disaggregated by level of education, we find that informatically complicated options, such as pension plans, are preferred by households with higher levels of education. Preference for insurance schemes and savings in regional banks declines with increasing levels of education.

For married persons the preference for savings in commercial banks is marginally greater than for unmarried (38.85 per cent compared to 33.68 per cent). This preference increases if we disaggregate at the level of widows, widowers, divorced and separated persons. Such patterns of allocations across savings instruments is consistent with liquidity preferences (accompanied by low risk) inherent in certain types of households.

If the need for credit is the driving force, then households whose occupation

TABLE 5.3: CHOICE OF SAVINGS INSTRUMENTS BY HOUSEHOLD CHARACTERISTICS (per cent)

Households' Profile	Post Office Saving	Pension	LIC	Commercial Bank	Regional Bank	Total
Years of Schooling						
up to 5	14.58	1.74	34.56	45.40	3.72	100
6 to 10	15.68	3.01	38.59	40.41	2.31	100
11 to 15	21.15	4.08	33.05	38.75	2.98	100
above 15	22.97	5.77	31.56	37.11	2.59	100
Marital Status						
Married	20.56	4.18	33.67	38.85	2.74	100
Unmarried	20.14	5.02	37.65	33.68	3.50	100
Others	19.27	5.96	28.53	41.94	4.30	100
Occupation						
Agricultural & Allied	13.47	6.11	38.29	40.75	1.37	100
White collar	21.13	4.26	33.63	38.19	2.78	100
Blue collar	19.61	4.77	39.67	32.92	3.02	100
Business, Transfer and Others	18.75	3.38	27.95	47.00	2.92	100
Income						
Up to 10000	11.97	3.81	42.43	38.71	3.07	100
10001 to 15000	17.52	4.04	37.92	37.18	3.34	100
15001 to 20000	22.41	4.10	33.46	37.74	2.29	100
20001 to 25000	22.08	4.13	32.71	38.71	2.38	100
More than 25000	21.51	4.57	30.61	40.28	3.03	100
Age						
Young	15.93	5.77	39.34	35.24	3.72	100
Middle	23.62	3.51	31.38	39.22	2.27	100
Old	18.36	3.13	26.08	49.72	2.69	100
Sex						
Male	20.73	4.06	33.57	38.97	2.67	100
Female	16.84	7.43	34.24	36.45	5.05	100
Dependency Ratio						
Low (0- 0.5)	22.00	4.01	31.88	39.73	2.39	100
Medium (0.51 -0.6)	20.40	4.74	34.11	38.08	2.67	100
High (0.61-0.99)	16.22	3.43	37.42	38.39	4.54	100
Assets Class						
Lower	16.02	3.38	44.48	33.87	2.26	100
Middle Lower	19.17	5.52	34.78	38.56	1.97	100
Middle	17.77	5.81	33.56	41.39	1.48	100
Middle Upper	21.87	3.43	31.14	40.38	3.17	100
Upper	23.13	3.65	31.04	38.38	3.81	100
Total	**20.51**	**4.25**	**33.61**	**38.83**	**2.80**	**100**

2. In this section we have used the term "households" and "earners" to reflect "saver hoseholds" and "savers".

FIGURE 5.1: DISTRIBUTION OF SAVERS IN VARIOUS SAVING OPTIONS

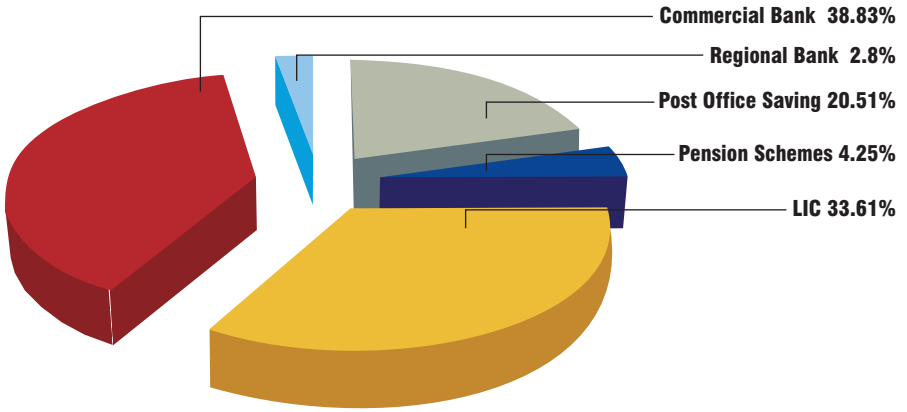


FIGURE 5.2: CHOICE OF SAVINGS PORTFOLIO BY YEARS OF SCHOOLING OF A SAVER

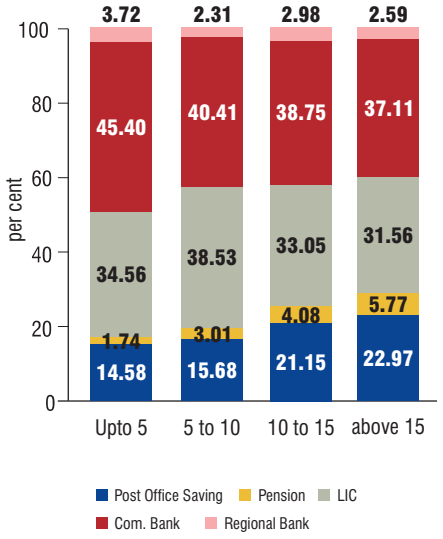


FIGURE 5.3: CHOICE OF SAVING PORTFOLIO BY MARITAL STATUS OF SAVER

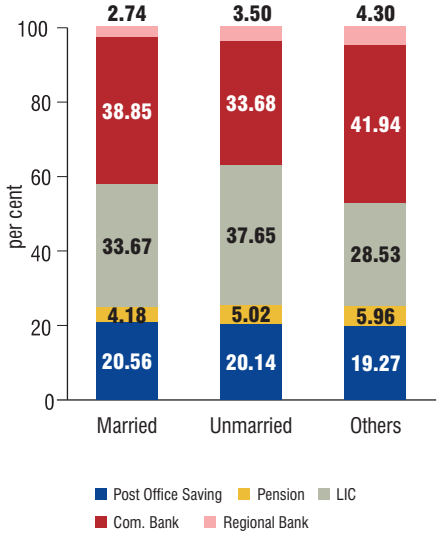


FIGURE 5.4: CHOICE OF SAVING PORTFOLIO BY OCCUPATION

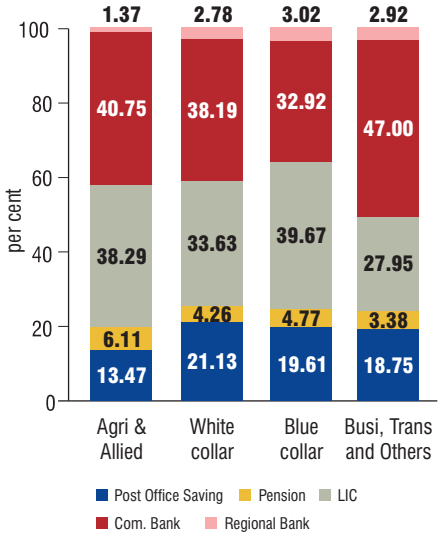
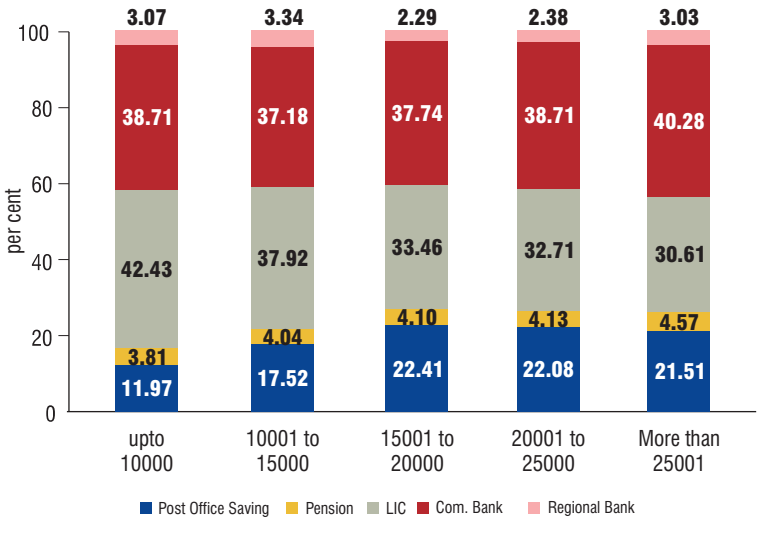


FIGURE 5.5: CHOICE OF SAVINGS PORTFOLIO BY INCOME CATEGORIES



is business choose commercial banks as the preferred destination for their savings. For obvious reasons such households least prefer various insurance schemes. A similar pattern can be observed in the case of agriculture and allied activities. Roughly 6 per cent of all households, whose primary occupation is agriculture, allocate a part of their savings to pension plans. If the salary or the pay structure in general includes a pension plan, then such households will not prefer a separate pension scheme as a significant additional source of savings.

Assets ownership is significantly conditioned by levels of income. Income distribution is significantly affected by levels of education. The asset and income distribution post conditioning on these variables (income and education, respectively) look alike (both are platykurtic). This then allow us to suggest that the choice of savings instruments if conditioned on either the asset or income distribution of households would be invariant.

That is, there will be no discernable differences between choice of savings options conditioned on income levels and assets ownership levels. The only significant point to be noted is that the preference for insurance schemes (in particular, for LIC) increases at extremely low levels of asset ownership. This is quite obvious as at low levels of asset ownership, the usual safety nets are absent. However, it will be revealing to see how the savings horizon changes with income and asset levels. For policy makers as well as for a regulator, it is planned savings as opposed to savings at a point in time that is pertinent. If savings horizons are long, then the liquidity required for market participation will be sub-

stantially lower. We find that the majority of households across income categories prefer to have a saving horizon exceeding five years. This is a preliminary indicator of the relatively low level of risk preference by Indian households. This then implies that entry into the financial market by retail investors is only going to be at the margin (the core activity is going to the arena of savings and not in the ambit of the financial markets).

The differences based on gender and ages in terms of allocations are minimal. Females prefer pension plans marginally more than males (7.43 per cent compared to 4.06 per cent). This reflects the fact that occupation of females does not for the most part include built-in pension plans. The allocations by older persons reflect their need for liquidity. This explains why 49.72 per cent of all households in this category prefer their savings to be in commercial banks.

If the time horizon is conditioned on the demographic characteristics of households we find the following. The time horizon within any savings option, for example, can differ according to the educational attainments of the earning members. Even though the life-cycle hypothesis[3] relates age with savings behaviours, we do not find results that mimic such behaviour across all demographic characteristics.

For example, we note that 36.27 per cent of all married persons have a time horizon of three to five years, while this number reduces to 33.6 per cent for unmarried persons. 53.36 per cent of all unmarried persons save for periods exceeding five years. This structure is also consistent with the age group. We find that older persons have a shorter time horizon on their savings.

FIGURE 5.7: SAVINGS TIME HORIZON BY INCOME CATEGORIES

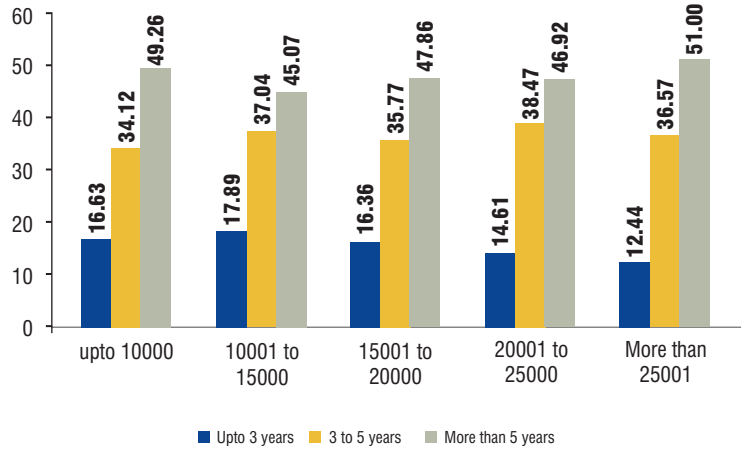


FIGURE 5.8: SAVINGS HORIZON BY ASSET OWNERSHIP CATEGORIES

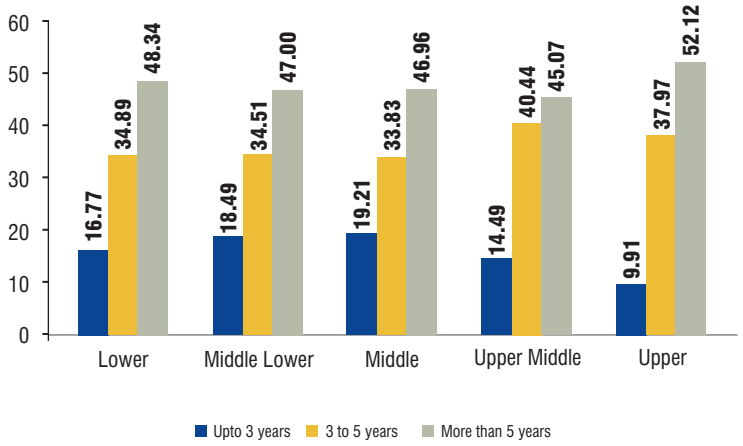


FIGURE 5.6: CHOICE OF SAVINGS PORTFOLIO BY ASSET OWNERSHIP CATEGORIES

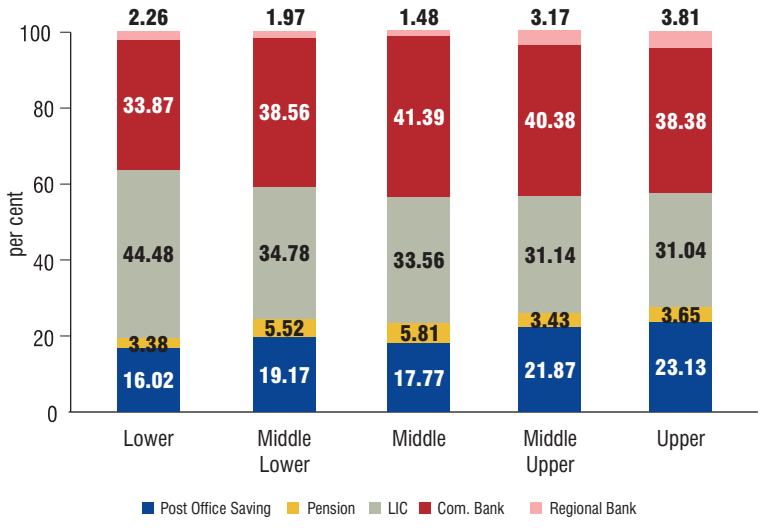
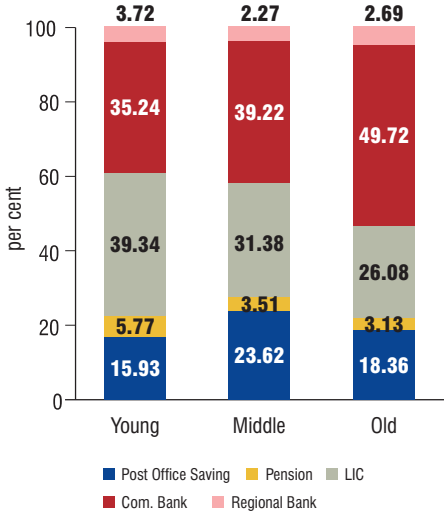


FIGURE 5.9: CHOICE OF SAVINGS PORTFOLIO BY AGE GROUP



3. Deaton A (2005), Franco Modigliani and the Life Cycle Theory of Consumption, Princeton University.

FIGURE 5.10: CHOICE OF SAVINGS PORTFOLIO BY GENDER

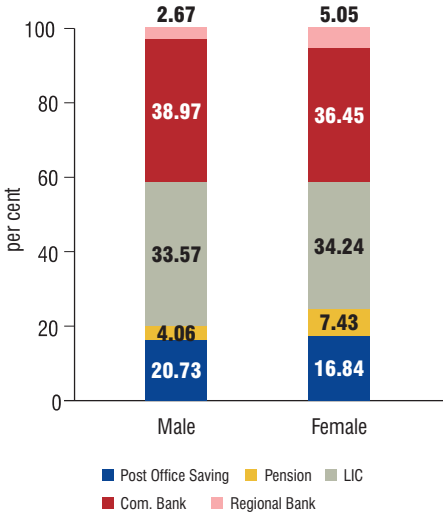


FIGURE 5.13: SAVINGS TIME HORIZON BY AGE OF SAVER

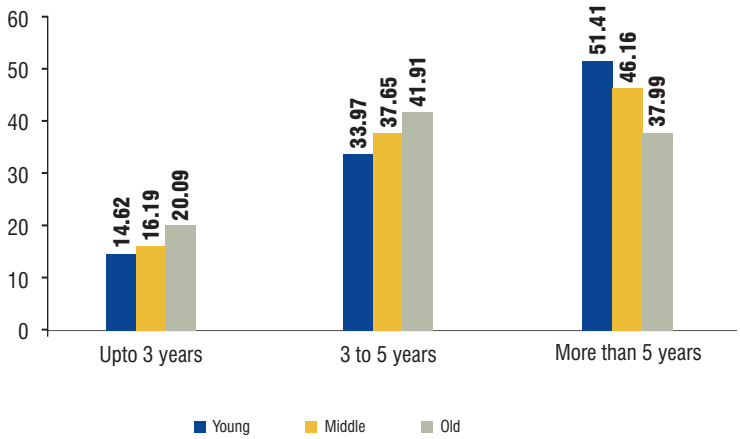


FIGURE 5.11: SAVINGS TIME HORIZON BY YEARS OF SCHOOLING

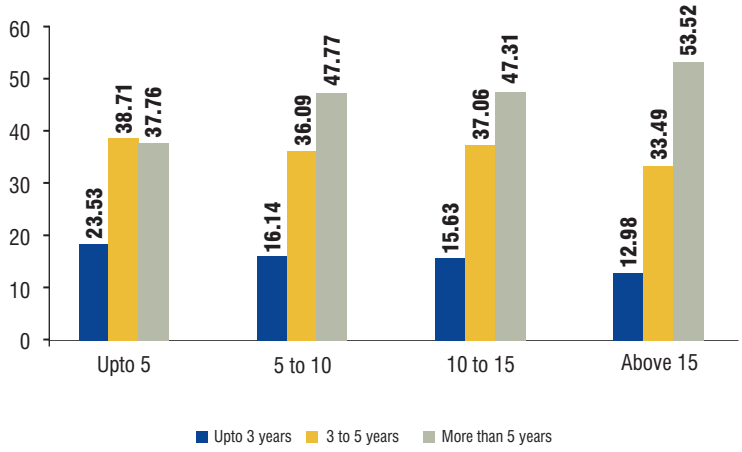
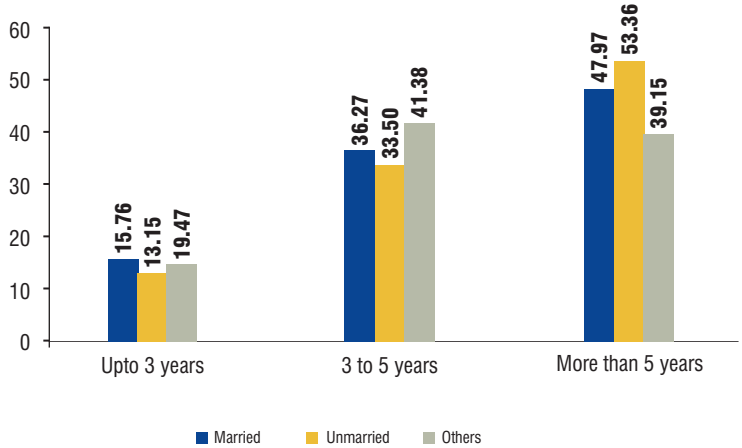


FIGURE 5.12: SAVINGS TIME HORIZON BY MARITAL STATUS

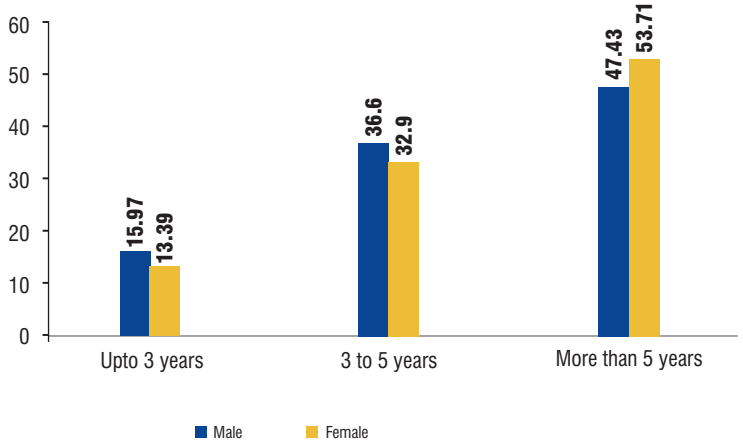


The impact of gender on choice of time horizon for savings is related to expected and existing safety nets. Females, in general, choose longer time horizons for their savings options compared to their male counterparts.

Principal Findings

- Even with higher levels of relaxation of the Households' budget constraints, the allocations for a household are in avenues such as commercial banks and real estate.
- Most lower-income households have a low level of educational attainment.
- The primary destination of savings across household categories is insurance schemes and banks.
- Post office savings schemes are, for obvious reasons, preferred less compared to commercial banks as such schemes have cumbersome procedures and offer inadequate returns.
- Nearly 72 per cent of all households treat commercial banks and insurance schemes as their primary choice for savings.
- Households that have very high levels of liquidity preference choose savings deposits over fixed deposits.
- Pension plans are preferred by households with higher levels of education.
- Preference for insurance schemes and savings in regional banks declines with increasing levels of education.
- Preference for saving in commercial banks for married persons is marginally greater than for unmarried persons (38.9 per cent to 33.7 per cent).
- Households whose occupation is business or agriculture and allied activities

FIGURE 5.14: SAVINGS TIME HORIZON BY SEX OF SAVERS



choose commercial banks as the preferred destination for their savings.

- Only 6 per cent of all households, whose primary occupation is agriculture, allocate a part of their savings to pension plans.
- Preference for insurance schemes (in particular, for LIC) increases at extremely low levels of asset ownership.
- The majority of households across income categories prefer to have a saving horizon exceeding 5 years.
- Females prefer pension plan marginally more than males (7.4 per cent compared to 4.1 per cent).
- 49.7 per cent of older persons prefer savings to be in commercial banks. This reflects their need for liquidity.
- If time horizon is conditioned on the demographic characteristics of households, we observe the following:
  - 36.3 per cent of all married persons have a time horizon of 3 to 5 years.
  - This number drops to 33.5 per cent for unmarried.
  - 53.4 per cent of all unmarried persons save for periods exceeding 5 years.
  - Older persons have a shorter time horizon on their savings.
  - Females in general choose longer time horizons for their savings options compared to their male counterparts.

6 Factors that Affect Household-level Allocation across Investment Options

Introduction

The standard explanation of the investment allocation includes safety of the principle, assured returns, adequate magnitude of the return and growth in return commensurate with rate of inflation. The pattern of allocation to a large extent can be influenced by demographic characteristics, such as occupation, income, age, dependency ratio and education. Other factors that affect allocation include information and economic stability. In this chapter we profile the behaviour of the household that is germane to the choices made while allocating surplus income across various investment options.

This chapter is organised as follows. We begin by providing a general profile of households engaging in investment behaviour. In the following sections we first examine how a rupee of surplus income will be distributed across investment options. Since demographic characteristics such as schooling, marital status, occupation, assets ownership, age and gender can also affect allocations, the relationship between each of these demographic characteristics and investment options are explored. It is also important to understand the relationship between demographic characteristics and time horizon of investment, particularly for the regulator. If households in general have short-term investment horizons, then the regulator can expect to see a significant degree of speculative activities in the markets.

Finally this chapter contains a profile of the relationship between a relaxation of

FIGURE 6.1: DISTRIBUTION OF INVESTMENT ACROSS VARIOUS INSTRUMENTS

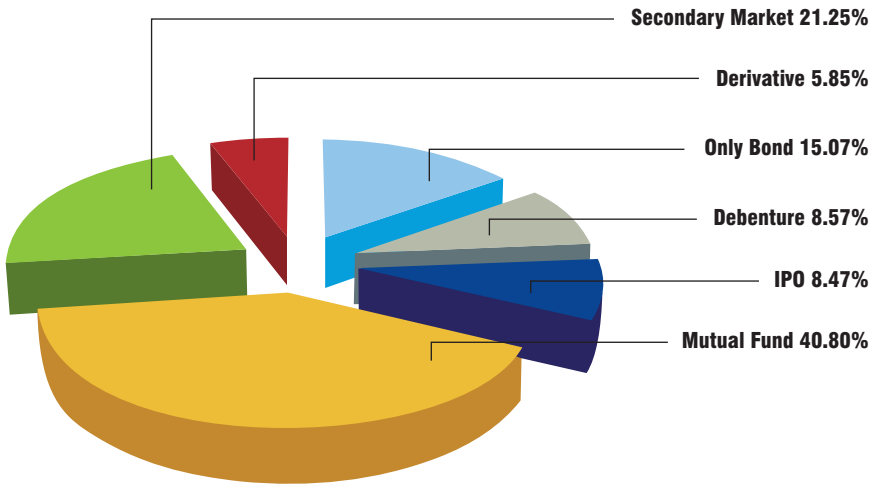


TABLE 6.1 HOUSEHOLDS' DEMOGRAPHIC PROFILE BY LEVEL OF INVESTMENT (per cent)

Households' Profile	Investment Category					
	Lowest	2nd quintile	3rd quintile	4th quintile	Highest	Total
Years of Schooling						
up to 5	23.78	22.95	22.95	18.07	12.25	100
6 to 10	23.45	23.04	21.19	17.85	14.47	100
11 to 15	19.82	19.46	19.43	20.72	20.56	100
above 15	16.47	17.43	19.79	21.47	24.84	100
Marital Status						
Married	19.94	19.84	19.93	20.29	20	100
Unmarried	21.1	22.63	22.48	16.67	17.13	100
Other	22.2	21.46	19.76	20.49	16.1	100
Occupation						
Agricultural & Allied	25.66	18.49	18.49	19.62	17.74	100
White collar	18.29	19.68	20.4	21.11	20.52	100
Blue collar	29.68	21.67	20.1	15.72	12.83	100
Business, Transfer and Others	18.99	20.37	17.82	18.99	23.83	100
Income						
Up to 10000	36.4	27.62	18.39	8.66	8.93	100
10001 to 15000	23.35	24.18	24.13	16.98	11.36	100
15001 to 20000	19.52	20.12	20.15	24.55	15.65	100
20001 to 25000	16.9	16.63	18.05	22.84	25.58	100
More than 25000	10.77	14.25	18.49	23.3	33.19	100
Age						
Young	21.8	21.12	20.49	18.51	18.08	100
Middle	18.86	18.82	19.84	21.56	20.92	100
Old	15.73	20.16	17.74	22.02	24.35	100
Sex						
Male	19.89	19.91	20.01	20.47	19.71	100
Female	21.7	20.69	19.95	16.58	21.09	100
Dependency Ratio						
Low	20.2	19.89	20.46	20.17	19.27	100
Medium	19.04	20.08	20.32	20.62	19.94	100
High	22.28	19.87	18.19	18.97	20.69	100
Assets Class						
Lower	31.65	27.23	20.91	11.39	8.82	100
Middle Lower	24.89	20.27	23.27	23.05	8.52	100
Middle	15.19	20.7	22.46	19.94	21.7	100
Middle Upper	18.77	18.35	19.4	24.1	19.38	100
Upper	13.86	15.52	15.1	20.65	34.87	100
Total	**20.00**	**20.00**	**20.00**	**20.00**	**20.00**	**100**

the budget constraint and the choice of investment. Budget constraints can be relaxed in many ways. The specific tool we use is windfall gain for households. Windfall gains are unexpected income and it would be informative to see whether unexpected increases in income of various magnitudes can significantly alter the composition of allocation.

General Investment Profile

As shown in Table 6.1, the distribution of investment by educational attainment goes from being skewed to the left to being skewed to the right. This means that households with higher levels of education tend to invest more. We find similar behaviour (this time more sharply defined) when we move from low-income classes to high-income classes and from low levels of asset holdings to the highest levels of asset holdings. The distribution does not seem to be affected by the gender of head of household, marital status of the household head, or occupation of the head where for the most part the distributions are nearly bell-shaped (a normal distribution).

Our survey documented the structure of investments by households of different types. We show in this section how households have diversified their investment portfolios. The options available for investment include mutual funds, bonds, debentures, IPO, derivatives and the secondary markets. According to SEBI (Mutual Funds) Regulation, 1996, "mutual fund" means a fund established in the form of a trust to raise money through the sale of units to the public or a section of the public under one or more schemes for investing in securities including money market instruments or gold or gold related

instruments or real estate assets. Debentures are long-term debt instruments which are not backed by collaterals. Underwriting refers to the process of ensuring full subscription of IPOs by underwriters. Underwriters are intermediaries who undertake to subscribe the securities offered by the firms in case these are not fully subscribed to by the public. When an unlisted company makes either a fresh issue of securities or offers its existing securities for sale or both for the first time to the public, it is called an IPO. The secondary market is the financial market where previously issued securities and financial instruments such as stocks, bonds, options and futures are bought and sold. The difference between the primary and secondary markets is that in the primary market, securities are offered to public for subscription for the purpose of raising capital or fund, where as secondary market is an equity trading avenue in which already existing/pre-issued securities are traded amongst investor. Secondary markets therefore provide avenues for investors to diversify risk and maximize returns from participation. This market could be either auction or dealer market. While stock exchange is the part of an auction market, Over-the Counter (OTC) is a part of the dealer market.

Allocations Across Investment Choices

Assuming a level of risk aversion and information asymmetry, we wish to find how a rupee of surplus income will be allocated across various investment options. Figure 6.1 presents a summary across all urban households, irrespective of demographic characteristics of these allocative activities. We find that mutual funds constitute the single largest allocation (40.8 per cent) compared to all other options. Since mutual funds provide returns that are in general greater than market returns and expose investing households to risks that are lower than the market risks, the households of various strata prefer this medium over retail investing. Retail investing is "costlier" in terms of time and information as well as the variability of returns. This explains why a mere 21.25 per cent of all households prefer to invest in the secondary market. Other choices such as derivatives and bonds are even less preferred.

FIGURE 6.3: CHOICE OF INVESTMENT BY MARITAL STATUS

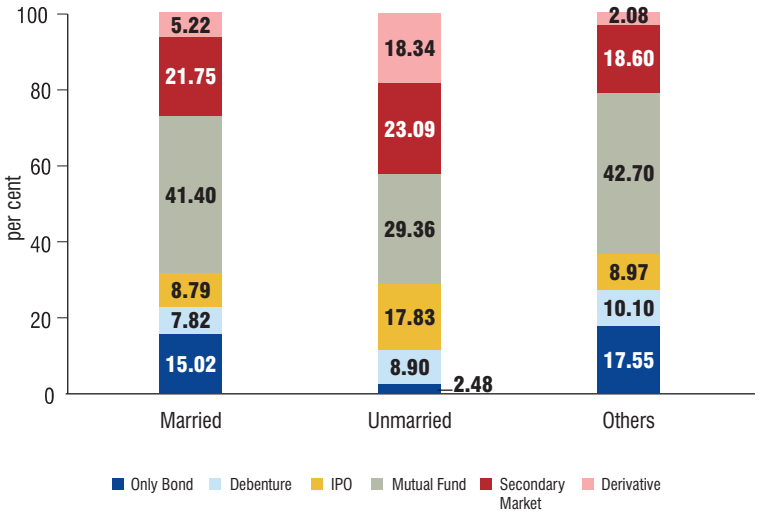


FIGURE 6.4: CHOICE OF INVESTMENT BY OCCUPATION

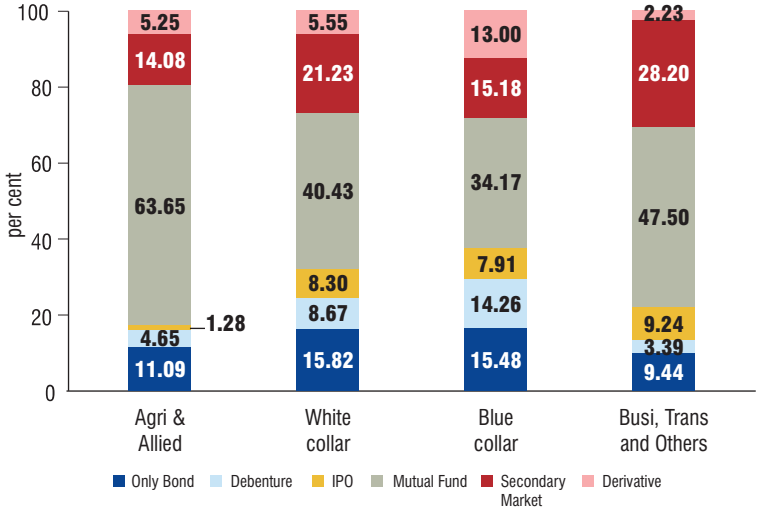


FIGURE 6.2: CHOICE OF INVESTMENT BY YEARS IN SCHOOLING

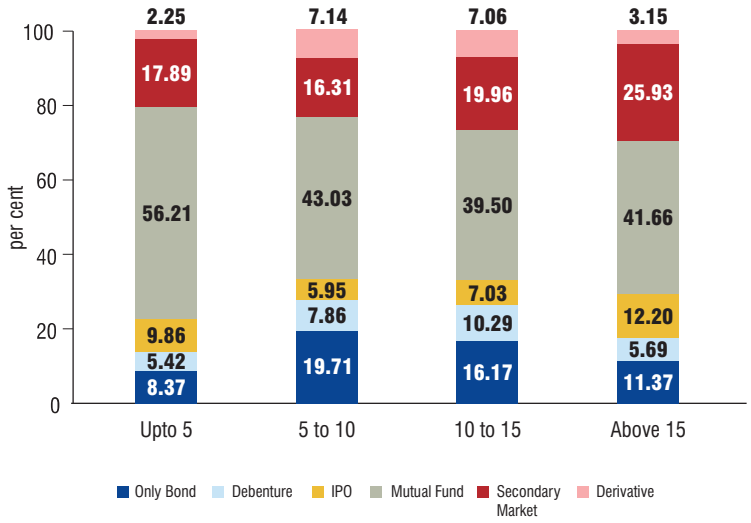
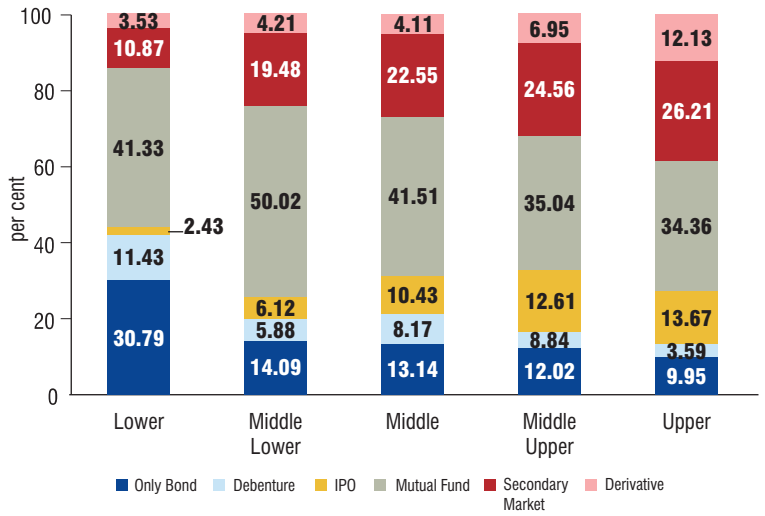


FIGURE 6.5: CHOICE OF INVESTMENT BY ASSET OWNERSHIP CATEGORIES



Most participants in the derivatives market have an average education between 11 to 15 years.

The derivative markets are preferred by unmarried investors. More than 18 per cent chose this option and this reflects their relatively greater tendency to take risks compared to their married counterparts. Mutual funds are substantially less preferred by this class of investors compared to married investors (29 per cent compared to 41 per cent). (Figure 6.3)

Similarly, secondary markets are preferred to a greater degree by households who classify themselves as white collar (21%) and business men (28%) (Figure 6.4). Due to the continued perceived opaqueness and attendant complexity of the procedures and processes, the IPO route to enter the market is not significant.

Relationship between Demographic Characteristics and Allocation

Life cycle plays an important role in influencing the saving and investment behaviour of households. One would expect the liquidity preference of older persons to be greater than that of younger. Also, households with a higher level of education could be expected to be participating in complex markets, such as derivatives. In this section we broadly profile the locative behaviour of households after controlling for variations in demographic characteristic.

Twenty six per cent of households with more than 15 years of education prefer to invest in secondary markets.(Figure 6.2)

FIGURE 6.6: CHOICE OF INVESTMENT BY GENDER OF INVESTOR

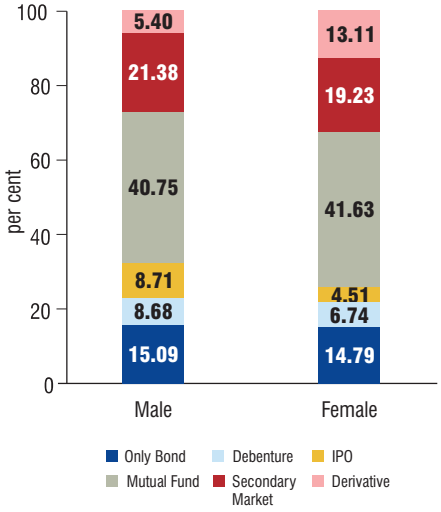


FIGURE 6.7: INVESTMENT TIME HORIZON BY YEARS OF SCHOOLING

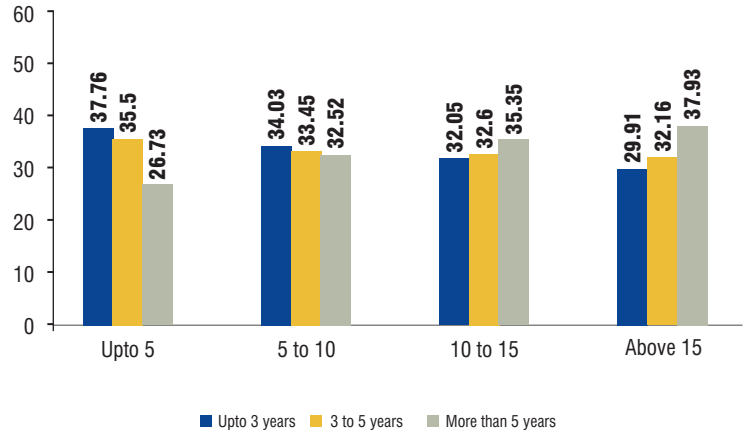
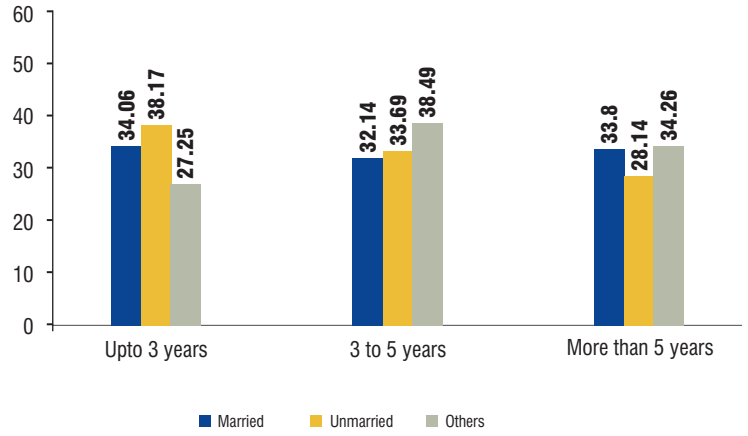


FIGURE 6.8: INVESTMENT TIME HORIZON BY MARITAL STATUS



Households that own higher levels of fixed assets in general prefer the secondary market (Figure 6.5). An increase in the level of asset ownership acts as an insurance against variability in market returns. A similar argument can be made about the relationship between asset levels and the propensity to participate in the IPO markets. Since returns from bonds go up during periods of inflation, households that own low levels of fixed assets prefer bonds as a source of investment. During periods of high inflation, bonds are a preferred option for households with lower levels of assets as high interest rates are bound to lower bond prices.

We do not observe any significant differences in the structure of investment by males and females. However, male investors preferred the IPO option to a greater degree than their female counterparts (Figure 6.6).

Factors Affecting the Time Horizon of Investment

The relationship between the magnitude of asset ownership and time horizon of investment resembles a sine function. The duration of the investment increases initially with level of asset holdings following by a decline and once more increases. This is consistent with the relationship between the level of asset ownership and change in preferences for speculation and liquidity. For example, households that own a high level of assets will engage in a combination of speculative investment (short term) as well as investments tailored towards enhancing long-term social safety nets. However, the relationship between age of the earner and the duration of the investments is going to be governed by factor germane to liquidity and provision of a social safety net. We consequently note that the survey provides concrete evidence that the relationship between the age of the investors and the duration of investment is a cosine function.

The relationship between other demographic characteristics like schooling, income and occupation provides a straightforward explanation. Households with higher levels of schooling for the most part prefer to have a longer horizon for the investment. Similarly households with higher incomes, due to their lower liquidity preference opt for investments of a longer duration.

Impact of Windfall Gains on Investment

We carried out a simple thought experiment on households where, instead of

FIGURE 6.9: INVESTMENT TIME HORIZON BY OCCUPATION

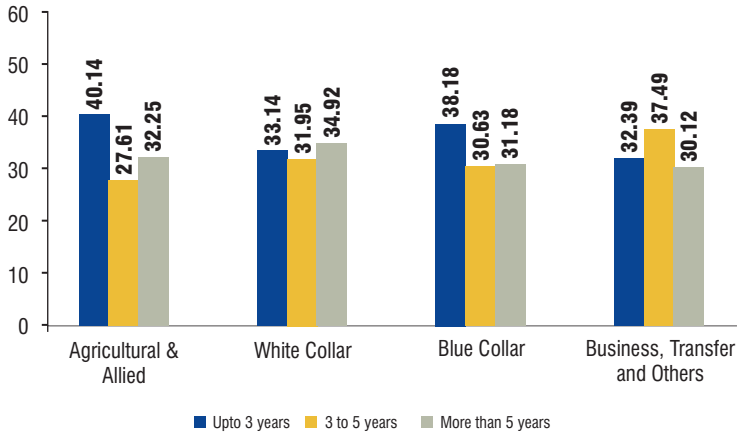


FIGURE 6.10: INVESTMENT TIME HORIZON BY INCOME CATEGORY

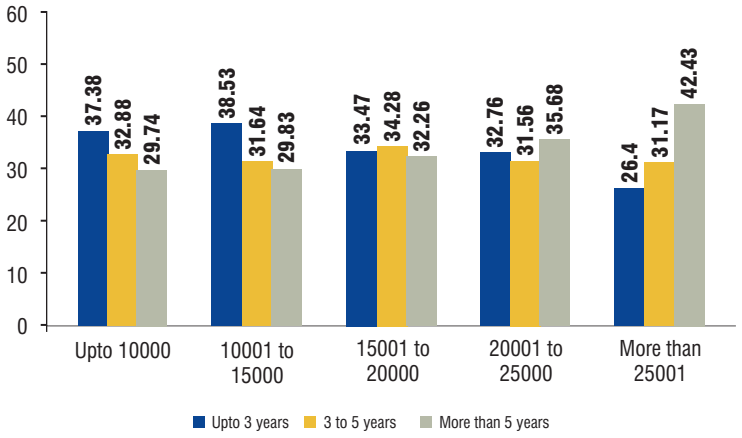


FIGURE 6.11: INVESTMENT TIME HORIZON BY ASSET OWNERSHIP CATEGORIES

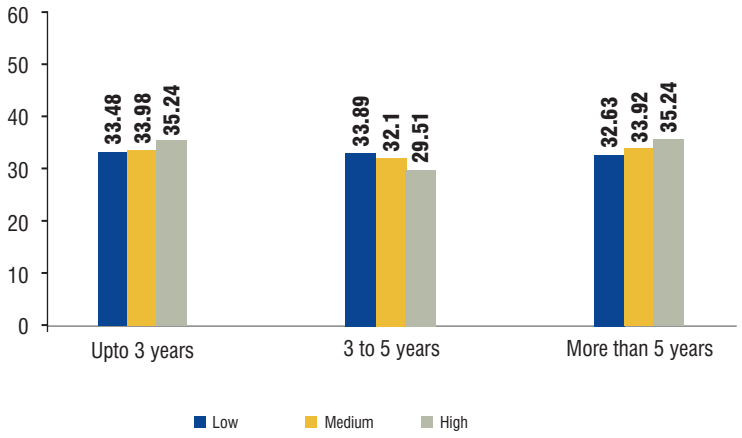


FIGURE 6.12: INVESTMENT TIME HORIZON BY AGE

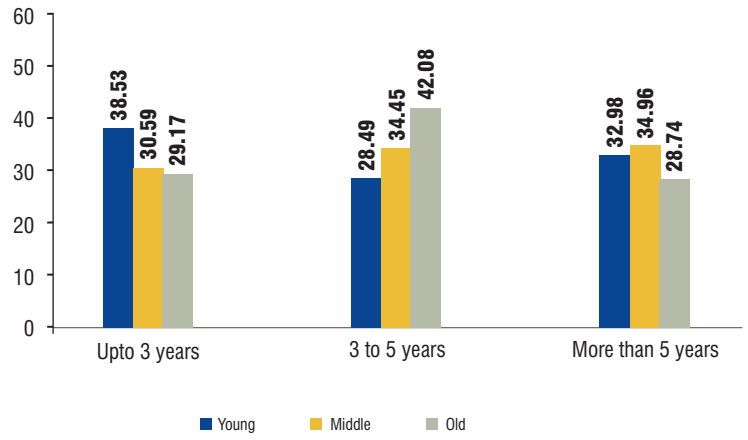


FIGURE 6.13: INVESTMENT TIME HORIZON BY GENDER OF INVESTOR

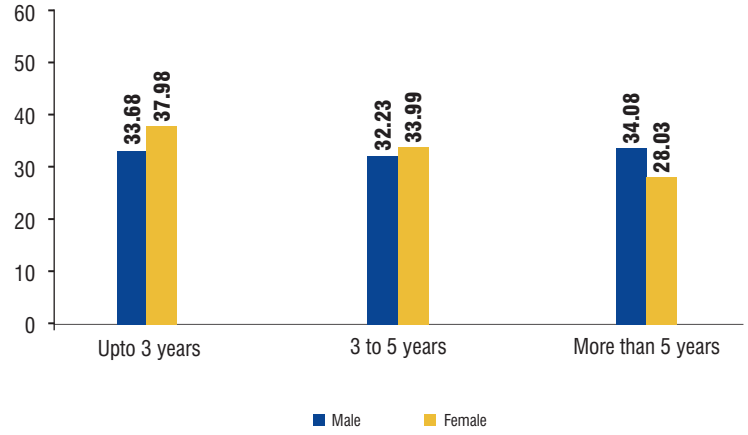
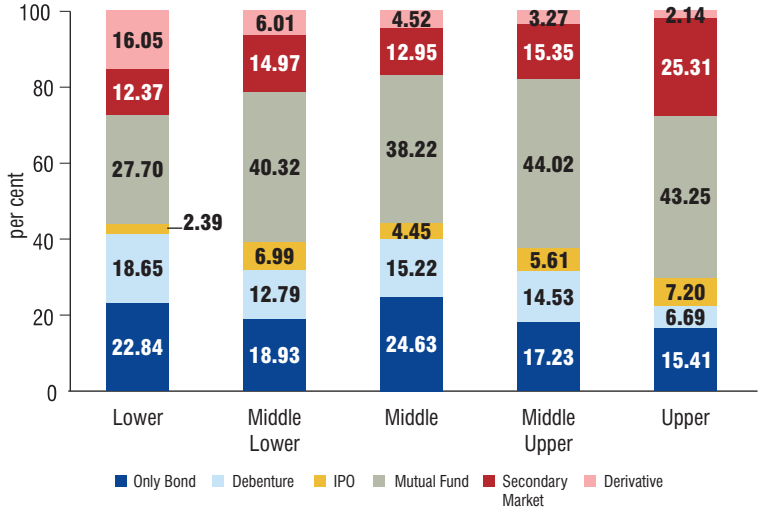


FIGURE 6.14: INVESTMENT BEHAVIOUR OF HOUSEHOLDS BY ASSET OWNERSHIP CLASS (WHEN WINDFALL GAIN IS ₹ 50,000)



merely asking "What will be your reaction to windfall gains?" we conditioned this question on varying magnitudes of windfall gains. We wanted to understand from this experiment whether it was a mere relaxation of the budget constraint that mattered or the magnitude of the relaxation. We find that the magnitude of the relaxation matters across demographic characteristics. We took, for example, households with low levels of assets engaging in risky behaviour (participate in derivative market) compared to households that own progressively higher levels of assets. With an increase in magnitude of windfall gains, there is a positive relationship between the level of education and participation in the secondary market. Since the primary concern for a widow or widower is provisional financial security, windfall gains are translated into investment in mutual funds. In general, we observed that households with low levels of occupation, lower incomes and low levels of asset holdings tend to engage in risky behaviour when provided with windfall gains.

Principal Findings

- Households with higher levels of education tend to invest more.
- Only 21.25 per cent of households prefer to invest in secondary markets. Households with a higher level of education invest relatively more widely in this option. It was found that 26 per cent of households with more than 15 years of education prefer to invest in secondary markets.
- Twenty eight per cent of businessmen and 21 per cent of white- collar workers prefer to invest in secondary markets.
- Households that own higher levels of fixed assets generally prefer to invest in secondary markets.
- More than 18 per cent of unmarried investors chose to invest in the complex derivative market, which reflects their greater tendency for taking risks compared to their married counterparts.
- During periods of high inflation, bonds are the preferred option for households with lower levels of assets as high interest rates are bound to lower bond prices.
- Male investors invest more through IPOs than their female counterparts.
- Households with a higher level of education prefer a longer time horizon for the investment.
- Households with higher incomes prefer to opt for investments of longer duration.

FIGURE 6.15: INVESTMENT BEHAVIOUR OF HOUSEHOLDS BY ASSET OWNERSHIP CLASS (WHEN WINDFALL GAIN IS ₹ 5,00,000)

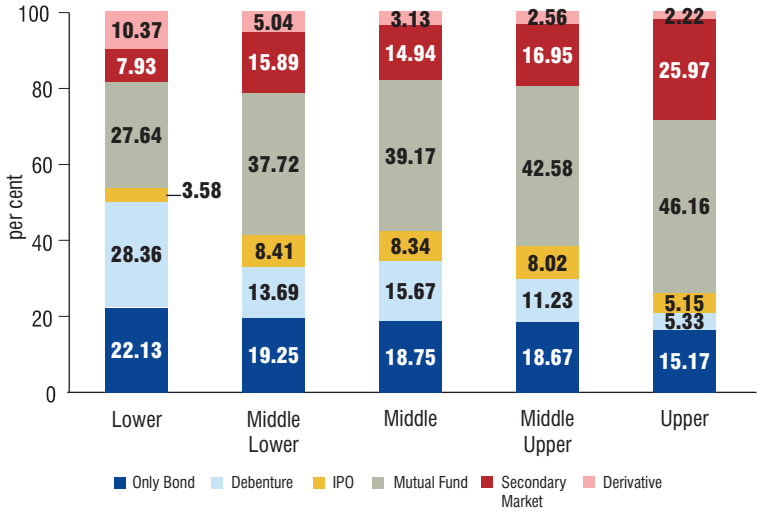
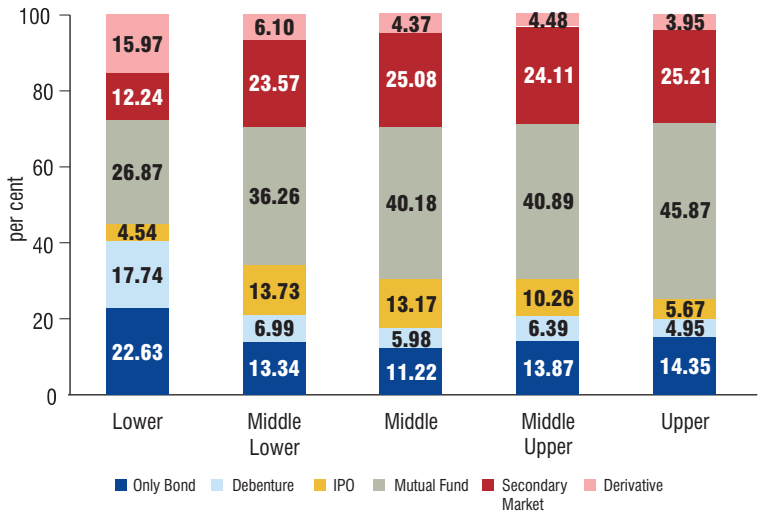


FIGURE 6.16: INVESTMENT BEHAVIOUR OF HOUSEHOLDS BY ASSET OWNERSHIP CLASS (WHEN WINDFALL GAIN IS ₹ 10,00,000)



- In case of windfall gains, households with low levels of assets engaged in risky behaviour (participated in the derivative market) compared to households that own progressively higher levels of assets.
- If windfall gains are increased in magnitude, there is a positive relationship between the level of education and participation in the secondary market.
- For those who wish to take advantage of the market, mutual funds are the most preferred investment option. The survey reveals that 40.8 per cent of all households invest in mutual funds, which constitutes the single largest allocation compared to all other options.
- Only 29 per cent of unmarried investors invest in mutual funds compared to 41 per cent of married investors.
- In the case of widows or widowers, windfall gains are translated into investment in mutual funds.

TABLE 6.2: INVESTMENT BEHAVIOUR OF HOUSEHOLDS (WHEN WINDFALL GAIN IS ₹ 50,000) (per cent)

Households' Profile	Only Bond	Deben-ture	IPO	Mutual Fund	Secondary Market	Deriva-tive	Total
Years of Schooling							
up to 5	12.18	8.75	4.80	55.75	13.21	5.32	100
6 to 10	20.09	14.11	7.66	39.03	10.80	8.32	100
11 to 15	19.05	14.20	4.33	38.25	18.55	5.63	100
above 15	20.29	8.61	6.81	40.68	19.18	4.42	100
Marital Status							
Married	19.36	12.96	5.51	39.77	17.19	5.21	100
Unmarried	19.52	16.19	3.43	28.20	14.00	18.65	100
Others	16.10	7.80	7.39	48.75	19.55	0.41	100
Occupation							
Agricultural & Allied	12.15	10.24	2.43	59.20	12.15	3.82	100
White collar	19.73	13.64	5.05	38.27	17.18	6.12	100
Blue collar	19.50	13.64	8.38	38.72	13.13	6.64	100
Business, Transfer and Others	15.74	6.53	6.15	47.18	20.77	3.63	100
Income							
Up to 10000	22.54	14.41	4.91	36.11	13.15	8.89	100
10001 to 15000	23.67	17.96	4.63	33.84	11.94	7.95	100
15001 to 20000	19.16	13.54	4.19	39.08	16.93	7.10	100
20001 to 25000	17.83	13.42	5.10	39.77	18.24	5.65	100
More than 25000	15.64	7.57	7.69	44.85	22.02	2.23	100
Age							
Young	23.21	16.93	4.62	31.99	15.58	7.67	100
Middle	16.19	9.90	6.02	45.32	18.14	4.43	100
Old	10.27	4.62	7.62	53.77	21.04	2.69	100
Sex							
Male	18.88	12.83	5.63	39.45	17.27	5.94	100
Female	25.69	16.41	2.22	36.50	13.58	5.59	100
Dependency Ratio							
Low	15.96	10.30	6.08	44.02	18.34	5.29	100
Medium	20.91	13.74	5.30	37.87	16.80	5.38	100
High	22.03	16.69	4.47	33.38	15.15	8.28	100
Assets Class							
Lower	22.84	18.65	2.39	27.70	12.37	16.05	100
Middle Lower	18.93	12.79	6.99	40.32	14.97	6.01	100
Middle	24.63	15.22	4.45	38.22	12.95	4.52	100
Middle Upper	17.23	14.53	5.61	44.02	15.35	3.27	100
Upper	15.41	6.69	7.20	43.25	25.31	2.14	100
Total	**19.30**	**13.05**	**5.42**	**39.27**	**17.05**	**5.92**	**100**

TABLE 6.3: INVESTMENT BEHAVIOUR OF HOUSEHOLDS (WHEN WINDFALL GAIN IS ₹ 5,00,000) (per cent)

Households' Profile	Only Bond	Deben-ture	IPO	Mutual Fund	Secondary Market	Deriva-tive	Total
Years of Schooling							
up to 5	13.66	9.80	7.73	54.76	8.25	5.80	100
6 to 10	19.75	16.16	7.06	39.44	10.58	7.02	100
11 to 15	19.22	16.40	5.48	37.50	16.66	4.74	100
above 15	16.61	9.02	8.49	40.86	22.58	2.46	100
Marital Status							
Married	18.56	13.65	6.56	39.47	17.17	4.59	100
Unmarried	21.13	33.27	3.38	27.52	7.85	6.85	100
Others	15.15	6.12	8.42	46.92	22.16	1.22	100
Occupation							
Agricultural & Allied	7.46	10.36	1.74	52.28	20.30	7.87	100
White collar	19.09	14.91	6.20	38.86	16.53	4.41	100
Blue collar	19.63	18.82	8.00	32.81	13.25	7.49	100
Business, Transfer and Others	14.84	7.16	6.76	45.46	22.44	3.34	100
Income							
Up to 10000	19.22	21.28	7.12	30.51	8.85	13.02	100
10001 to 15000	21.79	20.50	5.44	35.10	11.37	5.81	100
15001 to 20000	20.98	15.69	4.82	38.31	15.79	4.41	100
20001 to 25000	19.98	13.42	5.80	38.05	18.76	3.98	100
More than 25000	12.31	7.69	9.10	45.83	23.02	2.05	100
Age							
Young	23.58	19.33	5.39	31.92	13.61	6.17	100
Middle	12.90	9.54	7.69	46.66	20.29	2.92	100
Old	10.62	5.28	6.74	53.45	21.62	2.29	100
Sex							
Male	18.31	14.61	6.54	39.13	16.76	4.64	100
Female	23.99	16.66	4.16	34.60	15.45	5.14	100
Dependency Ratio							
Low	14.30	13.44	6.83	42.47	18.95	4.01	100
Medium	21.65	14.82	6.06	36.52	16.24	4.71	100
High	20.09	17.04	6.33	37.34	13.32	5.89	100
Assets Class							
Lower	22.13	28.36	3.58	27.64	7.93	10.37	100
Middle Lower	19.25	13.69	8.41	37.72	15.89	5.04	100
Middle	18.75	15.67	8.34	39.17	14.94	3.13	100
Middle Upper	18.67	11.23	8.02	42.58	16.95	2.56	100
Upper	15.17	5.33	5.15	46.16	25.97	2.22	100
Total	**18.66**	**14.73**	**6.39**	**38.85**	**16.68**	**4.68**	**100**

TABLE 6.4: INVESTMENT BEHAVIOUR OF HOUSEHOLDS (WHEN WINDFALL GAIN IS ₹ 10,00,000) (per cent)

Households' Profile	Only Bond	Deben-ture	IPO	Mutual Fund	Secondary Market	Deriva-tive	Total
Years of Schooling							
up to 5	16.11	5.97	7.08	45.42	18.88	6.53	100
6 to 10	18.21	12.44	6.31	37.34	13.82	11.88	100
11 to 15	15.92	10.93	7.68	35.55	21.03	8.89	100
above 15	15.09	4.44	12.51	39.34	24.93	3.69	100
Marital Status							
Married	15.64	8.80	9.04	37.12	21.68	7.73	100
Unmarried	22.30	19.84	3.15	31.96	9.77	12.98	100
Others	14.23	6.36	7.57	46.70	20.90	4.24	100
Occupation							
Agricultural & Allied	13.14	3.34	7.22	43.47	22.81	10.02	100
White collar	16.55	9.43	8.34	37.22	20.70	7.76	100
Blue collar	14.84	12.75	9.62	33.54	17.74	11.51	100
Business, Transfer and Others	13.27	5.37	10.09	39.60	27.94	3.72	100
Income							
Up to 10000	19.28	16.45	6.34	29.11	12.44	16.39	100
10001 to 15000	17.52	14.46	6.41	33.90	15.53	12.17	100
15001 to 20000	17.92	9.62	7.43	35.24	20.82	8.97	100
20001 to 25000	17.87	8.51	9.43	35.39	22.72	6.09	100
More than 25000	11.20	4.42	11.39	43.87	26.05	3.07	100
Age							
Young	17.63	12.11	8.50	32.13	19.07	10.56	100
Middle	13.74	5.80	9.08	43.47	23.39	4.53	100
Old	13.82	4.26	6.58	48.01	24.87	2.46	100
Sex							
Male	16.12	9.44	8.66	37.02	20.91	7.84	100
Female	15.08	10.38	8.21	34.99	20.39	10.95	100
Dependency Ratio							
Low	16.20	8.61	8.62	38.01	21.45	7.11	100
Medium	15.80	9.01	9.56	36.01	22.29	7.33	100
High	16.53	13.63	5.51	36.85	14.49	13.00	100
Assets Class							
Lower	22.63	17.74	4.54	26.87	12.24	15.97	100
Middle Lower	13.34	6.99	13.73	36.26	23.57	6.10	100
Middle	11.22	5.98	13.17	40.18	25.08	4.37	100
Middle Upper	13.87	6.39	10.26	40.89	24.11	4.48	100
Upper	14.35	4.95	5.67	45.87	25.21	3.95	100
Total	**16.06**	**9.49**	**8.63**	**36.90**	**20.88**	**8.03**	**100**

7 Measuring Attitudes towards Risk

Introduction

It is important for regulators to understand households' ability to take risk as well as the general appetite for risk. The consequences of risk-taking activity on the part of households are often observed in the market place. For example, markets for stocks, derivatives and commodity futures are inherently more risky avenues for household. On the other hand, the market for mutual funds and bonds are markedly less risky options available to households. A significant movement in the stock market and allied risky market can be an indication that households and institutional investors are increasingly going to take risks.

Typically we would want to attribute the ability on the part of households to engage in risky behaviour (as it relates to participation in market) to: a) a degree of information asymmetry in the market place, b) the extent of regulation of markets (perceived water-tight measures against big bulls, etc.) and c) household budget constraints. The market regulator can affect the first two factors but can feel the consequences of the third in the market place. That is, due to macroeconomic forces the budget constraints of the household can get relaxed and this can lead previously non-participating households to participate and current participants to increase their allocation; risk-taking behaviour could increase faced with the increase in liquidity in the household. The current and preceding paragraphs illustrate some reasons why the market regulator must be aware of factors that determine risk taking.

Risk in finance and business is the variability of returns from an investment. This reflects the degree of uncertainty of returns on an asset. The greater the variability in return from investments, the greater is the perceived risk. Risk tolerance is the degree of uncertainty that an investor is willing to absorb with respect to a negative change or variability in the value of his/ her portfolio.

In this chapter we amplify on household ability to take risk and their perceptions of riskiness of various savings and investment options. We attempt to understand the risk-taking behaviour of both investing and non-investing households through vignettes; vignettes are qualitative means of allowing a researcher to get a comprehensive picture of a given household attitude to a given savings/ investment option. The use of vignettes is necessary since non-investing households do not invest in any of the financial assets and, hence, risky assets cannot be constructed for such household. Vignettes also allow us to make hypothetical comparisons of investing and non-investing households with respect to their attitude towards risk. The relative risk aversion (risk tolerance) of a household has been captured using a risk scale, which can be defined as;

$$r_i = \frac{RA_i}{TA_i} \text{ (For all) } i = 1,2,3,.....N$$

$r_i \to 0$, reflects that the household is risk averse

$r_i \to 1$, reflects that the household toler-

ates risk

where r_i is the proportion of risky assets, RA_i is asset holdings with some degree of risk, TA_i is total asset holdings, i is the household.

The risk scale reflects the proportion of risky assets in an investor's portfolio. The numerator of this ratio is the value of investments in risky assets and the denominator is the total value of financial wealth. The risk scale is bounded between 0 and 1. We divide the risk scale into four categories, viz., less than equal to 0.25, greater than 0.25 but less than equal to 0.50, greater than 0.50 but less than equal to 0.75 and, greater than 0.75. The degrees of the risk tolerance scale are in increasing order from 0 to 1.

Assessing the Risk Tolerance of Households using Risk Scale and Perceptions of Investor Households

Table 7.1 categorises the various investing households in terms of the four risk scales. The majority (53 per cent) of surveyed investing households fall in the least risk taker category. One generic observation throughout the population was that the degree of risk taking is on average high among earning households located in Town Class 2 (i.e., in cities such as Bangalore, Hyderabad, and Ahmedabad). Some reasons for this could be that the regional stock exchange was located and functioning in such cities. This could have affected the information related to benefits of participating in the markets. In addition, we find that the population in such towns, on average, is younger, better-educated and belonging to higher income classes.

We found that the degree of risk was highest among investors with more than 15 years of schooling, at the all-India level. This pattern is observed for specific town classes as well. Married investors take less risk than their unmarried counterparts. This difference is sharper in the case of smaller towns (perhaps reflecting the lower degree of expected income mobility). In the case of households in Town Classes 1 and 2, relatively higher incomes and a larger number of earning members per family contribute to increased risk-taking behaviour.

Business and white-collar households hold more risky assets than their blue-collar counterparts. Risk-taking behaviour increases with income levels. This was observed across all town classes. The low risk takers belong to the lowest income categories. The reason for not taking risks can be explained in the following manner: low income households in larger cities are low skilled and/or migrant workers and the expected mobility in income and occupation are low. In smaller towns, low income households own very few assets and, in addition, are less skilled.

We observed that degree of risk-taking declines with the age of the person. 60 per cent of all older persons are found in the lowest risk scale. It is, however, interesting to note the risk-taking behaviour of older persons in cities like Bangalore and Hyderabad; since social safety nets are increasing in such cities along with disposable incomes, the degree of decline in risk taking with age of the person is not as appreciable as in other cities. On average, women take less risk than their male counterparts. In fact, we find this phenomenon occurring across the all town classes.

TABLE 7.1: RELATIVE RISK AVERSION OF INVESTING HOUSEHOLDS (per cent)

Household characteristics	Risk Scale <.25	0.25-0.50	0.50-0.75	>0.75	Total
Years of Schooling					
up to 5	63.93	10.45	14.18	10.44	100
6 to 10	57.49	13.61	14.65	14.25	100
11 to 15	52.11	16.47	17.50	13.92	100
Above 15	47.09	19.27	19.40	14.24	100
Marital Status					
Married	52.80	16.02	17.08	14.11	100
Unmarried	48.10	17.53	15.97	18.40	100
Others	66.07	9.9	13.46	10.57	100
Occupation					
Agricultural & Allied	59.84	15.31	12.06	12.78	100
White collar	50.39	14.25	20.57	14.79	100
Blue collar	60.84	13.63	12.17	13.36	100
Business, Transfer and Others	49.10	12.73	18.76	19.41	100
Income					
Up to 10000	63.68	10.04	9.59	16.69	100
10001 to 15000	57.96	13.65	15.04	13.34	100
15001 to 20000	52.8	17.16	18.02	12.02	100
20001 to 25000	45.99	18.56	20.3	15.15	100
More than 25000	41.87	21.01	22.76	14.37	100
Age					
Young	49.59	16.25	17.97	16.19	100
Middle	55.13	15.66	16.47	12.75	100
Old	59.85	15.36	13.81	10.97	100
Sex					
Male	49.22	14.06	16.91	19.81	100
Female	53.32	16.04	16.94	13.69	100
Dependency Ratio					
Low	55.08	13.17	15.68	16.08	100
Medium	51.59	16.46	17.75	14.20	100
High	52.04	16.78	16.25	14.92	100
Assets Class					
Lower	62.72	12.66	13.15	11.47	100
Middle Lower	57.04	16.12	14.98	11.86	100
Middle	51.85	15.97	18.30	13.88	100
Middle Upper	47.97	18.49	18.20	15.33	100
Upper	45.51	16.24	20.07	18.18	100
Total	**53.02**	**15.90**	**16.94**	**14.14**	**100**

Assessing Attitudes towards Risk by Households

Household attitude towards risk is an elusive measure. Such attitudes are often inferred by examining outcomes that are responses to various inputs and stimuli. An innovative tool for measuring attitudes

is vignette. Vignettes are administered in the following manner. A neutral question is first posed to a respondent; following this, a series of statements containing hypothetical but realistic situations are presented to the same respondent. The options that are given as responses to the respondent to the various hypothetical statements have to be consistent with the options given as responses to the neutral question.

a. Self-perception of households in terms of willingness to take risk

The self-perception of households with respect to their willingness to take risk is examined using the following neutral statement:

Which of the following statements is true for you? Willingness to take substantial financial risks/ Willingness to take above-average financial risks, expecting to get above-average financial returns/ Willingness to take average financial risks, expecting to get average financial returns/ Not willing to take any financial risks.

The findings are shown in Table 7.2.

These findings are consistent with what we observed from the risk scale of various categories of households. That is, households that have been seen as actually taking very little risk also perceive themselves as risk-averse or low risk takers (this is a very strong evidence for the consistency of the survey).

The majority of investors think of themselves as low risk-takers. We found that with an increase in educational attainment, risk tolerance increases. Similarly, married investors perceive themselves to be low risk-takers compared to their non-married counterparts. We find that in the lowest income group, 48 per cent of investors do not wish to take any risks. A comparison of the survey with the results from the vignettes from Figures 7.1 to 7.8 is quite consistent.

b. Assessing the risk behaviour of investors and non-investors using vignettes[4]

Risk-taking is often a function of a large number of household-level and macroeconomic factors. Liquidity preferences along with a comprehension of both short and long-term behaviours of the macro economy significantly influence the choice between risk taking and risk aversion. Another factor that could affect risk taking is budget constraints (crudely speaking, equivalent to income). We approach the problem of self-assessment of risk-taking by the household by examining responses to vignettes conditioned on the presence of social safety nets, information availability and expectations regarding macroeconomic condition, windfall gains, and conditioned inheritance (inheritance that stipulates investment of a particular kind).

TABLE 7.2: PROFILE OF HOUSEHOLDS AND THEIR BEHAVIOUR TOWARDS RISK TOLERANCE (per cent)

Households' Profile	Risk Tolerance				
	No risk taker	Average risk taker	Above average risk taker	Substantial Risk taker	Total
Years of Schooling					
up to 5	48.74	25.79	10.87	14.6	100
6 to 10	44.02	21.64	16.62	17.72	100
11 to 15	37.52	21.95	18.21	22.32	100
Above 15	35.03	18.44	21.97	24.56	100
Marital Status					
Married	39.44	21.22	18.01	21.33	100
Unmarried	29.02	24.63	21.91	24.44	100
Others	46.94	14.35	14.24	24.47	100
Occupation					
Agricultural & Allied	48.26	23.9	15.08	12.76	100
White collar	36.98	21.59	18.64	22.79	100
Blue collar	43.18	20.9	17.24	18.67	100
Business, Transfer and Others	40.00	18.3	16.02	25.68	100
Income					
Up to 10000	48.18	20.1	14.93	16.79	100
10001 to 15000	39.43	21.28	17.51	21.78	100
15001 to 20000	36.65	21.36	17.27	24.71	100
20001 to 25000	36.67	22.7	19.62	21.02	100
More than 25000	35.63	20.49	21.39	22.49	100
Age					
Young	35.69	25.09	19.17	20.05	100
Middle	41.24	18.36	17.42	22.98	100
Old	48.71	15.58	15.06	20.65	100
Sex					
Male	39.55	20.9	17.76	21.78	100
Female	36.38	24.09	21.32	18.21	100
Dependency Ratio					
Low	43.2	18.81	17.42	20.57	100
Medium	37.37	22.23	18.11	22.29	100
High	35.5	23.62	19.2	21.68	100
Assets Class					
Lower	43.55	25.82	14.77	15.86	100
Middle Lower	42.32	19.25	16.01	22.42	100
Middle	39	20.82	15.71	24.46	100
Middle Upper	34.04	19.09	21.88	24.99	100
Upper	19.86	20.7	21.76	37.68	100
Total	**21.52**	**18.03**	**21.14**	**39.32**	**100**

i) Relationship to social safety nets

Tables 7.3.1a and 7.3.1b contain the responses to the following vignette:

"You have saved money for a "world tour" that you were looking forward to for a long time. A month before you plan to leave, you lose your job. You would: [1=Cancel the trip; 2=Take a shorter vacation; 3=Go as scheduled, reasoning that you will use that time to prepare for a job search; 4=Extend your vacation, because this might be

4. In this section we provide a broad summary of the findings. The finer disaggregated tables are found in the Appendix.

FIGURE 7.1: RISK SCALE ACROSS EDUCATION

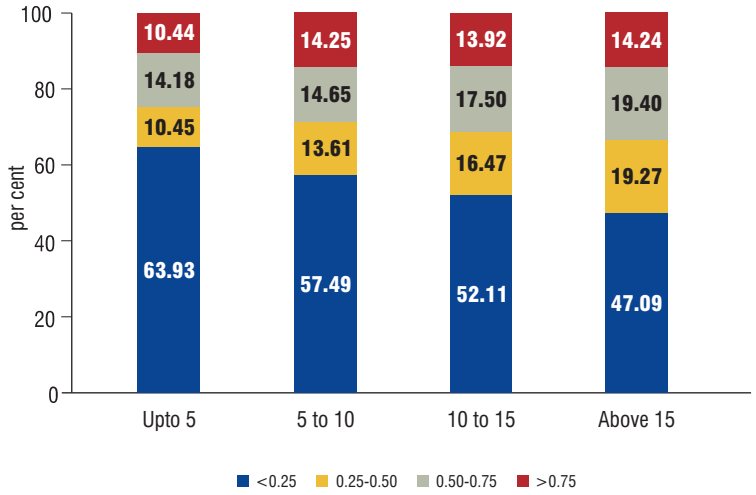


FIGURE 7.2: PERCEPTIONS ACROSS EDUCATION

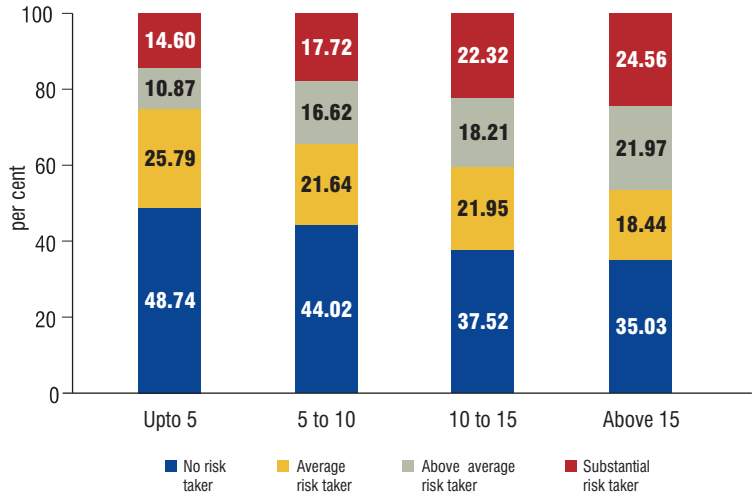
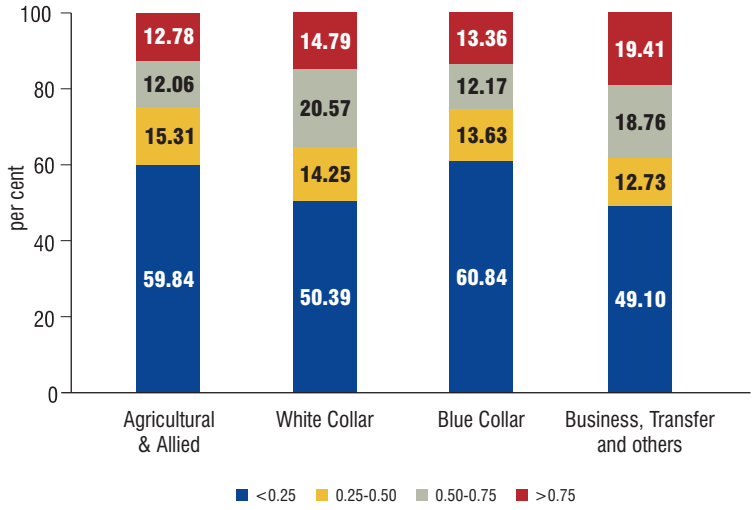


FIGURE 7.3: RISK SCALE ACROSS OCCUPATIONS



your only chance for such a trip]".

A significant proportion of investors said they would opt for a shorter vacation (36.7%), while 31.2 per cent of the respondents stated that they would cancel their planned vacation. The responses of non-investing households are, however, different. Nearly 39.7 per cent wanted to cancel their planned vacation, while 31 per cent of the respondents said they would take a shorter vacation.

An alternative formulation of the relationship of safety net to risk is if the respondents were ask to part with a fraction of the savings:

"*If you had to invest ₹1,00,000, which of the following investment choices would you find most appealing? [1=60% in low-risk investments in 5 years; 2=30% in low-risk investments in less than one year; 3=10% in low-risk investments in less than six months]*".

Tables 7.3.9a and 7.3.9b profile the responses to this vignette. The responses suggest an inherent tendency to hold a significantly diversified portfolio. It also shows that the current level of safety nets available with the household in general is inadequate in terms of influencing their inherent tendency to avoid risk.

ii) Relationship to windfall gains

Windfall gains are unexpected increase in income. One would expect such unexpected income to be used for relatively risky ventures (this observation is based on a similar experiment conducted in the consumer market in the US).Tables 7.3.2a and 7.3.2b summarise the responses to the vignette:

"*If you unexpectedly receive ₹50,000, what would you do? [1=Deposit it in a bank account; 2=Invest in high-quality govt. bonds; 3=Invest in mutual funds; 4=Invest in stocks; 5=Spend it]*".

Only 31.4 per cent of investors said they would deposit the money in banks, while 53.87 per cent of non-investors said they would do the same. 20.5 per cent of investors said they would opt for mutual funds, while this is only 10 per cent for non-investors. Non-investor households will not even use their windfall gains to invest in markets.

Windfall gain can also come in the form of an inheritance and such inheritance can be unconditioned:

"*If you had to invest ₹100,000, which of the following investment choices would you find most appealing? [1=60% in low-risk investments 30% in medium-risk investments 10% in high-risk investments; 2=30% in low-risk investments 40% in medium-risk investments 30% in high-risk*

investments; 3=10% in low-risk investments 40% in medium-risk investments 50% in high-risk investments]".

The responses are tabulated in the Tables 7.3.8a and 7.3.8b. We find that current investors are more likely to take risk than non-investors, but the differences are not significant.

The preceding profile suggests that even windfall gains of significant magnitude do not bring about any form of metamorphosis that is significant to the inherently risk-averse nature of both investors and non-investors.

iii) Relationship to information

Much of the reason for the lack of risk appetite is improper articulation of risk and its attendant manifestations. If risk continues to have pejorative connotations in the minds of both investors and non-investors, then both the magnitude of investments as well as the number of participants in the market will be sub-optimal. We examine the relationship between the knowledge regarding risk and attitude towards risk in the following paragraphs.

"*When you think of the word "risk", which of the following terms comes to mind first? [1=Loss; 2=Uncertainty of returns; 3=Opportunity (significant returns); 4=Thrill]*".

The responses are tabulated in Tables 7.3.3a and 7.3.3b. The differences in perceptions are subtle but significant. Such differences help to explain why even windfall gains do not lead to non-investors participating in the markets. A higher proportion of households among non-investors identified the word risk with loss and uncertainty of returns, while 27.2 per cent of investor households identified this word with an opportunity to make significant returns.

Who will take a gamble-investors or non-investors? Will an investor, for example, be persuaded to participate in a risky IPO? The responses to this can be found in the following vignette:

"*It is more important to have safe investments and guaranteed returns than to take a risk to have a chance in order to earn the highest possible returns*". *(1=Disagree strongly; 2=Disagree; 3=Agree; 4=neither agree not disagree; 5=strongly agree)*".

The responses are tabulated in Tables 7.3.5a and 7.3.5b. We found that a slightly higher percentage of non-investors compared to investors agreed to the statement. A marginally higher proportion of non-investors (15.5%) compared to investors (13.4%) neither agrees nor disagrees with this statement. About 25 per cent of investors disagreed with the statement. Only

FIGURE 7.4: PERCEPTIONS ACROSS OCCUPATIONS

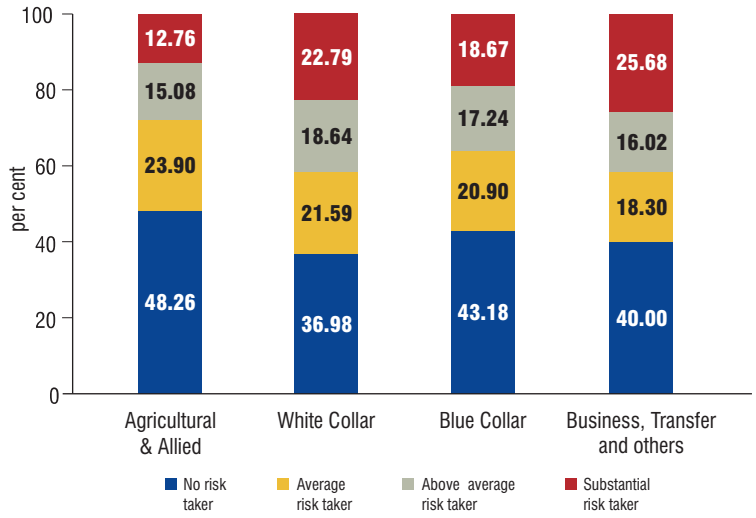


FIGURE 7.5: RISK SCALE ACROSS INCOMES

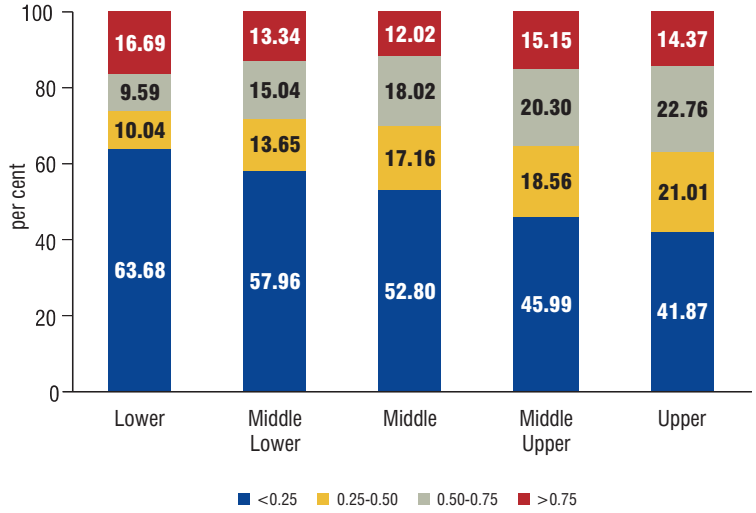


FIGURE 7.6: PERCEPTIONS ACROSS INCOMES

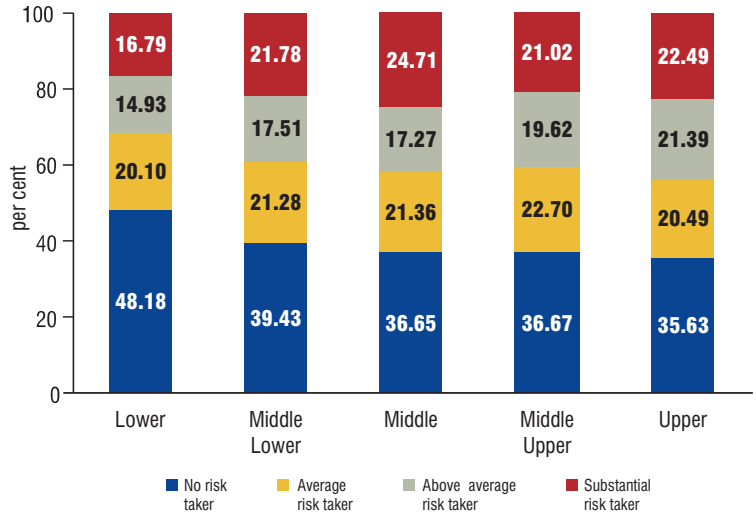


FIGURE 7.7: RISK SCALE ACROSS ASSET CLASS

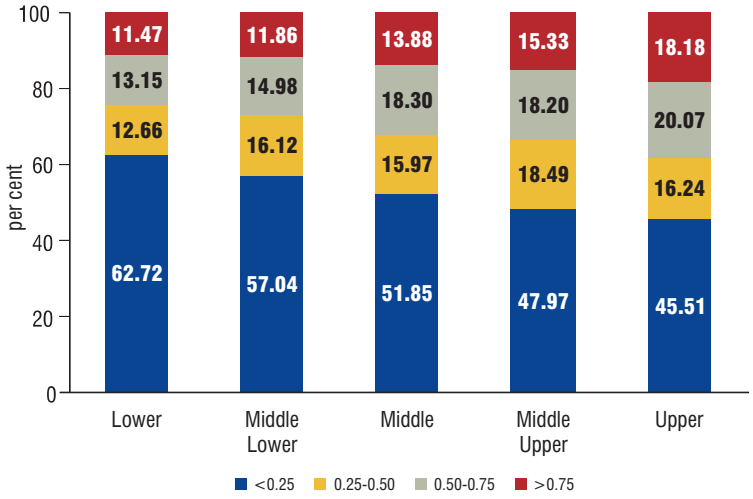
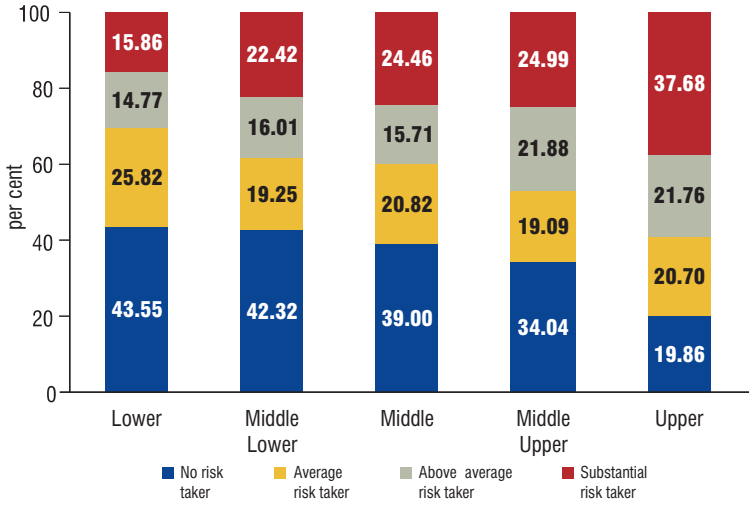


FIGURE 7.8: PERCEPTIONS ACROSS ASSET CLASS



39 per cent of non-investors felt that opting for a risky venture was prudent.

These responses suggest that there is much confusion regarding the term risk in the minds of households. A significant proportion of households continue to view the market as a source of earning windfalls in the short run. An adequate information campaign by the regulator can help remove such misconceptions.

iv) Relationship to macroeconomic condition

How crucial is inflation? Much debate in macroeconomics is around whether inflation can be controlled through interest rate mechanisms or through the demand side. Are consumers concerned about declining real incomes or a decline in real wealth? It is important for the regulator to note that investors and non-investors alike observe and react to macroeconomic forecasts and conditions. For example, during a period of high inflation, gold prices as well as the prices of other non-financial assets such as land increase significantly. Households during such conditions would choose to park some of their surplus income in assets such as gold and land.

"*Is it more important to be protected from rising consumer prices (inflation) or to maintain the safety of your savings?*" *[1=More important to secure the safety of your saving; 2=More important to be protected from rising prices (inflation)]*"

The responses are tabulated in Tables 7.3.4a and 7.3.4b. Most investors know that during inflation, interest rates will be hiked to control liquidity. Most investors and non-investors alike feel that it is more important to be protected from rising prices (inflation). Households are aware that during periods of high inflation, the interest rate will be hiked to control liquidity. Our survey shows that investors are more aware than non-investors regarding the effects of inflation. Thus, markets are likely to take a significant dip during a period of high inflation.

"*Some experts are predicting that the prices of assets such as gold, jewels, collectibles, and real estate (hard assets) will increase in value; bond prices may fall. However, experts have advised you that government bonds are relatively safe. Most of your investments are currently in high-interest government bonds. What would you do? [1=Hold the bonds; 2=Sell the bonds, put half the proceeds into the stock market, and the other half into assets such as land; 3=Sell the bonds and put all the money into buying land and precious metals; 4=Sell the bonds and put all the money into buying assets like land and borrow additional money to buy more assets such as land]*"

The responses are tabulated in Tables 7.3.6a and 7.3.6b. Non-investors have a greater proclivity towards real estate and precious metals than investors. The attitude towards the stock market remains guarded for both classes during periods of high inflation.

v) Relationship to inheritance

A windfall through a stipulated inheritance will not necessarily lead to households engaging in risky behaviour. We observe this through responses to the following vignette:

"*Suppose a relative left you an inheritance of ₹100,000, by stipulating in the will that you save or invest ALL of this money in ONE of the following choices. Which one would you select? [1=Savings account 2=Growth-based mutual fund; 3=A mutual fund that owns stocks and bonds; 4=A portfolio of 10 stocks from NSE; 5=Commodities like gold/silver, and crude oil; 6 = Will not choose this inheritance (will not like to spend]*"

The results are tabulated in Tables 7.3.7a and 7.3.7b. About 59 per cent of non-investors said they would prefer to park their inheritance in saving accounts compared to 32.3 per cent of investors. Fewer non-investors said they would be willing to save or invest in mutual funds or stocks compared to investors. However, both investors and non-investors are willing to opt for a growth-based mutual fund.

TABLE 7.3.1A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[5] (per cent)

Households' Profile	Investors 1	2	3	4	Total
Years of Schooling					
up to 5	45.95	27.57	23.78	2.70	100
6 to 10	35.91	36.16	22.53	5.40	100
11 to 15	32.47	37.07	23.68	6.78	100
Above 15	24.72	36.95	27.43	10.9	100
Chi²*	$Chi^2(9)=125.3518$ Pr = 0.000				
Marital Status					
Married	31.31	36.38	24.62	7.7	100
Unmarried	19.81	49.54	22.6	8.05	100
Others	44.89	30.11	23.3	1.7	100
Chi²	$Chi^2(6)=49.7345$ Pr = 0.000				
Occupation					
Agricultural & Allied	40	32.73	22.73	4.55	100
White collar	30.64	37.2	24.69	7.48	100
Blue collar	23.69	40.4	25.94	9.98	100
Business, Transfer and Others	41.16	30.24	22.49	6.11	100
Chi²	$Chi^2(9)=73.9693$ Pr = 0.000				
Income					
Up to 10000	28.68	41.67	22.79	6.86	100
10001 to 15000	28.72	39.53	26.17	5.57	100
15001 to 20000	33.18	38.93	22.78	5.11	100
20001 to 25000	31.05	38	23.38	7.57	100
More than 25000	31.31	32.37	25.88	10.44	100
Chi²	$Chi^2(12)=99.2108$ Pr = 0.000				
Age					
Young	22.97	41.1	26.38	9.56	100
Middle	36.58	34.05	23.07	6.3	100
Old	49.03	25.48	22.14	3.34	100
Chi²	$Chi^2(6)=293.6059$ Pr = 0.000				
Sex					
Male	31.62	36.24	24.55	7.59	100
Female	23.99	44.32	23.99	7.69	100
Chi²	$Chi^2(3)=15.69$ Pr= 0.000				
Dependency Ratio					
Low	32.94	37.06	22.51	7.49	100
Medium	31.05	34.91	26.05	7.99	100
High	27.54	40.5	25.11	6.85	100
Chi²	$Chi^2(6)=32.0756$ Pr = 0.000				
Assets Class					
Lower	18.05	49.65	23.24	9.06	100
Middle Lower	22.5	43.55	24.87	9.08	100
Middle	24.97	35.49	29.63	9.92	100
Middle Upper	37.52	29.84	26.21	6.42	100
Upper	40.39	33.44	20.48	5.69	100
Chi²	$Chi^2(12)=411.2578$ Pr = 0.000				
Total	**31.16**	**36.72**	**24.52**	**7.6**	**100**

***Reported Chi² values in the table states whether the differences between the categories are significant.**

5. You have saved money for a "world tour" that you were looking forward to for a long time. A month before you plan to leave, you lose your job. You would: [1=Cancel the trip; 2=Take a shorter vacation; 3=Go as scheduled, reasoning that you will use that time to prepare for a job search; 4=Extend your vacation, because this might be your only chance for such a trip].

TABLE 7.3.1B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[6] (per cent)

Households' Profile	Non-Investors				
	1	2	3	4	Total
Years of Schooling					
up to 5	48.8	27.42	21.14	2.64	100
6 to 10	39.47	33.12	22.24	5.17	100
11 to 15	39.02	30.79	23.75	6.44	100
above 15	37.39	30.02	24.62	7.97	100
Chi^2*	$Chi^2(9)=130.9234$ Pr = 0.000				
Marital Status					
Married	39.49	30.94	23.44	6.13	100
Unmarried	27.89	42.34	23.7	6.07	100
Others	56.03	25.1	16.78	2.08	100
Chi^2	$Chi^2(6)=142.1623$ Pr = 0.000				
Occupation					
Agricultural & Allied	34.95	36.89	22.01	6.15	100
White collar	40.43	30.1	23.63	5.83	100
Blue collar	34.67	36.29	22.39	6.64	100
Business, Transfer and Others	43.6	28.08	22.69	5.63	100
Chi^2	$Chi^2(9)=107.7308$ Pr = 0.00				
Income					
Up to 10000	39.57	32.91	21.4	6.13	100
10001 to 15000	37.01	32.34	24.48	6.17	100
15001 to 20000	39.62	31.11	24.03	5.24	100
20001 to 25000	42.34	26.61	24.11	6.95	100
More than 25000	42.96	29.34	21.92	5.78	100
Chi^2	$Chi^2(12)=82.8718$ Pr = 0.000				
Age					
Young	33.89	34.17	24.03	7.91	100
Middle	43.38	29.35	22.76	4.51	100
Old	48.99	24.61	21.84	4.55	100
Chi^2	$Chi^2(6)=341.6708$ Pr = 0.000				
Sex					
Male	40.17	30.72	23.2	5.9	100
Female	33.59	35.52	23.73	7.16	100
Chi^2	$Chi^2(3)=35.2808$ Pr = 0.000				
Dependency Ratio					
Low	40.86	31.38	21.67	6.09	100
Medium	38.83	30.86	24.35	5.95	100
High	39.04	31.07	23.97	5.91	100
Chi^2	$Chi^2(6)=21.9248$ Pr = 0.001				
Assets Class					
Lower	31.93	38.4	21.97	7.7	100
Middle Lower	35.25	29.56	26.86	8.33	100
Middle	38.37	28.89	27.52	5.23	100
Middle Upper	44.72	28.83	22.6	3.85	100
Upper	52.12	28.67	15.28	3.92	100
Chi^2	$Chi^2(12)=701.4209$ Pr = 0.000				
Total	**39.66**	**31.1**	**23.24**	**6**	**100**

*** Reported Chi^2 values in the table states whether the differences between the categories are significant.**

6. You have saved money for a "world tour" that you were looking forward to for a long time. A month before you plan to leave, you lose your job. You would: [1=Cancel the trip; 2=Take a shorter vacation; 3=Go as scheduled, reasoning that you will use that time to prepare for a job search; 4=Extend your vacation, because this might be your only chance for such a trip].

TABLE 7.3.2A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[7] (per cent)

Households' Profile	Investors 1	2	3	4	5	Total
Years of Schooling						
up to 5	42.08	13.66	19.13	9.84	15.3	100
6 to 10	35.86	22.19	15.95	10.97	15.02	100
11 to 15	32.88	23.42	20.51	14.18	9.01	100
above 15	25.08	25.04	22.84	14.52	12.52	100
Chi²*		Chi²(12)=131.9988, pr=0.00				
Marital Status						
Married	31.31	23.24	20.5	13.83	11.13	100
Unmarried	30.79	31.43	19.68	11.75	6.35	100
Others	37.79	20.93	21.51	13.95	5.81	100
Chi²		Chi²(8)=23.0894, pr=0.003				
Occupation						
Agricultural & Allied	13.51	16.22	35.14	9.01	26.13	100
White collar	31.68	23.96	20.17	13.96	10.23	100
Blue collar	31.59	25.61	18.09	11.34	13.38	100
Business, Transfer and Others	32.12	18.87	22.3	14.9	11.81	100
Chi²		Chi²(12)=78.0070, pr=0.00				
Income						
Lower	42.75	19.9	14	7.62	15.72	100
Middle Lower	36.72	26.09	15.6	12.19	9.4	100
Middle	34.6	24.27	19.81	13.71	7.61	100
Middle Upper	29.94	24.68	19.96	14.5	10.92	100
Upper	26.06	21.42	24.49	14.89	13.13	100
Chi²		Chi²(16)=194.3009, pr=0.00				
Age						
Young	30.07	25.64	20.93	12.57	10.78	100
Middle	32.54	22.53	19.64	14.4	10.89	100
Old	32.45	15.25	23.76	17.38	11.17	100
Chi²		Chi²(8)=46.0110, pr=0.00				
Sex						
Male	31.39	23.49	20.3	13.88	10.95	100
Female	31.79	23.48	23.48	11.83	9.43	100
Chi²		Chi²(4)=5.1698, pr=0.270				
Dependency Ratio						
Low	30.88	20.81	21.56	13.39	13.36	100
Medium	31.64	23.07	21.13	14.92	9.24	100
High	32	30.42	16.54	11.66	9.38	100
Chi²		Chi²(8)=100.3336, pr=0.00				
Assets Class						
Lower	36.2	24.11	19.33	8.35	12.01	100
Middle Lower	29.59	26.83	19.27	9.4	14.91	100
Middle	32.99	26.73	20.41	12.7	7.17	100
Middle Upper	32.42	27.04	19.96	13.21	7.36	100
Upper	28.25	16.66	22.11	19.58	13.4	100
Chi²		Chi²(16)=297.1270, pr=0.00				
Total	**31.41**	**23.49**	**20.49**	**13.76**	**10.86**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

7. If you unexpectedly receive ₹ 50,000, what would you do? [1=Deposit it in a bank account; 2=Invest in high quality Govt. Bonds; 3=Invest in mutual funds; 4=Invest in stocks; 5=Spend it.]

TABLE 7.3.2B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[8] (per cent)

Households' Profile	Non-Investors					
	1	2	3	4	5	Total
Years of Schooling						
up to 5	63.73	14.71	7.8	2.62	11.14	100
6 to 10	53.23	21.35	9.15	4.3	11.97	100
11 to 15	53.58	21.39	10.29	5.1	9.64	100
above 15	50.81	20.4	12.63	5.09	11.07	100
Chi^2*		$Chi^2(12)=148.1063$ Pr = 0.000				
Marital Status						
Married	53.72	20.68	10.14	4.64	10.81	100
Unmarried	43.2	27.65	11.66	9.12	8.37	100
Others	68.35	16.6	7.03	1.97	6.05	100
Chi^2		$Chi^2(8)=128.7590$ Pr = 0.000				
Occupation						
Agricultural & Allied	47.9	18.77	11	8.74	13.59	100
White collar	54.65	20.97	10.28	4.96	9.15	100
Blue collar	49.6	21.43	9.4	4.63	14.95	100
Business, Transfer and Others	56.84	18.89	9.89	3.16	11.22	100
Chi^2		$Chi^2(12)=173.9487$ Pr = 0.000				
Income						
Up to 10000	53.28	20.3	9.06	4.37	13	100
10001 to 15000	52.14	22.09	9.63	5.23	10.92	100
15001 to 20000	54.64	20.74	10.04	5.13	9.44	100
20001 to 25000	52.85	21.86	11.67	4.74	8.89	100
More than 25000	58.34	17.77	11.58	3.36	8.95	100
Chi^2		$Chi^2(16)=128.9708$ Pr = 0.000				
Age						
Young	46.7	23.37	12.31	7.24	10.38	100
Middle	58.92	19.17	8.29	2.86	10.76	100
Old	62.57	15.99	8.92	1.8	10.72	100
Chi^2		$Chi^2(8)=573.0041$ Pr = 0.000				
Sex						
Male	54.36	20.49	9.93	4.56	10.65	100
Female	48.13	23.84	11.92	6.18	9.92	100
Chi^2		$Chi^2(4)=37.4222$ Pr = 0.000				
Dependency Ratio						
Low	54.78	18.98	9.78	4.28	12.19	100
Medium	53.85	21.51	10.5	4.94	9.2	100
High	51.77	22.92	9.73	4.99	10.59	100
Chi^2		$Chi^2(8)=77.3187$ Pr = 0.000				
Assets Class						
Lower	46.41	21.88	12.24	5.39	14.08	100
Middle Lower	51.46	21.43	10.93	5.87	10.32	100
Middle	54.48	20.66	11.32	5.18	8.35	100
Middle Upper	56.57	23.6	8.51	3.62	7.7	100
Upper	63.66	15.11	6.17	2.68	12.38	100
Chi^2		$Chi^2(16)=495.9219$ Pr = 0.000				
Total	**53.87**	**20.76**	**10.09**	**4.69**	**10.59**	**100**

*** Reported Chi^2 values in the table states whether the differences between the categories are significant.**

8. If you unexpectedly receive ₹ 50,000, what would you do? [1=Deposit it in a bank account; 2=Invest in high quality Govt. Bonds; 3=Invest in mutual funds; 4=Invest in stocks; 5=Spend it.]

TABLE 7.3.3A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[9] (per cent)

Households' Profile	Investors				
	Loss	Uncertainty of Returns	Significant of Returns	Thrill	Total
Years of Schooling					
up to 5	28.34	43.85	21.39	6.42	100
6 to 10	27.9	40.89	21.19	10.02	100
11 to 15	21.78	43.31	28.03	6.89	100
above 15	19.92	41.13	28.76	10.19	100
Chi²*		Chi²(9)=79.7236 Pr = 0.000			
Marital Status					
Married	22.25	42.46	27.05	8.24	100
Unmarried	23.69	41.54	26.46	8.31	100
Others	18.75	42.61	34.66	3.98	100
Chi²		Chi²(6)=8.9215 Pr = 0.178			
Occupation					
Agricultural & Allied	9.65	36.84	45.61	7.89	100
White collar	22.06	42.94	26.95	8.05	100
Blue collar	24.44	43.3	22.7	9.55	100
Business, Transfer and Others	22.97	38.79	30.55	7.69	100
Chi²		Chi²(9)=41.0097 Pr = 0.000			
Income					
Up to 10000	32.35	35.78	22.55	9.31	100
10001 to 15000	24.62	45.82	21.67	7.89	100
15001 to 20000	24.15	44.66	24.98	6.21	100
20001 to 25000	22.73	43.65	26.6	7.02	100
More than 25000	18.1	39.33	32.35	10.21	100
Chi²		Chi²(12)=153.1712 Pr = 0.000			
Age					
Young	22.81	45.45	22.45	9.3	100
Middle	21.86	40.28	30.49	7.37	100
Old	20.94	37	36.13	5.93	100
Chi²		Chi²(6)=101.1412 Pr = 0.000			
Sex					
Male	22.13	42.43	27.32	8.11	100
Female	23.82	42.36	24.91	8.91	100
Chi²		Chi²(3)=2.1717 Pr = 0.538			
Dependency Ratio					
Low	19.54	42.64	29.72	8.1	100
Medium	22.17	42.51	26.64	8.68	100
High	28.3	41.77	22.94	6.98	100
Chi²		Chi²(3)=61.6744 Pr = 0.000			
Assets Class					
Lower	23.68	47.13	20.5	8.7	100
Middle Lower	23.88	49.58	18.8	7.73	100
Middle	25.27	44.27	21.05	9.41	100
Middle Upper	24.85	41.62	27.5	6.04	100
Upper	16.77	36.18	38.01	9.04	100
Chi²		Chi²(12)=313.9393 Pr = 0.000			
Total	**22.24**	**42.43**	**27.18**	**8.16**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

9. When you think of the word "risk", which of the following terms comes to mind first? [1=Loss; 2=Uncertainty of returns; 3=Opportunity(significant returns); 4=Thrill]

TABLE 7.3.3B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[10] (per cent)

Households' Profile	Non-Investors				
	Loss	Uncertainty of Returns	Significant of Returns	Thrill	Total
Years of Schooling					
up to 5	40.63	42.45	12.41	4.51	100
6 to 10	35.34	44.88	12.73	7.05	100
11 to 15	33.61	46.57	12.83	6.98	100
above 15	29.6	47.25	14.36	8.79	100
Chi^2*		$Chi^2(9)=84.9959$ Pr = 0.000			
Marital Status					
Married	33.99	45.87	13.05	7.1	100
Unmarried	32.9	43.87	14.43	8.8	100
Others	38.7	48.13	9.15	4.02	100
Chi^2		$Chi^2(6)=28.0462$ Pr = 0.000			
Occupation					
Agricultural & Allied	27.88	47.12	12.82	12.18	100
White collar	34	46.6	12.93	6.47	100
Blue collar	34.36	43.13	13.83	8.68	100
Business, Transfer and Others	35.2	46.04	12.16	6.6	100
Chi^2		$Chi^2(9)=54.4414$ Pr = 0.000			
Income					
Up to 10000	34.04	43.17	14.73	8.06	100
10001 to 15000	34.64	46.03	12.46	6.88	100
15001 to 20000	35.86	46.63	11.5	6.01	100
20001 to 25000	33.21	48.59	11.9	6.3	100
More than 25000	31.03	46.77	14.24	7.97	100
Chi^2		$Chi^2(12)=80.7043$ Pr = 0.000			
Age					
Young	31.35	45.16	14.89	8.6	100
Middle	35.85	46.45	11.81	5.89	100
Old	38.74	46.26	9.37	5.63	100
Chi^2		$Chi^2(6)=163.8956$ Pr =0.000			
Sex					
Male	34.32	45.94	12.76	6.98	100
Female	31.54	45.18	15.41	7.87	100
Chi^2		$Chi^2(3)=14.8189$ Pr = 0.002			
Dependency Ratio					
Low	33.01	47.39	12.7	6.9	100
Medium	33.69	45.56	13.42	7.33	100
High	37.85	43.13	12.39	6.63	100
Chi^2		$Chi^2(6)=35.5205$ Pr = 0.000			
Assets Class					
Lower	31.25	45.88	14.9	7.96	100
Middle Lower	35.59	42.02	14.44	7.95	100
Middle	35.59	45.75	12.67	5.99	100
Middle Upper	34.45	48.72	11.01	5.81	100
Upper	33.65	48.08	10.92	7.35	100
Chi^2		$Chi^2(12)=124.7322$ Pr = 0.000			
Total	**34.1**	**45.88**	**12.97**	**7.05**	**100**

*** Reported Chi^2 values in the table states whether the differences between the categories are significant.**

10. When you think of the word "risk", which of the following terms comes to mind first? [1=Loss; 2=Uncertainty of returns; 3=Opportunity(significant returns); 4=Thrill].

TABLE 7.3.4A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[11] (per cent)

Households' Profile	Investors		
	1	2	Total
Years of Schooling			
up to 5	60.66	39.34	100
6 to 10	46.18	53.82	100
11 to 15	46.24	53.76	100
above 15	43.23	56.77	100
Chi^2*	$Chi^2(3)=22.9428$ Pr = 0.000		
Marital Status			
Married	45.82	54.18	100
Unmarried	40.63	59.37	100
Others	51.16	48.84	100
Chi^2	$Chi^2(2)=5.3683$ Pr = 0.068		
Occupation			
Agricultural & Allied	34.82	65.18	100
White collar	45.53	54.47	100
Blue collar	49.04	50.96	100
Business, Transfer and Others	46.71	53.29	100
Chi^2	$Chi^2(3)=9.2505$ Pr = 0.026		
Income			
Up to 10000	56.22	43.78	100
10001 to 15000	49.55	50.45	100
15001 to 20000	48.4	51.6	100
20001 to 25000	47.72	52.28	100
More than 25000	39.43	60.57	100
Chi^2	$Chi^2(4)=84.1524$ Pr = 0.000		
Age			
Young	45.7	54.3	100
Middle	45.77	54.23	100
Old	45.77	54.23	100
Chi^2	$Chi^2(2)=0.0043$ Pr = 0.998		
Sex			
Male	45.78	54.22	100
Female	45.15	54.85	100
Chi^2	$Chi^2(1)=0.0805$ Pr = 0.777		
Dependency Ratio			
Low	44.73	55.27	100
Medium	45.11	54.89	100
High	49.49	50.51	100
Chi^2	$Chi^2(2)=11.0069$ Pr = 0.004		
Assets Class			
Lower	47.25	52.75	100
Middle Lower	50.82	49.18	100
Middle	48.56	51.44	100
Middle Upper	45.46	54.54	100
Upper	41.08	58.92	100
Chi^2	$Chi^2(4)=42.8473$ Pr = 0.000		
Total	**45.74**	**54.26**	**100**

*** Reported Chi^2 values in the table states whether the differences between the categories are significant.**

11. "Is it more important to be protected from rising consumer prices (inflation) or to maintain the safety of your savings?" [1=More important to secure the safety of your saving; 2=More important to be protected from rising prices (inflation)]

TABLE 7.3.4B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[12] (per cent)

Households' Profile	Non-Investors		
	1	2	Total
Years of Schooling			
up to 5	61.59	38.41	100
6 to 10	55.84	44.16	100
11 to 15	59.65	40.35	100
above 15	57.32	42.68	100
Chi²*	Chi²(3)=33.2659 Pr = 0.000		
Marital Status			
Married	58.47	41.53	100
Unmarried	49.4	50.6	100
Others	65.27	34.73	100
Chi²	Chi²(2)=36.3649 Pr = 0.000		
Occupation			
Agricultural & Allied	54.93	45.07	100
White collar	59.14	40.86	100
Blue collar	55.64	44.36	100
Business, Transfer and Others	59.43	40.57	100
Chi²	Chi²(3)=19.6944 Pr = 0.000		
Income			
Up to 10000	56.21	43.79	100
10001 to 15000	57.3	42.7	100
15001 to 20000	59.92	40.08	100
20001 to 25000	59.8	40.2	100
More than 25000	61.11	38.89	100
Chi²	Chi²(4)=30.4312 Pr = 0.000		
Age			
Young	55.49	44.51	100
Middle	60.26	39.74	100
Old	63.34	36.66	100
Chi²	Chi²(2)=67.6776 Pr = 0.000		
Sex			
Male	58.89	41.11	100
Female	52.96	47.04	100
Chi²	Chi²(1)=24.0056 Pr = 0.000		
Dependency Ratio			
Low	58.82	41.18	100
Medium	57.56	42.44	100
High	59.79	40.21	100
Chi²	Chi²(2)=6.5142 Pr = 0.038		
Assets Class			
Lower	52.53	47.47	100
Middle Lower	56.03	43.97	100
Middle	60.28	39.72	100
Middle Upper	59.13	40.87	100
Upper	66.5	33.5	100
Chi²	Chi²(4)=191.4857 Pr = 0.000		
Total	**58.42**	**41.58**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

12. "Is it more important to be protected from rising consumer prices (inflation) or to maintain the safety of your savings?" [1=More important to secure the safety of your saving; 2=More important to be protected from rising prices (inflation)]

TABLE 7.3.5A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[13] (per cent)

Households' Profile	Investors					
	Disagree Strongly	Disagree	Agree	Neither agree not disagree	Strongly agree	Total
Years of Schooling						
up to 5	19.89	21.59	38.68	11.38	8.46	100
6 to 10	18.39	24.35	33.74	12.58	10.94	100
11 to 15	17.62	25.62	34.56	14.31	7.89	100
above 15	12.61	23.71	41.44	12.88	9.36	100
Chi^2*		$Chi^2(12)=166.3165$	Pr = 0.000			
Marital Status						
Married	17.34	24.33	35.77	13.62	8.94	100
Unmarried	17.29	28.1	31.12	12.68	10.81	100
Others	18.01	32.96	32.27	8.17	8.59	100
Chi^2		$Chi^2(8)=49.3453$	Pr = 0.000			
Occupation						
Agricultural & Allied	13.69	28.03	37.58	15.29	5.41	100
White collar	17.94	25.62	34.76	13.42	8.26	100
Blue collar	15.92	21.05	38.41	13.17	11.45	100
Business, Transfer and Others	17.07	25.15	35.19	13.59	9	100
Chi^2		$Chi^2(12)=98.5824$	Pr = 0.000			
Income						
Up to 10000	15.71	22.78	35.1	14.02	12.39	100
10001 to 15000	18.53	24.97	34.52	13.48	8.5	100
15001 to 20000	19.32	25.04	35.7	13.26	6.67	100
20001 to 25000	17.16	28.47	33.39	13.8	7.18	100
More than 25000	14.87	23.69	40.12	12.11	9.21	100
Chi^2		$Chi^2(16)=208.9939$	Pr = 0.000			
Age						
Young	15.76	24.47	35.33	14.31	10.13	100
Middle	18.31	24.84	35.73	12.79	8.33	100
Old	20.42	25.36	35.28	12.39	6.54	100
Chi^2		$Chi^2(8)=73.5085$	Pr = 0.000			
Sex						
Male	17.61	24.7	35.44	13.38	8.86	100
Female	14.35	24.86	36.47	13.91	10.41	100
Chi^2		$Chi^2(4)=15.6741$	Pr = 0.003			
Dependency Ratio						
Low	15.78	25.62	36.28	13.27	9.06	100
Medium	18	24.54	34.83	13.91	8.72	100
High	19.34	23.05	35.63	12.45	9.53	100
Chi^2		$Chi^2(8)=40.9659$	Pr = 0.000			
Assets Class						
Lower	13.82	22.23	40.4	14.75	8.8	100
Middle Lower	18.82	22.62	35.79	14.74	8.03	100
Middle	20.12	23.7	36.12	12.44	7.62	100
Middle Upper	20.27	29.85	27.76	12.94	9.19	100
Upper	13.33	26.43	36.6	11.61	12.03	100
Chi^2		$Chi^2(16)=385.8152$	Pr = 0.000			
Total	**17.36**	**24.72**	**35.52**	**13.42**	**8.98**	**100**

*** Reported Chi^2 values in the table states whether the differences between the categories are significant.**

13. "It is more important to have safe investments and guaranteed returns than to take a risk in order to earn the highest possible returns". (1=Disagree strongly; 2=Disagree; 3=Agree; 4=Neither agree not disagree; 5=Strongly agree).

TABLE 7.3.5B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[14] (per cent)

Households' Profile	Non-Investors					
	Disagree Strongly	Disagree	Agree	Neither agree not disagree	Strongly agree	Total
Years of Schooling						
up to 5	13.3	21.28	35.11	13.83	16.49	100
6 to 10	15.00	20.53	34.21	16.16	14.10	100
11 to 15	13.83	21.26	38.57	14.8	11.54	100
above 15	8.75	19.05	41.56	16.92	13.71	100
Chi^2		$Chi^2(12)=73.1025$ Pr = 0.000				
Marital Status						
Married	12.69	19.99	39.14	15.66	12.52	100
Unmarried	13.62	36.22	26.01	12.38	11.76	100
Others	8.52	21.02	40.91	14.2	15.34	100
Chi^2*		$Chi^2(8)=60.1966$ Pr = 0.000				
Occupation						
Agricultural & Allied	9.82	8.04	50	11.61	20.54	100
White collar	13.29	21.31	37.77	15.44	12.18	100
Blue collar	11.99	20.77	39.31	14.96	12.98	100
Business, Transfer and Others	8.99	16.25	44.64	16.25	13.87	100
Chi^2		$Chi^2(12)=55.1175$ Pr = 0.000				
Income						
Lower	12.86	20.87	27.91	19.66	18.69	100
Middle Lower	14.97	22.13	34.96	16.71	11.23	100
Middle	15.24	21.46	37.71	15.19	10.39	100
Middle Upper	12.14	20.83	41.65	16.12	9.25	100
Upper	9.97	19.04	40.8	14.24	15.95	100
Chi^2		$Chi^2(16)=146.3625$ Pr = 0.000				
Age						
Young	13.46	22.91	36.68	15.34	11.61	100
Middle	12.28	19	39.72	15.66	13.35	100
Old	9.44	15.91	45.63	15.73	13.29	100
Chi^2		$Chi^2(8)=47.9019$ Pr = 0.000				
Sex						
Male	12.78	20.23	38.86	15.5	12.64	100
Female	10.53	26.13	36.3	15.79	11.25	100
Chi^2		$Chi^2(4)=12.5417$ Pr = 0.014				
Dependency Ratio						
Low	10.94	18.92	40.77	16.14	13.24	100
Medium	12.8	21.84	38.63	15.07	11.65	100
High	15.95	21.1	34.39	15.27	13.28	100
Chi^2		$Chi^2(8)=47.7921$ Pr = 0.000				
Assets Class						
Lower	12.16	25.1	32.02	19.94	10.78	100
Middle Lower	10.74	20.65	42.28	16.11	10.21	100
Middle	15.45	22.81	39.23	13.16	9.35	100
Middle Upper	16.07	22.23	36.36	14.36	10.98	100
Upper	9.33	15.7	41.73	15.48	17.77	100
Chi^2		$Chi^2(16)=247.7137$ Pr = 0.000				
Total	**12.64**	**20.58**	**38.71**	**15.52**	**12.55**	**100**

*** Reported Chi^2 values in the table states whether the differences between the categories are significant**

14. "It is more important to have safe investments and guaranteed returns than to take a risk in order to earn the highest possible returns". (1=Disagree strongly; 2=Disagree; 3=Agree; 4=Neither agree not disagree; 5=Strongly agree).

TABLE 7.3.6A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[15] (per cent)

Households' Profile	Investors 1	2	3	4	Total
Years of Schooling					
up to 5	33.33	19.89	29.03	17.74	100
6 to 10	26.89	26.64	28.39	18.07	100
11 to 15	25.7	27.5	27.5	19.3	100
above 15	23.24	24.8	25.89	26.06	100
Chi²*	$Chi^2(9)=62.6384$ Pr = 0.000				
Marital Status					
Married	25.08	26.82	27.1	21.01	100
Unmarried	27.41	17.13	32.71	22.74	100
Others	36	29.14	23.43	11.43	100
Chi²	$Chi^2(6)=32.6261$ Pr = 0.000				
Occupation					
Agricultural & Allied	29.2	27.43	30.97	12.39	100
White collar	25.75	26.26	27.22	20.77	100
Blue collar	20.53	24.53	28.91	26.03	100
Business, Transfer and Others	26.78	30.19	25.36	17.67	100
Chi²	$Chi^2(9)=36.3588$ Pr = 0.000				
Income					
Up to 10000	19.51	25.93	28.15	26.42	100
10001 to 15000	25.12	27.28	27.01	20.59	100
15001 to 20000	25.39	25.99	27.93	20.68	100
20001 to 25000	24.87	27.17	27.43	20.53	100
More than 25000	26.56	26.2	26.59	20.65	100
Chi²	$Chi^2(12)=15.7266$ Pr = 0.204				
Age					
Young	23.12	24.21	28.73	23.94	100
Middle	27.07	28.27	25.88	18.78	100
Old	28.62	29.86	26.68	14.84	100
Chi²	$Chi^2(6)=75.2724$ Pr = 0.000				
Sex					
Male	25.28	26.65	27.09	20.98	100
Female	26.74	24.54	29.3	19.41	100
Chi²	$Chi^2(3)=2.8069$ Pr = 0.422				
Dependency Ratio					
Low	26.17	25.65	28.29	19.89	100
Medium	25.4	27.19	27.06	20.35	100
High	23.56	26.75	25.31	24.38	100
Chi²	$Chi^2(6)=19.8230$ Pr = 0.003				
Assets Class					
Lower	18.05	16.81	37.28	27.86	100
Middle Lower	29.86	22.01	23.69	24.45	100
Middle	28.74	23.61	25.14	22.51	100
Middle Upper	25.19	32.63	25.89	16.29	100
Upper	24.77	30.3	26.49	18.44	100
Chi²	$Chi^2(12)=278.2252$ Pr = 0.000				
Total	**25.37**	**26.52**	**27.23**	**20.88**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

15. "Some experts are predicting that prices of assets such as gold, jewels, collectibles, and real estate (hard assets) will increase in value; bond prices may fall. However, ,experts have advised you that government bonds are relatively safe. Most of your investments are currently in high interest government bonds. What would you do?"[1=Hold the bonds; 2=Sell the bonds, put half the proceeds into stock market, and the other half into assets such as land; 3=Sell the bonds and put all the money into buying land and precious metals; 4=Sell the bonds and put all the money into buying assets like land and borrow additional money to buy more assets such as land].

TABLE 7.3.6B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[16] (per cent)

Households' Profile	Non-Investors				
	1	2	3	4	Total
Years of Schooling					
up to 5	31.14	17.66	31.84	19.36	100
6 to 10	25.61	22.67	30.07	21.65	100
11 to 15	28.12	19.2	31.54	21.14	100
above 15	27.72	18.84	31.84	21.61	100
Chi²*	Chi²(9)=59.0480 Pr = 0.000				
Marital Status					
Married	27.78	19.96	31.12	21.15	100
Unmarried	23.44	24.75	30.13	21.69	100
Others	25.73	17.39	34.08	22.81	100
Chi²	Chi²(6)=18.8512 Pr = 0.004				
Occupation					
Agricultural & Allied	24.44	17.68	30.55	27.33	100
White collar	28.35	19.64	31.56	20.45	100
Blue collar	26.24	21.64	29.42	22.7	100
Business, Transfer and Others	26.65	19.56	32.2	21.59	100
Chi²	Chi²(9)=36.6829 Pr = 0.000				
Income					
Up to 10000	23.79	20.77	30.15	25.28	100
10001 to 15000	28.14	20.95	29.37	21.53	100
15001 to 20000	29.01	19.59	32.41	18.99	100
20001 to 25000	25.79	19.76	34.73	19.72	100
More than 25000	32.72	17.62	31.54	18.11	100
Chi²	Chi²(12)=175.5651 Pr = 0.000				
Age					
Young	25.5	20.96	29.9	23.65	100
Middle	29.3	19.09	32.03	19.58	100
Old	28.52	20.61	33.14	17.73	100
Chi²	Chi²(6)=99.9699 Pr = 0.000				
Sex					
Male	28.01	19.91	31.29	20.78	100
Female	22.52	21.25	29.94	26.29	100
Chi²	Chi²(3)=44.4308 Pr = 0.000				
Dependency Ratio					
Low	28.81	17.2	31.54	22.45	100
Medium	26.6	21.34	31.72	20.33	100
High	27.34	23.12	28.86	20.68	100
Chi²	Chi²(6)=89.9758 Pr = 0.000				
Assets Class					
Lower	25.83	19.57	32.77	21.83	100
Middle Lower	25.49	20.24	32.25	22.02	100
Middle	30.61	19.64	29.85	19.9	100
Middle Upper	29.95	21.25	27.79	21.01	100
Upper	26.27	19.4	33.14	21.2	100
Chi²	Chi²(12)=80.9920 Pr = 0.000				
Total	**27.58**	**20.02**	**31.18**	**21.22**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

16. "Some experts are predicting that prices of assets such as gold, jewels, collectibles, and real estate (hard assets) will increase in value; bond prices may fall. However, ,experts have advised you that government bonds are relatively safe. Most of your investments are currently in high interest government bonds. What would you do?"[1=Hold the bonds; 2=Sell the bonds, put half the proceeds into stock market, and the other half into assets such as land; 3=Sell the bonds and put all the money into buying land and precious metals; 4=Sell the bonds and put all the money into buying assets like land and borrow additional money to buy more assets such as land].

TABLE 7.3.7A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[17] (per cent)

Households' Profile	Investors						
	1	2	3	4	5	6	Total
Years of Schooling							
up to 5	50.53	22.34	12.23	7.45	5.85	1.6	100
6 to 10	39.39	20.07	15.13	12.01	12.09	1.32	100
11 to 15	31.96	23.12	21.42	16.06	6.45	0.99	100
above 15	28.14	25.19	20.69	14.32	10.37	1.29	100
Chi²*		Chi²(15)=164.9152 Pr = 0.000					
Marital Status							
Married	32.77	22.86	20.33	14.94	8.01	1.09	100
Unmarried	19.69	29.85	19.08	15.69	13.54	2.15	100
Others	33.71	29.71	16	10.86	8.57	1.14	100
Chi²		Chi²(10)=45.2273 Pr = 0.000					
Occupation							
Agricultural & Allied	32.46	34.21	17.54	12.28	1.75	1.75	100
White collar	31.71	23.64	20.6	14.94	8.1	1.01	100
Blue collar	34.49	21.63	17.92	13.97	9.77	2.22	100
Business, Transfer and Others	36.04	19.7	19.37	15.15	8.66	1.08	100
Chi²		Chi²(15)=40.9585 Pr = 0.000					
Income							
Up to 10000	40.82	19.08	17.15	9.42	12.08	1.45	100
10001 to 15000	35.4	20.16	20.43	12.97	9.98	1.06	100
15001 to 20000	32.85	22.14	21.91	14.91	7.18	1.01	100
20001 to 25000	30.92	22.66	22.3	15.9	7.54	0.67	100
More than 25000	30.23	26.41	18	15.89	7.99	1.48	100
Chi²		Chi²(20)=100.5625 Pr = 0.000					
Age							
Young	27.92	23.3	22.44	15.29	9.66	1.39	100
Middle	35.4	23.61	18.73	14.24	7.14	0.88	100
Old	40.77	20.03	15.33	16.9	5.92	1.05	100
Chi²		Chi²(10)=103.6951 Pr = 0.000					
Sex							
Male	32.63	23.27	20.01	14.82	8.19	1.08	100
Female	27.64	22.73	23.27	16	8.55	1.82	100
Chi²		Chi²(5)=50.269 Pr = 0.000					
Dependency Ratio							
Low	35.69	22.29	18.88	14.82	7.27	1.05	100
Medium	31.52	23.09	20.03	16.46	7.73	1.17	100
High	27	25.7	23.53	11.11	11.48	1.18	100
Chi²		Chi²(10)=93.0835 Pr = 0.000					
Assets Class							
Lower	27.62	17.28	28.32	13.58	11.65	1.54	100
Middle Lower	36.1	22	18.39	13.87	8.52	1.13	100
Middle	34.21	20.47	22.57	14.41	7.56	0.78	100
Middle Upper	31.61	27.03	21.81	13.22	5.31	1.02	100
Upper	32.15	25.38	14.47	17.65	9.14	1.22	100
Chi²		Chi²(20)=227.0174 Pr = 0.000					
Total	**32.33**	**23.24**	**20.21**	**14.89**	**8.21**	**1.12**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

17. "Suppose a relative left you an inheritance of ₹ 100,000, by stipulating in the will that you save or invest ALL of this money in ONE of the following choices. Which one would you select?" [1=Savings account 2= Growth-based mutual funds ; 3=A mutual fund that owns stocks and bonds; 4=A portfolio of 10 stocks from NSE; 5=Commodities like gold/silver, and, crude oil; 6 = Will not choose this inheritance (will not like to spend].

TABLE 7.3.7B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[18] (per cent)

Households' Profile	Non-Investors 1	2	3	4	5	6	Total
Years of Schooling							
up to 5	74.42	8	5.96	2.45	8.06	1.11	100
6 to 10	59.29	13.55	10.31	5.73	9.89	1.23	100
11 to 15	57.4	13.43	11.48	7.42	9.22	1.06	100
above 15	56.67	12.68	10.34	8.06	11.38	0.87	100
Chi²*		Chi²(15)=249.7394	Pr = 0.000				
Marital Status							
Married	59.17	12.94	10.53	6.63	9.68	1.05	100
Unmarried	43.82	18.39	15.8	11.21	8.91	1.87	100
Others	71.43	8.46	7.49	3.33	7.91	1.39	100
Chi²*		Chi²(10)=138.6686	Pr = 0.000				
Occupation							
Agricultural & Allied	55.59	13.42	12.46	9.9	5.43	3.19	100
White collar	57.43	13.24	10.98	7.27	9.93	1.15	100
Blue collar	57.87	14.07	10.41	6.31	10.37	0.98	100
Business, Transfer and Others	69.32	10	8.45	3.82	7.67	0.75	100
Chi²		Chi²(15)=208.9868	Pr = 0.000				
Income							
Up to 10000	62.25	12.17	10.21	5.32	8.74	1.31	100
10001 to 15000	56.91	13.39	11.6	7.29	10.07	0.74	100
15001 to 20000	57.5	12.62	11.2	7.16	10.66	0.87	100
20001 to 25000	57.55	13.76	10.4	7.83	9.67	0.8	100
More than 25000	61.96	13.37	8.36	5.89	8.36	2.05	100
Chi²		Chi²(20)=138.4393	Pr = 0.000				
Age							
Young	49.82	15.31	13.87	9.95	9.69	1.35	100
Middle	65.11	11.64	8.17	4.35	9.82	0.91	100
Old	73.87	7.93	7.29	2.58	7.64	0.69	100
Chi²		Chi²(10)=875.3576	Pr = 0.000				
Sex							
Male	59.3	12.86	10.48	6.62	9.67	1.08	100
Female	56.69	14.25	11.9	7.18	8.83	1.15	100
Chi²		Chi²(5)=9.7669	Pr = 0.082				
Dependency Ratio							
Low	62.98	11.53	9.94	6.15	8.45	0.95	100
Medium	57.94	13.56	10.8	7.11	9.56	1.02	100
High	52.99	14.75	11.59	6.66	12.43	1.58	100
Chi²		Chi²(10)=144.5344	Pr = 0.000				
Assets Class							
Lower	52.23	14.26	16.11	7.59	9.12	0.7	100
Middle Lower	57.15	11.72	10.11	8.4	11.95	0.68	100
Middle	63.97	10.7	8.72	7.33	7.93	1.35	100
Middle Upper	60.77	16.79	10.72	4.4	6.05	1.28	100
Upper	62.98	11.44	5.97	4.75	13.22	1.62	100
Chi²		Chi²(20)=672.1497	Pr = 0.000				
Total	**59.09**	**12.97**	**10.59**	**6.66**	**9.6**	**1.09**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

18. "Suppose a relative left you an inheritance of ₹ 100,000, by stipulating in the will that you save or invest ALL of this money in ONE of the following choices. Which one would you select?" [1=Savings account 2= Growth-based mutual funds ; 3=A mutual fund that owns stocks and bonds; 4=A portfolio of 10 stocks from NSE; 5=Commodities like gold/silver, and, crude oil; 6 = Will not choose this inheritance (will not like to spend].

TABLE 7.3.8A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[19] (per cent)

Households' Profile	Investors 1	2	3	Total
Years of Schooling				
up to 5	42.47	46.24	11.29	100
6 to 10	30.88	47.68	21.44	100
11 to 15	27.51	52.02	20.47	100
above 15	24.14	49.72	26.14	100
Chi²*	Chi²(6)=68.9645 Pr = 0.000			
Marital Status				
Married	27.5	51.09	21.4	100
Unmarried	21.63	37.93	40.44	100
Others	32.57	56	11.43	100
Chi²	Chi²(4)=76.9429 Pr = 0.000			
Occupation				
Agricultural & Allied	19.64	60.71	19.64	100
White collar	27.71	50.08	22.21	100
Blue collar	23.25	50.25	26.5	100
Business, Transfer and Others	29.54	54.7	15.75	100
Chi²	Chi²(6)=39.0176 Pr = 0.000			
Income				
Up to 10000	30.98	42.44	26.59	100
10001 to 15000	28.95	49.93	21.11	100
15001 to 20000	29.88	49.12	21	100
20001 to 25000	28.52	50.95	20.54	100
More than 250001	23.73	53.2	23.08	100
Chi²	Chi²(8)=43.5996 Pr = 0.000			
Age				
Young	24.29	48.51	27.2	100
Middle	29.68	51.93	18.39	100
Old	32.34	57.52	10.14	100
Chi²	Chi²(4)=151.9225 Pr = 0.000			
Sex				
Male	27.71	50.61	21.68	100
Female	22.45	52.5	25.05	100
Chi²	Chi²(2)=9.845 Pr= 0.000			
Dependency Ratio				
Low	25.85	53.82	20.33	100
Medium	27.95	49.23	22.82	100
High	29.41	47.63	22.96	100
Chi²	Chi²(4)=23.4325 Pr = 0.000			
Assets Class				
Lower	17.81	48.91	33.28	100
Middle Lower	25.21	50.95	23.84	100
Middle	28.75	49.7	21.55	100
Middle Upper	31.1	52.44	16.46	100
Upper	29.25	50.74	20.02	100
Chi²	Chi²(8)=174.4139 Pr = 0.000			
Total	**27.4**	**50.72**	**21.88**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

19. If you had to invest ₹ 100,000, which of the following investment choices would you find most appealing? [1=60% in low-risk investments, 30% in medium-risk investments, 10% in high-risk investments; 2=30% in low-risk investments, 40% in medium-risk investments, 30% in high-risk investments; 3=10% in low-risk investments, 40% in medium-risk investments, 50% in high-risk investments].

TABLE 7.3.8B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[20] (per cent)

Households' Profile	Non-Investors 1	2	3	Total
Years of Schooling				
up to 5	38.82	54.22	6.97	100
6 to 10	35.94	48.89	15.17	100
11 to 15	39.98	45.58	14.44	100
above 15	40.04	42.11	17.85	100
Chi²	$Chi^2(6)=154.2338$ Pr = 0.000			
Marital Status				
Married	38.52	46.93	14.55	100
Unmarried	28.3	48.68	23.02	100
Others	55.99	38.44	5.57	100
Chi²*	$Chi^2(4)=159.3988$ Pr = 0.000			
Occupation				
Agricultural & Allied	30.57	50.96	18.47	100
White collar	41.08	44.82	14.1	100
Blue collar	31.35	51.41	17.24	100
Business, Transfer and Others	39.49	48.28	12.23	100
Chi²	$Chi^2(6)=162.2325$ Pr = 0.000			
Income				
Up to 10000	33.62	51.4	14.97	100
10001 to 15000	37.42	47.62	14.95	100
15001 to 20000	41.76	45.2	13.04	100
20001 to 25000	41.5	42.86	15.64	100
More than 25000	43.57	42.22	14.21	100
Chi²	$Chi^2(8)=140.7772$ Pr = 0.000			
Age				
Young	33.94	47.15	18.91	100
Middle	42.15	46.09	11.76	100
Old	44.6	48.24	7.16	100
Chi²	$Chi^2(4)=366.9114$ Pr = 0.000			
Sex				
Male	38.95	46.92	14.14	100
Female	36.55	44.38	19.07	100
Chi²	$Chi^2(2)=32.8436$ Pr = 0.000			
Dependency Ratio				
Low	40.47	46.08	13.45	100
Medium	37.76	47.43	14.81	100
High	37.4	46.27	16.32	100
Chi²	$Chi^2(4)=29.2923$ Pr = 0.000			
Assets Class				
Lower	27.28	53.12	19.61	100
Middle Lower	33.63	52.22	14.15	100
Middle	40.3	48.04	11.66	100
Middle Upper	44.7	42.15	13.15	100
Upper	52.83	33.8	13.36	100
Chi²	$Chi^2(8)=795.6359$ Pr = 0.000			
Total	**38.76**	**46.71**	**14.53**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

20. If you had to invest ₹ 100,000, which of the following investment choices would you find most appealing? [1=60% in low-risk investments, 30% in medium-risk investments, 10% in high-risk investments; 2=30% in low-risk investments, 40% in medium-risk investments, 30% in high-risk investments; 3=10% in low-risk investments, 40% in medium-risk investments, 50% in high-risk investments].

TABLE 7.3.9A: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (INVESTING HHS) USING VIGNETTES[21] (per cent)

Households' Profile	Investors 1	2	3	Total
Years of Schooling				
up to 5	43.85	39.04	17.11	100
6 to 10	31.78	45.15	23.07	100
11 to 15	33.23	40.06	26.71	100
above 15	30.75	45.16	24.09	100
Chi^2	$Chi^2(6)=37.1382$ Pr = 0.000			
Marital Status				
Married	32.77	41.89	25.34	100
Unmarried	26.56	47.19	26.25	100
Others	35.63	40.8	23.56	100
Chi^2*	$Chi^2(4)=6.5872$ Pr = 0.159			
Occupation				
Agricultural & Allied	25.44	53.51	21.05	100
White collar	33.01	41.79	25.21	100
Blue collar	30.71	44.19	25.09	100
Business, Transfer and Others	32.54	40.89	26.57	100
Chi^2	$Chi^2(6)=9.3092$ Pr = 0.157			
Income				
Up to 10000	32.52	41.26	26.21	100
10001 to 15000	34.27	39.84	25.89	100
15001 to 20000	36.64	38.87	24.49	100
20001 to 25000	33.49	40.31	26.2	100
More than 25000	28.45	46.53	25.02	100
Chi^2	$Chi^2(8)=53.6642$ Pr = 0.000			
Age				
Young	32.84	41.69	25.47	100
Middle	32.52	42.36	25.12	100
Old	31.52	42.38	26.09	100
Chi^2	$Chi^2(4)=0.7707$ Pr = 0.942			
Sex				
Male	32.62	42.11	25.27	100
Female	32.29	41.28	26.42	100
Chi^2	$Chi^2(2)=0.3661$ Pr = 0.833			
Dependency Ratio				
Low	28.86	45.42	25.72	100
Medium	34.3	40.6	25.1	100
High	36.56	38.32	25.13	100
Chi^2	$Chi^2(4)=43.2342$ Pr = 0.000			
Assets Class				
Lower	29.64	41.42	28.94	100
Middle Lower	31.35	45.77	22.88	100
Middle	37.94	38.31	23.75	100
Middle Upper	32.11	40.94	26.95	100
Upper	31.76	43.73	24.51	100
Chi^2	$Chi^2(8)=45.7764$ Pr = 0.000			
Total	**32.6**	**42.06**	**25.34**	**100**

*** Reported Chi^2 values in the table states whether the differences between the categories are significant.**

21. If you had to invest ₹ 100,000, which of the following investment choices would you find most appealing? [1=60% in low-risk investments in 5 years; 2=30% in low-risk investments in less than one year; 3=10% in low-risk investments in less than six months].

TABLE 7.3.9B: MEASURING HOUSEHOLDS' PERCEPTIONS OF RISK (NON-INVESTING HHS) USING VIGNETTES[22] (per cent)

Households' Profile	Non-Investors 1	2	3	Total
Years of Schooling				
up to 5	45.21	43.68	11.11	100
6 to 10	40.33	43.75	15.92	100
11 to 15	46.94	37.6	15.46	100
above 15	47.05	37.72	15.22	100
Chi²*	$Chi^2(6)=115.2000$ Pr = 0.000			
Marital Status				
Married	44.82	39.93	15.25	100
Unmarried	36.1	43.52	20.38	100
Others	57.89	32.13	9.97	100
Chi²	$Chi^2(4)=77.1687$ Pr = 0.000			
Occupation				
Agricultural & Allied	33.55	48.24	18.21	100
White collar	46.86	38.13	15.01	100
Blue collar	38.05	45.96	15.99	100
Business, Transfer and Others	46.9	38.46	14.64	100
Chi²	$Chi^2(6)=134.0957$ Pr = 0.000			
Income				
Up to 10000	39.79	42.79	17.42	100
10001 to 15000	42.72	40.98	16.3	100
15001 to 20000	48.3	37.14	14.56	100
20001 to 25000	49.51	37.83	12.66	100
More than 25000	49.49	37.99	12.51	100
Chi²	$Chi^2(8)=160.8110$ Pr = 0.000			
Age				
Young	40.18	40.99	18.83	100
Middle	48.37	38.96	12.67	100
Old	50.58	38.28	11.14	100
Chi²	$Chi^2(4)=251.6077$ Pr = 0.000			
Sex				
Male	45.13	39.98	14.89	100
Female	43.03	37.63	19.34	100
Chi²	$Chi^2(2)=25.7136$ Pr = 0.000			
Dependency Ratio				
Low	45.52	39.9	14.58	100
Medium	44.12	39.92	15.96	100
High	45.95	39.22	14.83	100
Chi²	$Chi^2(4)=9.9148$ Pr = 0.042			
Assets Class				
Lower	34.92	46.05	19.02	100
Middle Lower	41.52	41.97	16.52	100
Middle	45.21	40.76	14.03	100
Middle Upper	48.53	37.11	14.36	100
Upper	58.92	30.18	10.9	100
Chi²	$Chi^2(8)=561.3532$ Pr = 0.000			
Total	**44.97**	**39.8**	**15.24**	**100**

*** Reported Chi² values in the table states whether the differences between the categories are significant.**

22. If you had to invest ₹ 100,000, which of the following investment choices would you find most appealing? [1=60% in low-risk investments in 5 years; 2=30% in low-risk investments in less than one year; 3=10% in low-risk investments in less than six months].

Principal Findings

- The majority (53 %) of surveyed investing households fall in the least risk taker category. The degree of risk-taking is, on average, high among earning households located in cities such as Bangalore, Hyderabad and Ahmedabad (Town Class 2, where the population is between 50 lakh - 1 crore).
- Education plays a significant role in risk-taking activity. The degree of risk was highest among investors with more than 15 years of schooling at the all-India level. With the increase in educational attainment, risk tolerance increases.
- Married investors take less risk than their unmarried counterparts.
- On average females take less risk than their male counterparts.
- Business and white-collar workers hold more risky assets than their blue-collar counterparts.
- Risk behaviour increases with income level.
- The degree of risk-taking is directly proportional to age; risk-taking declines with the age of the person.
- Nearly 60 per cent of older persons fall in the lowest risk scale.

8 Factors Affecting Investment: Role of SEBI and Sources of Information

Introduction

It is important to realise that a market regulator plays a significant role in influencing both the functioning of the market as well as enhancing investor confidence. The processes involved in the functioning of the market need to be transparent. It is important to ensure that the transaction costs for the investor are minimal. A well-functioning market will help in capital formation in the economy as well as in fostering economic growth. A market that reflects the fundamentals of the economy and one that is less based on speculative bubbles will enable investors to continue to participate as well as attract new investors. Reallocation and generation of wealth are the primary roles of the capital market. An improperly functioning market will therefore lead to significant negative outcomes, namely, 1) lack of confidence in the economy on the part of investors both domestically and globally; 2) the market will become a source of money laundering; 3) domestic firms will lose a significant cheap source of capital and 4) households will lose a source of income that might help them earn returns that are commensurate with the prevailing inflationary tendency.

This chapter investigates the role of the Indian securities market regulator (SEBI) in providing investors with consistently reliable information. How do the investors access the information that is relevant for effective participation? Well-informed investors can go a long way in ameliorating speculative bubbles. Much of short-term volatility in the market can be explained by participation by investors based on information that is transient. The regulators also have a significant role to play in enabling optimal information-seeking by investors.

Perception of SEBI's Role in the Primary, Mutual Funds and Secondary Markets

The Indian IPO market has traditionally been beset with problems related to lack of transparency. It is generally believed that a book building process is not adequate. There are other problems related to pricing, the application process, and lack of transparency regarding allocations. Though SEBI has put in place mechanisms for the smooth functioning of the IPO market, it is worrying to note for example that about 40% of investors believe that in the book building process prices for the IPO entering the market are either not transparent or are not aware of SEBI's role. The magnitude of lack of awareness of SEBI's role in various stages of an IPO is small but quite significant. 32 per cent of participants in the IPO process feel that the procedure for refund for non-allocation are either inadequate or the role of SEBI in this is non-transparent (Table 8.1).

We observed earlier that the majority of investors prefer mutual funds as the optimal tool of investing. It is therefore important that all aspects related to the functioning of the mutual fund market are optimally regulated. This survey clearly suggests that investors expect SEBI to put in place a set of mechanisms that would enable investors to effectively access the mutual

fund market. SEBI has put in place a large number of disclosure and corporate governance norms that are related to transparency, conflict of interest, etc. Even then, nearly 80 per cent of all participants think that the regulator must take additional steps related to conflict between shareholders and firms. Since such conflict can affect share prices, they will have a cascading effect on the value of the unit of mutual fund held by the investors. We therefore find from the survey that households interpret movement of the value of the unit of a mutual fund in which they are participating to be affected by conflict between shareholders and firms. The survey participants expect the regulator to correctly articulate the source of fluctuations of unit prices. It is puzzling to find a persistently high degree of lack of knowledge about the role of the regulator in the mutual fund markets.

There have been several interpretations of the behaviour of stock prices in India. An internally commissioned study by the National Stock Exchange (NSE) shows that long-term volatility in the Indian stock market is about the same as that in the stock exchanges of New York, London, Tokyo and Hong Kong; however, short-term volatility is a different story. There is evidence to suggest that Indian stock prices are characterised by episodes of excess volatility. Price discovery is also a matter of significant concern for investors. Since stocks are listed in multiple exchanges (for example, Reliance shares are listed and traded on both the BSE and the NSE and till recently were listed and traded in other 15 regional stock exchanges), investors are often unclear about the source of price discovery. The survey seems to suggest that there is lack of clarity regarding the movement of stock prices.

TABLE 8.2: PERCEPTIONS OF INVESTORS ABOUT THE PERCEIVED ROLE OF SEBI IN THE MUTUAL FUND MARKET (per cent)

Perceived role of regulator/ Perception	Agree	Disagree	Don't Know	Total
SEBI should prohibit conflicts between fund and shareholders	81.05	2.79	16.16	100
SEBI should ensure that funds invest exactly as disclosed in their prospectus	72.81	8.22	18.97	100
SEBI should prevent funds from random borrowing and leveraging	70.75	5.55	23.7	100
SEBI should maintain an effective system of self-governance	71.99	8.42	19.59	100
SEBI should ensure full disclosure by the funds	74.02	5.41	20.56	100
SEBI should ensure that the transfer of units is done within 30 days from the date of issue of certificates with mutual funds	68.82	5.77	25.41	100

TABLE 8.3: PERCEPTIONS OF INVESTORS ABOUT THE PERCEIVED ROLE OF SEBI IN THE SECONDARY MARKET (per cent)

Perceived role of SEBI	Agree	Disagree	Don't Know	Total
Ensuring strict monitoring of firms after public issue	84.70	2.97	12.32	100
De-listing non-performing firms	61.59	14.79	23.61	100
Investigating sources of large fluctuations in price	69.70	8.82	21.48	100
Regulating the presence of 'big bulls' in the market	79.23	9.67	11.19	100
Prevention of price rigging	68.48	5.43	26.10	100

TABLE 8.1: PERCEPTIONS OF INVESTORS ABOUT THE PERCEIVED ROLE OF SEBI IN THE IPO MARKET (per cent)

Perceived role of SEBI/ Perception	Agree	Disagree	Don't Know	Total
Ensures that book building takes place	79.35	3.99	16.67	100
Ensure that book building is transparent	61.82	20.36	17.82	100
Ensure that disclosures are in place	65.45	12.36	22.18	100
Undertake listing only after complete scrutiny of firm's antecedents	69.82	13.09	17.09	100
Ensure timely refund of non-allotting shares	68.42	13.53	18.05	100

Retail investors, in particular, are not entirely clear about the structure of holdings, the role of traders and intermediaries, and the relationship between the health of the economy and stock price movement, amongst others. SEBI could play a significant role in removing or minimising the extent of information asymmetry with investors. We find that 21 per cent of all investors are not clear about the role of the regulators in preventing unexplained volatility. Even though SEBI is expected to de-list non-performing firms, 24 per cent of all investors are not sure about the role of the regulators in this process.

Significant innovations have been introduced since the mid-1990s for market participants. Since floor-based trading was supposed to retard liquidity and provided

avenues for price rigging, online trading was introduced. The survey, however, found inadequate availability of trading terminals, general trading infrastructure, and inadequate information regarding firms. Interestingly even with online trading a significant percentage of current past and potential participants expect a degree of price rigging. To correct these ills, the survey suggests that a significant number of investors expect SEBI to take action, such as monitoring post public issues (39 per cent), de-listing (29 per cent) and investigating undue price fluctuations (32 per cent). However given the continued prevalence of the bullish market nearly 50 per cent of all market participants say that SEBI has not put in adequate mechanisms to prevent the recurrence of the big bulls (who drive up the market without fundamental reasons) in the market (see Table 8.4).

Sources of information

The findings of the survey, suggest that the source of retardation in the rate of participation by Indian households in the market is due to both information asymmetry as well as the poor quality of information. For example, a single important source of information for investors across all income/education categories while applying for an IPO is newspapers. This ought to be of serious significant concern since both current and potential market participants are basing their judgment on inadequate source of information. There is a need to fine-tune the investor camps so that households avoid their unreliable sources of information. Given the existing scenario related to the provision of information, not surprisingly most market participants find information from intermediaries such as brokers more useful (Tables 8.5 and 8.6).

The sources of information for investors while participating in mutual funds as well as in the secondary market remain sub-optimal. A significant majority still depends on the advice given by intermediaries and friends. The market activities based on such information will render this market volatile and thin. The reason for thinness is not difficult to see since participant's base their choices in stocks on unreliable and often speculative sources of information. Information gleaning from a proper analysis of various publications continues to remain a peripheral source of dissemination. Research reports and information from stock market websites continue to be perceived as inadequate and unreliable. The findings of the survey suggest that this lacuna should be overcome as uninformed decision-making cannot constitute the core of activities in the market (Tables 8.7 and 8.8).

The reasons for not participating in markets are found to be (in descending order) inadequate information, lack of skills and uncertainty about safety of returns. Households have also identified inadequate financial resources as constraint on participation. It is evident that SEBI could take additional steps to impart skills, reduce the information asymmetry at the time of participation and put in place measures to guarantee the safety of returns (Table 8.9).

The constraints faced by participating in the secondary market seem to vary de-

TABLE 8.4: PERCEPTIONS ABOUT ROLE OF SEBI AND PROBLEMS FACED WHILE INVESTING IN SECONDARY MARKET (per cent)

Problems ➲ / Role of SEBI ⬇	Poor network of enabling offices	Inadequate information about choices of investment	Infrastructural difficulties like power shortages	Feared manipulation by broker	Complicated rules and regulations	All of above	Total
Ensures strict monitoring of the firms after public issues							
Agree	38.29	38.86	5.14	10.86	5.14	1.71	100
Disagree	25.00	75.00	0.00	0.00	0.00	0.00	100
Don't Know	16.00	20.00	24.00	16.00	24.00	0.00	100
Total	35.10	37.98	7.21	11.06	7.21	1.44	100
De-list non-performing firms							
Agree	29.37	45.45	4.90	10.49	7.69	2.10	100
Disagree	72.73	21.21	3.03	3.03	0.00	0.00	100
Don't Know	21.88	21.88	21.88	21.88	12.50	0.00	100
Total	35.10	37.98	7.21	11.06	7.21	1.44	100
Investigate sources of large fluctuations in price							
Agree	31.82	42.42	6.82	11.36	6.06	1.52	100
Disagree	66.67	16.67	3.33	3.33	10.00	0.00	100
Don't Know	22.22	40.00	11.11	15.56	8.89	2.22	100
Total	34.78	38.16	7.25	11.11	7.25	1.45	100
Regulating the presence of big bulls in the market							
Agree	34.81	39.24	5.70	12.03	6.96	1.27	100
Disagree	50.00	33.33	0.00	8.33	4.17	4.17	100
Don't Know	19.23	34.62	23.08	11.54	11.54	0.00	100
Total	34.62	37.98	7.21	11.54	7.21	1.44	100
Prevention of price rigging							
Agree	32.65	40.82	6.12	12.24	6.80	1.36	100
Disagree	70.59	23.53	0.00	5.88	0.00	0.00	100
Don't Know	23.68	36.84	15.79	10.53	10.53	2.63	100
Total	**34.16**	**38.61**	**7.43**	**11.39**	**6.93**	**1.49**	**100**

TABLE 8.5: PRIMARY SOURCES OF INFORMATION WHEN APPLYING FOR AN IPO (per cent)

Household Characteristics	Newspaper Advertisement	Application Form	Advice of Broker	Advice of friend/relative	Brokerage firm	Discussions on TV	Total
Years of Schooling							
up to 5	42.86	10.71	21.43	17.86	7.14	0	100
6 to 10	36.63	17.82	32.67	6.93	4.95	0.99	100
11 to 15	50.82	19.75	24.28	3.91	0.62	0.62	100
above 15	48.99	31.99	10.66	7.2	0.86	0.29	100
Marital Status							
Married	48.87	23.68	20.13	5.71	1.18	0.43	100
Unmarried	42.86	21.43	28.57	7.14	0	0	100
Others	31.58	26.32	15.79	10.53	10.53	5.26	100
Occupation							
Agricultural & Allied	66.67	33.33	0.00	0.00	0.00	0.00	100
White collar	49.00	23.83	19.95	5.62	1.07	0.54	100
Blue collar	46.00	23.00	21.00	8.00	2.00	0.00	100
Business, Transfer and Others	45.00	21.00	24.00	6.00	3.00	1.00	100
Income							
Up to 10000	21.43	14.29	46.43	17.86	0	0	100
10001 to 15000	48.11	18.87	23.58	5.66	3.77	0	100
15001 to 20000	49.43	20.45	21.02	6.82	1.7	0.57	100
20001 to 25000	52.69	23.66	16.67	4.3	2.15	0.54	100
More than 25000	48.07	26.61	18.88	5.36	0.43	0.64	100
Age							
Young	52.78	22.03	16.46	7.26	0.97	0.48	100
Middle	45.44	25.93	22.2	4.56	1.24	0.62	100
Old	43.28	17.91	28.36	5.97	4.48	0	100
Sex							
Male	48.38	23.92	20.37	5.71	1.29	0.32	100
Female	50	17.65	14.71	8.82	2.94	5.88	100
Assets Class							
Lower	48.98	18.37	20.41	8.16	2.04	2.04	100
Middle Lower	52.33	23.83	15.54	5.18	3.11	0	100
Middle	57.46	22.37	15.35	2.63	1.75	0.44	100
Middle Upper	39.29	31.7	21.43	6.25	0.45	0.89	100
Upper	45.52	19.03	26.49	8.21	0.37	0.37	100
Dependency Ratio							
Low	48.06	20.16	22.74	6.98	1.29	0.78	100
Medium	51.54	24.35	17.49	4.73	1.42	0.47	100
High	40.79	30.92	21.05	5.92	1.32	0	100
Total	**48.44**	**23.7**	**20.17**	**5.82**	**1.35**	**0.52**	**100**

pending on the source of information. Interestingly, the source of information is based on the print media, a stock market website or advice from brokers, but a significant constraint seems to be inadequate information about choices available in the market. This implies that a participant who is likely to base his/her investment decision on informal sources of information is likely to make sub-optimal choices in the market place. Given that most investors use such informal sources, it is imperative that SEBI should participate in the market for information. This will help prevent

TABLE 8.6: SOURCES OF INFORMATION AND SATISFACTION WITH THE IPO PROCESS (per cent)

Source of information	Very Satisfied	Satisfactory	Not Satisfied	Total
Newspaper Advertisement	19.31	76.36	4.34	100
Application Form	22.47	68.28	9.25	100
Advice of Broker	11.52	77.49	10.99	100
Advice of friend/relative	18.18	70.91	10.91	100
Brokerage Firm	0.00	38.46	61.54	100
Discussions on TV	0.00	100	0.00	100
Total	**18.07**	**73.95**	**7.98**	**100**

Chi^2 statistic = 73.015

TABLE 8.7: SOURCES OF INFORMATION FOR MUTUAL FUND INVESTMENTS BY HOUSEHOLD CHARACTERISTICS (per cent)

Household Characteristics	Advice of Agent	Own Analysis	Advice of media	Relative/friend's feedback	Total
Years of Schooling					
up to 5	68.81	13.76	7.34	10.09	100
6 to 10	73.51	11.13	7.05	8.31	100
11 to 15	68.38	14.79	10.66	6.17	100
above 15	63.83	18.5	10.73	6.94	100
Marital Status					
Married	67.97	15.32	9.90	6.81	100
Unmarried	65.56	11.11	13.33	10.00	100
Others	71.00	13.00	12.00	4.00	100
Occupation					
Agricultural & Allied	50.7	12.68	23.94	12.68	100
White collar	67.94	15.41	9.76	6.89	100
Blue collar	70.21	13.07	10.33	6.38	100
Business, Transfer and Others	69.32	15.73	9.51	5.44	100
Income					
Up to 10000	72.62	9.52	7.14	10.71	100
10001 to 15000	74.66	11.15	7.77	6.42	100
15001 to 20000	65.68	16.83	8.91	8.58	100
20001 to 25000	68.7	14.79	10.15	6.36	100
More than 25000	65.98	16.51	11.74	5.78	100
Age					
Young	68.8	14.19	8.88	8.13	100
Middle	67.94	15.39	10.75	5.92	100
Old	64.94	17.82	10.06	7.18	100
Sex					
Male	67.67	15.37	10.21	6.75	100
Female	73.03	12.03	7.05	7.88	100
Assets Class					
Lower	74.60	12.06	8.89	4.44	100
Middle Lower	75.00	15.32	4.05	5.63	100
Middle	68.51	17.13	6.82	7.55	100
Upper Middle	64.42	17.35	11.21	7.02	100
Upper	66.13	13.36	13.23	7.29	100
Dependency Ratio					
Low	71.15	14.31	8.92	5.62	100
Medium	65.53	15.97	11.16	7.34	100
High	65.75	15.42	10.06	8.77	100
Total	**67.99**	**15.17**	**10.02**	**6.81**	**100**

TABLE 8.8: PRIMARY FACTORS THAT AFFECT THE DECISION BY SECONDARY MARKET INVESTORS TO INVEST BY HOUSEHOLD CHARACTERISTICS (per cent)

Household Characteristics	Tip from friend	Opinion of analysts in print media	Opinion of experts on TV	Research reports in newspaper/ magazines	Research reports on stock market related websites	Advice of broker	Total
Years of Schooling							
up to 5	48.39	19.35	3.23	0.00	0.00	29.03	100
6 to 10	51.12	11.24	18.54	3.93	1.69	13.48	100
11 to 15	45.27	16.67	20.27	6.10	3.09	8.59	100
above 15	45.71	27.73	11.76	8.07	1.85	4.87	100
Marital Status							
Married	45.91	19.60	17.33	6.50	2.43	8.24	100
Unmarried	57.50	17.50	17.50	2.50	2.50	2.50	100
Others	37.14	20.00	14.29	5.71	8.57	14.29	100
Occupation							
Agricultural & Allied	47.37	21.05	21.05	0.00	10.53	0.00	100
White collar	47.16	19.29	16.58	7.03	2.26	7.68	100
Blue collar	55.91	16.54	10.24	5.51	3.15	8.66	100
Business, Transfer and Others	33.85	22.69	23.85	3.85	3.46	12.31	100
Income							
Up to 10000	47.73	22.73	6.82	2.27	4.55	15.91	100
10001 to 15000	42.33	15.81	23.26	5.12	1.86	11.63	100
15001 to 20000	51.06	13.88	15.76	8.47	1.88	8.94	100
20001 to 25000	53.04	16.06	15.09	4.62	3.41	7.79	100
More than 25000	41.01	24.74	18.10	6.76	2.52	6.87	100
Age							
Young	53.76	20.08	9.51	7.27	3.17	6.21	100
Middle	42.23	18.96	21.6	6.35	1.76	9.09	100
Old	35.11	20.74	25	3.19	4.26	11.7	100
Sex							
Male	45.37	19.6	17.68	6.43	2.52	8.41	100
Female	57.43	18.81	9.90	5.94	2.97	4.95	100
Assets Class							
Lower	62.79	22.09	8.14	2.33	3.49	1.16	100
Middle Lower	50.72	26.09	8.7	6.52	3.26	4.71	100
Middle	57.14	23.25	12.32	4.76	0.84	1.68	100
Middle Upper	43.74	17.2	22.93	7.22	1.91	7.01	100
Upper	38.69	16.71	20.18	7.07	3.34	14.01	100
Dependency Ratio							
Low	41.72	20.05	19.38	5.79	2.69	10.36	100
Medium	47.5	18.38	17.96	6.27	2.76	7.12	100
High	52.11	22.18	9.51	8.45	1.41	6.34	100
Total	**45.99**	**19.56**	**17.28**	**6.40**	**2.54**	**8.23**	**100**

TABLE 8.9: REASONS FOR NOT INVESTING IN SECONDARY MARKETS BY HOUSEHOLD CHARACTERISTICS (per cent)

Reasons/Household Characteristics	Inadequate returns	Not sure about safety of investments	Investment not very liquid	Inadequate information	No skills	Dissatisfied with the role of regulator	Inadequate Financial Resources
Years of Schooling							
up to 5	3.00	9.67	3.83	30.94	15.61	2.61	34.33
6 to 10	3.97	10.21	4.78	26.87	15.17	6.38	32.63
11 to 15	4.49	12.53	6.6	23.13	15.97	7.69	29.59
above 15	3.87	18.46	5.13	22.51	17.36	7.16	25.51
Marital Status							
Married	4.07	12.7	5.8	24.48	15.95	6.96	30.04
Unmarried	8.55	11.4	4.65	18.59	15.21	7.5	34.11
Others	2.16	14.49	5.08	30.88	17.53	6.23	23.63
Occupation							
Agricultural & Allied	1.58	8.16	5	24.74	21.84	8.42	30.26
White collar	4.53	13.72	5.87	24.14	15.62	7.32	28.8
Blue collar	3.15	9.71	4.78	23.65	17.72	6.3	34.68
Business, Transfer and Others	3.92	12.02	6.24	27.58	14.68	5.57	30
Income							
Up to 10000	3.09	7.74	5.33	22.47	16.78	5.79	38.81
10001 to 15000	3.45	10.43	5.44	25.93	14.27	7.06	33.42
15001 to 20000	5.12	13.76	6	24.89	15.14	7.16	27.93
20001 to 25000	5.17	15.05	5.81	23.49	16.36	8.96	25.15
More than 25000	4.39	18.39	6.27	24.8	18.25	6.24	21.65
Age							
Young	4.89	11.96	5.73	20.52	16.12	8.39	32.39
Middle	3.42	13.23	5.75	26.95	16.11	6.09	28.44
Old	4.63	14	5.72	33.19	13.84	3.54	25.08
Sex							
Male	4.24	12.73	5.73	24.83	15.88	6.85	29.73
Female	3.28	12.4	5.83	19.83	17	8.3	33.36
Assets Class							
Lower	6.47	9.64	6.01	24.65	18.84	7.29	27.11
Middle Lower	3.8	9.82	5.95	28.89	13.29	6.45	31.81
Middle	3.69	10.24	4.6	24.08	13.45	7.62	36.32
Middle Upper	3.15	13.28	5.97	21.27	14.28	10.81	31.24
Upper	3.49	21.67	6.2	22.98	20.19	2.38	23.09
Dependency Ratio							
Low	4.54	13.46	5.12	24.08	17.36	6.91	28.53
Medium	3.9	12.62	6.06	25.6	14.74	6.96	30.12
High	4.02	11.23	6.32	22.35	16.03	7.08	32.98
Total	**4.17**	**12.71**	**5.74**	**24.46**	**15.97**	**6.96**	**30.00**

TABLE 8.10: FACTORS INFLUENCING INVESTMENT DECISIONS AND PROBLEMS WHILE INVESTING IN THE SECONDARY MARKET (per cent)

Factors ➲ / Source of information ⬇	Poor network of enabling offices	Inadequate information about choices of investment	Infrastructural difficulties like power shortages	Feared manipulation by broker	Complicated rules and regulations	All of above	Total
Tip from friend	60.50	22.88	10.03	3.45	2.82	0.31	100
Opinion of analysts in print media	24.68	57.79	5.19	7.79	3.90	0.65	100
Opinion of experts on TV	13.64	30.30	18.18	34.85	0.00	3.03	100
Research reports in newspapers/magazines	28.57	16.67	14.29	21.43	9.52	9.52	100
Research reports on stock market websites	8.33	50.00	0.00	25.00	16.67	0.00	100
Advice of broker	11.11	55.56	0.00	11.11	22.22	0.00	100
Total	**42.19**	**33.22**	**9.63**	**9.80**	**3.82**	**1.33**	**100**

Chi^2 statistic = 222.5918, Pr = 0.00

TABLE 8.11: MOST PREFERRED SOURCE OF INFORMATION FOR CURRENT INVESTMENTS IN ALL MARKETS (per cent)

Household Characteristics	SEBI website	BSE or NSE website	Concerned company website	Print media	TV channels	Direct communi-cation with company	Friends	Brokers	Total
Years of Schooling									
up to 5	4.43	4.66	4.95	25.35	8.80	17.81	24.83	9.16	100
6 to 10	6.64	5.68	6.39	24.06	8.63	13.84	25.36	9.41	100
11 to 15	8.94	5.14	8.84	27.89	7.09	11.75	20.94	9.40	100
above 15	7.96	7.79	10.93	28.00	6.87	11.51	18.38	8.56	100
Marital Status									
Married	8.06	5.71	8.36	26.52	7.61	12.89	21.51	9.32	100
Unmarried	3.92	4.18	11.75	34.20	4.96	6.27	24.28	10.44	100
Others	6.43	5.17	5.64	31.03	6.90	9.87	28.37	6.58	100
Occupation									
Agricultural & Allied	3.80	1.27	8.86	33.33	7.17	5.49	26.16	13.92	100
White collar	8.59	5.56	8.46	27.30	7.26	12.34	21.17	9.32	100
Blue collar	6.22	6.27	6.73	24.53	8.74	15.88	22.24	9.38	100
Business, Transfer and Others	6.60	6.07	9.01	26.02	7.90	12.20	23.80	8.40	100
Income									
Up to 10000	5.00	4.58	4.43	27.94	8.94	13.56	28.93	6.63	100
10001 to 15000	7.03	5.21	7.53	24.17	7.63	13.02	24.67	10.73	100
15001 to 20000	9.67	5.64	8.84	25.31	7.01	13.76	21.35	8.42	100
20001 to 25000	9.13	6.79	10.55	26.23	7.59	13.13	18.01	8.57	100
More than 25000	7.97	6.01	9.56	30.82	7.04	10.14	17.60	10.85	100
Age									
Young	6.50	5.22	7.71	28.59	8.13	12.03	21.91	9.92	100
Middle	9.18	5.79	8.67	25.55	7.10	13.15	21.44	9.13	100
Old	6.03	6.55	8.76	27.77	7.80	12.01	23.56	7.51	100
Sex									
Male	8.03	5.69	8.48	26.85	7.56	12.94	21.26	9.18	100
Female	6.19	5.21	6.10	26.75	7.09	8.17	30.25	10.23	100
Assets Class									
Lower	5.29	6.45	5.82	32.42	7.52	12.80	22.31	7.38	100
Middle Lower	9.07	6.63	7.66	23.79	7.91	14.39	19.59	10.96	100
Middle	8.98	4.74	8.74	23.03	7.62	16.58	20.04	10.28	100
Upper Middle	8.32	5.50	9.46	25.60	7.57	10.75	24.48	8.32	100
Upper	7.34	5.09	9.62	30.82	7.00	8.28	23.07	8.78	100
Dependency Ratio									
Low	7.85	5.17	7.23	26.16	6.54	12.08	24.41	10.56	100
Medium	8.11	5.99	8.43	27.41	7.82	12.82	20.74	8.68	100
High	7.55	5.98	10.78	26.99	9.17	13.53	18.41	7.59	100
Total	**7.92**	**5.66**	**8.34**	**26.85**	**7.53**	**12.64**	**21.82**	**9.25**	**100**

TABLE 8.12: MOST PREFERRED SOURCE OF INFORMATION FOR CURRENT INVESTMENTS IN ALL MARKETS (per cent)

Household Characteristics	SEBI website	BSE or NSE website	Concerned company website	Print media	TV channels	Direct communi-cation with company	Friends	Brokers	Total
Years of Schooling									
up to 5	4.18	5.94	4.00	23.99	6.42	17.02	25.80	12.66	100
6 to 10	5.75	5.00	4.10	24.77	6.99	12.08	23.16	18.16	100
11 to 15	7.77	4.74	6.03	30.24	7.20	11.94	21.79	10.31	100
above 15	7.66	7.20	9.23	27.04	7.50	12.57	19.54	9.27	100
Marital Status									
Married	7.20	5.39	5.91	27.89	7.26	12.48	21.57	12.30	100
Unmarried	1.55	2.71	7.86	30.41	5.67	10.82	28.74	12.24	100
Others	7.29	4.08	5.19	29.17	5.19	11.00	29.05	9.02	100
Occupation									
Agricultural & Allied	4.29	3.49	3.22	30.03	9.12	8.04	21.98	19.84	100
White collar	7.32	5.12	6.25	28.85	7.25	12.39	22.17	10.66	100
Blue collar	5.72	5.29	4.65	24.89	6.63	13.25	20.67	18.90	100
Business, Transfer and Others	7.47	6.26	6.10	27.08	7.13	11.94	22.64	11.39	100
Income									
Up to 10000	5.26	4.46	3.37	28.17	6.29	12.03	25.14	15.28	100
10001 to 15000	6.28	4.55	4.95	27.38	7.19	12.50	22.45	14.70	100
15001 to 20000	8.29	5.01	5.77	28.52	7.49	13.64	21.11	10.17	100
20001 to 25000	8.42	5.73	7.87	27.22	7.72	12.98	21.30	8.77	100
More than 25000	7.14	6.93	8.42	28.60	7.08	10.64	20.03	11.16	100
Age									
Young	5.55	4.99	6.18	28.56	7.72	12.48	22.47	12.05	100
Middle	8.15	5.36	5.76	27.63	6.71	12.32	21.46	12.60	100
Old	7.63	6.19	5.96	27.45	6.93	12.28	23.03	10.52	100
Sex									
Male	7.09	5.24	6.00	28.03	7.12	12.61	21.61	12.31	100
Female	6.36	5.68	5.25	27.64	7.57	9.46	27.17	10.88	100
Assets Class									
Lower	5.95	4.09	3.28	31.39	5.78	13.55	22.48	13.47	100
Middle Lower	9.97	7.53	6.35	24.70	6.75	13.97	18.96	11.77	100
Middle	7.87	4.51	6.40	27.40	8.06	15.26	20.19	10.32	100
Upper Middle	6.57	5.32	5.80	31.01	6.28	10.13	23.93	10.97	100
Upper	4.92	4.89	7.81	25.72	8.78	9.24	24.36	14.29	100
Dependency Ratio									
Low	7.41	4.64	5.10	26.39	6.92	11.75	23.46	14.33	100
Medium	7.29	5.75	6.27	28.09	7.36	12.39	21.64	11.23	100
High	5.47	5.52	7.14	31.61	7.14	13.90	19.51	9.71	100
Total	**7.04**	**5.27**	**5.95**	**28.00**	**7.15**	**12.39**	**22.01**	**12.20**	**100**

market participants from making sub-optimal choices as well as reduce existing institutional bottlenecks (Table 8.10). At present the preferred source of information are indeed the print media, friends and brokers. Both the SEBI and BSE/NSE websites are performing relatively small role in providing information (Tables 8.11 and 8.12).

Principal Findings

- About 40 per cent investors are of the opinion that in the book building process, the prices of the IPO entering the market may not be transparent and the retail investors do not have sufficient knowledge about SEBI's role.
- Around 32 per cent of participants feel that the regulator SEBI or MCA may like to take additional steps related to conflict between shareholders and firms.
- Around 21 per cent of all investors are not clear about the role of the regulator in preventing unexplained volatility, though it is the perceived role of SEBI to investigate sources of large fluctuations in price.
- It is the role of regulator to de-list the non-performing firms, yet, 24 per cent of all investors are not aware of the role of the stock exchange or the regulator or the MCA in this process.
- Thirty nine per cent of all investors expect SEBI to undertake actions against inadequate information about investment choices.
- Nearly 50 per cent of all market participants feel that exchanges/SEBI is required to take adequate measures to ensure smooth functioning of the market.
- The source of retardation in the rate of participation by Indian households in the market is due to information asymmetry and the poor quality of information. While applying for an IPO, investors across all income/education categories list newspapers as the single source of information. A significant number of investors find the advice of brokers more useful.
- The survey reveals that while participating in mutual funds as well as in the secondary market, a significant majority depends on the advice given by intermediaries and friends.

9 A Case Study of Rural Households

The latest National Accounts Statistics 2010 shows the contribution to the net domestic product at factor cost by the rural sector as 40%. Given its significance it is important to understand the savings and investments behaviour of households located in villages. There is evidence to suggest that rural income has grown over time (How India Earns, Spends and saves, NCAER report, 2007). It is important to see whether the growth in savings is translated into a meaningful participation into financial markets. Increased participation in financial market will obviously lead to enhanced levels and diversity of earning for rural households. At a slightly different level, wider participation in the financial market (wider investor base) will lead to increased depth of the financial markets.

Development indictors of villages in India vary significantly across the economic space. In order to understand the savings and investment of rural households we sampled a group of the villages that are located within 25 km of an urban centre. It has been established in the literature and elsewhere that proximity to an urban centre improves the quality and quantity of infrastructure available in villages. It is also seen that human capital of households located in such proximal vil-

TABLE 9.1: DEVELOPMENT INDICATORS OF SAMPLED VILLAGES

Development Indicator/ Villages distance from town	Village near a town	Village far from a town	Total
Household level development indicators			
Average distance from the nearest town	10.5	50.85	30.67
Household level development indicators			
Male Literacy rate	31.66	26.38	29.02
Female Literacy rate	19.2	15.08	17.14
Average Household Size	5.57	5.69	5.63
Village levels development indicators			
Percentage of Villages with bus stop	0.85	0.75	0.8
Access to ground water	0.8	0.7	0.75
Percentage of HH access to medical care	0.8	0.6	0.7
Percentage of villages with post office	0.55	0.7	0.63
Proportion of villages with hand pump	0.5	0.6	0.55
Percentage of household with access to running water	0.55	0.45	0.5
Percentage of villages with public telephone	0.35	0.3	0.32
Total	**(20=100)**	**(20=100)**	**(40=100)**

lages is significantly higher. More remote villages, in contrast, are less endowed with human capital as well as infrastructure.

In this chapter we present a case study of households located in proximity to the urban areas as well as remote villages. Using a carefully selected sample of 40 villages and 1,567 households, we are able to show that the quality of infrastructure matters, households are inherently risk-averse, risk tolerance is extremely low and if households choose to participate in the market they do so by accessing mutual funds. The broad characteristics of those sampled villages are presented in Table 9.1.

From the Table 9.1 it is clear that human capital endowments (in the form of literacy rate and household size) are superior for households located closer to urban centers. We also find that a significantly larger proportion of households have access to telephony and communication networks. Hence it will be interesting to see whether any of these differences affect the savings and investment behaviour, attitudes towards risk and saving and investment horizons.

Profile of Investing Households

The fact that remote villages have less access to infrastructure like telephones and the Internet will be revealed in the pattern of investment by household in these locations. We find that villages that are close to urban centres significantly participate in markets and particularly in the mutual fund market. Participation in mutual funds in particular is significantly influenced by level of education. As in the urban part of the survey the level of asset holdings plays a significant role in the extent of participation in financial markets.

TABLE 9.2: DISTRIBUTION OF INVESTMENT PORTFOLIO FOR VILLAGES FAR FROM A TOWN (per cent)

Households' Profile	Bond	Debenture	IPO	Secondary Market	Mutual Fund	Derivative	Total
Years of Schooling							
Up to 5 years	36.36	63.64	0.00	0.00	0.00	0.00	100
6 to 10 years	17.11	10.46	0.00	9.51	62.93	0.00	100
11 to 15 years	13.34	1.27	20.63	17.43	47.33	0.00	100
Above 15 years	10.99	1.69	20.42	26.38	40.52	0.00	100
Marital Status							
Married	13.29	2.75	18.52	20.51	44.94	0.00	100
Unmarried	0.00	36.36	0.00	0.00	63.64	0.00	100
Other	0.00	0.00	0.00	0.00	100.00	0.00	100
Occupation							
Agricultural & Allied	30.66	11.07	16.95	13.20	28.11	0.00	100
White collar	11.93	1.20	15.26	18.02	53.58	0.00	100
Blue collar	3.62	10.85	34.36	37.61	13.56	0.00	100
Business, Transfer and Others	0.00	0.00	50.89	28.57	20.54	0.00	100
Income							
Lower	14.49	9.66	21.50	37.44	16.91	0.00	100
Middle Lower	43.24	32.43	0.00	0.00	24.32	0.00	100
Middle	15.71	8.57	0.00	21.43	54.29	0.00	100
Upper Middle	18.27	0.47	8.90	18.88	53.49	0.00	100
Upper	8.12	0.32	24.76	21.02	45.78	0.00	100
Age							
Young	8.22	3.39	20.15	27.20	41.04	0.00	100
Middle	17.28	2.76	15.78	10.27	53.91	0.00	100
Old	100.00	0.00	0.00	0.00	0.00	0.00	100
Sex							
Male	12.65	3.25	17.41	19.89	46.80	0.00	100
Female	20.20	0.00	32.32	24.24	23.23	0.00	100
Dependency Ratio							
Low	6.59	4.00	9.53	19.06	60.81	0.00	100
Medium	10.66	2.55	30.91	26.18	29.70	0.00	100
High	38.75	2.06	5.49	5.14	48.56	0.00	100
Assets Class							
Lower	11.83	3.94	0.00	0.00	84.22	0.00	100
Middle Lower	37.04	0.00	0.00	44.44	18.52	0.00	100
Middle	7.89	1.09	9.52	20.29	61.21	0.00	100
Middle Upper	12.72	5.33	29.49	5.41	47.05	0.00	100
Upper	14.12	2.69	20.73	31.14	31.32	0.00	100
Total	**13.02**	**3.09**	**18.15**	**20.10**	**45.64**	**0.00**	**100**

Since a higher level of asset holding allows households to absorb shocks from financial markets, we find that an increased level of assets holding leads to increase market participation.

TABLE 9.3: DISTRIBUTION OF INVESTMENT PORTFOLIOS FOR VILLAGES NEAR A TOWN (per cent)

Households' Profile	Bond	Debenture	IPO	Secondary Market	Mutual Fund	Derivative	Total
Years of Schooling							
Up to 5 years	29.07	33.72	0.00	0.00	37.21	0.00	100
6 to 10 years	29.80	9.01	2.77	4.16	54.26	0.00	100
11 to 15 years	10.24	5.50	4.89	29.55	49.82	0.00	100
Above 15 years	17.77	0.00	14.34	26.52	41.37	0.00	100
Marital Status							
Married	15.42	5.51	7.79	25.10	46.17	0.00	100
Unmarried	22.47	0.00	0.00	0.00	77.53	0.00	100
Others	76.92	23.08	0.00	0.00	0.00	0.00	100
Occupation							
Agricultural & Allied	19.80	3.83	0.00	52.23	24.14	0.00	100
White collar	13.19	4.79	9.69	19.20	53.12	0.00	100
Blue collar	17.82	9.90	0.00	16.83	55.45	0.00	100
Business, Transfer and Others	36.30	13.33	5.93	7.41	37.04	0.00	100
Income							
Lower	5.67	3.15	0.00	86.13	5.04	0.00	100
Middle Lower	27.38	30.36	0.00	0.00	42.26	0.00	100
Middle	33.36	13.26	0.00	11.25	42.12	0.00	100
Upper Middle	29.35	1.71	0.00	13.14	55.80	0.00	100
Upper	2.99	1.49	16.60	27.69	51.23	0.00	100
Age							
Young	7.69	5.26	10.18	33.10	43.77	0.00	100
Middle	30.80	5.39	3.34	8.42	52.05	0.00	100
Old	0.00	8.70	0.00	30.43	60.87	0.00	100
Sex							
Male	15.91	4.90	7.62	24.05	47.53	0.00	100
Female	23.21	23.21	0.00	17.86	35.71	0.00	100
Dependency Ratio							
Low	10.84	5.38	10.36	24.81	48.61	0.00	100
Medium	17.30	6.57	6.57	31.06	38.50	0.00	100
High	29.81	3.63	0.00	10.37	56.19	0.00	100
Assets Class							
Lower	6.30	11.55	0.00	0.00	82.14	0.00	100
Middle Lower	7.32	12.20	9.76	36.59	34.15	0.00	100
Middle	10.54	2.17	11.64	31.11	44.53	0.00	100
Middle Upper	9.97	5.31	4.83	33.01	46.88	0.00	100
Upper	32.13	5.77	7.91	13.18	41.02	0.00	100
Total	**16.10**	**5.38**	**7.41**	**23.88**	**47.22**	**0.00**	**100**

The profile of investment in terms of portfolio is also revealing. It suggests that households are inherently risk-averse and, if they participate, they do so in mutual funds.

TABLE 9.4: DISTRIBUTION OF INVESTMENT PORTFOLIO OF VILLAGES (IN TOTAL) (per cent)

Households' Profile	Bond	Debenture	IPO	Secondary Market	Mutual Fund	Derivative	Total
Years of Schooling							
Up to 5 years	30.56	39.81	0.00	0.00	29.63	0.00	100
6 to 10 years	24.45	9.62	1.60	6.41	57.92	0.00	100
11 to 15 years	11.71	3.50	12.33	23.82	48.64	0.00	100
Above 15 years	14.02	0.93	17.70	26.45	40.90	0.00	100
Marital Status							
Married	14.36	4.14	13.11	22.83	45.56	0.00	100
Unmarried	18.02	7.21	0.00	0.00	74.77	0.00	100
Others	32.26	9.68	0.00	0.00	58.06	0.00	100
Occupation							
Agricultural & Allied	24.45	6.93	7.26	35.51	25.84	0.00	100
White collar	12.57	3.01	12.45	18.62	53.35	0.00	100
Blue collar	10.40	10.40	17.96	27.69	33.55	0.00	100
Business, Transfer and Others	19.84	7.29	26.32	17.00	29.55	0.00	100
Income							
Lower	8.70	5.39	7.37	69.43	9.11	0.00	100
Middle Lower	33.69	31.18	0.00	0.00	35.13	0.00	100
Middle	27.01	11.57	0.00	14.92	46.50	0.00	100
Upper Middle	24.68	1.18	3.75	15.56	54.83	0.00	100
Upper	5.91	0.83	21.25	23.89	48.12	0.00	100
Age							
Young	7.95	4.36	14.97	30.26	42.46	0.00	100
Middle	23.96	4.06	9.63	9.36	52.99	0.00	100
Old	36.11	5.56	0.00	19.44	38.89	0.00	100
Sex							
Male	14.33	4.10	12.34	22.04	47.18	0.00	100
Female	21.29	8.39	20.65	21.94	27.74	0.00	100
Dependency Ratio							
Low	9.02	4.79	10.01	22.35	53.83	0.00	100
Medium	13.32	4.16	21.15	28.14	33.23	0.00	100
High	33.66	2.95	2.36	8.12	52.91	0.00	100
Assets Class							
Lower	9.16	7.63	0.00	0.00	83.21	0.00	100
Middle Lower	19.12	7.35	5.88	39.71	27.94	0.00	100
Middle	9.53	1.76	10.83	26.99	50.88	0.00	100
Middle Upper	11.18	5.32	15.67	20.88	46.95	0.00	100
Upper	21.41	3.93	15.54	23.87	35.25	0.00	100
Total	**14.60**	**4.26**	**12.66**	**22.04**	**46.44**	**0.00**	**100**

The distribution of investments reveals significant skewness to the left for a lower level of education and assets holding. This change goes from lower level of education attainment to higher level of education attainment and from lower level of asset holding to higher level of asset holdings. We observe a similar behaviour in relation to income classes. However, demographic characteristics like marital status and gender do not significantly alter the distribution of investment.

TABLE 9.5: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY INVESTMENT LEVELS AND HOUSEHOLDS' CHARACTERISTICS (per cent)

Households' Profile	Investment Level					
	Lowest	2nd quintile	3rd quintile	4th quintile	Highest	Total
Years of Schooling						
Up to 5 years	41.79	17.91	19.40	10.45	10.45	100
6 to 10 years	25.27	17.20	18.28	19.89	19.35	100
11 to 15 years	20.00	19.18	24.66	17.53	18.63	100
Above 15 years	16.43	18.57	13.57	25.00	26.43	100
Marital Status						
Married	22.40	18.17	20.77	19.40	19.26	100
Unmarried	23.53	23.53	17.65	5.88	29.41	100
Others	33.33	33.33	11.11	0.00	22.22	100
Occupation						
Agricultural & Allied	34.48	15.86	16.55	10.34	22.76	100
White collar	20.26	17.67	23.06	20.91	18.10	100
Blue collar	20.00	25.00	20.00	21.25	13.75	100
Business, Transfer and Others	12.28	19.30	14.04	21.05	33.33	100
Income						
Lower	37.33	24.00	18.67	5.33	14.67	100
Middle Lower	41.98	21.37	8.40	9.16	19.08	100
Middle	25.53	24.11	19.86	12.77	17.73	100
Upper Middle	17.16	18.34	20.40	19.53	24.57	100
Upper	9.50	16.53	19.83	22.73	31.40	100
Age						
Young	25.00	20.19	16.35	20.43	18.03	100
Middle	20.19	15.38	24.68	17.95	21.79	100
Old	13.33	26.67	36.67	6.67	16.67	100
Sex						
Male	22.54	18.81	21.30	18.81	18.53	100
Female	22.86	11.43	5.71	20.00	40.00	100
Dependency Ratio						
Low	26.04	23.26	21.53	15.63	13.54	100
Medium	22.71	18.29	21.53	22.42	15.04	100
High	14.50	8.40	16.03	16.79	44.27	100
Assets Class						
Lower	41.82	29.09	29.09	0.00	0.00	100
Middle Lower	26.62	30.22	25.90	15.11	2.16	100
Middle	14.04	26.40	26.40	24.72	8.43	100
Middle Upper	22.22	13.33	16.67	25.56	22.22	100
Upper	22.33	5.34	13.11	15.53	43.69	100
Total	**20.00**	**20.00**	**20.00**	**20.00**	**20.00**	**100**

However, there is a significant degree of non-investment by rural households. Consistent with our findings regarding infrastructure related to communications, we find that inadequate information plays a significant role in non-investment. The second most important reason for non-investment is lack of adequate skills; even though households attribute their lack of financial resources as a significant reason for non-investment, this finding is not of any great use for the regulator as it cannot in any way or manner influence the availability of the financial resources.

TABLE 9.6: REASONS FOR NOT INVESTING IN SECONDARY MARKETS ACCORDING TO HOUSEHOLDS' CHARACTERISTICS
(per cent)

Reasons ➲ / Households' Profile ⬇	Inadequate returns	Not sure about safety of investments	Investment not very liquid	Inadequate information	No skills	Dissatisfied with the role of regulator	Inadequate Financial Resources
Years of Schooling							
Up to 5 years	5.52	9.39	8.56	26.8	16.02	1.38	32.32
6 to 10 years	6.55	13.64	11.59	29.34	16.39	4.5	17.99
11 to 15 years	5.75	15.09	11.04	28.9	10.17	6.63	22.43
Above 15 years	4.28	14.53	8.82	26.98	16.47	5.32	23.61
Marital Status							
Married	5.78	14.33	10.83	28.82	12.61	5.55	22.09
Unmarried	9.02	15.57	9.84	11.48	11.48	13.11	29.51
Others	2.09	13.09	7.85	33.51	20.42	2.62	20.42
Occupation							
Agricultural & Allied	2.5	12.5	10	28.75	22.5	10	13.75
White collar	5.7	16.12	10.39	28.44	12.37	5.81	21.17
Blue collar	6.07	11.08	8.63	23.64	15.34	5.86	29.39
Business, Transfer and Others	5.7	9.59	14.64	36.14	11.27	3.89	18.78
Income							
Lower	6.46	11.44	12.78	27.12	14.12	4.9	23.18
Middle Lower	4.72	14.21	10.33	29.19	11.03	7.65	22.88
Middle	5.43	17.44	9.87	27.7	9.03	6.27	24.25
Middle Upper	7.48	16.86	9.68	26.25	11.14	6.16	22.43
Upper	5.42	11.9	10.19	33.73	22.49	1.06	15.21
Age							
Young	6.53	15.23	10.88	24.98	11.64	8.26	22.48
Middle	5.08	14.23	10.09	30.34	13.62	3.68	22.95
Old	5.21	9.18	13.9	38.96	14.89	2.73	15.14
Sex							
Male	5.89	14.46	10.73	28.86	12.65	5.52	21.88
Female	3.15	12.03	10.32	24.64	15.76	7.16	26.93
Assets Class							
Lower	5.10	10.02	9.97	23.42	17.98	7.45	26.06
Middle Lower	5.87	10.93	12.47	32.72	10.93	5.06	22.01
Middle	6.04	16.17	11.46	30.81	8.5	5.94	21.08
Middle Upper	6.26	22.14	10.58	29.91	9.07	5.4	16.63
Upper	5.86	18.98	8.02	28.7	14.97	1.7	21.76
Dependency Ratio							
Low	6.67	13.42	9.83	27.09	15.32	5.27	22.41
Medium	4.52	15.86	11.39	31.16	9.87	5.26	21.95
High	6.27	12.84	11.22	26.29	13.85	7.28	22.24
Total	**5.72**	**14.31**	**10.71**	**28.6**	**12.84**	**5.62**	**22.19**

Other characteristics

Attitude towards Risk

An examination of the profile of risk aversion and tolerance reveals the following. A significantly larger percentage of households across income and asset classes as well as demographics are risk-averse compared to their urban counterparts. The extent of risk taking is even at the highest risk classes is still only marginal compared to the behaviour in urban areas. Similarly, risk tolerance levels are extremely low. Much of this behaviour can be attributed to a significant degree of variance in household income. Since a significant number of households depend on agriculture and allied activities, one could expect income to fluctuate widely.

TABLE 9.7: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY INVESTMENT LEVELS AND HOUSEHOLDS' CHARACTERISTICS (per cent)

Households' Profile	Investment Level					
	Lowest	2nd quintile	3rd quintile	4th quintile	Highest	Total
Years of Schooling						
Up to 5 years	41.79	17.91	19.40	10.45	10.45	100
6 to 10 years	25.27	17.20	18.28	19.89	19.35	100
11 to 15	20.00	19.18	24.66	17.53	18.63	100
Above 15 years	16.43	18.57	13.57	25.00	26.43	100
Marital Status						
Married	22.40	18.17	20.77	19.40	19.26	100
Unmarried	23.53	23.53	17.65	5.88	29.41	100
Others	33.33	33.33	11.11	0.00	22.22	100
Occupation						
Agricultural & Allied	34.48	15.86	16.55	10.34	22.76	100
White collar	20.26	17.67	23.06	20.91	18.10	100
Blue collar	20.00	25.00	20.00	21.25	13.75	100
Business, Transfer and Others	12.28	19.30	14.04	21.05	33.33	100
Income						
Lower	37.33	24.00	18.67	5.33	14.67	100
Middle Lower	41.98	21.37	8.40	9.16	19.08	100
Middle	25.53	24.11	19.86	12.77	17.73	100
Upper Middle	17.16	18.34	20.40	19.53	24.57	100
Upper	9.50	16.53	19.83	22.73	31.40	100
Age						
Young	25.00	20.19	16.35	20.43	18.03	100
Middle	20.19	15.38	24.68	17.95	21.79	100
Old	13.33	26.67	36.67	6.67	16.67	100
Sex						
Male	22.54	18.81	21.30	18.81	18.53	100
Female	22.86	11.43	5.71	20.00	40.00	100
Dependency Ratio						
Low	26.04	23.26	21.53	15.63	13.54	100
Medium	22.71	18.29	21.53	22.42	15.04	100
High	14.50	8.40	16.03	16.79	44.27	100
Assets Class						
Lower	41.82	29.09	29.09	0.00	0.00	100
Middle Lower	26.62	30.22	25.90	15.11	2.16	100
Middle	14.04	26.40	26.40	24.72	8.43	100
Middle Upper	22.22	13.33	16.67	25.56	22.22	100
Upper	22.33	5.34	13.11	15.53	43.69	100
Total	**20.00**	**20.00**	**20.00**	**20.00**	**20.00**	**100**

TABLE 9.8: RELATIVE RISK AVERSION PROFILE OF HOUSEHOLDS (per cent)

Households' Profile	Risk Scale				
	<.25	0.25-0.50	0.50-0.75	>0.75	Total
Years of Schooling					
Up to 5 years	79.49	5.49	7.69	7.33	100
6 to 10 years	68.07	12.39	9.66	9.87	100
11 to 15 years	53.14	21.90	11.38	13.58	100
Above 15 years	54.67	16.44	13.33	15.56	100
Marital Status					
Married	62.06	15.38	10.81	11.75	100
Unmarried	37.50	33.33	8.33	20.83	100
Others	88.00	6.00	2.00	4.00	100
Occupation					
Agricultural & Allied	73.72	13.27	8.42	4.59	100
White collar	49.37	21.42	15.58	13.63	100
Blue collar	76.00	13.09	5.82	5.09	100
Business, Transfer and Others	71.07	9.43	10.69	8.81	100
Income					
Lower	79.75	11.08	4.43	4.75	100
Middle Lower	66.45	14.52	8.39	10.65	100
Middle	66.77	13.47	5.99	13.77	100
Upper Middle	58.76	11.34	11.00	18.90	100
Upper	40.06	7.37	23.08	29.49	100
Age					
Young	60.05	17.10	10.11	12.73	100
Middle	62.54	14.22	11.62	11.62	100
Old	80.56	9.26	6.48	3.70	100
Sex					
Male	62.56	15.69	10.51	11.25	100
Female	61.54	8.97	10.26	19.23	100
Dependency Ratio					
Low	60.68	19.66	13.42	6.24	100
Medium	61.58	17.30	10.26	10.85	100
High	67.05	5.11	6.53	21.31	100
Assets Class					
Lower	85.13	10.13	2.85	1.90	100
Middle Lower	68.71	12.26	10.97	8.06	100
Middle	60.51	17.83	14.65	7.01	100
Middle Upper	53.70	21.22	10.61	14.47	100
Upper	44.23	15.38	16.35	24.04	100
Total	**62.51**	**15.36**	**10.49**	**11.64**	**100**

Time horizon

We find that the time horizon for savers and investors is typically medium term (3-5 years). In fact the percentage of households that have long-term investments is significantly less than the percentage of households having a longer-term saving horizon. One can conclude that the marginal propensity to save is greater than the marginal propensity to invest at any level of demographic characteristic like income level or asset class. This finding is consistent with our earlier remarks about risk aversion. Since rural households are relatively more risk averse, the time horizon for saving is going to be longer.

TABLE 9.9: TIME HORIZON FOR SAVINGS AND INVESTMENT (per cent)

Households' Profile	Time horizons						Total
	Savers			Investors			
	Up to 3 years	3 to 5 years	More than 5 years	Up to 3 years	3 to 5 years	More than 5 years	
Years of Schooling							
Up to 5 years	10.62	49.45	39.93	31.14	40.29	28.57	100
6 to 10 years	14.29	48.74	36.97	33.61	37.82	28.57	100
11 to 15 years	9.11	45.03	45.87	42.66	28.16	29.17	100
Above 15 years	17.33	39.56	43.11	41.78	31.11	27.11	100
Marital Status							
Married	12.06	45.68	42.26	38.31	33.22	28.47	100
Unmarried	20.83	33.33	45.83	45.83	33.33	20.83	100
Others	10.00	66.00	24.00	18.00	46.00	36.00	100
Occupation							
Agricultural & Allied	17.35	42.60	40.05	35.97	41.33	22.70	100
White collar	9.28	46.68	44.04	41.41	27.42	31.16	100
Blue collar	13.82	47.64	38.55	36.73	35.64	27.64	100
Business, Transfer and Others	8.75	48.75	42.50	25.00	40.63	34.38	100
Income							
Lower	19.30	46.20	34.49	31.33	43.35	25.32	100
Middle Lower	17.36	47.91	34.73	39.87	39.87	20.26	100
Middle	11.04	48.96	40.00	36.12	35.82	28.06	100
Middle Upper	9.25	43.15	47.60	38.36	30.48	31.16	100
Upper	3.51	44.09	52.40	43.45	18.21	38.34	100
Age							
Young	14.43	45.15	40.42	40.92	32.59	26.49	100
Middle	9.77	47.18	43.05	35.27	34.81	29.92	100
Old	9.26	47.22	43.52	29.63	34.26	36.11	100
Sex							
Male	12.37	45.86	41.76	38.13	33.22	28.65	100
Female	7.50	51.25	41.25	31.25	41.25	27.50	100
Dependency Ratio							
Low	11.51	50.19	38.30	43.58	23.21	33.21	100
Medium	11.24	45.55	43.21	39.71	36.20	24.09	100
High	14.77	41.19	44.03	25.28	44.32	30.40	100
Assets Class							
Lower	21.45	56.78	21.77	21.45	41.64	36.91	100
Middle Lower	12.26	39.03	48.71	43.23	37.74	19.03	100
Middle	5.71	44.44	49.84	44.76	29.21	26.03	100
Middle Upper	7.69	45.51	46.79	38.78	30.13	31.09	100
Upper	13.42	44.73	41.85	40.89	29.39	29.71	100
Total	**12.13**	**46.14**	**41.74**	**37.78**	**33.63**	**28.59**	**100**

Savings Behaviour

The savings profiles of rural households are given in Tables 9.10 and 9.11. The level of savings increases with educational attainment and asset holdings. The magnitude increase in savings conditioned on asset holdings is significantly less compared to investment. This is consistent with what we found in the urban surveys. However the reaction to changes in income moves in the opposite direction; that is, with increases in income, households are likely to save more relative to investment. This reinforces our earlier claim that marginal propensity to save is going to be greater than marginal propensity to invest. A significant conclusion that we can draw from this is that for rural households to participate in financial markets, the asset base must increase.

TABLE 9.10: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY SAVING LEVELS AND HOUSEHOLDS' CHARACTERISTICS
(per cent)

Households' Profile	Saving Level					Total
	Lowest	2nd quintile	3rd quintile	4th quintile	Highest	
Years of Schooling						
Up to 5 years	31.87	27.11	20.15	14.29	6.59	100
6 to 10 years	26.89	20.59	18.70	20.17	13.66	100
11 to 15 years	12.65	17.03	20.24	23.44	26.64	100
Above 15 years	10.67	18.22	22.67	16.44	32.00	100
Marital Status						
Married	20.09	20.43	19.69	19.49	20.29	100
Unmarried	16.67	0.00	33.33	29.17	20.83	100
Others	20.00	18.00	26.00	26.00	10.00	100
Occupation						
Agricultural & Allied	29.34	22.96	17.86	16.58	13.27	100
White collar	10.53	14.13	21.88	26.18	27.29	100
Blue collar	30.91	29.45	16.00	12.73	10.91	100
Business, Transfer and Others	20.00	23.75	25.00	13.13	18.13	100
Income						
Lower	60.13	31.01	8.54	0.32	0.00	100
Middle Lower	28.94	40.19	26.05	4.82	0.00	100
Middle	8.06	21.49	41.19	28.66	0.60	100
Upper Middle	2.40	5.82	20.55	48.97	22.26	100
Upper	0.00	0.64	2.88	17.89	78.59	100
Age						
Young	23.63	20.15	17.91	18.16	20.15	100
Middle	15.57	20.46	23.05	21.68	19.24	100
Old	20.37	16.67	18.52	21.30	23.15	100
Sex						
Male	20.24	19.91	19.44	20.04	20.38	100
Female	16.25	22.50	32.50	16.25	12.50	100
Dependency Ratio						
Low	19.81	19.62	16.98	19.81	23.77	100
Medium	15.33	18.98	20.73	21.61	23.36	100
High	29.55	22.73	23.58	16.48	7.67	100
Assets Class						
Lower	36.59	29.97	17.35	12.93	3.15	100
Middle Lower	26.13	20.32	19.68	18.39	15.48	100
Middle	12.70	17.46	21.27	21.27	27.30	100
Middle Upper	10.90	14.74	20.19	23.08	31.09	100
Upper	13.74	17.57	22.04	23.64	23.00	100
Total	**20.00**	**20.00**	**20.00**	**20.00**	**20.00**	**100**

Table 9.11 suggests that the magnitude of informal savings is significantly higher. Savings tools that can be related to the market, such as insurance and pension plans, are at best tertiary in nature. This is consistent with our earlier finding that the spread of information in rural areas is not significant.

TABLE 9.11: HOUSEHOLDS' PORTFOLIO CHOICE BY HOUSEHOLD CHARACTERISTICS (per cent)

Households' Profile	Post Office Saving	Insurance & Pension	Bank Deposit	Invest-ment	Non-Savings	Total
Years of Schooling						
Up to 5 years	12.03	17.00	36.28	1.71	32.98	100
6 to 10 years	7.09	14.38	28.00	2.18	48.35	100
11 to 15 years	6.24	24.13	19.48	5.47	44.69	100
Above 15 years	8.70	21.97	15.70	9.31	44.31	100
Marital Status						
Married	7.45	20.83	22.53	5.05	44.13	100
Unmarried	4.85	9.03	10.79	4.93	70.41	100
Others	9.55	15.10	36.96	2.58	35.81	100
Occupation						
Agricultural & Allied	1.62	20.15	23.44	3.21	51.58	100
White collar	9.34	20.50	19.93	6.74	43.50	100
Blue collar	6.59	27.28	28.78	2.43	34.92	100
Business, Transfer and Others	9.09	14.57	26.39	2.35	47.61	100
Income						
Lower	5.28	14.85	31.18	3.38	45.30	100
Middle Lower	3.29	15.87	19.28	2.61	58.95	100
Middle	6.61	18.13	20.86	2.17	52.23	100
Upper Middle	10.01	19.74	21.74	5.30	43.21	100
Upper	8.30	25.71	22.87	8.07	35.05	100
Age						
Young	7.06	25.21	19.11	6.31	42.30	100
Middle	7.92	16.30	24.41	4.16	47.20	100
Old	6.32	14.62	32.80	1.40	44.85	100
Sex						
Male	7.66	21.08	23.06	5.14	43.06	100
Female	3.56	10.39	12.56	3.09	70.40	100
Dependency Ratio						
Low	8.09	25.56	24.74	7.26	34.35	100
Medium	8.23	21.85	23.02	4.04	42.87	100
High	4.89	10.29	17.92	3.59	63.30	100
Assets Class						
Lower	11.46	30.75	53.51	1.94	2.34	100
Middle Lower	19.04	25.19	31.50	1.29	22.98	100
Middle	9.56	32.33	23.78	6.59	27.74	100
Middle Upper	6.86	23.47	22.45	6.27	40.95	100
Upper	3.47	10.76	14.50	7.40	63.87	100
Total	**7.41**	**20.42**	**22.42**	**5.01**	**44.73**	**100**

Principal Findings

- The survey reveals that human capital endowments in the form of literacy rate and household size are superior for households located closer to urban centres. The large proportion of these households has access to telephony and communication network.
- Villages that are close to urban centres significantly participate in markets, particularly in the mutual fund market.
- Participation in mutual funds, in particular, is significantly influenced by the level of education.
- Demographic characteristics of rural households, like marital status and gender, do not significantly alter the distribution of investment.
- There is a significant degree of non-investment by rural households because of: a) inadequate information, and b) lack of adequate skills.
- A significantly larger percentage of rural households across income and asset classes as well as demographics are risk-averse compared to their urban counterparts.
- Since rural households are relatively more risk-averse, the time horizon for savers and investor is medium term (3 - 5 years).
- The level of savings increases with educational attainment and asset holdings.
- The magnitude increase in savings conditioned on asset holdings is significantly lower when compared to investments.

10 Conclusions

The survey comprised of two parts. The urban sample was made up of 38412house holds selected from 44cities. The urban sample was selected through a three stage process where the cities and towns excepting Mumbai, New Delhi, Kolkata, Hyderabad, Chennai, and Bangalore were selected randomly. From within the cities and towns the urban blocks are next identified and selected. The first part of the survey included a comprehensive listing of households in these urban wards and blocks. A total of 70,159 households were listed. A detailed questionnaire was then administered to the selected households. The process of listing was also done in villages. However after repeated listing across more than 50 villages in the country it was found that the degree of extend of participation in financial markets was close to be in zero. Hence it was decided to do a case study of rural India through a carefully selected sample of 40 villages. These villages put divided into two categories: the first category comprises of 20 villages where geographically proximal to various urban centres while the second group consisting of twenty villages where geographically remote. The major findings of the survey are listed below:

National Level

- The percentage of investors is nearly 20 per cent in urban areas while it is much lower (6 per cent) in rural India.
- The estimated number of Investor households in India is 24.5 million who constitute about 11 per cent of total households.
- The strong preference of investors is towards mutual funds (43 per cent) and secondary markets (22 per cent). In urban areas, 41 per cent of investors invest in mutual funds and 21 per cent secondary markets, whereas, 46 per cent rural population chooses mutual funds and 22 per cent secondary markets.
- There is a significant magnitude of small savers among all households. Eleven to 25 per cent of all households save in post office savings schemes.
- More that 16 per cent of the highly educated non- participants, as well as 16 per cent of the middle and upper income groups feel that non- participation is due to the perceived non- safety of returns.
- The survey reveals that a large proportion of the non-participants is satisfied with the role of the regulator SEBI, in regulating markets. Only between 2 to 10 per cent of the non- participants across selected household groups indicate dis-satisfaction with the role of market regulator.

Urban India

- In the present study the estimated number of urban investor households is 15.23 million which constitute 21 per cent of all urban households. The estimated saver households and other households are 34 million (46 per cent) and 25 million (33 per cent), respectively.
- A majority of households do not participate in financial markets. The distri-

bution of participation is not spatially even. For instance 55 per cent of all investors are found in the western region.

- Relaxation of budget constraints, does not lead to households taking higher levels of risks. The allocations are still in avenues such as commercial bank deposits and real estate.
- The primary destination of savings across household categories is insurance schemes and banks.
- Post office savings schemes are, for obvious reasons, less preferred compared to commercial bank deposits and accounts as such schemes have cumbersome procedures and offer inadequate returns. Nearly 72 per cent of all households treat commercial banks and insurance schemes as their primary choice for savings. Households that have very high levels of liquidity preference choose savings deposits over fixed deposits. Pension plans are preferred by households with higher levels of education. Preference for insurance schemes and savings in regional banks declines with increasing levels of education. Preference for saving in commercial banks for married households is marginally greater than for unmarried households (38.9 % to 33.7 %). Households whose occupation is business or agriculture and allied activities choose commercial banks as the preferred destination for their savings. Only 6 per cent of all households, whose primary occupation is agriculture, allocate a part of their savings to pension plans. Preference for insurance schemes (in particular, for LIC) increases at extremely low levels of asset ownership. The majority of households across income categories prefer to have a saving horizon exceeding 5 years. Females prefer pension plan marginally more than males (7.4 per cent compared to 4.1 per cent). 49.7 per cent of older persons prefer savings to be in commercial banks. This reflects their need for liquidity. If time horizon is conditioned on the demographic characteristics of households, we observe the following: a) 36.3 per cent of all married persons have a time horizon of 3 to 5 years. b) This number drops to 33.5 per cent for unmarried persons. c) 55.4 per cent of all unmarried persons save for periods exceeding 5 years. d) Older persons have a shorter time horizon on their savings. e) Females in general choose longer time horizons for their savings options compared to their male counterparts.
- Household income is a relatively minor determinant of participation in financial market. Instead factors such as education, information as well as quality information influence the magnitude and extend of participation to a greater extend.
- Only 21.25 per cent households prefer to invest in secondary markets. Households with a higher level of education invest more in this option. It was found that 26 per cent households with more than 15 years of education prefer to invest in secondary markets. 28 per cent of businessmen and 21 per cent of white-collar workers prefer to invest in this option. Households that own higher levels of fixed assets generally prefer to invest in secondary markets. More than 18 per cent of unmarried households chose to invest in the complex derivative market, which reflects their greater tendency for taking risks compared to their married counterparts. During periods of high inflation, bonds are the preferred option for households with lower levels of assets as high interest rates are bound to lower bond prices. Male investors invest more through IPOs than their female counterparts. Households with a higher level of education prefer a longer time horizon for the investment. Households with higher incomes prefer to opt for investments of longer duration.
- In case of windfall gains, households with low levels of assets engaged in risky behaviour (participated in the derivative market) compared to households that own progressively higher levels of assets. If windfall gains are increased in magnitude, there continues to be a positive relationship between levels of education and participation in the secondary markets.
- The degree of risk aversion is extremely high in Indian households. It is only at the margin that households engage in risky ventures. We note that risk taking increases only at very high income levels or if there is a significantly large windfall gain.
- The majority (53 %) of surveyed investing households fall in the least risk taker category. The degree of risk-taking is, on average, high among earning households located in cities such as Bangalore, Hyderabad and Ahmedabad (Town Class 2, where the population is between 50 lakh - 1 Crore). Education plays a significant role in risk-taking activity. The degree of risk was the highest among investors with more than 15 years of schooling at the all-India level. With the increase in educational attainment, risk tolerance increases. Married investors take less risk averse than their unmarried counterparts. On average females take less risk than their male counterparts. Business and white-collar workers hold more risky assets than their blue-collar counterparts. The degree of risk-taking is directly proportional to age; risk-taking declines with the age of the persons. And we find that nearly 60 per cent of older persons fall in the lowest risk scale.
- Quality and source of information significantly influence extent of participation in financial markets. Our survey indicated that there is much to be done to provide the current and potential participants with optimal levels of information.
- About 40 per cent investors are of the opinion that in the book building process, the prices of the IPO entering the market may not be transparent and the retail investors do not have sufficient knowledge about SEBI's role. Around 32 per cent of participants feel that the regulator SEBI and MCA may like to take additional steps related to conflict between shareholders and firms. Around 21 per cent of all investors are not clear about the role of the regulator in preventing unexplained volatility, though it is the perceived role of SEBI to investigate sources of large fluctuations in price. It is the role of the regulator to de-list the non-performing firms; yet, 24 per cent of all investors are not aware of the role of the stock exchange or the regulator or the MCA in this process. Thirty nine per cent of all investors expect SEBI to undertake actions against inadequate information about investment choices. Nearly 50 per cent of all market participants feel that exchanges/SEBI is required to take adequate measures to ensure smooth functioning of the market. The source of retardation in the rate of participation by Indian households in the market is due to information asymmetry and the poor quality of information. While applying for an IPO, investors across all income/education categories list newspapers as the single source of information. A significant number of investors find the advice of brokers more useful. The survey reveals that while participation in

mutual funds as well as in the secondary market, a significant majority depends on the advise given by intermediaries and friends.

- A significant source of retardation in the rate of participation by Indian households in markets is due to information asymmetry and poor quality of information. While applying for an IPO, investors across all income / education categories list newspapers as the single source of information. A significant number of investors find the advice of brokers more useful. The survey reveals that while participating in mutual funds as well as in the secondary market, a significant majority depends on the advice given by intermediaries and friends.

Rural India

- The rural survey reveals the following facets of households. The survey reveals that human capital endowments in the form of literacy rate and household size are superior for households located closer to urban centers. A large proportion of these households have access to telephony and communication networks.
- Households in villages that are close to urban centers significantly participate in markets, particularly in the mutual fund market. Participation in mutual funds, in particular, is significantly influenced by the level of education. Demographic characteristics of rural households, like marital status and gender, do not significantly alter the distribution of investment. There is a significant degree of non-investment by rural households because of: a) inadequate information, and b) lack of adequate skills. A significantly larger percentage of rural households across income and asset classes as well as demographics are risk-averse compared to their urban counterparts. Since rural households are relatively more risk-averse, the time horizon for savers and investor is medium term (3 - 5 years). The level of savings increases with educational attainment and asset holdings. The magnitude increase in savings conditioned on asset holdings is significantly lower when compared to investments.

Variable Description

VARIABLE DESCRIPTION	
Years of Schooling	
Up to 5	Schooling up to 5years
6 to 10	Schooling between 6 to 10 years
11 to 15	Schooling between 11 to 15 years
Above 15	Schooling more than 15 years
Marital Status	
Married	All married participants
Unmarried	All unmarried/ single participants
Others	All participants who are either widow, widower, divorced or separated
Occupation	
Agriculture and Allied	All Participants engaged in agriculture and allied service like cultivators, animal husbandry, fisheries etc.
White collar	All participants designated to non-manual i.e. usually salaried work and employed in professional and clerical occupations.
Blue collar	All Participants designated to manual and industrial work.
Business, Transfer and Others	Al participants engaged as self employed in own/family business or receiving transfer income or income from other sources.
Income	
Lower	All participants having monthly income less than or equal to ₹ 10,000
Lower middle	All participants having monthly income between ₹ 10,001 and ₹ 15,000
Middle	All participants having monthly income between ₹ 15,001and ₹ 20,000
Middle Upper	All participants having monthly income between ₹ 20,001and ₹ 25,000
Upper	All participants having monthly income more than ₹ 25,001
Age	
Young	All participant <=40 years in age
Middle	All participant between 41years and 60 years
Old	All participants >than 60 years in age
Sex	
Male	All male decision makers
Female	All female decision makers
Asset Class	
Lower	All participants owning less than or equal to ₹ 170000 worth of financial and non-financial assets
Lower middle	All participants owning between ₹ 170001 and ₹ 450000 worth of financial and non-financial assets
Middle	All participants owning between ₹ 5, 450001 and ₹800000 worth of financial and non-financial assets
Middle Upper	All participants owning between ₹ 800001 and ₹ 1500000 worth of financial and non-financial assets
Upper	All participants owning more than ₹ 1500001 worth of financial and non-financial assets
Dependency Ratio	
Low	All families with number of dependents upon total household members between 0 to 0.45
Medium	All families with number of dependents upon total household members between 0.46 to 0.60
High	All families with number of dependents upon total household members exceeding 0.61

Glossary

Allotment Advice

A letter sent to the successful applicant by the company stating allotment of shares or debentures or other securities against his application. The advice is not negotiable in the market.

Allotment Letter

Document of title issued to investors by companies stating allotment of shares/debentures /other securities to applicants subscribing for such securities or in pursuance of certain contracts entered into in that behalf. These letters are negotiable in the market.

Arbitrage

(1) Technically, arbitrage consists of purchasing a commodity or security in one market for immediate sale in another market (deterministic arbitrage).

(2) Popular usage has expanded the meaning of the term to include any activity which attempts to buy a relatively underpriced item and sell a similar, relatively overpriced item, expecting to profit when the prices resume a more appropriate theoretical or historical relationship (statistical arbitrage).

(3) In trading options, convertible securities, and futures, arbitrage techniques can be applied whenever a strategy involves buying and selling packages of related instruments.

(4) Risk arbitrage applies the principles of risk offset to mergers and other major corporate developments. The risk offsetting position(s) do not insulate the investor from certain event risks (such as termination of a merger agreement on the risk of completion of a transaction within a certain time) so that the arbitrage is incomplete.

(5) Tax arbitrage transactions are undertaken to share the benefit of differential tax rates or circumstances of two or more parties to a transaction.

(6) Regulatory arbitrage transactions are designed to provide indirect access to a risk management market where one party is denied direct access by law or regulation.

(7) Swap driven arbitrage transactions are motivated by the comparative advantages which swap counter-parties enjoy in different debt and currency markets. One counterparty may borrow at a relatively lower rate in the intermediate or long term United States dollar market, while the other may have a comparative advantage in floating rate sterling.

Arbitration

An alternative dispute resolution mechanism provided by a stock exchange for resolving disputes between the trading members and their clients in respect of trades done on the exchange.

Asset-Based Securitization

A process that creates a series of securities which is collaterised by assets mortgaged against loans, assets leased out, trade receivables, or assets sold on hire purchase basis or installment contracts on personal property.

Asset Management
The function of managing assets on behalf of a customer, usually for a fee

Asset Management Company
The company which handles the day to day operations and investment decisions of a unit trust

Balance Sheet
An accounting statement of a company's assets and liabilities, provided for the benefit of shareholders and regulators. It gives a snapshot, at a specific point of time, of the assets that the company holds and how the assets have been financed.

Balanced Fund
Funds which aim to provide both growth and regular income as such schemes invest both in equities and fixed income securities in the proportion indicated in their offer documents

Bankers' Acceptance
A short-term credit investment created by a non-financial firm and guaranteed by a bank to make payment. Acceptances are traded at discounts from face value in the secondary market

Bank Investment Contract
A security with an interest rate guaranteed by a bank. It provides a specific yield on a portfolio over a specified period.

Banker to an Issue
A scheduled bank carrying on all or any of the issue related activities namely acceptance of application and application monies; acceptance of allotment or call monies; refund of application monies; and payment of dividend or interest warrants.

Basis Risk
The risk that the relationship between the prices of a security and the instrument used to hedge it will change, thereby reducing the effectiveness of the hedge. In other words ,risk of varying fluctuations of the spot and the futures price between the moment at which a position is opened and the moment at which it is closed.

Bear
A pessimist market operator who expects the market price of shares to decline. The term also refers to the one who has sold shares which he does not possess, in the hope of buying them back at a lower price, when the market price of the shares come down in the near future.

Bear Market
A weak or falling market characterized by the dominance of sellers.

Bearer Securities/Bearer Bonds
Securities which do not require registration of the name of the owner in the books of the company. Both the interest and the principal whenever they become due are paid to anyone who has possession of the securities. No endorsement is required for changing the ownership of such securities.

Bench Mark
Security used as the basis for interest rate calculations and for pricing other securities. Also denotes the most heavily traded and liquid security of a particular class

Bond
A negotiable certificate evidencing indebtedness - a debt security or IOU, issued by a company, municipality or government agency. A bond investor lends money to the issuer and, in exchange, the issuer promises to repay the loan amount on a specified maturity date. The issuer usually pays the bondholder periodic interest payments over the life of the loan.

Bond Trust
Public unit trust which invests in government fixed interest or corporate fixed interest securities and investments.

Bonus Shares
Shares issued by companies to their shareholders free of cost by capitalization of accumulated reserves from the profits earned in the earlier years

Book Building Process
A process undertaken by which a demand for the securities proposed to be issued by a corporate body is elicited and built up and the price for such securities is assessed for the determination of the quantum of such securities to be issued by means of a notice, circular, advertisement, document or information memoranda or offer document

Book Closure
The periodic closure of the Register of Members and Transfer Books of the company, to take a record of the shareholders to determine their entitlement to dividends or to bonus or right shares or any other rights pertaining to shares

Book Runner
A Lead Merchant Banker who has been appointed by the issuer company for maintaining the book. The name of the Book Running Lead Manager will be mentioned in the offer document of the Issuer Company.

Book Value
The net amount shown in the books or in the accounts for any asset, liability or owners' equity item. In the case of a fixed asset, it is equal to the cost or revalued amount of the asset less accumulated depreciation. Also called carrying value. The book value of a firm is its total net assets, i.e. the excess of total assets over total liabilities

Boom
A condition of the market denoting increased activity with rising prices and higher volume of business resulting from greater demand of securities. It is a state where enlarged business, both investment and speculative, has been taking place for a sufficiently reasonable period of time.

Broker
A member of a Stock Exchange who acts as an agent for clients and buys and sells shares on their behalf in the market. Though strictly a stock broker is an agent, yet for the performance of his part of the contract both in the market and with the client, he is deemed as a principal, a peculiar position of dual responsibility

Brokerage
Commission payable to the stockbroker for arranging sale or purchase of securities. Scale of brokerage is officially fixed by the Stock Exchange. Brokerage scales fixed in India are the maximum chargeable commission.

Broker Dealer
Any person, other than a bank engaged in the business of buying or selling securities on its own behalf or for others.

Bubble
A speculative sharp rise in share prices which like the bubble is expected to suddenly burst.

Bull
A market player who believes prices will rise and would, therefore, purchase a financial instrument with a view to selling it at a higher price. Opposite of a bear.

Bull Market
A rising market with abundance of buyers and relatively few sellers.

Buy Back
The repurchase by a company of its own stock or bonds

Buying - In
When a seller fails to deliver shares to a buyer on the stipulated date, the buyer can enforce delivery by buying - in against the seller in an auction.

Buy on Margin
To buy shares with money borrowed from the stockbroker, who maintains a margin account for the customer.

Call Option
An agreement that gives an investor the right, but not the obligation, to buy an instrument at a known price by a specified date. For this privilege, the investor pays a premium, usually a fraction of the price of the underlying security.

Central Listing Authority
The authority set up to address the issue of multiple listing of the same security and to bring about uniformity in the due diligence exercise in scrutinizing all listing applications on any stock exchanges. The functions include processing the application made by anybody corporate, Mutual Fund or collective investment scheme for the letter of recommendation to get listed at the stock exchange, making recommendations as to listing conditions and any other functions as may be specified by SEBI Board from time to time.

Clearing
Settlement or clearance of accounts, for a fixed period in a Stock Exchange.

Clearing House
A department of an exchange or a separate legal entity that provides a range of services related to the clearance and settlement of trades and the management of risks associated with the resulting contracts. A clearing house is often central counterparty to all trades, that is, the buyer to every seller and the seller to every buyer.

Clearing Member
A member of a clearing corporation or clearing house of the derivatives exchange or derivatives segment of an exchange, who may clear and settle transactions in securities.

Collective Investment Scheme (CIS)
Any scheme or arrangement made or offered by any company under which the contributions, or payments made by the investors, are pooled and utilized with a view to receive profits, income, produce or property, and is managed on behalf of the investors is a Collective Investment Scheme. Investors do not have day to day control over the management and operation of such scheme or arrangement.

Commercial Paper
A short term promise to repay a fixed amount that is placed on the market either directly or through a specialized intermediary. It is usually issued by companies with a high credit standing in form of a promissory note redeemable at par to the holder on maturity and therefore does not require any guarantee

Contract Month
The month in which futures contracts may be settled by making or accepting delivery.

Contract Note
A note issued by a broker to his constituent setting out the number of securities bought or sold in the market along with the rate, time and date of contract.

Convertible Bond
A bond giving the investor the option to convert the bond into equity at a fixed conversion price or as per a pre-determined pricing formula.

Corporate Governance
The way in which companies run themselves, in particular the way in which they are accountable to those who have a vested interest in their performance, especially their shareholders.

Corporate Raiders
A cash rich person who may either by himself or through the company he controls buys in very large numbers of equity shares of a target company with a view to taking over that company.

Corporate Restructuring
Involves making radical changes in the composition of the businesses in the company's portfolio.

Correction
Temporary reversal of trend in share prices. This could be a reaction (a decrease following a consistent rise in prices) or a rally (an increase following a consistent fall in prices).

Counter Party Risk
The risk that between the time a transaction has been arranged and the time of actual settlement, the counterparty to the transaction will fail to make the appropriate payment.

Credit Rating
Credit ratings measure a borrower's creditworthiness and provide an international framework for comparing the credit quality of issuers and rated debt securities. Rating agencies allocate three kinds of ratings: issuer credit ratings, long-term debt, and short-term debt. Issuer credit ratings are amongst the most widely watched. They measure the creditworthiness of the borrower including its capacity and willingness to meet financial needs. The top credit rating issued by the main agencies - Standard & Poor's, Moody's and Fitch IBCA - is AAA or Aaa. This is reserved for a few sovereign and corporate issuers. Ratings are divided into two broad groups - investment grade and speculative (junk) grade.

Credit Rating Agency
Credit rating agency means a body corporate which is engaged in, or proposes to be engaged in, the business of rating of securities offered by way of public or rights issue.

Credit Risk
The risk that a counterparty will not settle an obligation for full value, either when due or at any time thereafter. Credit risk includes pre-settlement risk (replacement cost risk) and settlement risk (Principal risk).

Custodian
An organization, usually a bank or any other approved institutions, that hold the securities and other assets of mutual funds and other institutional investors.

Custody Risk
The risk of loss of securities held in custody occasioned by the insolvency, negligence or fraudulent action of the custodian or of a sub-custodian.

Debentures
Bonds issued by a company bearing a fixed rate of interest usually payable half yearly on specific dates and principal amount repayable on a particular date on redemption of the debentures

Debenture Trustee
A trustee of a trust deed for securing any issue of debentures of a body corporate

Delisting Exchange
The exchange from which securities of a company are proposed to be delisted in accordance with SEBI Delisting Guidelines.

Delisting of Securities
Permanent removal of securities of a listed company from a stock exchange. As a consequence of delisting, the securities of that company would no longer be traded at that stock exchange.

Delivery Order
An output given to each member of the Stock Exchange at the end of a settlement period containing particulars such as number of shares, value of shares, names of the receiving members etc. to enable him to deliver such shares in time.

Delivery Price
The price fixed by the Stock Exchange at which deliveries on futures are invoiced. Also the price at which the future contract is settled when deliveries are made.

Depository
A system of organization, which keeps records of securities, deposited by its depositors. The records may be physical or simply electronic records.

Depository Participant (DP)
An agent of the depository through which it interfaces with the investor. A DP can offer depository services only after it gets proper registration from SEBI.

Depth of Market
The number of shares of a security that can be bought or sold at the best bid or offer price.

Derivative Market
Markets such as futures and option markets that are developed to satisfy specific needs arising in traditional markets. These markets provide the same basic functions as forward markets, but trading usually takes place on standardized contracts.

Derivative
(1) A security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security; (2) A contract which derives its value from the prices, or index or prices, of underlying securities

Dividend
Payment made to shareholders, usually once or twice a year out of a company's profit after tax. Dividend payments do not distribute the entire net profit of a company, a part or substantial part of which is held back as reserves for the company's expansion. Dividend is declared on the face value or par value of a share, and not on its market price.

Electronic Fund Transfer (EFT)
System which utilizes computer and electronic components in order to transfer money or financial assets. EFT is information based and intangible.

Entry Fee
Fee paid by an investor when purchasing units in a trust or managed fund. The fee is included in the price that new investors pay.

Equity
The ownership interest in a company of holders of its common and preferred stock.

Equity Premium
The difference between the expected return from holding stock and from holding riskless bonds.

Equity Trust
Unit Trust which invests mainly in equity shares with a component in cash and in fixed interest investment.

Exchange
Regulated market place where capital market products are bought and sold through intermediaries

Exchange-Traded Derivative
A derivative which is listed and traded at an organised market-place. Derivatives exchanges generally provide standardised contracts and central clearing facilities for participants.

Float
The number of shares issued and outstanding of a company's stock.

Floor
Trading hall of the Stock Exchange where transactions in securities take place. The trading ring where members and their assistants assemble with their order books for executing the order of their constituents.

Foreign Institutional Investor
An institution established or incorporated outside India which proposes to make investment in India in securities; provided that a domestic asset management company or domestic portfolio manager who manages funds raised or collected or brought from outside India for investment in India on behalf of a sub-account, shall be deemed to be a Foreign Institutional Investor.

Futures Contract
An exchange traded contract generally calling for delivery of a specified amount of a particular financial instrument at a fixed date in the future. Contracts are highly standardized and traders need only agree on the price and number of contracts traded.

Growth Fund
Unit trusts or Mutual Funds which invest with the objective of achieving mostly capital growth rather than income. Growth funds are mostly more volatile than conservative income or money market funds because managers invest on shares or property that are subject to larger price movements

Guaranteed Coupon (GTD)
Bonds issued by a subsidiary corporation and guaranteed as to principal and /or interest by the parent corporation.

Index Fund
A mutual fund which invests in a portfolio of shares that matches identically the constituents of a well known stock market index. Hence changes in the value of the fund mirror changes in the index itself.

Index Futures
Futures contract based on an index, the underlying asset being the index, are known as Index Futures Contracts. For example, futures contract on NIFTY Index and BSE-30 Index. These contracts derive their value from the value of the underlying index.

Index Option Contracts
The options contracts, which are based on some index, are known as Index options contract. The buyer of Index Option Contracts has only the right but not the obligation to buy / sell the underlying index on expiry. Index Option Contracts are generally European Style options i.e. they can be exercised /assigned only on the expiry date.

Index Trusts
Trust funds in which investment strategy involves mirroring particular share market or fixed interest market index.

Initial Public Offering (IPO)
The first public issue by a public limited company.

Leverage
The use of borrowed money to finance an investment.

Liabilities
Any claim for money against the assets of a company, such as bills of creditors, income tax payable, debenture redemption, interest on secured and unsecured loans, etc. Although on balance sheet shareholder's equity is shown under liability, it has no claim on the assets of a company, unless it goes into liquidation.

Liquidation
The process of converting stocks into cash. Also means the dissolution of a company.

Liquid Assets
Proportion of listed unit trust's or mutual fund portfolio that is kept in cash or easily encashable assets to meet any request for redemption

Liquidity Risk
The risk that a solvent institution is temporarily unable to meet its monetary obligations.

Listing
Formal admission of a security into a public trading system

Listing Agreement
An agreement which has to be entered into by companies when they seek listing for their shares on a Stock Exchange. Companies are called upon to keep the stock exchange fully informed of all corporate developments having a bearing on the market price of shares like dividend, rights, bonus shares, etc.

Load
A sales charge assessed by certain mutual funds (load funds) to cover selling costs. A front end load is charged at the time of purchase. A back-end load is charged at the time of sale.

Load Fund
A Load Fund is one that charges a percentage of Net Asset Value (NAV) for entry or exit.

Market Price
The last reported sale price for an exchange traded security

Money Market Mutual Funds
Schemes investing exclusively in safer short-term instruments such as treasury bills, certificates of deposit, commercial paper and inter-bank call money, government securities, etc.

Mutual Funds/Unit Trusts
Mutual Fund is a mechanism for pooling the resources by issuing units to the investors and investing funds in securities in accordance with objectives as disclosed in offer document. A fund established in the form of a trust to raise monies through the sale of units to the public or a section of the public under one or more schemes for investing in securities, including money market instruments.

Net Asset Value (NAV)
The current market worth of a mutual fund's share. A fund's net asset value is calculated by taking the fund's total assets, securities, cash and any accrued earnings, deducting liabilities, and dividing the remainder by the number of units outstanding.

No Load Fund
A no-load fund is one that does not charge for entry or exit. It means the investors can enter the fund/scheme at net asset value (NAV) and no additional charges are payable on purchase or sale of units.

Par Value
Means the face value of securities

Portfolio
A collection of securities owned by an individual or an institution (such as a mutual fund) that may include stocks, bonds and money market securities.

Premium
If an investor buys a security for a price above its eventual value at maturity he has paid a premium for it.

Price Discovery
A general term for the process by which financial markets attain an equilibrium price, especially in the primary market. Usually refers to the incorporation of information into the price.

Price Rigging
When persons acting in concert with each other collude to artificially increase or decrease the prices of a security, the process is called price rigging.

Public Issue
An invitation by a company to public to subscribe to the securities offered through a prospectus

Redemption Price
The price at which a bond is redeemed.

Registered Bonds
A bond which is registered in the books of the company in the name of the owner.

Regulatory Arbitrage
A financial contract or a series of transactions undertaken, entirely or in part, because the transaction(s) enable(s) one or more of the counterparties to accomplish a financial or operating objective which is unavailable to them directly because of regulatory obstacles.

Reverse Book Building
Reverse book building is similar to the process of book building, which is aimed at securing the optimum price for a company's share. In reverse book building the investors' aim is to sell the shares to exit the company.

Secondary Market
The market for previously issued securities or financial instruments.

Stakeholder
Any individual or group who has an interest in a firm; in addition to shareholders and bondholders, includes labor, consumers, suppliers, the local community and so on.

Stock Exchange
Anybody of individuals, whether incorporated or not, constituted for the purpose of assisting, regulating or controlling the business of buying, selling or dealing in securities.

Treasury Bills
A short term bearer discount security issued by governments as a means of financing their cash requirements. Treasury Bills play an important role in the local money market because most banks are required to hold them as part of their reserve requirements and because central bank open market operations undertaken in the

process of implementing monetary policy are usually conducted in the treasury bill market.

Trustee

Legal custodian who looks after all the monies invested in a unit trust or mutual fund.

Underwriting

An agreement with or without conditions to subscribe to the securities of a body corporate when the existing shareholders of such body corporate or the public do not subscribe to the securities offered to them.

Venture Capital Fund

A fund established in the form of a trust or a company including a body corporate and registered under the SEBI venture capital fund regulations which - has a dedicated pool of capital, raised in a manner specified in the regulations and invests in venture capital undertaking in accordance with the regulations

Volatility

Volatility equates to the variability of returns from an investment. It is an acceptable substitute for risk; the greater the volatility, the greater is the risk that an investment will not turn out as hoped because its market price happens to be on the downswing of a bounce at the time that it needs to be cashed in. The problem is that future volatility is hard to predict and measures of past volatility can, themselves, be variable, depending on how frequently returns are measured (weekly or monthly, for example) and for how long. Therefore, putting expectations of future volatility into predictive models is of limited use, but resorting to using past levels of volatility is equally limited.